

## **Appendix A**

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# **Precipitation Analysis Summaries**

# Appendix A

## Precipitation Analysis Summaries

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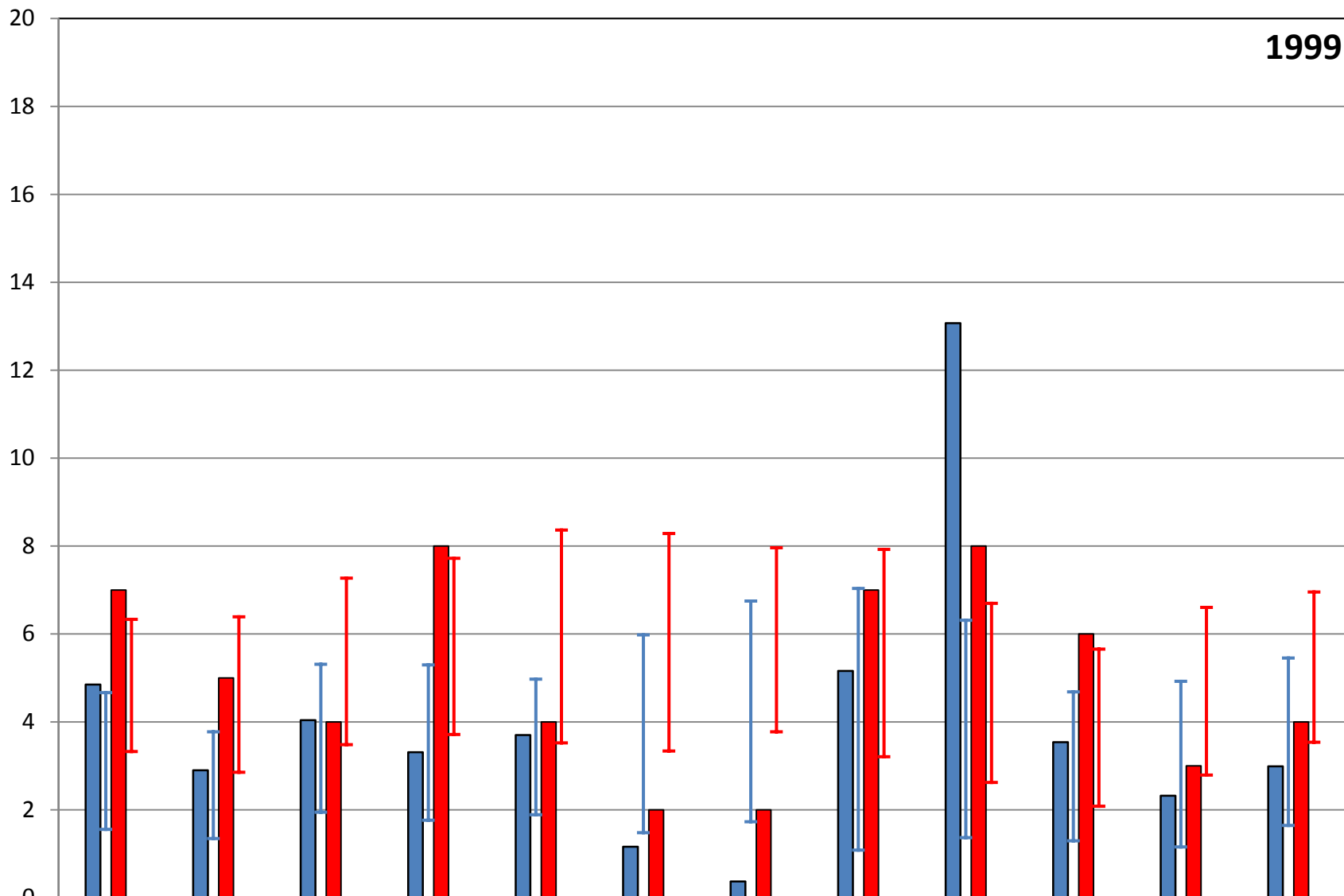
This appendix includes summaries of precipitation analysis results coinciding with the City sanitary sewer flow monitoring data utilized in support of this Sanitary Sewer Evaluation Survey (SSES). Specifically, provided are plots that show the monthly precipitation volume and number of events during the period of 1999 through 2013 compared to historical norms. These historical norms, or “typical” values, were determined from an analysis of the long-term record gage data from the Philadelphia International Airport (PHL) and can be used as a benchmark for comparing a particular month’s precipitation to the corresponding long-term average. These summaries are intended to serve as a tool in understanding the hydrologic characteristics during this period, and interpret the dry and wet weather flow characterizations of the monitored City separate sewer areas.

Included are plots showing precipitation analysis results for each year of the 15-year period that was analyzed. Shown on each plot are the monthly precipitation volume (blue columns) and number of events (red columns). These same monthly totals, as well as the historic monthly averages, are displayed in numeric form on the table at the bottom of each plot. In order to assess the magnitude of these monthly values, the variability of the long-term historic averages was illustrated by plotting the historic average monthly volumes and event frequency plus and minus one standard deviation. These values are represented on the plot by typical range extent bars and can be used to assess the expected variability in the monthly precipitation volumes and event frequencies. The blue range extent bars display the typical variability of monthly precipitation volume and red range extent bars show the typical variability for the number of monthly events.

For further information on the long-term historical precipitation analysis approach and results, as well as the analysis conducted for the period of 1999 through 2013, please refer to Section 4.1 of this document.

1999

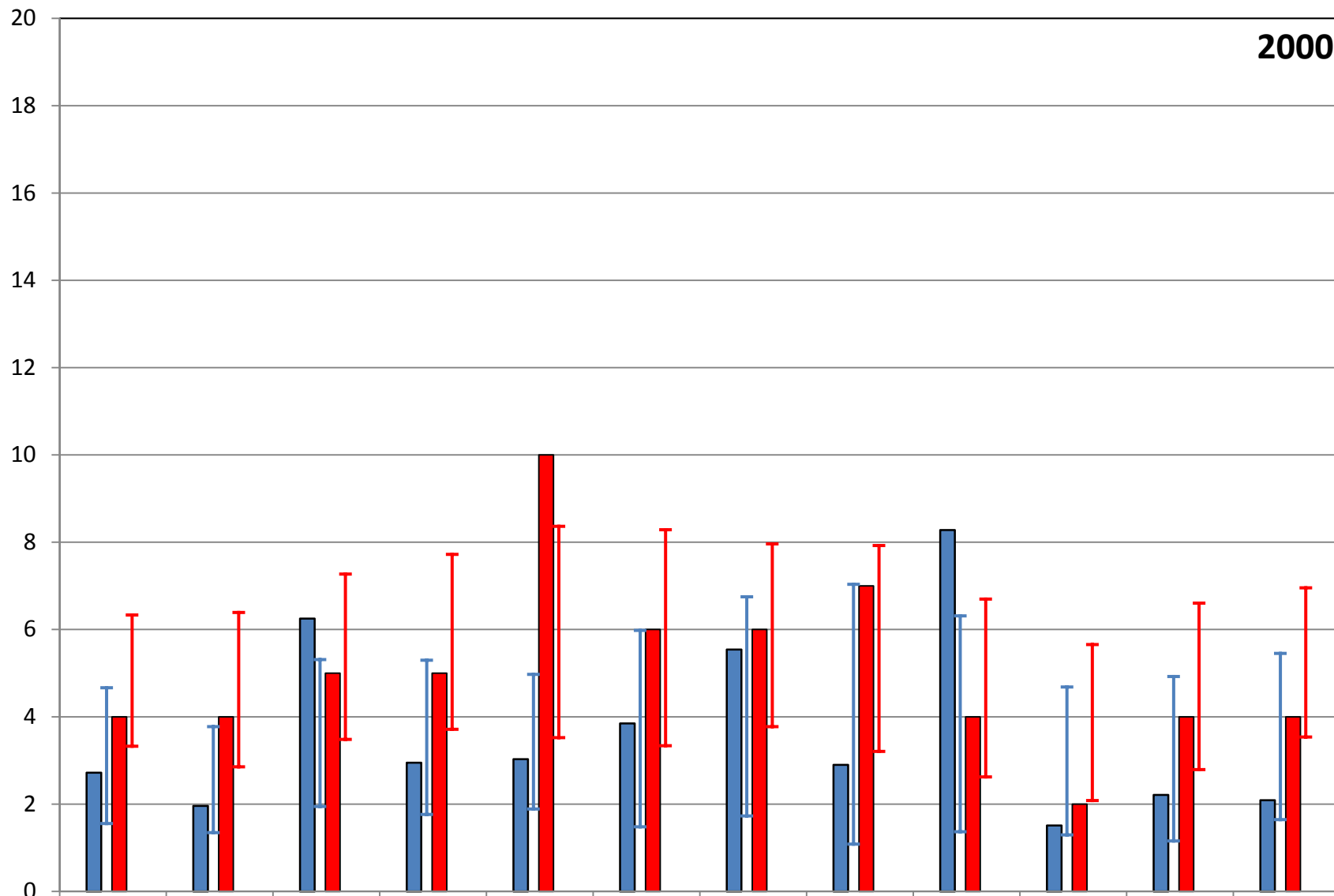
Precipitation Volume (inches), Number of Events



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
■ 1999 Volume	4.85	2.90	4.04	3.31	3.70	1.16	0.37	5.16	13.07	3.54	2.32	2.99
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 1999 # Events	7	5	4	8	4	2	2	7	8	6	3	4
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2000

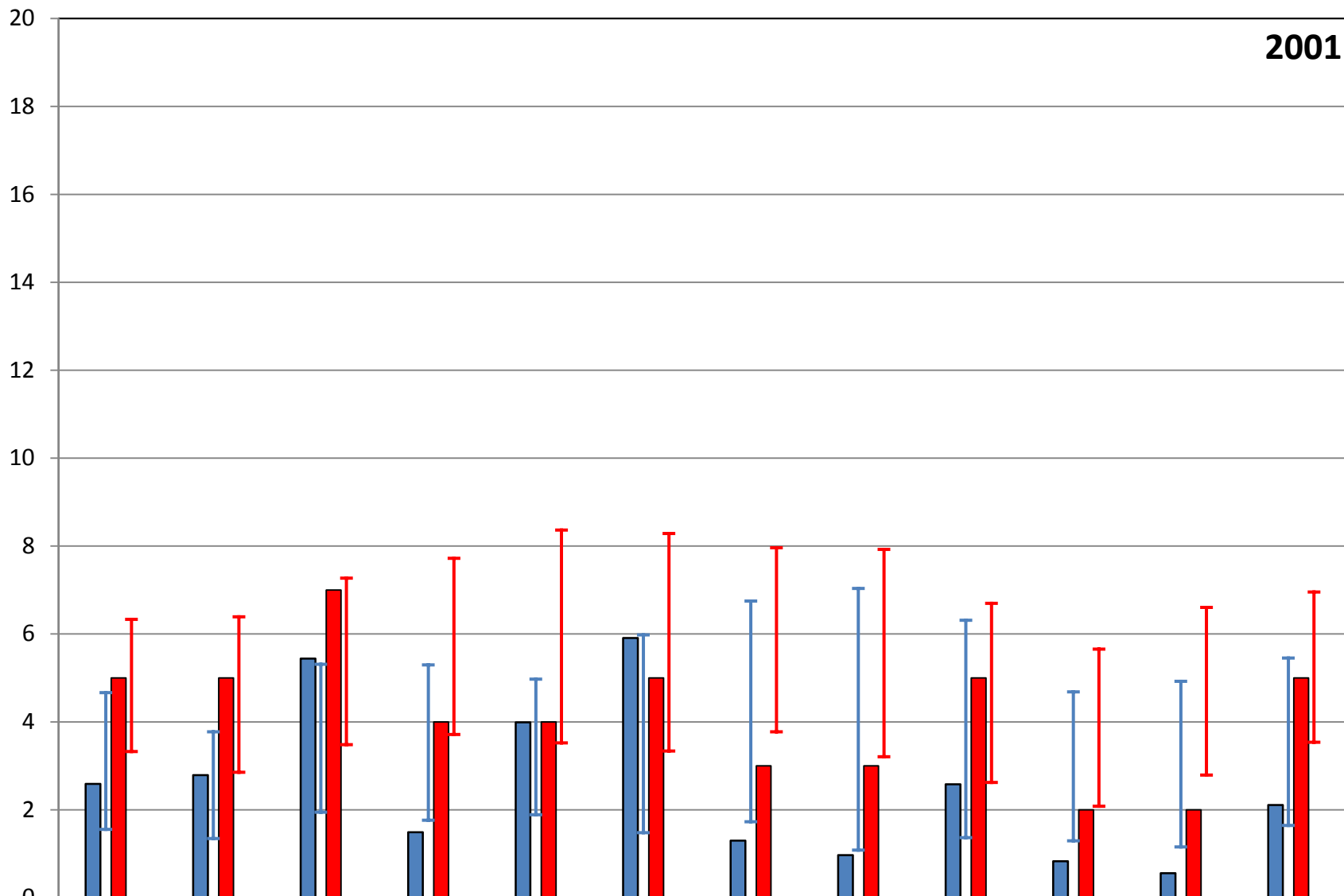
Precipitation Volume (inches), Number of Events



■ 2000 Volume	2.72	1.96	6.25	2.95	3.03	3.85	5.54	2.90	8.28	1.51	2.21	2.09
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2000 # Events	4	4	5	5	10	6	6	7	4	2	4	4
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2001

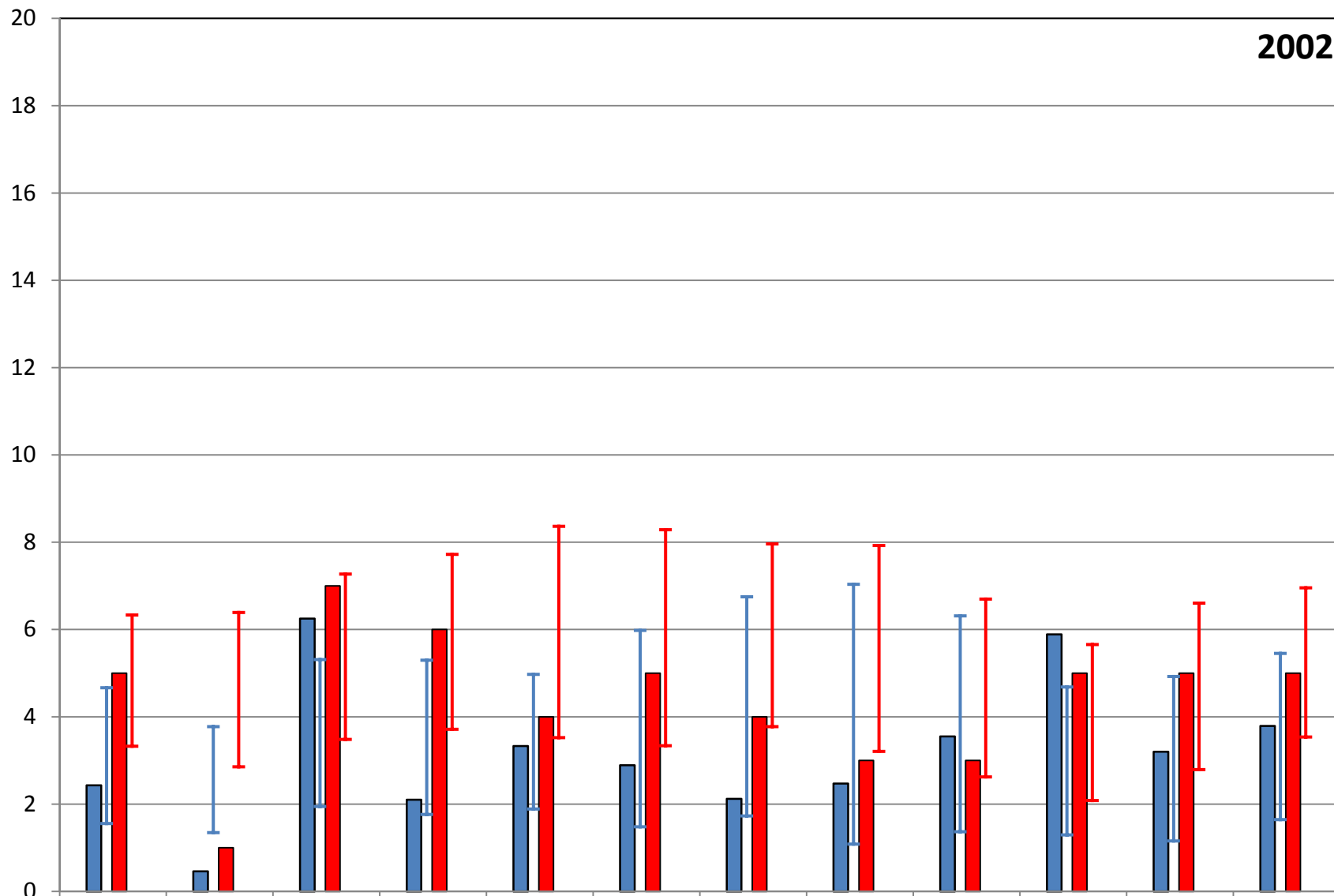
Precipitation Volume (inches), Number of Events



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
■ 2001 Volume	2.59	2.79	5.44	1.49	3.99	5.91	1.30	0.97	2.58	0.83	0.56	2.11
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2001 # Events	5	5	7	4	4	5	3	3	5	2	2	5
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2002

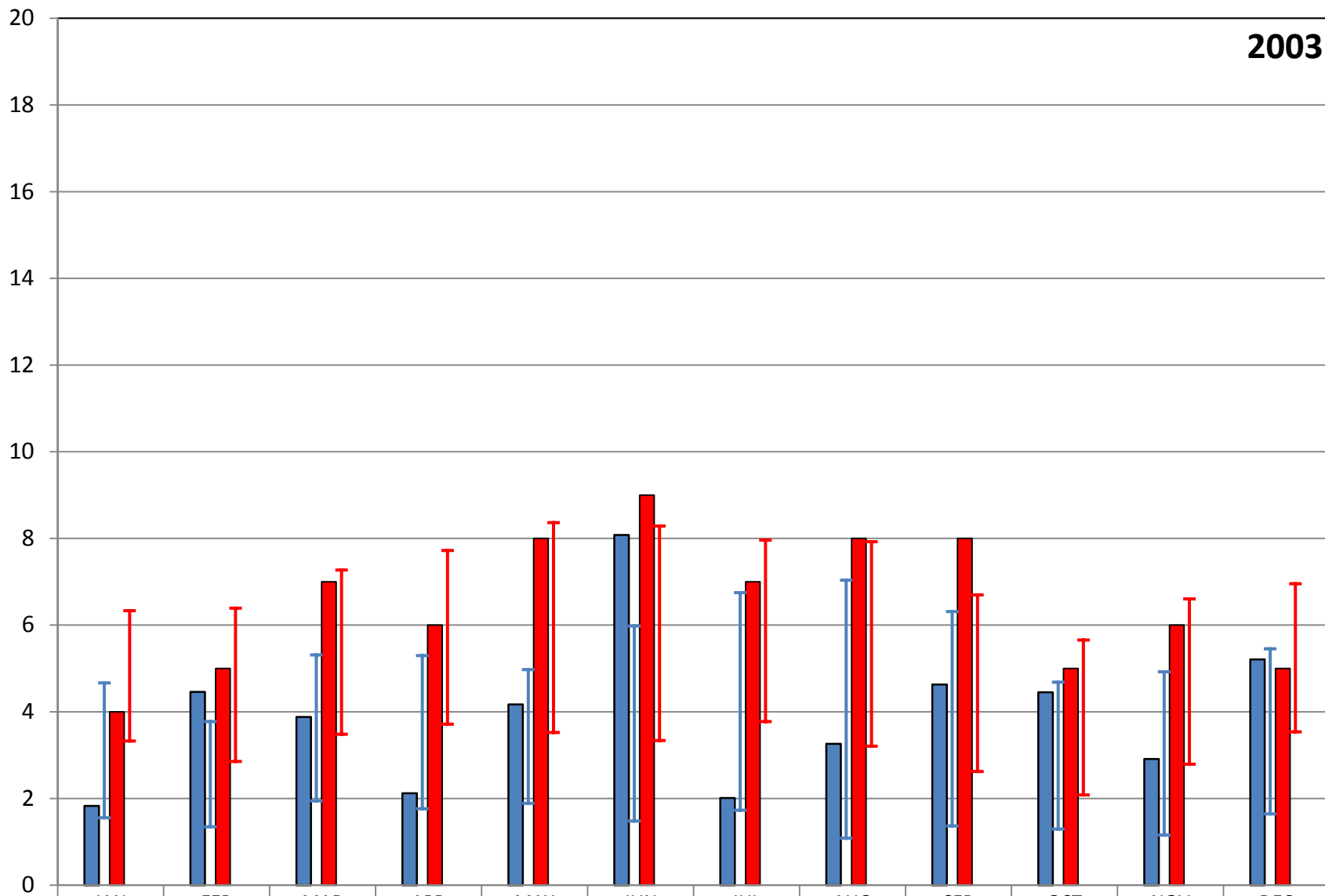
Precipitation Volume (inches), Number of Events



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
■ 2002 Volume	2.43	0.46	6.25	2.10	3.33	2.89	2.12	2.47	3.55	5.89	3.20	3.79
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2002 # Events	5	1	7	6	4	5	4	3	3	5	5	5
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2003

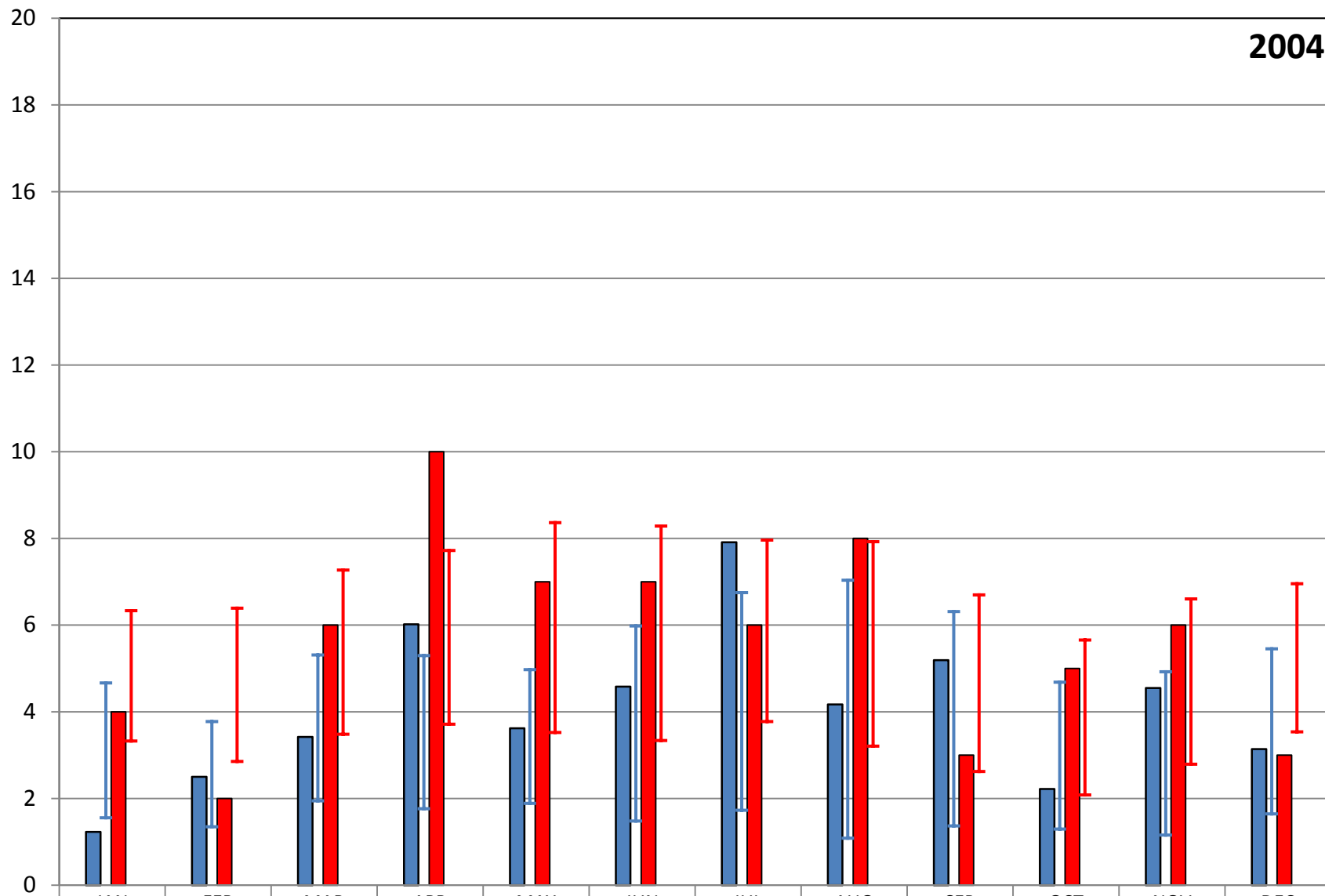
Precipitation Volume (inches), Number of Events



■ 2003 Volume	1.83	4.46	3.88	2.12	4.17	8.08	2.01	3.26	4.63	4.45	2.91	5.21
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2003 # Events	4	5	7	6	8	9	7	8	8	5	6	5
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2004

Precipitation Volume (inches), Number of Events

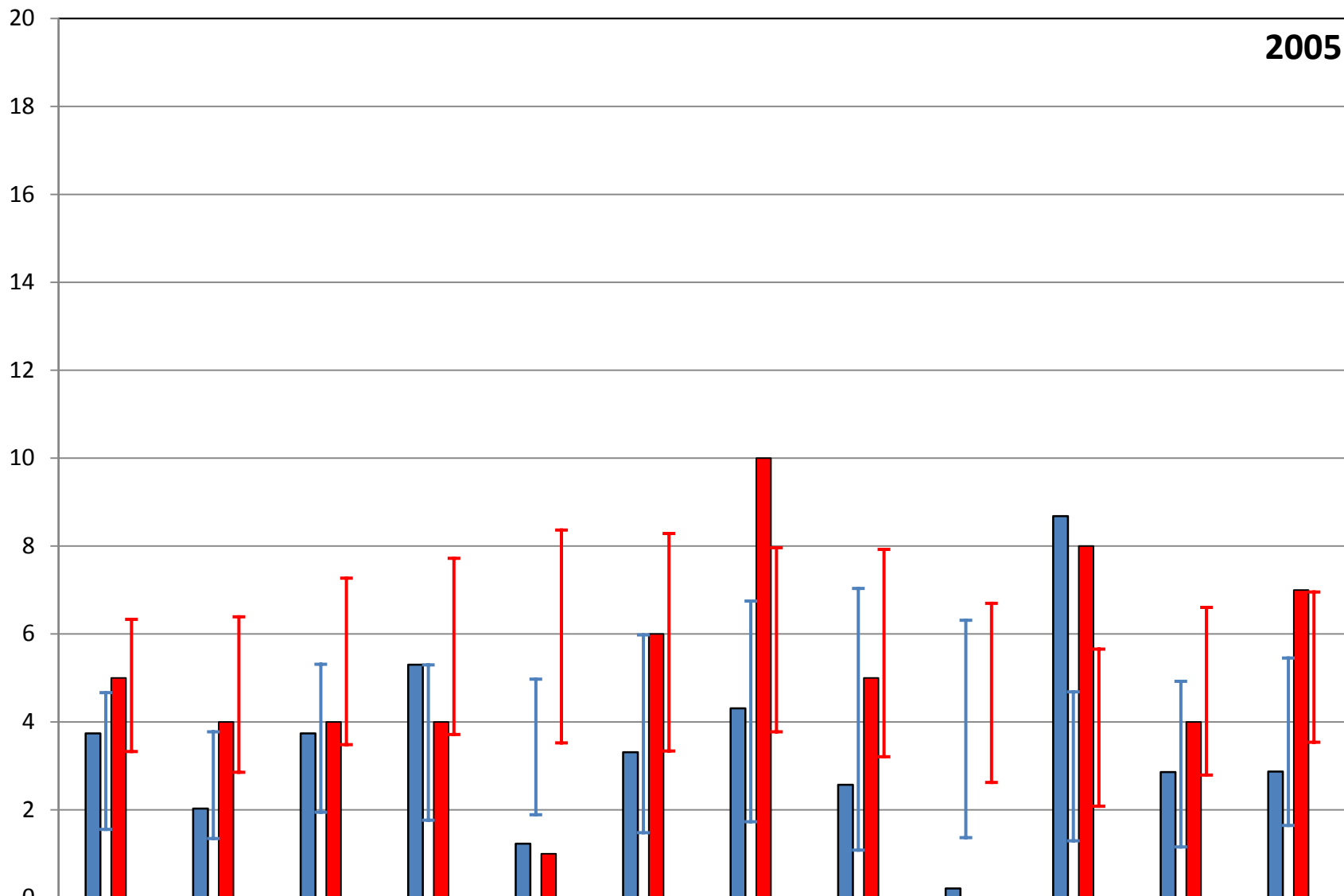


■ 2004 Volume	1.23	2.50	3.42	6.02	3.62	4.58	7.91	4.17	5.19	2.22	4.55	3.14
□ Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2004 # Events	4	2	6	10	7	7	6	8	3	5	6	3
□ Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2



2005

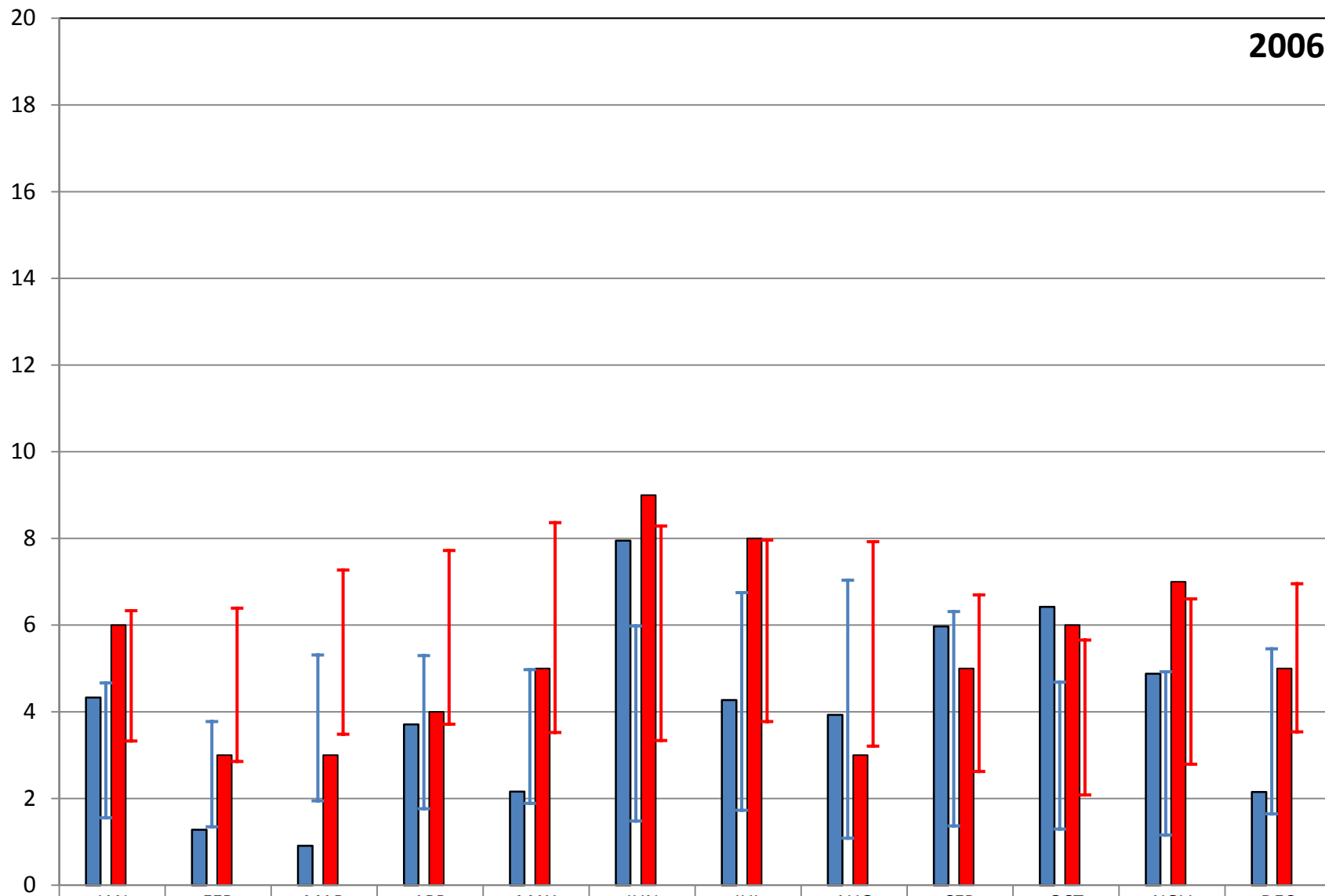
Precipitation Volume (inches), Number of Events



■ 2005 Volume	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	3.74	2.03	3.74	5.30	1.23	3.31	4.31	2.57	0.21	8.68	2.86	2.87
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2005 # Events	5	4	4	4	1	6	10	5	0	8	4	7
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2006

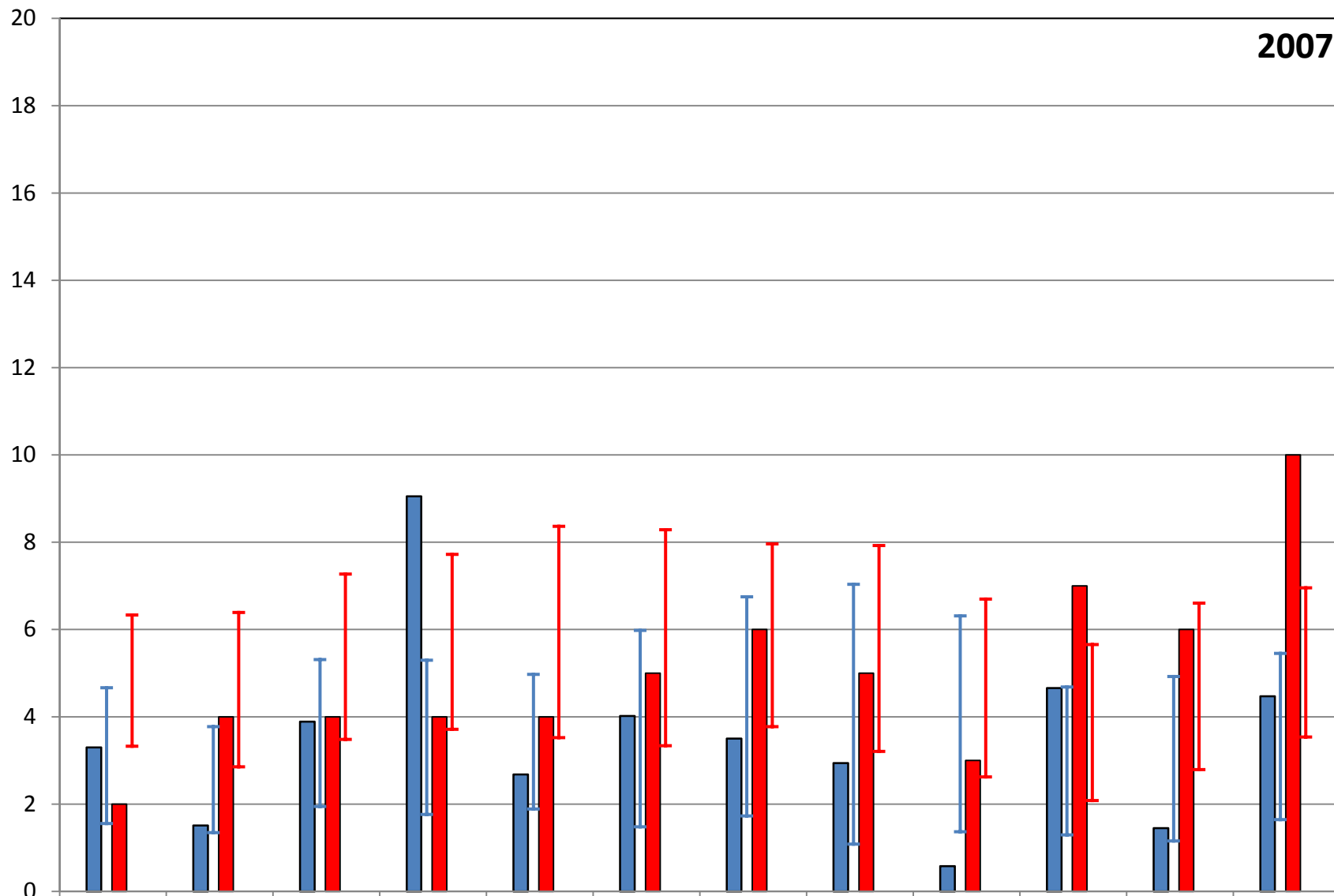
Precipitation Volume (inches), Number of Events



■ 2006 Volume	4.33	1.28	0.91	3.71	2.16	7.95	4.27	3.93	5.97	6.42	4.88	2.15
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2006 # Events	6	3	3	4	5	9	8	3	5	6	7	5
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2007

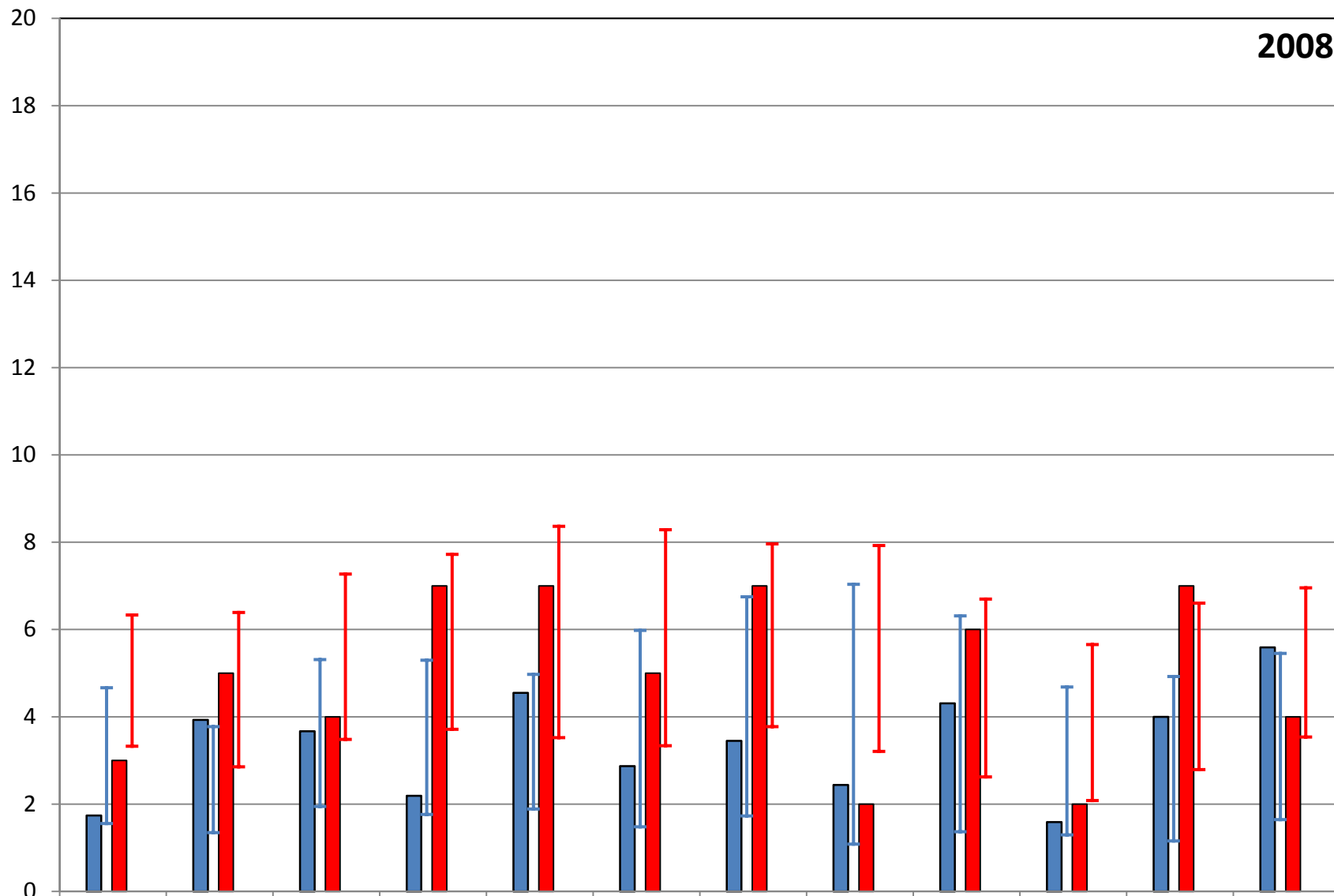
Precipitation Volume (inches), Number of Events



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
■ 2007 Volume	3.30	1.51	3.89	9.05	2.68	4.02	3.50	2.94	0.58	4.66	1.45	4.47
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2007 # Events	2	4	4	4	4	5	6	5	3	7	6	10
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2008

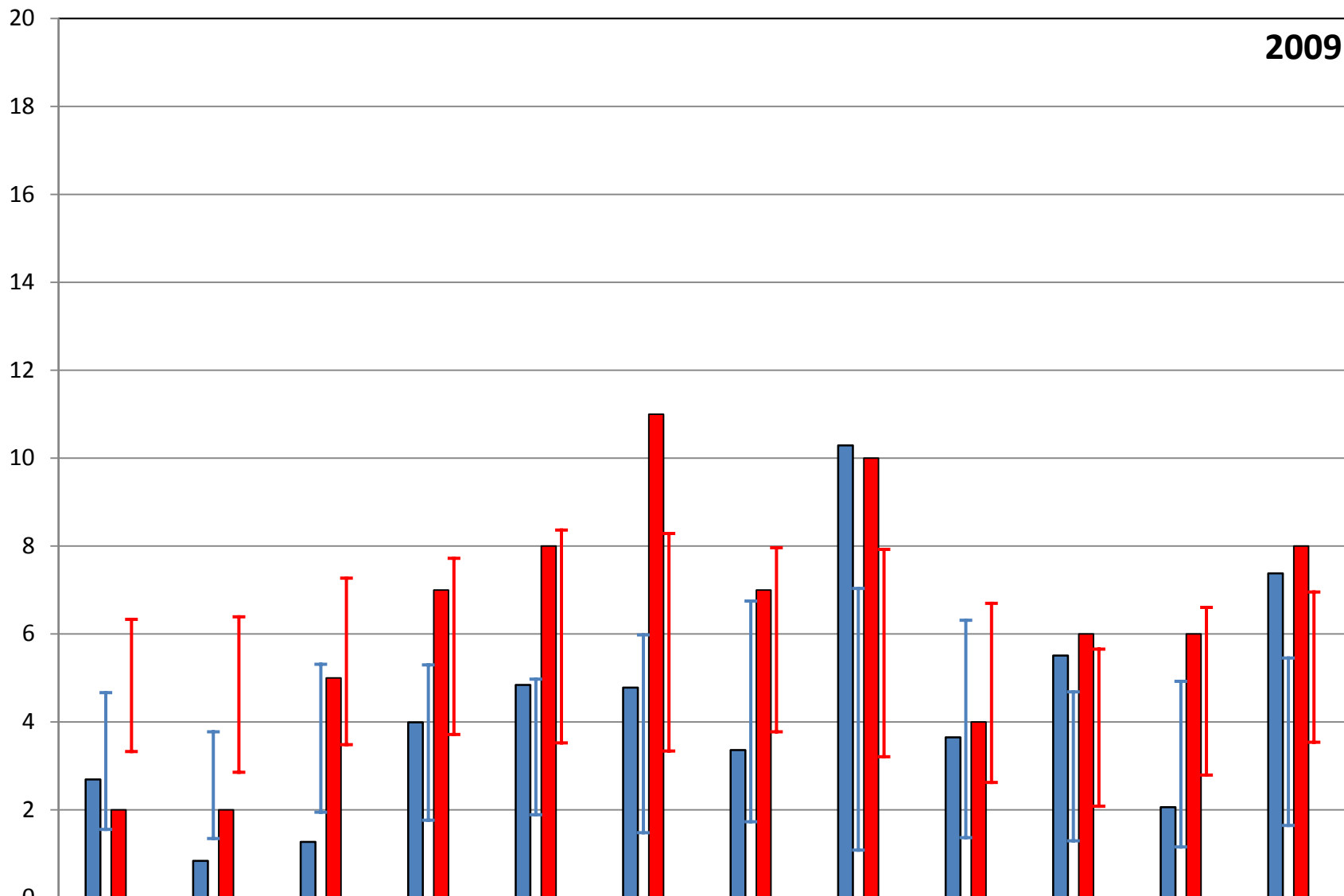
Precipitation Volume (inches), Number of Events



■ 2008 Volume	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	1.74	3.93	3.67	2.19	4.55	2.87	3.45	2.44	4.31	1.59	4.00	5.59
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2008 # Events	3	5	4	7	7	5	7	2	6	2	7	4
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2009

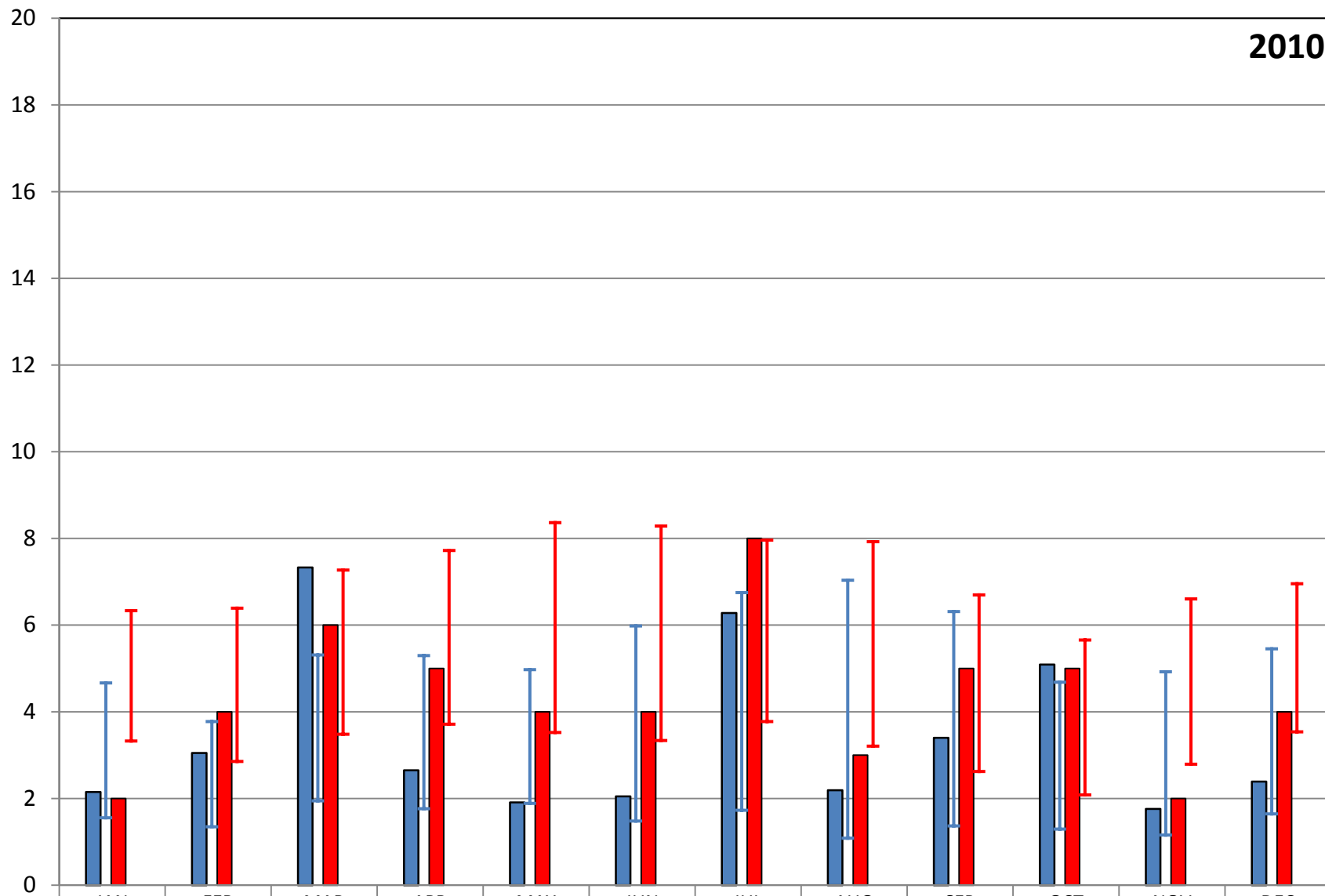
Precipitation Volume (inches), Number of Events



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
■ 2009 Volume	2.69	0.84	1.27	3.99	4.84	4.78	3.36	10.29	3.65	5.51	2.06	7.38
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2009 # Events	2	2	5	7	8	11	7	10	4	6	6	8
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2010

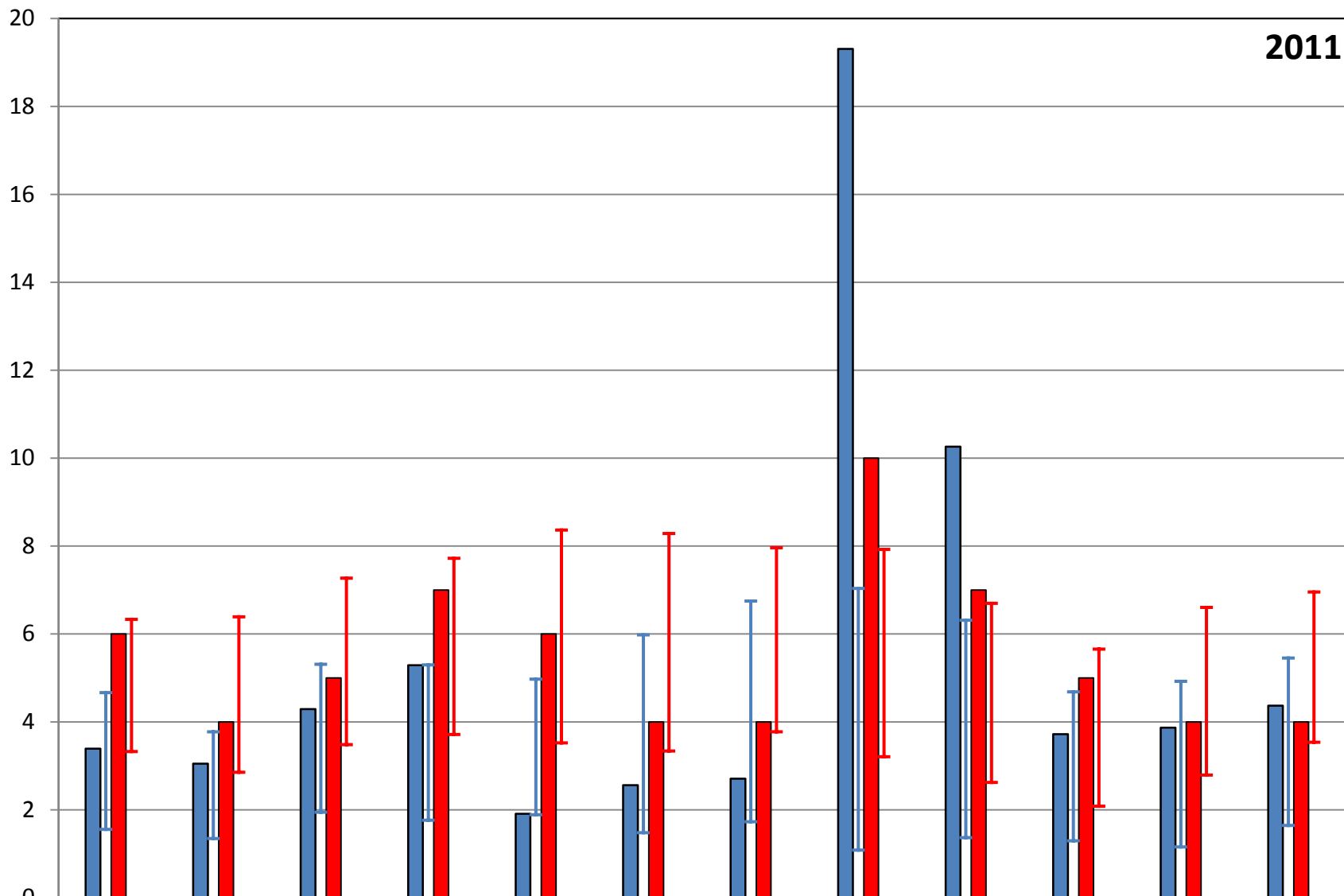
Precipitation Volume (inches), Number of Events



■ 2010 Volume	2.15	3.05	7.33	2.65	1.91	2.05	6.28	2.19	3.40	5.09	1.76	2.39
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2010 # Events	2	4	6	5	4	4	8	3	5	5	2	4
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2011

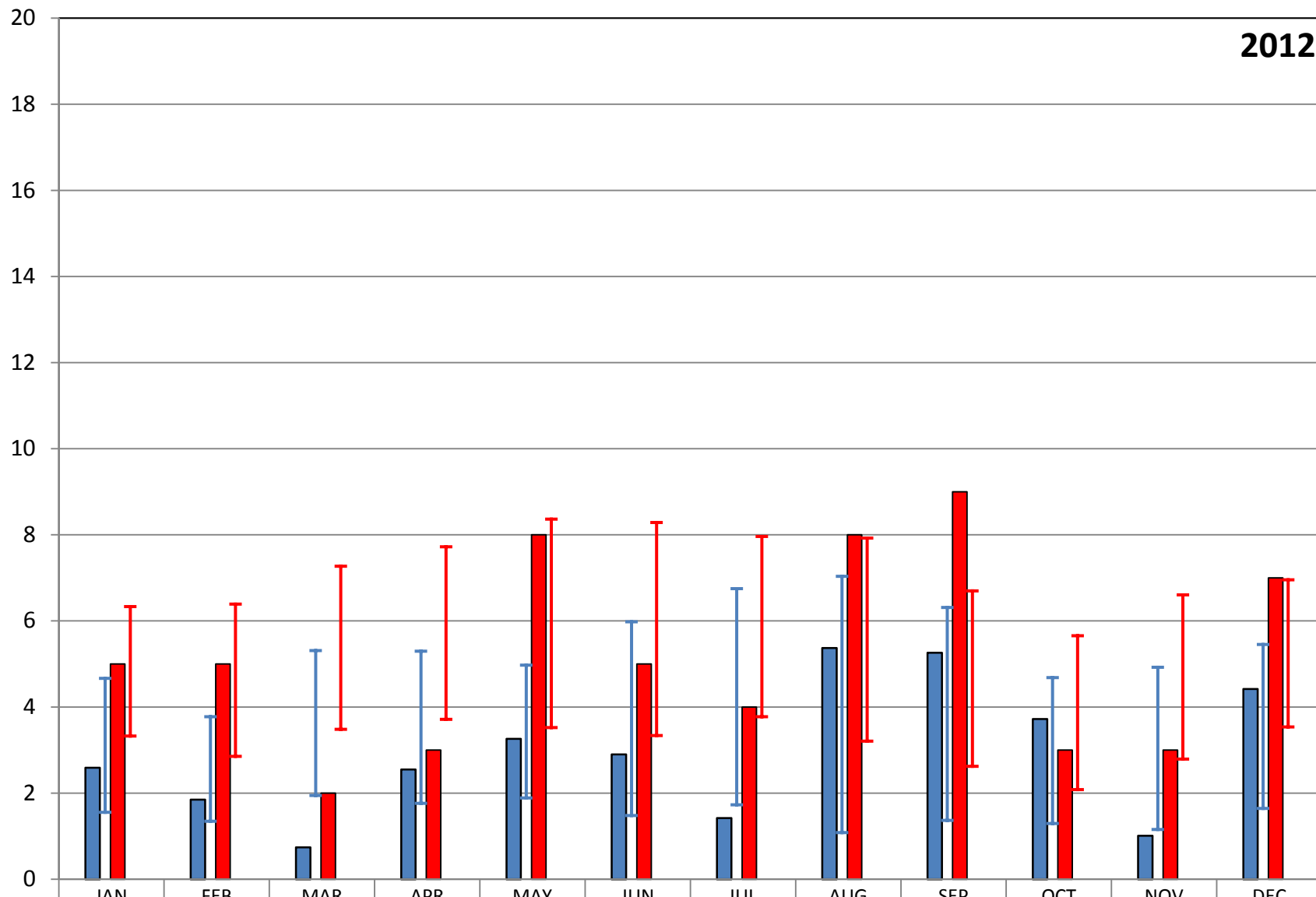
Precipitation Volume (inches), Number of Events



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
■ 2011 Volume	3.39	3.05	4.29	5.29	1.91	2.56	2.71	19.31	10.26	3.72	3.87	4.37
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2011 # Events	6	4	5	7	6	4	4	10	7	5	4	4
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

2012

Precipitation Volume (inches), Number of Events

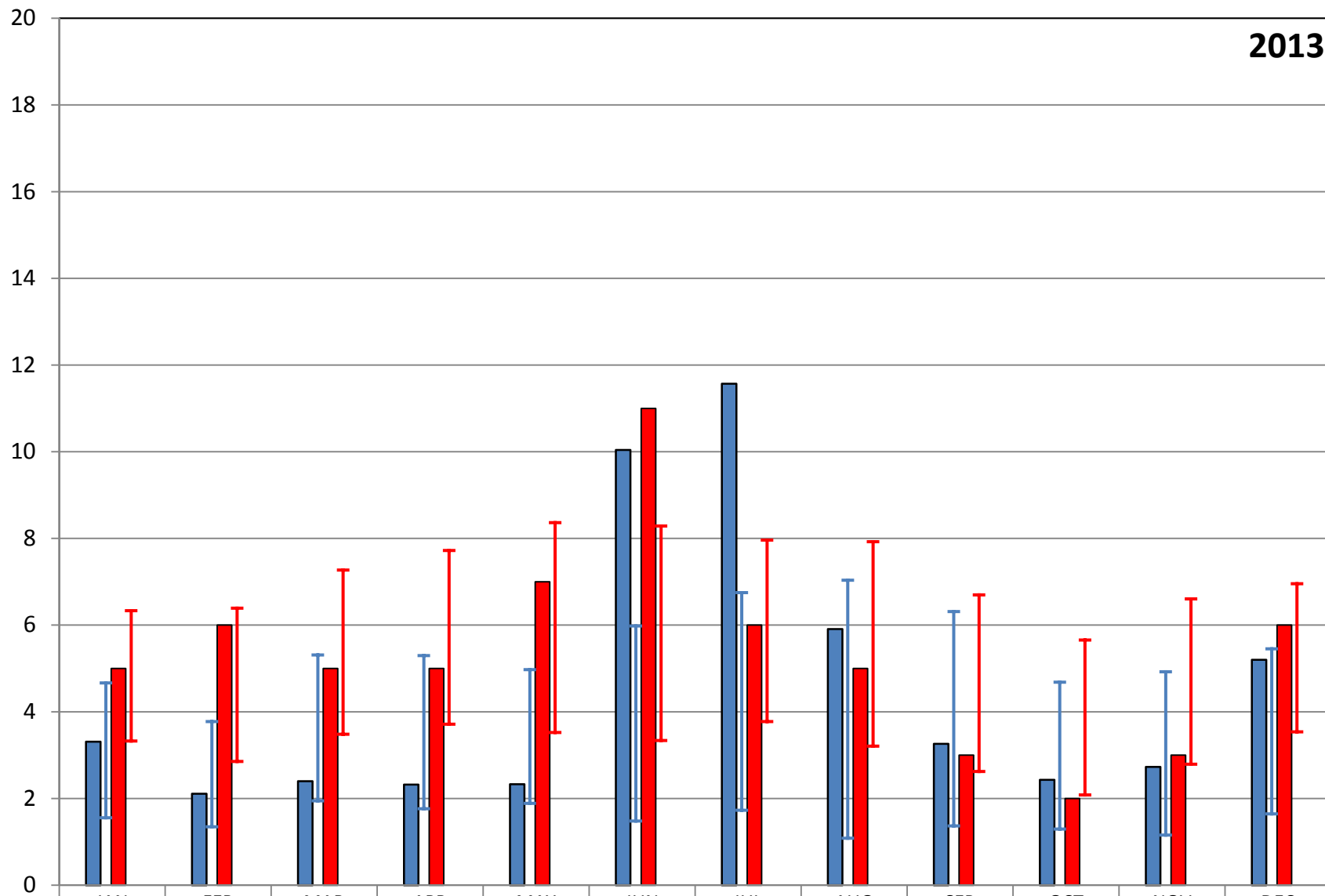


■ 2012 Volume	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	2.59	1.85	0.74	2.55	3.26	2.90	1.42	5.37	5.26	3.72	1.01	4.42
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2012 # Events	5	5	2	3	8	5	4	8	9	3	3	7
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2



2013

Precipitation Volume (inches), Number of Events



■ 2013 Volume	3.31	2.11	2.40	2.32	2.33	10.04	11.57	5.91	3.26	2.43	2.73	5.20
Avg Volume	3.11	2.56	3.63	3.53	3.43	3.73	4.24	4.06	3.84	2.99	3.04	3.55
■ 2013 # Events	5	6	5	5	7	11	6	5	3	2	3	6
Avg # Events	4.8	4.6	5.4	5.7	5.9	5.8	5.9	5.6	4.7	3.9	4.7	5.2

## **Appendix B**

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# **Dry Weather and Wet Weather Flow Summaries**

# Appendix B

## Dry Weather and Wet Weather Flow Summaries

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This appendix includes a series of summaries that provide both dry weather and the wet weather flow analysis results for monitoring sites with acceptable data quality. An individual dry weather and wet weather summary was prepared for each monitoring site.

For the dry weather flow summaries, both weekday and weekend dry weather days that were not influenced by precipitation and exhibited typical diurnal patterns were identified and selected. A total of two different average daily dry weather flow hydrographs were produced for each monitoring site to represent weekdays and weekends respectively. In addition to the hydrographs, the dry weather flow summaries include the following information.

- Average daily dry weather flow in million gallons per day (mgd) and gallons per capita per day (gpcd)
- Average daily maximum dry weather flow in mgd and gpcd
- Average daily minimum dry weather flow in mgd and gpcd
- Groundwater infiltration (GWI) ratio (calculated by dividing the average daily minimum dry weather flow by the average daily dry weather flow)
- Number of days analyzed in generating the average dry weather flow hydrographs and corresponding dry weather flow statistics.

For the wet weather summaries, the monitored peak flow rates from the five largest successfully monitored events were identified and listed accordingly. Along with the top flow rates, the wet weather summaries include the following.

- Date of the event in which the peak flow rate occurred
- Total volume of precipitation that occurred during the event
- Monitored peak 15 minute precipitation intensity;
- Monitored peak 15 minute level ;
- Monitored peak hourly precipitation intensity;
- Monitored peak hourly flow rate;
- Monitored peak hourly level; and
- Event's peaking factor, calculated as the monitored peak hourly flow rate divided by the average daily dry weather flow.

The individual site summaries are organized and grouped by the interceptor sewer into which the monitored sewershed conveys flow. A listing of the analyzed sewershed monitoring sites for each interceptor sewer is provided.

# Appendix B

## List of Dry and Wet Weather Flow Summaries

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### **Byberry Creek Interceptor**

- BC-0010
- BC-0055 (2012)
- BC-0055 (2013)
- BC-0200
- BC-B0675
- BC-B0755
- BC-B1575 (first location)
- BC-B1575 (second location)
- Q101-03-S0020
- Q109-07-S0025
- Q114-12-S0010

### **Cheltenham Interceptor**

- T089-04-S0055
- THL-B0705

### **Cresheim Valley Interceptor**

- CV-0145
- W077-02-S0060
- W086-01-S0060

### **Island Avenue Lower Level Interceptor**

- IALL-B0355
- IALL-B0810
- IALL-B0862

### **Monoshone Interceptor**

- M0045
- W068-05-S0047
- W068-05-S0078

### **Paul's Run Interceptor**

- P108-17-S0010
- P113-04-S0463
- PR-0060
- PR-0150

- PR-B0405
- PR-B0455
- PR-B0540

**Pennypack Interceptor**

- P104-09-S0025
- P105-06-S0035
- PP-0215
- PP-B0650
- PP-B0790 (1999)
- PP-B0790 (2013)
- PP-B0840
- PP-B1035
- PP-B1080
- PP-B1215

**Poquessing Interceptor**

- PC-0010 (2009)
- PC-0010 (2013)
- PC-0045
- PC-1210
- PC-B1330
- PC-P1360
- PC-B1440
- PC-B1530
- Q107-02-S0025
- Q110-17-S0015
- Q120-02-S0010
- Q120-08-S0010
- Q120-10-S0010
- Q120-11-S0010
- Q121-02-S0015

**Sandy Run Interceptor**

- P-090-02-S0090
- P-090-02-S0590
- P-090-02-S0715
- P-090-02-S0865

**Tacony High Level Interceptor**

- T088-01-S0050

- T088-01-S0155
- T088-01-S0220
- THL-B0375

**Upper Delaware Low Level Interceptor**

- P083-03-S0050 (2012)
- P083-03-S0050 (2013)
- UDLL-0270

**Upper Schuylkill East Side Interceptor**

- S051-05-S0020
- S051-08-S0175
- S059-01-S0010
- S059-02-S0010
- S059-04-S0035
- USE-0365 (2010)
- USE-0365 (2012)
- USE-0500
- USE-0660
- USE-0760
- USE-0855

**Wissahickon High Level Interceptor**

- W067-01-S0060
- WHL-0110 (2001)
- WHL-0110 (2013)

**Wissahickon Low Level Interceptor**

- W075-01-S0018
- W076-13-S0100
- WLL-0028
- WLL-0100
- WLL-0105
- WLL-0332
- WLL-0565

**Wooden Bridge Interceptor**

- WBR-0375
- WBR-B0585 (2003)
- WBR-B0585 (2004)

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### BC-0010

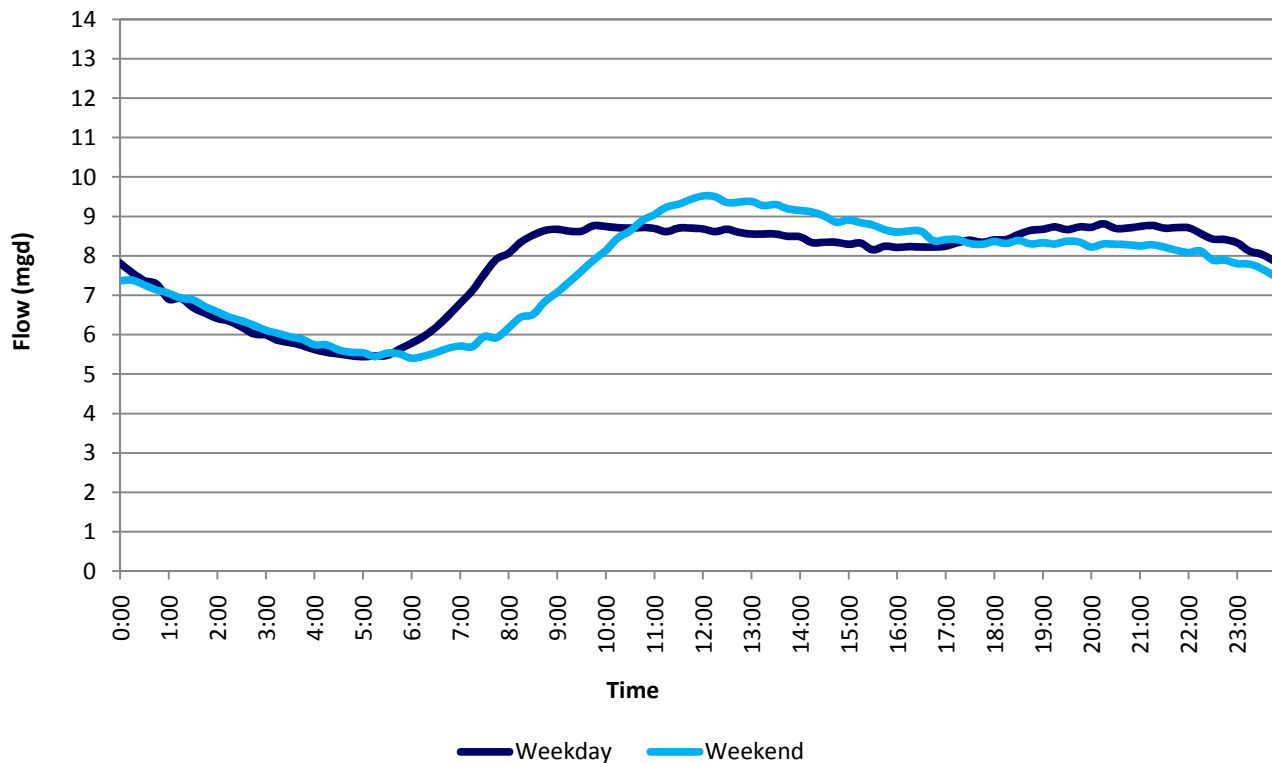
#### General Information

Site:	BC-0010
Description of Location:	Fleuhr Park Grant Avenue Entrance
Data Range:	7/26/2008 to 1/31/2010
Pipe Diameter:	48"
Interceptor:	Byberry Creek
Drainage Area (Acres):	3,271
Service Population:	40,961

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	7.79	190	8.81	215	5.44	133	0.70	157
Weekend	7.63	186	9.52	232	5.40	132	0.71	70
<b>Total</b>	<b>7.74</b>	<b>189</b>	<b>9.03</b>	<b>220</b>	<b>5.43</b>	<b>133</b>	<b>0.70</b>	<b>227</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**BC-0010**

**General Information**

<b>Site:</b>	<b>BC-0010</b>
Description of Location:	Fleuhr Park Grant Avenue Entrance
Data Range:	7/26/2008 to 1/31/2010
Pipe Diameter:	48"
Interceptor:	Byberry Creek
Drainage Area (Acres):	3,271
Service Population:	40,961

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
1/25/2010	1.55	0.11	47.0	148	0.35	44.8	146	5.78
12/9/2009	2.02	0.13	40.3	164	0.47	37.9	164	4.89
8/22/2009	2.05	0.45	35.7	111	1.11	31.8	106	4.11
10/24/2009	1.83	0.56	33.1	150	0.84	31.0	150	4.01
12/26/2009	1.97	0.09	32.1	164	0.20	27.0	162	3.49
<b>Five-Storm Average</b>	<b>1.89</b>	<b>0.27</b>	<b>37.6</b>	<b>147</b>	<b>0.59</b>	<b>34.5</b>	<b>145</b>	<b>4.46</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### BC-0055

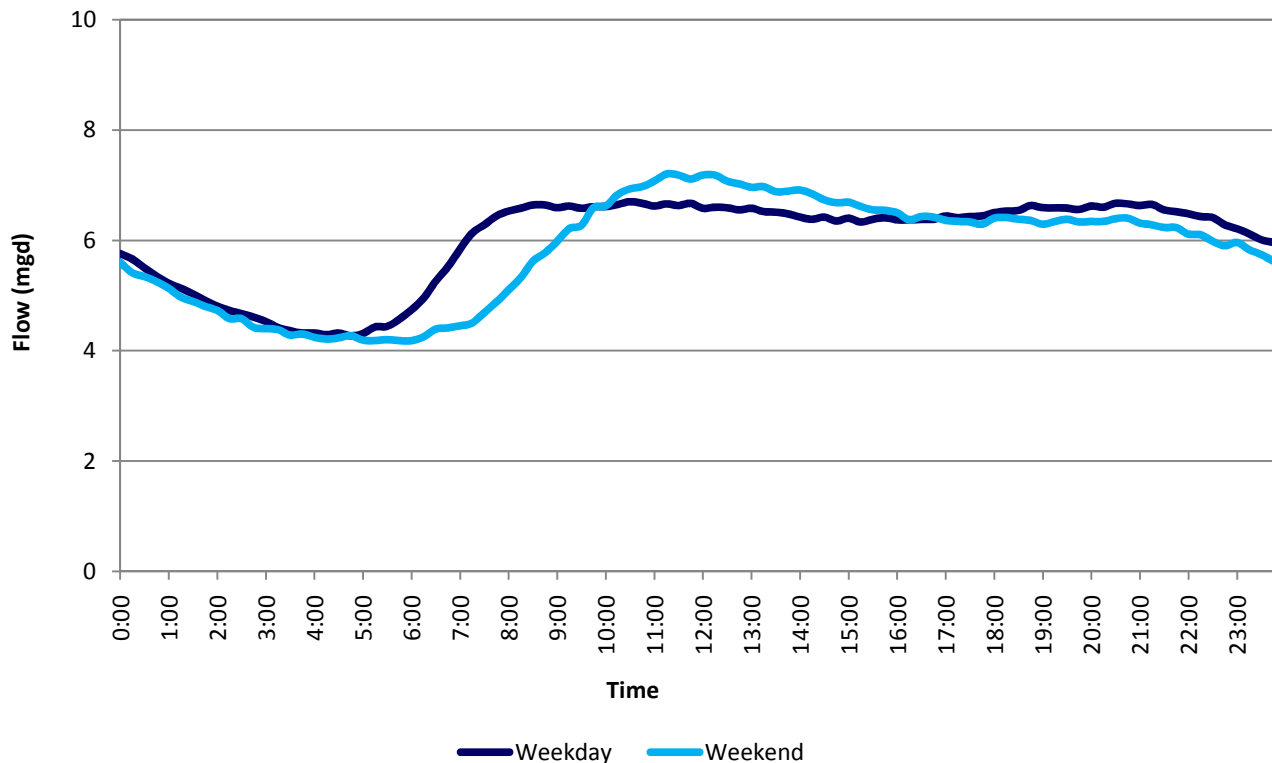
#### General Information

Site:	BC-0055
Description of Location:	Grant Avenue
Data Range:	11/30/2011 to 12/31/2012
Pipe Diameter:	51"H X 48"W
Interceptor:	Byberry Creek
Drainage Area (Acres):	2,715
Service Population:	33,648

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	5.99	178	6.70	199	4.27	127	0.71	58
Weekend	5.82	173	7.20	214	4.18	124	0.72	23
<b>Total</b>	<b>5.94</b>	<b>177</b>	<b>6.84</b>	<b>203</b>	<b>4.24</b>	<b>126</b>	<b>0.71</b>	<b>81</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**BC-0055**

**General Information**

<b>Site:</b>	<b>BC-0055</b>
Description of Location:	Grant Avenue
Data Range:	11/30/2011 to 12/31/2012
Pipe Diameter:	51"H X 48"W
Interceptor:	Byberry Creek
Drainage Area (Acres):	2,715
Service Population:	33,648

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/4/2012	3.01	0.53	39.9	131	1.02	37.7	128	6.34
10/29/2012	2.27	0.12	36.6	28.0	0.35	26.4	22.8	4.44
10/19/2012	0.91	0.23	33.8	27.7	0.62	26.5	21.5	4.46
12/7/2011	2.45	0.16	32.7	86.6	0.33	32.0	84.3	5.38
5/6/2012	1.46	0.25	28.7	20.9	0.80	27.0	20.2	4.54
<b>Five-Storm Average</b>	<b>2.02</b>	<b>0.26</b>	<b>34.3</b>	<b>58.8</b>	<b>0.62</b>	<b>29.9</b>	<b>55.4</b>	<b>5.03</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### BC-0055

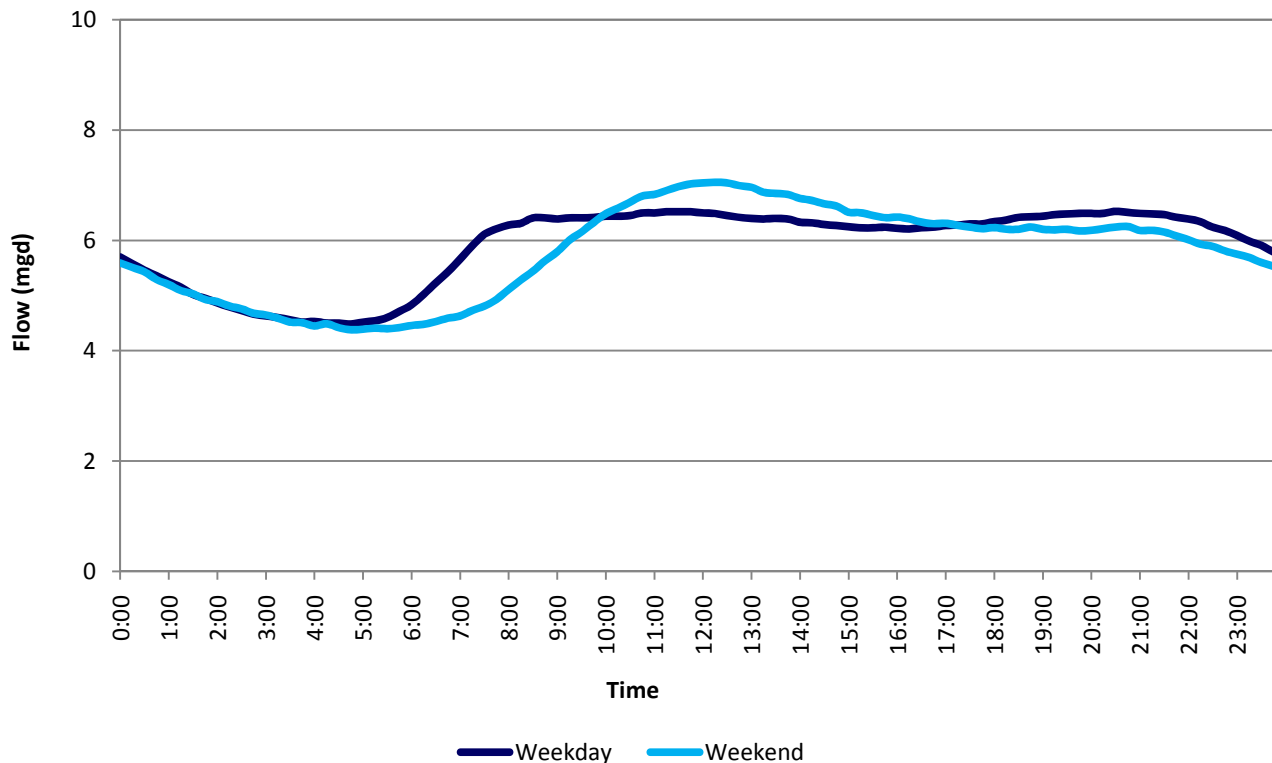
#### General Information

Site:	BC-0055
Description of Location:	Grant Avenue
Data Range:	1/1/2013 to 9/30/2013
Pipe Diameter:	51"H X 48"W
Interceptor:	Byberry Creek
Drainage Area (Acres):	2,715
Service Population:	33,648

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	5.91	176	6.53	194	4.48	133	0.76	134
Weekend	5.79	172	7.05	210	4.38	130	0.76	64
<b>Total</b>	<b>5.87</b>	<b>175</b>	<b>6.70</b>	<b>199</b>	<b>4.45</b>	<b>132</b>	<b>0.76</b>	<b>198</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**BC-0055**

**General Information**

<b>Site:</b>	<b>BC-0055</b>
Description of Location:	Grant Avenue
Data Range:	1/1/2013 to 9/30/2013
Pipe Diameter:	51"H X 48"W
Interceptor:	Byberry Creek
Drainage Area (Acres):	2,715
Service Population:	33,648

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	2.05	0.80	35.2	123	1.47	33.7	113	5.74
7/23/2013	1.37	0.49	32.3	71.2	1.20	30.6	54.3	5.21
6/3/2013	1.40	0.63	25.9	21.3	0.92	24.9	21.0	4.24
7/13/2013	0.53	0.22	24.6	19.3	0.38	21.7	18.1	3.70
6/7/2013	3.78	0.36	24.2	93.4	0.81	21.7	89.1	3.70
<b>Five-Storm Average</b>	<b>1.83</b>	<b>0.50</b>	<b>28.4</b>	<b>65.6</b>	<b>0.96</b>	<b>26.5</b>	<b>59.1</b>	<b>4.52</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### BC-0200

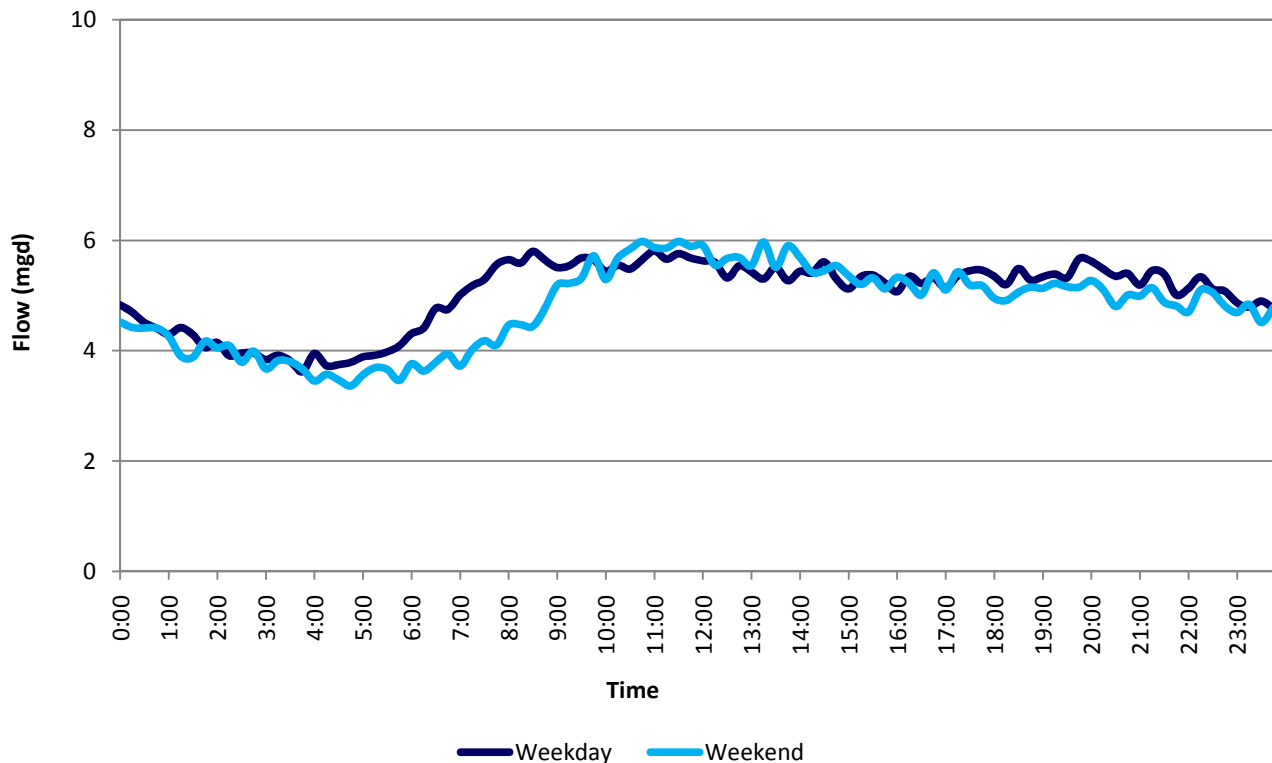
#### General Information

Site:	BC-0200
Description of Location:	Red Lion Road and Waldermire Drive
Data Range:	11/3/1999 to 2/14/2000
Pipe Diameter:	42"
Interceptor:	Byberry Creek
Drainage Area (Acres):	2,326
Service Population:	23,909

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	5.02	210	5.81	243	3.62	151	0.72	52
Weekend	4.79	200	5.98	250	3.36	141	0.70	31
<b>Total</b>	<b>4.93</b>	<b>206</b>	<b>5.87</b>	<b>246</b>	<b>3.52</b>	<b>147</b>	<b>0.71</b>	<b>83</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**BC-0200**

**General Information**

<b>Site:</b>	<b>BC-0200</b>
Description of Location:	Red Lion Road and Waldermire Drive
Data Range:	11/3/1999 to 2/14/2000
Pipe Diameter:	42"
Interceptor:	Byberry Creek
Drainage Area (Acres):	2,326
Service Population:	23,909

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
12/14/1999	1.43	0.07	14.0	26.5	0.18	11.2	26.2	2.27
1/4/2000	0.85	0.13	12.3	25.6	0.31	10.7	25.4	2.17
12/20/1999	0.46	0.05	11.3	26.0	0.12	9.30	25.5	1.88
12/6/1999	0.54	0.06	10.2	23.8	0.13	9.01	23.4	1.83
2/14/2000	0.50	0.08	9.49	23.5	0.20	8.02	22.9	1.63
<b>Five-Storm Average</b>	<b>0.76</b>	<b>0.08</b>	<b>11.5</b>	<b>25.1</b>	<b>0.19</b>	<b>9.65</b>	<b>24.7</b>	<b>1.96</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**BC-B0675**

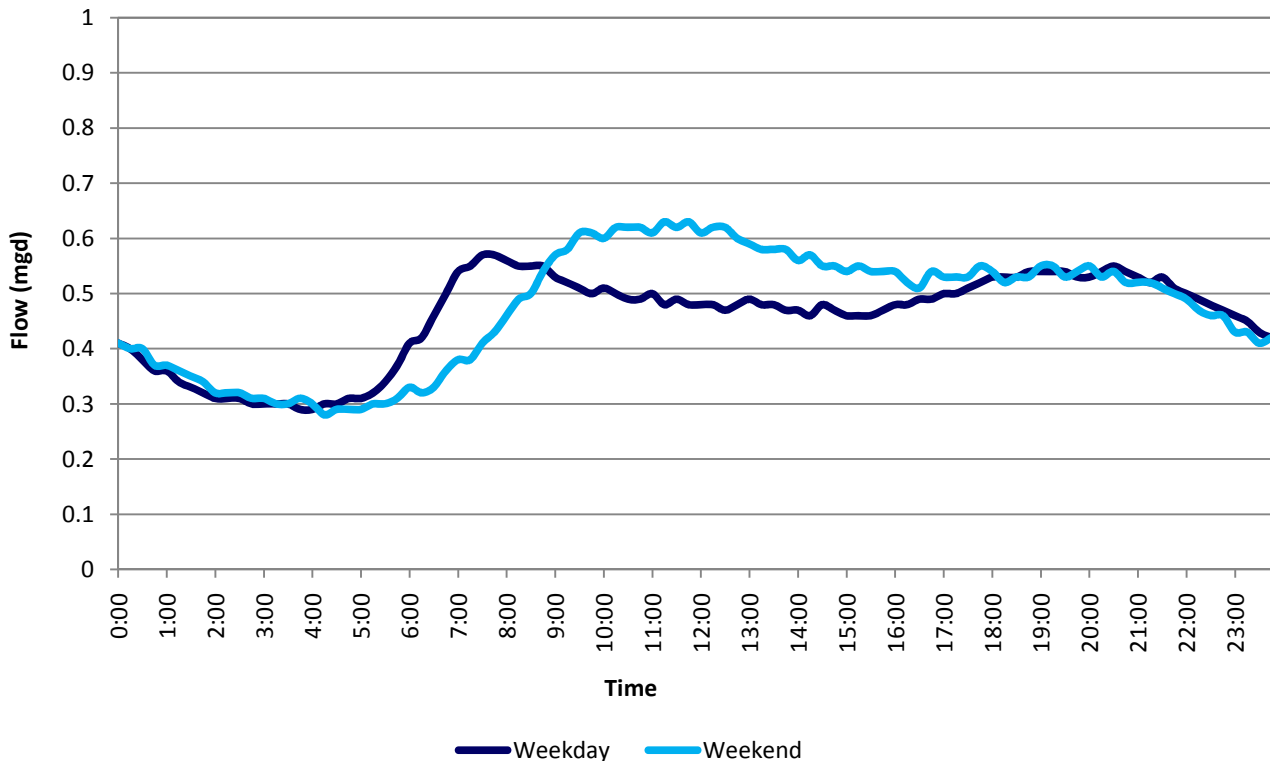
**General Information**

Site:	BC-B0675
Description of Location:	4716 Grant Avenue
Data Range:	1/1/2009 to 12/31/2009
Pipe Diameter:	20"
Interceptor:	Byberry Creek
Drainage Area (Acres):	230
Service Population:	2,374

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.457	192	0.570	240	0.290	122	0.63	105
Weekend	0.475	200	0.630	265	0.280	118	0.59	65
<b>Total</b>	<b>0.464</b>	<b>195</b>	<b>0.593</b>	<b>250</b>	<b>0.286</b>	<b>121</b>	<b>0.62</b>	<b>170</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**BC-B0675**

**General Information**

<b>Site:</b>	<b>BC-B0675</b>
Description of Location:	4716 Grant Avenue
Data Range:	1/1/2009 to 12/31/2009
Pipe Diameter:	20"
Interceptor:	Byberry Creek
Drainage Area (Acres):	230
Service Population:	2,374

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
10/28/2009	1.76	0.12	10.0	23.8	0.32	9.84	21.0	21.2
10/24/2009	1.47	0.49	6.34	82.4	0.70	5.91	78.3	12.7
12/3/2009	1.12	0.09	6.20	12.2	0.29	3.87	8.24	8.35
8/21/2009	2.06	0.46	3.78	35.7	0.92	3.78	29.5	8.15
12/9/2009	2.28	0.16	3.67	120	0.56	3.50	117	7.56
<b>Five-Storm Average</b>	<b>1.74</b>	<b>0.26</b>	<b>5.99</b>	<b>54.8</b>	<b>0.56</b>	<b>5.38</b>	<b>50.9</b>	<b>11.6</b>



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**BC-B0755**

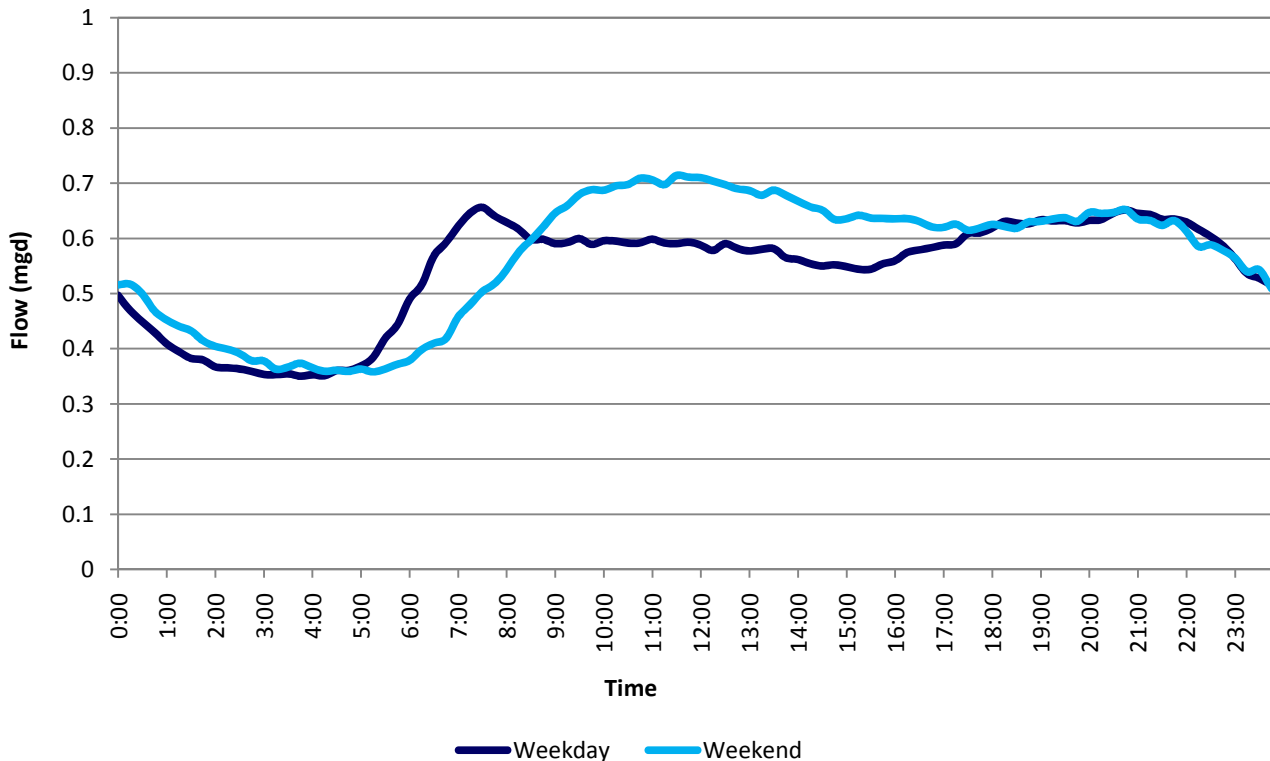
**General Information**

Site:	BC-B0755
Description of Location:	9500 Leon Street
Data Range:	12/11/2012 to 10/16/2013
Pipe Diameter:	18"
Interceptor:	Byberry Creek
Drainage Area (Acres):	275
Service Population:	4,752

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.543	114	0.656	138	0.350	74	0.65	39
Weekend	0.565	119	0.714	150	0.358	75	0.63	17
<b>Total</b>	<b>0.549</b>	<b>116</b>	<b>0.674</b>	<b>142</b>	<b>0.353</b>	<b>74</b>	<b>0.64</b>	<b>56</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**BC-B0755**

**General Information**

<b>Site:</b>	<b>BC-B0755</b>
Description of Location:	9500 Leon Street
Data Range:	12/11/2012 to 10/16/2013
Pipe Diameter:	18"
Interceptor:	Byberry Creek
Drainage Area (Acres):	275
Service Population:	4,752

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	1.61	0.61	6.83	106	1.19	6.24	85.3	11.4
7/23/2013	1.56	0.60	6.71	78.7	1.41	6.50	71.7	11.8
6/10/2013	2.23	0.36	6.43	57.9	0.62	5.77	33.2	10.5
7/13/2013	0.58	0.29	6.27	71.1	0.49	5.43	44.7	9.88
6/7/2013	3.78	0.37	5.88	95	0.84	5.38	78.7	9.79
<b>Five-Storm Average</b>	<b>1.95</b>	<b>0.45</b>	<b>6.42</b>	<b>81.6</b>	<b>0.91</b>	<b>5.86</b>	<b>62.7</b>	<b>10.7</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**BC-B1575**

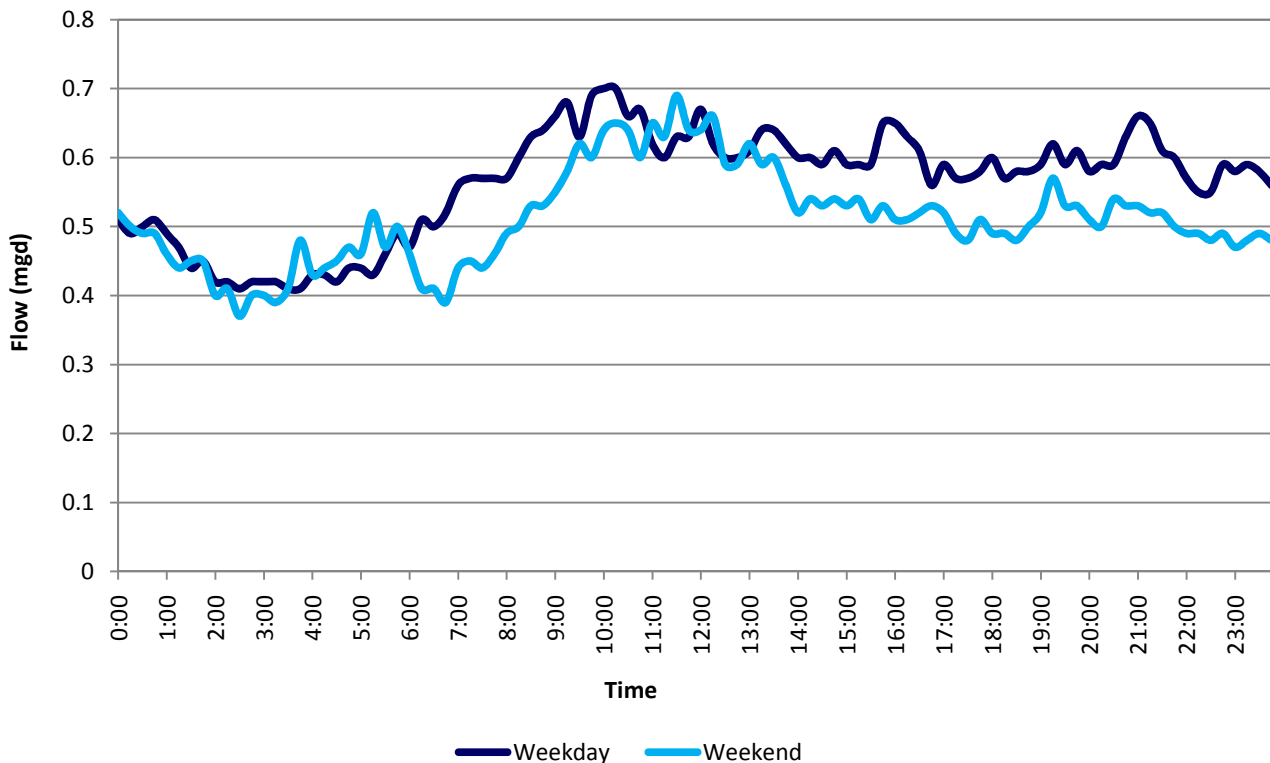
**General Information**

Site:	BC-B1575
Description of Location:	Bennett Road
Data Range:	5/18/2001 to 9/18/2001 (First Location)
Pipe Diameter:	24"
Interceptor:	Byberry Creek
Drainage Area (Acres):	169
Service Population:	1,676

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.564	336	0.700	418	0.410	245	0.73	45
Weekend	0.511	305	0.690	412	0.370	221	0.72	14
<b>Total</b>	<b>0.551</b>	<b>329</b>	<b>0.698</b>	<b>416</b>	<b>0.401</b>	<b>239</b>	<b>0.73</b>	<b>59</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**BC-B1575**

**General Information**

<b>Site:</b>	<b>BC-B1575</b>
Description of Location:	Bennett Road
Data Range:	5/18/2001 to 9/18/2001 (First Location)
Pipe Diameter:	24"
Interceptor:	Byberry Creek
Drainage Area (Acres):	169
Service Population:	1,676

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/16/2001	3.48	0.25	4.04	17.8	0.90	3.40	14.6	6.17
8/4/2001	0.54	0.25	3.86	17.4	0.53	2.76	11.9	5.01
5/21/2001	1.38	0.18	2.75	11.2	0.37	2.23	10.1	4.05
6/1/2001	1.71	0.23	2.47	10.8	0.45	1.99	9.20	3.61
8/12/2001	2.97	0.71	2.45	10.8	1.34	1.74	9.69	3.16
<b>Five-Storm Average</b>	<b>2.02</b>	<b>0.32</b>	<b>3.11</b>	<b>14</b>	<b>0.72</b>	<b>2.42</b>	<b>11.1</b>	<b>4.40</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### BC-B1575

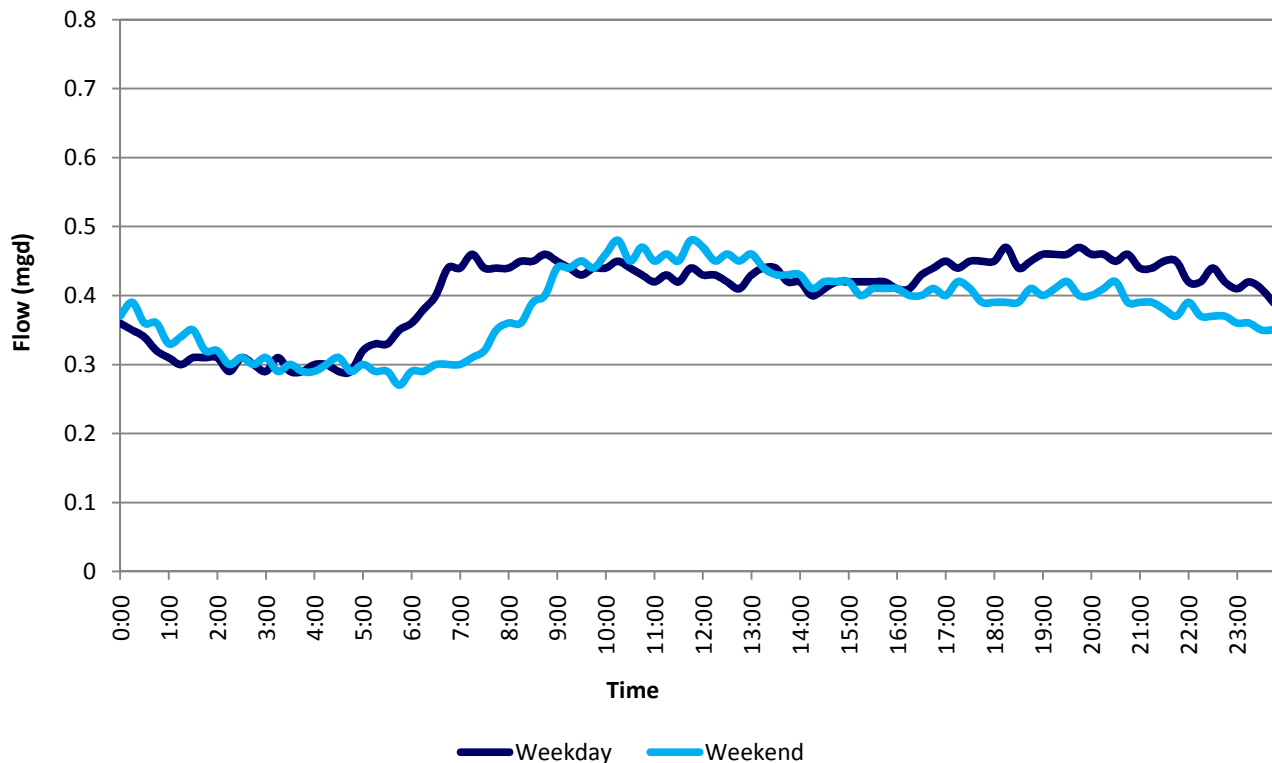
#### General Information

Site:	BC-B1575
Description of Location:	Bennett Road
Data Range:	9/19/2001 to 6/30/2002 (Second Location)
Pipe Diameter:	24"
Interceptor:	Byberry Creek
Drainage Area (Acres):	169
Service Population:	1,676

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.403	241	0.470	280	0.290	173	0.72	56
Weekend	0.380	227	0.480	286	0.270	161	0.71	18
<b>Total</b>	<b>0.398</b>	<b>237</b>	<b>0.472</b>	<b>282</b>	<b>0.285</b>	<b>170</b>	<b>0.72</b>	<b>74</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**BC-B1575**

**General Information**

<b>Site:</b>	<b>BC-B1575</b>
Description of Location:	Bennett Road
Data Range:	9/19/2001 to 6/30/2002 (Second Location)
Pipe Diameter:	24"
Interceptor:	Byberry Creek
Drainage Area (Acres):	169
Service Population:	1,676

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/24/2002	0.55	0.31	4.07	13.0	0.53	2.51	10.0	6.31
6/27/2002	0.55	0.34	2.43	9.34	0.52	1.41	7.56	3.55
6/6/2002	1.24	0.16	2.36	9.40	0.45	1.65	8.37	4.15
6/11/2002	0.34	0.29	1.98	8.49	0.33	1.07	6.54	2.69
5/13/2002	0.50	0.22	1.88	8.43	0.44	1.18	6.70	2.97
<b>Five-Storm Average</b>	<b>0.64</b>	<b>0.26</b>	<b>2.54</b>	<b>9.73</b>	<b>0.45</b>	<b>1.56</b>	<b>7.83</b>	<b>3.93</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**Q101-03-S0020**

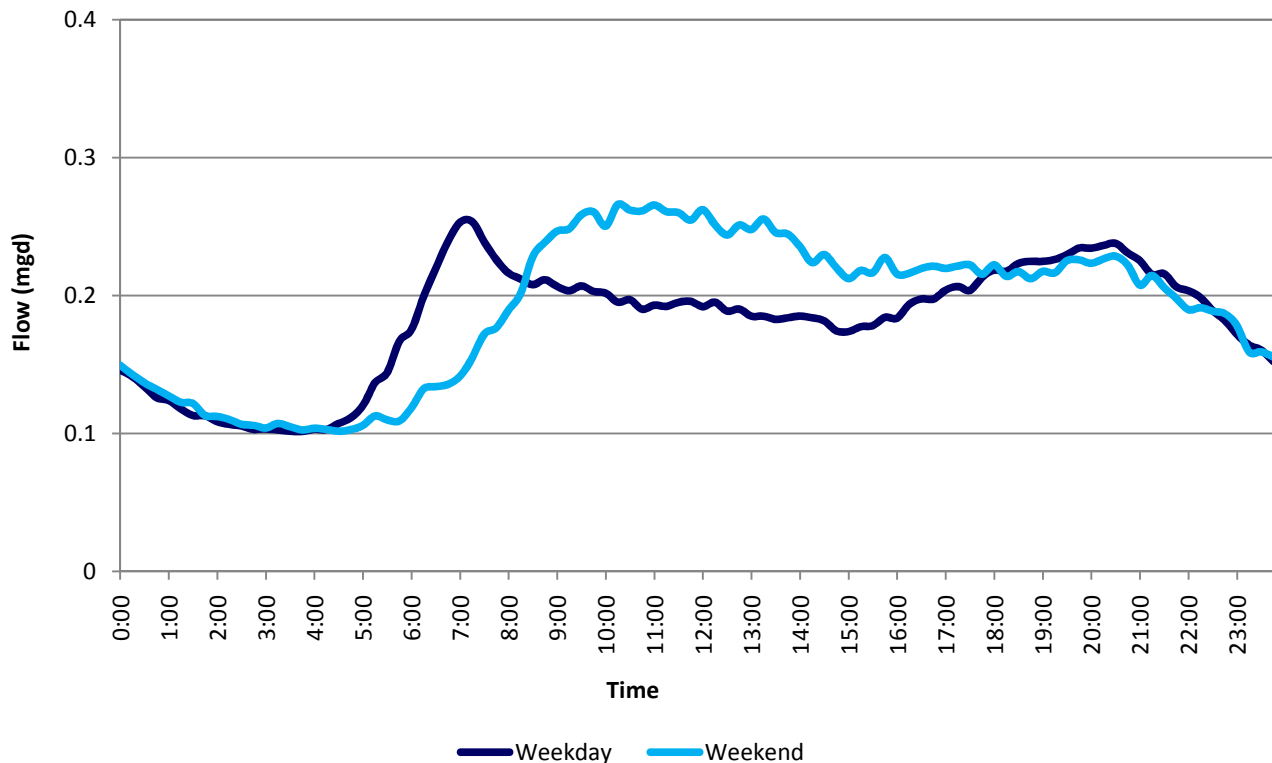
**General Information**

Site:	Q101-03-S0020
Description of Location:	Fordham Road and Academy Road
Data Range:	10/21/2011 to 12/4/2012
Pipe Diameter:	15"
Interceptor:	Byberry Creek
Drainage Area (Acres):	112
Service Population:	1,773

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.182	102	0.254	143	0.101	57	0.56	59
Weekend	0.191	108	0.266	150	0.102	57	0.53	22
<b>Total</b>	<b>0.184</b>	<b>104</b>	<b>0.257</b>	<b>145</b>	<b>0.102</b>	<b>57</b>	<b>0.55</b>	<b>81</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q101-03-S0020**

**General Information**

<b>Site:</b>	<b>Q101-03-S0020</b>
Description of Location:	Fordham Road and Academy Road
Data Range:	10/21/2011 to 12/4/2012
Pipe Diameter:	15"
Interceptor:	Byberry Creek
Drainage Area (Acres):	112
Service Population:	1,773

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/4/2012	3.04	0.80	3.91	38.5	1.29	3.26	32.9	17.7
12/7/2011	2.41	0.17	3.47	14.1	0.32	3.15	13.4	17.1
5/16/2012	1.35	0.35	3.16	12.5	0.72	2.52	11.3	13.7
1/12/2012	1.66	0.22	3.06	13.0	0.51	2.54	11.9	13.8
9/3/2012	1.05	0.22	2.78	13.2	0.63	1.96	10.9	10.6
<b>Five-Storm Average</b>	<b>1.90</b>	<b>0.35</b>	<b>3.28</b>	<b>18.3</b>	<b>0.69</b>	<b>2.69</b>	<b>16.1</b>	<b>14.6</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

Q109-07-S0025

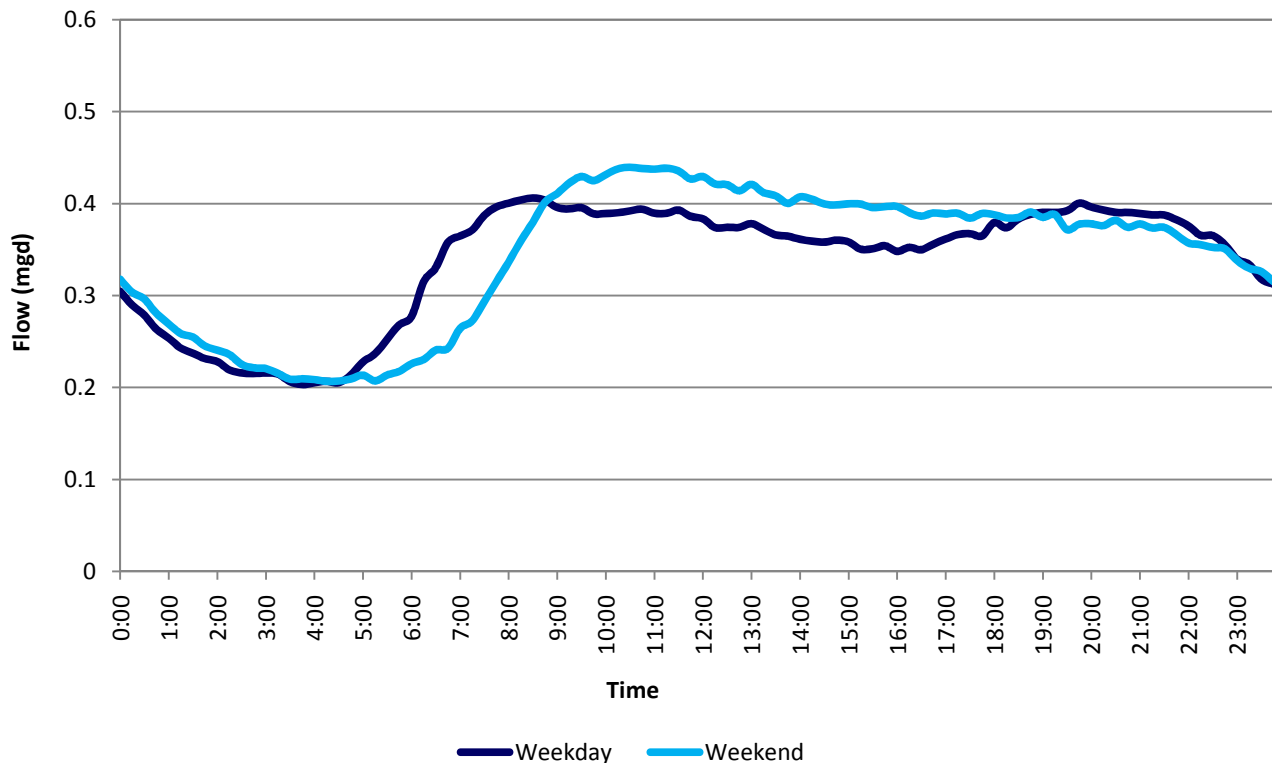
### General Information

Site:	Q109-07-S0025
Description of Location:	Tomlinson Road
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Byberry Creek
Drainage Area (Acres):	164
Service Population:	2,092

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.338	161	0.406	194	0.203	97	0.60	141
Weekend	0.342	164	0.439	210	0.207	99	0.60	71
<b>Total</b>	<b>0.339</b>	<b>162</b>	<b>0.417</b>	<b>199</b>	<b>0.204</b>	<b>98</b>	<b>0.60</b>	<b>212</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q109-07-S0025**

**General Information**

<b>Site:</b>	<b>Q109-07-S0025</b>
Description of Location:	Tomlinson Road
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Byberry Creek
Drainage Area (Acres):	164
Service Population:	2,092

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	2.10	0.78	3.59	74.9	1.47	2.97	48.9	8.75
6/10/2013	1.91	0.36	3.20	8.38	0.60	1.94	5.90	5.72
6/3/2013	1.56	0.72	2.80	7.74	1.03	1.70	5.68	5.01
9/2/2013	0.75	0.23	2.62	7.15	0.68	1.52	5.02	4.48
1/31/2013	1.17	0.28	2.32	6.75	0.50	1.54	5.26	4.54
<b>Five-Storm Average</b>	<b>1.50</b>	<b>0.47</b>	<b>2.91</b>	<b>21.0</b>	<b>0.86</b>	<b>1.93</b>	<b>14.2</b>	<b>5.70</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### Q114-12-S0010

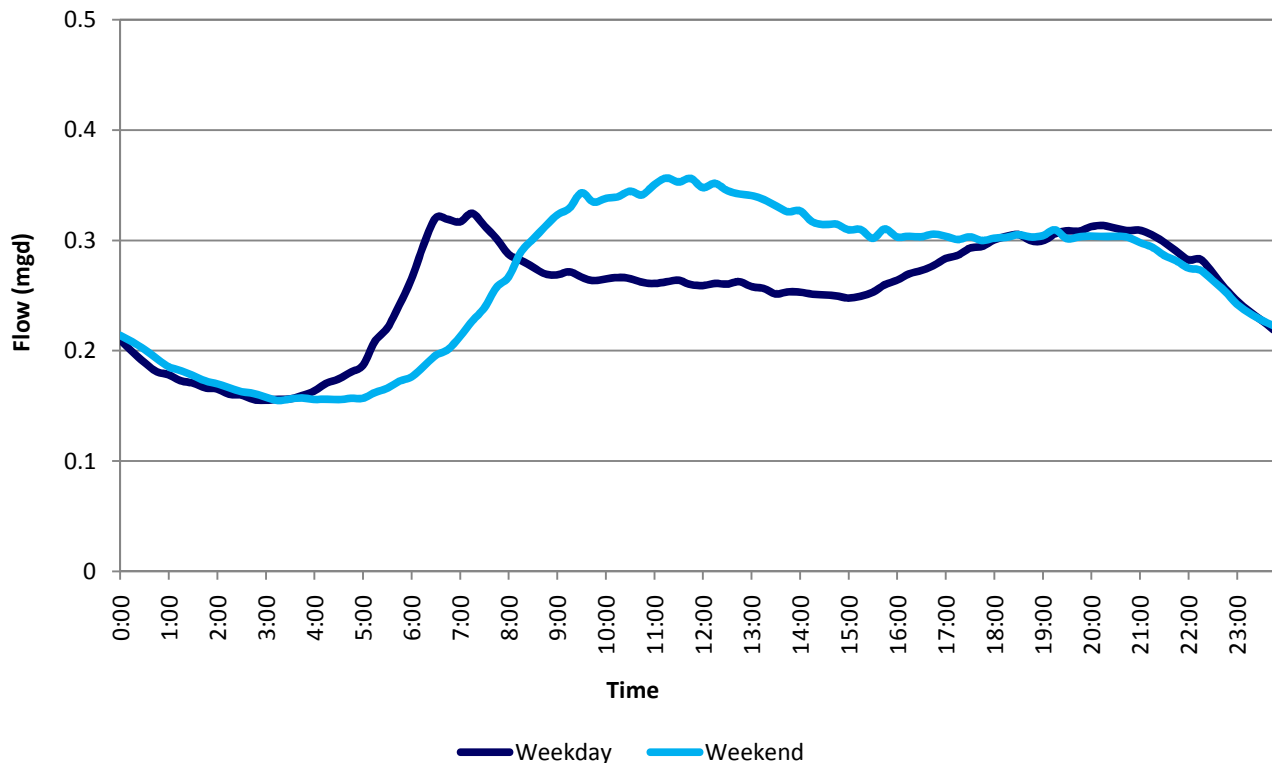
#### General Information

Site:	Q114-12-S0010
Description of Location:	3313 Woodhaven Road
Data Range:	1/27/2012 to 2/3/2013
Pipe Diameter:	12"
Interceptor:	Byberry Creek
Drainage Area (Acres):	68
Service Population:	2,217

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.253	114	0.325	146	0.155	70	0.61	171
Weekend	0.266	120	0.357	161	0.155	70	0.58	73
<b>Total</b>	<b>0.257</b>	<b>116</b>	<b>0.334</b>	<b>151</b>	<b>0.155</b>	<b>70</b>	<b>0.60</b>	<b>244</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q114-12-S0010**

**General Information**

<b>Site:</b>	<b>Q114-12-S0010</b>
Description of Location:	3313 Woodhaven Road
Data Range:	1/27/2012 to 2/3/2013
Pipe Diameter:	12"
Interceptor:	Byberry Creek
Drainage Area (Acres):	68
Service Population:	2,217

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
5/16/2012	2.15	0.23	5.03	11.9	0.80	3.83	11.2	14.9
7/28/2012	0.63	0.23	4.73	45.0	0.34	2.48	20.4	9.66
7/15/2012	0.93	0.50	4.68	40.2	0.75	2.82	20.7	11.0
9/4/2012	3.25	0.63	4.57	64.3	1.19	3.60	56.9	14.0
7/26/2012	0.48	0.26	4.13	11.9	0.30	1.65	8.39	6.44
<b>Five-Storm Average</b>	<b>1.49</b>	<b>0.37</b>	<b>4.63</b>	<b>34.7</b>	<b>0.68</b>	<b>2.88</b>	<b>23.5</b>	<b>11.2</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**T089-04-S0055**

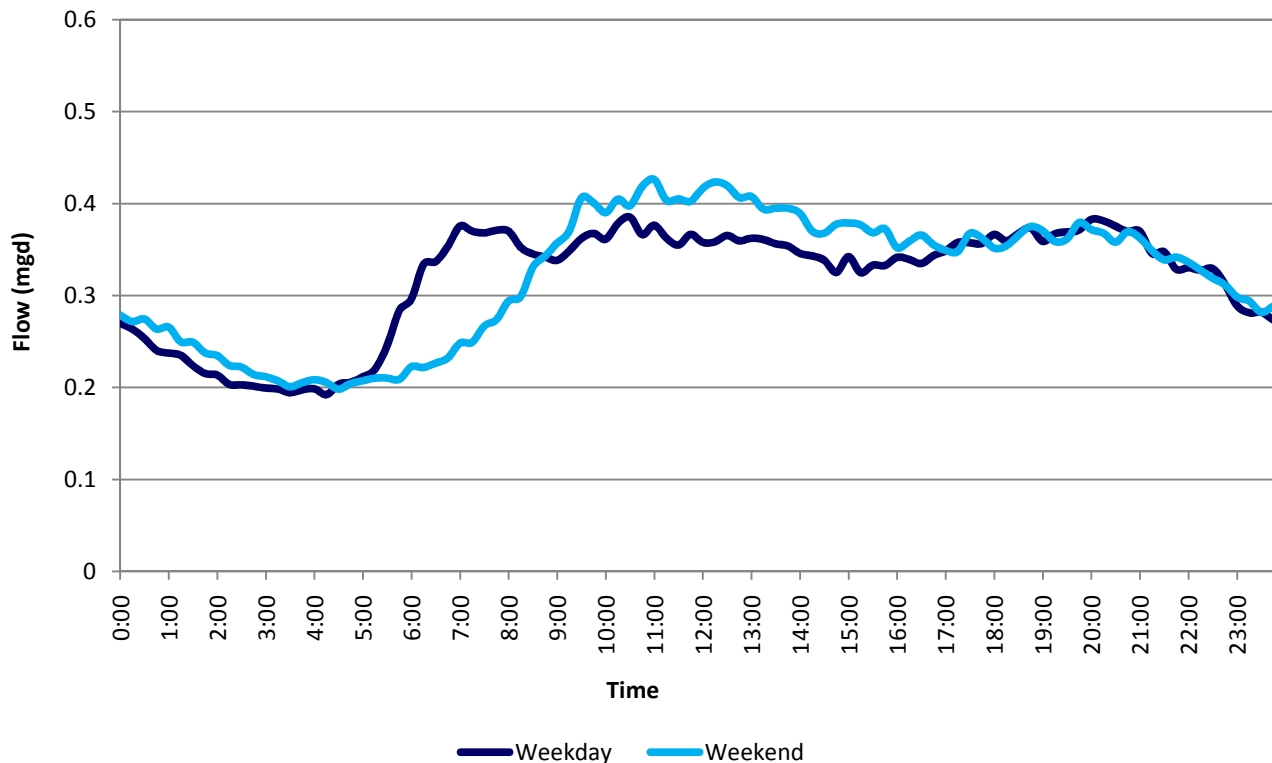
**General Information**

Site:	T089-04-S0055
Description of Location:	Cottman Avenue (between Oakley Street and Rockwell Avenue)
Data Range:	12/1/2011 to 4/4/2012
Pipe Diameter:	15"
Interceptor:	Cheltenham
Drainage Area (Acres):	98
Service Population:	1,819

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.318	175	0.385	212	0.192	106	0.61	48
Weekend	0.321	176	0.426	234	0.198	109	0.62	27
<b>Total</b>	<b>0.319</b>	<b>175</b>	<b>0.400</b>	<b>220</b>	<b>0.194</b>	<b>107</b>	<b>0.61</b>	<b>75</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**T089-04-S0055**

**General Information**

<b>Site:</b>	<b>T089-04-S0055</b>
Description of Location:	Cottman Avenue between Oakley Street and Rockwell Avenue
Data Range:	12/1/2011 to 4/4/2012
Pipe Diameter:	15"
Interceptor:	Cheltenham
Drainage Area (Acres):	98
Service Population:	1,819

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
12/7/2011	2.52	0.23	1.83	7.74	0.52	1.39	7.31	4.36
12/23/2011	1.36	0.14	1.61	9.64	0.45	1.25	9.30	3.92
2/29/2012	0.97	0.07	1.40	6.96	0.14	1.12	5.81	3.51
12/27/2011	0.57	0.07	1.30	8.65	0.20	0.747	8.20	2.34
1/12/2012	1.53	0.14	1.21	6.73	0.41	0.780	5.78	2.45
<b>Five-Storm Average</b>	<b>1.39</b>	<b>0.13</b>	<b>1.47</b>	<b>7.94</b>	<b>0.34</b>	<b>1.06</b>	<b>7.28</b>	<b>3.32</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### THL-B0705

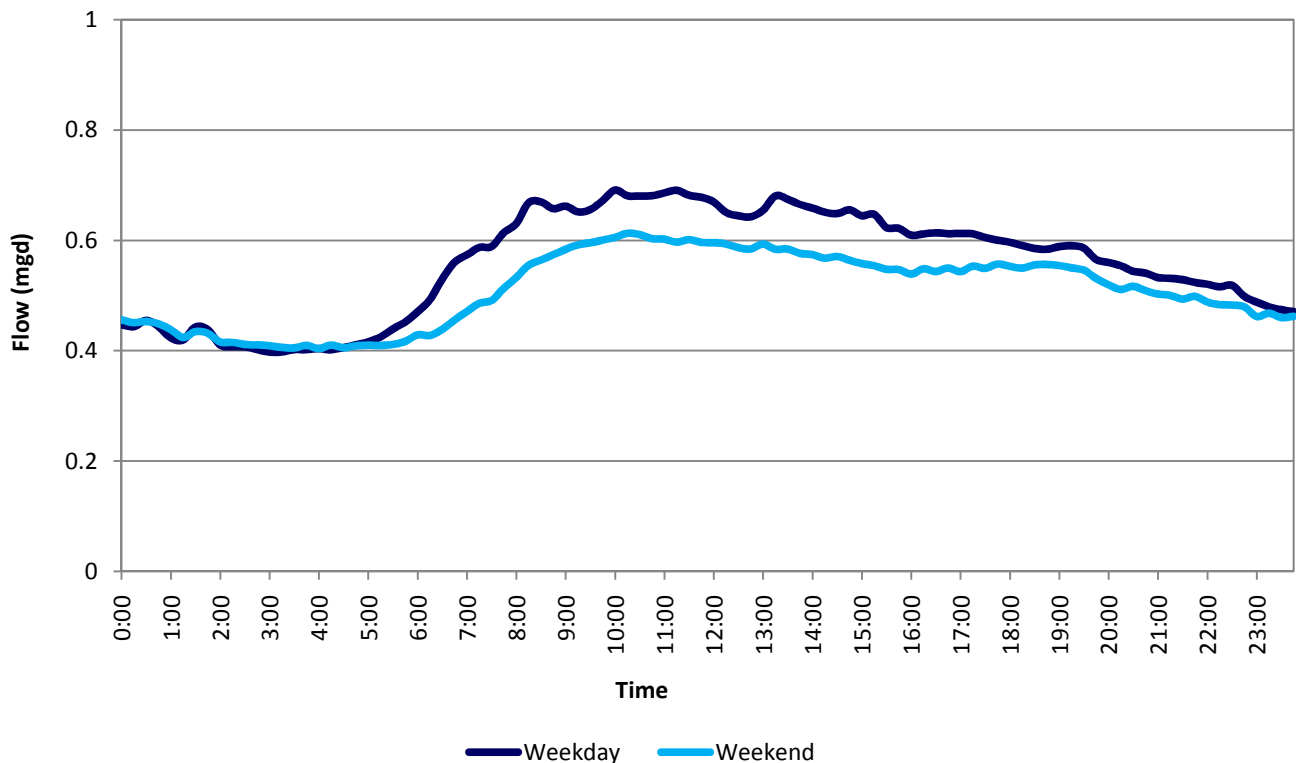
#### General Information

Site:	THL-B0705
Description of Location:	232 North Fillmore Street
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	12"
Interceptor:	Cheltenham
Drainage Area (Acres):	200
Service Population:	1,942

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.558	287	0.691	356	0.398	205	0.71	121
Weekend	0.511	263	0.613	315	0.404	208	0.79	56
<b>Total</b>	<b>0.543</b>	<b>280</b>	<b>0.666</b>	<b>343</b>	<b>0.400</b>	<b>206</b>	<b>0.74</b>	<b>177</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**THL-B0705**

**General Information**

<b>Site:</b>	<b>THL-B0705</b>
Description of Location:	232 North Fillmore Street
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	12"
Interceptor:	Cheltenham
Drainage Area (Acres):	200
Service Population:	1,942

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/2/2013	1.67	0.98	2.76	24.4	1.55	1.82	12.8	3.35
8/13/2013	2.05	0.72	2.68	15.2	1.40	1.96	10.9	3.61
6/3/2013	1.71	0.55	2.10	11.3	1.02	1.27	7.92	2.34
6/7/2013	3.94	0.26	1.68	9.55	0.71	1.28	8.22	2.36
6/10/2013	1.96	0.27	1.65	9.74	0.61	1.14	7.77	2.10
<b>Five-Storm Average</b>	<b>2.27</b>	<b>0.56</b>	<b>2.17</b>	<b>14.03</b>	<b>1.06</b>	<b>1.49</b>	<b>9.52</b>	<b>2.75</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### CV-0145

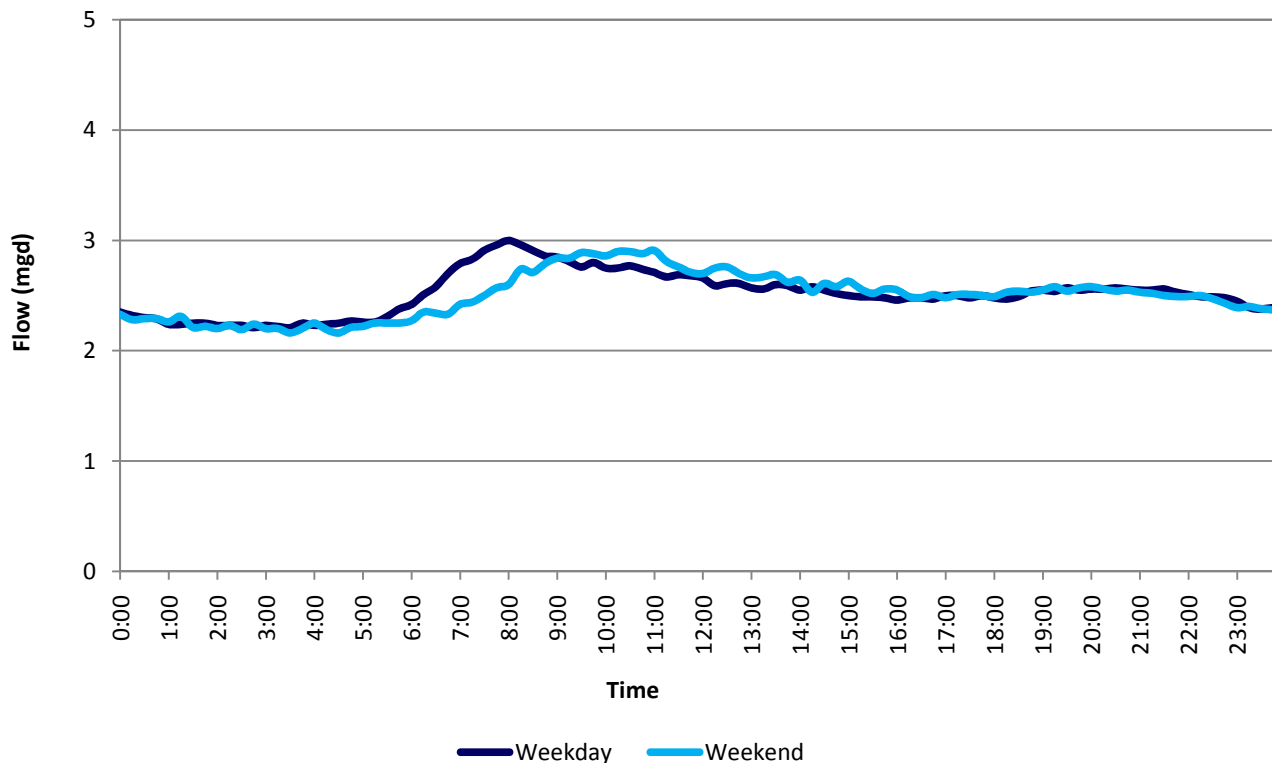
#### General Information

Site:	CV-0145
Description of Location:	Cresheim Valley Drive
Data Range:	3/8/2013 to 9/30/2013
Pipe Diameter:	27"H X 18"W
Interceptor:	Cresheim Valley
Drainage Area (Acres):	882
Service Population:	9,340

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	2.52	270	3.00	321	2.21	237	0.88	70
Weekend	2.50	268	2.91	312	2.16	231	0.86	30
<b>Total</b>	<b>2.51</b>	<b>269</b>	<b>2.97</b>	<b>318</b>	<b>2.20</b>	<b>235</b>	<b>0.87</b>	<b>100</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**CV-0145**

**General Information**

<b>Site:</b>	<b>CV-0145</b>
Description of Location:	Cresheim Valley Drive
Data Range:	3/8/2013 to 9/30/2013
Pipe Diameter:	27"H X 18"W
Interceptor:	Cresheim Valley
Drainage Area (Acres):	882
Service Population:	9,340

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/2/2013	0.81	0.33	16.9	93.8	0.72	14.0	79.1	5.57
8/13/2013	2.49	0.39	16.6	90.5	1.14	16.2	89.9	6.45
8/28/2013	1.68	0.62	16.3	95.8	1.20	14.4	92.4	5.73
6/26/2013	0.57	0.26	14.7	83.7	0.35	9.91	46.7	3.94
9/21/2013	1.18	0.24	14.0	95.9	0.51	9.48	56.1	3.77
<b>Five-Storm Average</b>	<b>1.35</b>	<b>0.37</b>	<b>15.7</b>	<b>91.9</b>	<b>0.78</b>	<b>12.8</b>	<b>72.8</b>	<b>5.09</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

W077-02-S0060

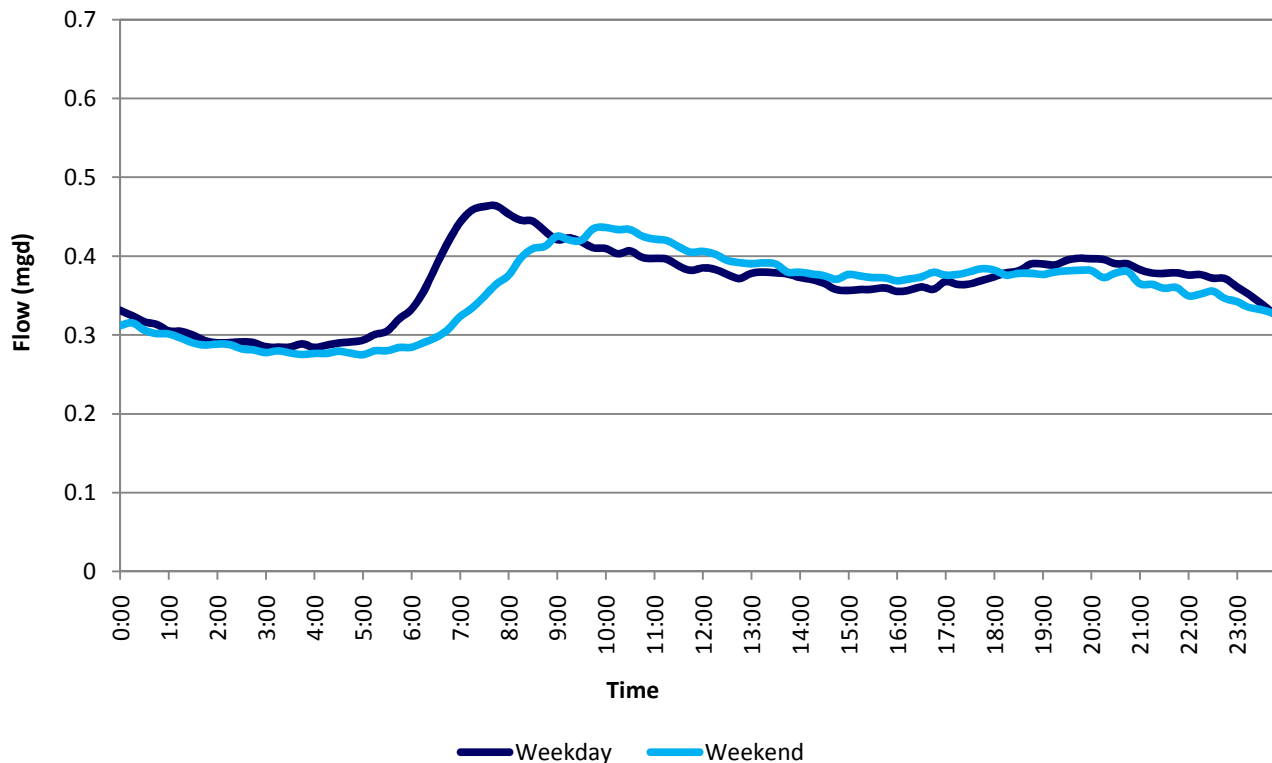
### General Information

Site:	W077-02-S0060
Description of Location:	7818 Lincoln Drive
Data Range:	1/8/2010 to 1/11/2011
Pipe Diameter:	15"
Interceptor:	Cresheim Valley
Drainage Area (Acres):	225
Service Population:	1,810

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.365	201	0.464	256	0.284	157	0.78	126
Weekend	0.354	196	0.436	241	0.275	152	0.78	62
<b>Total</b>	<b>0.361</b>	<b>200</b>	<b>0.455</b>	<b>251</b>	<b>0.281</b>	<b>155</b>	<b>0.78</b>	<b>188</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**W077-02-S0060**

**General Information**

<b>Site:</b>	<b>W077-02-S0060</b>
Description of Location:	7818 Lincoln Drive
Data Range:	1/8/2010 to 1/11/2011
Pipe Diameter:	15"
Interceptor:	Cresheim Valley
Drainage Area (Acres):	225
Service Population:	1,810

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
10/1/2010	6.24	0.68	2.53	6.00	1.44	2.28	5.56	6.31
12/1/2010	1.45	0.26	1.63	6.07	0.38	1.06	3.54	2.93
3/13/2010	3.53	0.17	1.47	4.35	0.59	1.38	4.26	3.82
2/23/2010	1.33	0.05	1.45	4.64	0.18	1.15	3.98	3.18
3/29/2010	1.71	0.15	1.32	4.00	0.44	1.25	3.94	3.46
<b>Five-Storm Average</b>	<b>2.85</b>	<b>0.26</b>	<b>1.68</b>	<b>5.01</b>	<b>0.60</b>	<b>1.42</b>	<b>4.26</b>	<b>3.94</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### W086-01-S0060

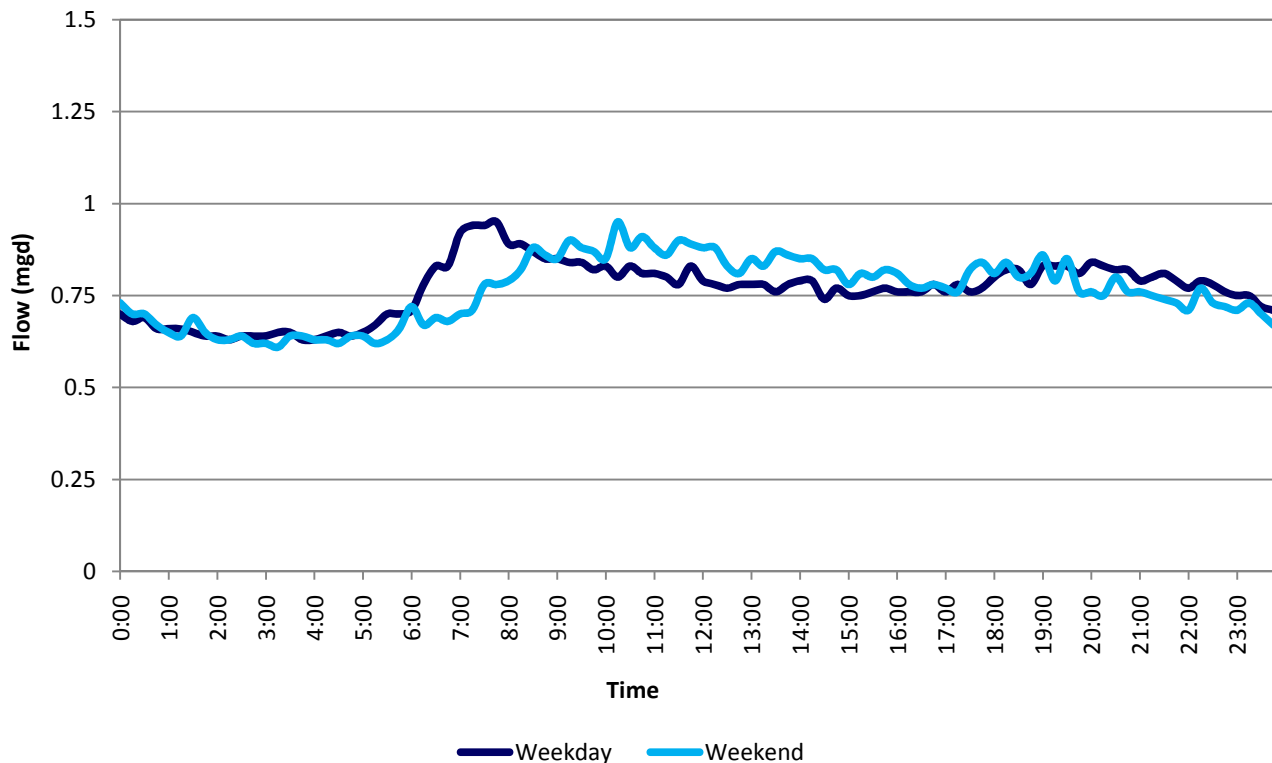
#### General Information

Site:	W086-01-S0060
Description of Location:	Winston Road West of Moreland Avenue
Data Range:	1/30/2012 to 2/29/2012
Pipe Diameter:	18"
Interceptor:	Cresheim Valley
Drainage Area (Acres):	225
Service Population:	2,546

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.766	301	0.950	373	0.630	247	0.82	19
Weekend	0.763	300	0.950	373	0.610	240	0.80	7
<b>Total</b>	<b>0.765</b>	<b>300</b>	<b>0.950</b>	<b>373</b>	<b>0.625</b>	<b>245</b>	<b>0.82</b>	<b>26</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**W086-01-S0060**

**General Information**

<b>Site:</b>	<b>W086-01-S0060</b>
Description of Location:	Winston Road West of Moreland Avenue
Data Range:	1/30/2012 to 2/29/2012
Pipe Diameter:	18"
Interceptor:	Cresheim Valley
Drainage Area (Acres):	225
Service Population:	2,546

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
2/29/2012	0.91	0.06	1.52	10.6	0.19	1.38	9.92	1.80
2/11/2012	0.31	0.06	1.33	9.49	0.15	1.14	8.87	1.49
2/16/2012	0.16	0.02	1.10	8.93	0.06	1.04	8.74	1.36
2/24/2012	0.18	0.04	1.09	8.96	0.11	1.04	8.74	1.36
na	na	na	na	na	na	na	na	na
<b>Four-Storm Average</b>	<b>0.39</b>	<b>0.05</b>	<b>1.26</b>	<b>9.50</b>	<b>0.13</b>	<b>1.15</b>	<b>9.07</b>	<b>1.50</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### IALL-B0355

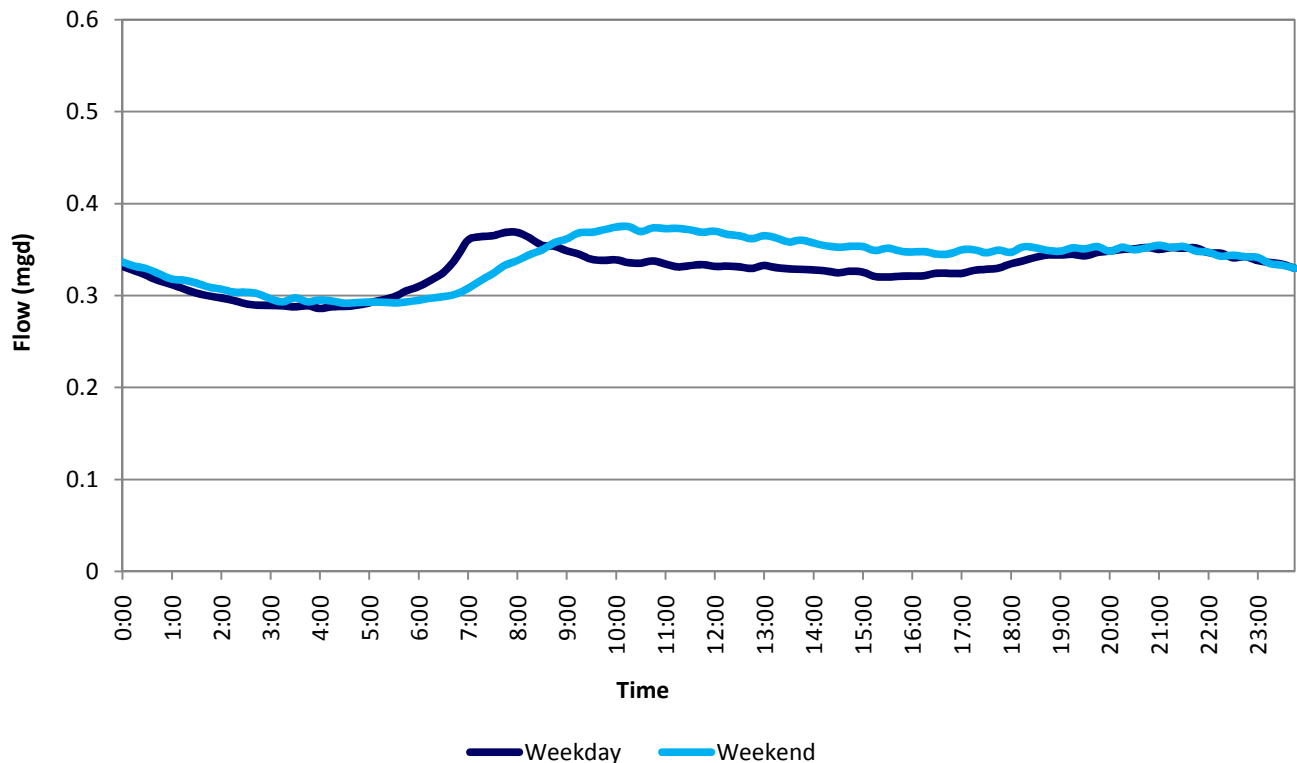
#### General Information

Site:	IALL-B0355
Description of Location:	Bartram Avenue and South 84th Street
Data Range:	7/1/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Island Avenue Lower Level
Drainage Area (Acres):	214
Service Population:	1,308

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.328	251	0.369	282	0.286	219	0.87	192
Weekend	0.338	259	0.375	287	0.292	223	0.86	90
<b>Total</b>	<b>0.331</b>	<b>253</b>	<b>0.371</b>	<b>283</b>	<b>0.288</b>	<b>220</b>	<b>0.87</b>	<b>282</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**IALL-B0355**

**General Information**

<b>Site:</b>	<b>IALL-B0355</b>
Description of Location:	Bartram Avenue and South 84th Street
Data Range:	7/1/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Island Avenue Lower Level
Drainage Area (Acres):	214
Service Population:	1,308

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
7/29/2013	4.41	0.57	7.11	109	1.56	6.54	107	19.7
8/13/2013	1.82	0.56	2.75	15.0	1.50	2.31	14.1	6.97
9/4/2012	2.62	0.51	2.47	45.6	1.45	1.64	44.3	4.95
9/2/2013	1.19	0.25	2.38	14.1	0.66	2.02	13.3	6.09
7/23/2013	0.26	0.24	2.18	91.6	0.26	1.63	87.0	4.92
<b>Five-Storm Average</b>	<b>2.06</b>	<b>0.43</b>	<b>3.38</b>	<b>55.1</b>	<b>1.09</b>	<b>2.83</b>	<b>53.1</b>	<b>8.53</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### IALL-B0810

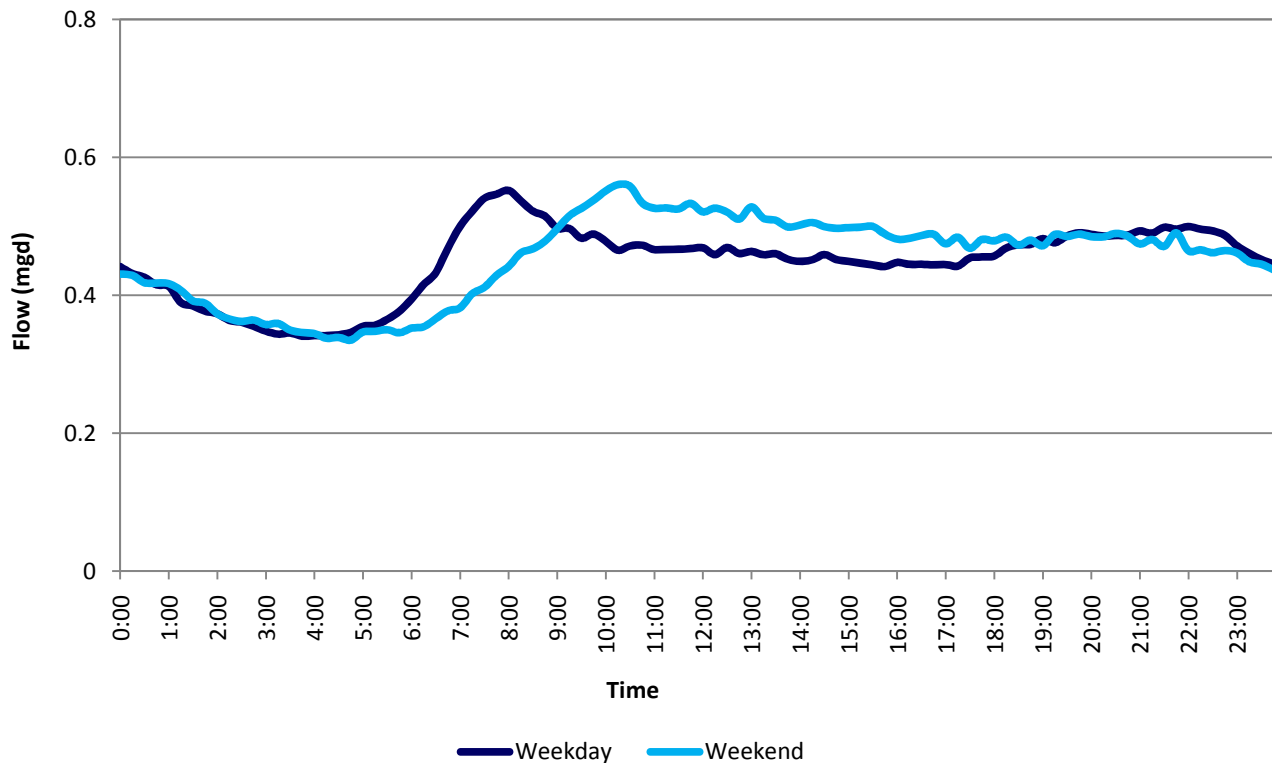
#### General Information

Site:	IALL-B0810
Description of Location:	3200 Island Avenue
Data Range:	1/7/2010 to 12/31/2010
Pipe Diameter:	20"
Interceptor:	Island Avenue Lower Level
Drainage Area (Acres):	211
Service Population:	3,779

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.448	119	0.552	146	0.341	90	0.76	177
Weekend	0.454	120	0.560	148	0.335	89	0.74	73
<b>Total</b>	<b>0.450</b>	<b>119</b>	<b>0.554</b>	<b>147</b>	<b>0.339</b>	<b>90</b>	<b>0.75</b>	<b>250</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**IALL-B0810**

**General Information**

<b>Site:</b>	<b>IALL-B0810</b>
Description of Location:	3200 Island Avenue
Data Range:	1/7/2010 to 12/31/2010
Pipe Diameter:	20"
Interceptor:	Island Avenue Lower Level
Drainage Area (Acres):	211
Service Population:	3,779

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/22/2010	1.95	0.68	2.36	38.4	1.50	2.13	33.0	4.74
7/14/2010	3.37	0.82	1.77	154	2.26	1.37	151	3.05
10/1/2010	5.47	0.54	1.62	81.6	1.45	1.28	81.2	2.85
1/25/2010	1.50	0.12	1.61	15.7	0.35	1.43	14.8	3.18
3/29/2010	1.98	0.17	1.58	20.0	0.49	1.34	20.0	2.98
<b>Five-Storm Average</b>	<b>2.85</b>	<b>0.47</b>	<b>1.79</b>	<b>61.9</b>	<b>1.21</b>	<b>1.51</b>	<b>60.0</b>	<b>3.36</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### IALL-B0862

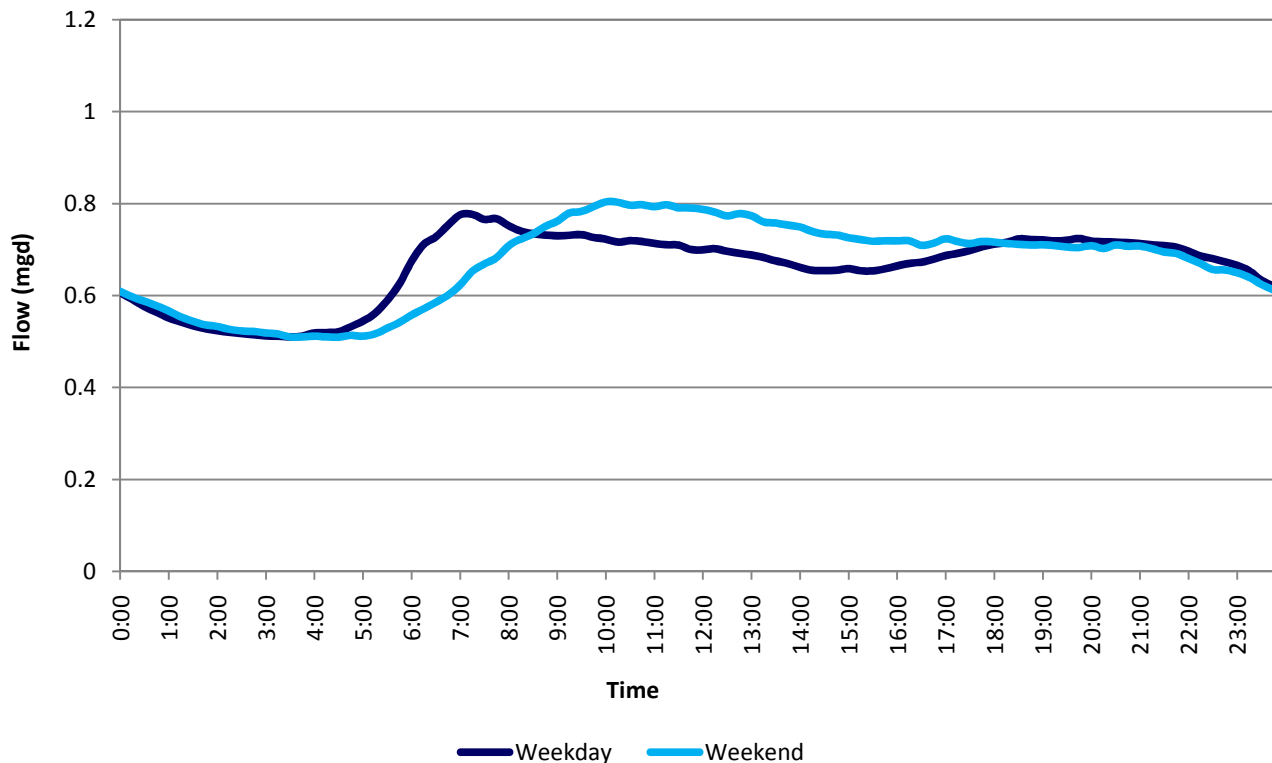
#### General Information

Site:	IALL-B0862
Description of Location:	Island Avenue
Data Range:	2/16/2002 to 9/9/2002
Pipe Diameter:	24"
Interceptor:	Island Avenue Lower Level
Drainage Area (Acres):	202
Service Population:	2,201

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.662	301	0.777	353	0.510	232	0.77	62
Weekend	0.671	305	0.804	365	0.509	231	0.76	31
<b>Total</b>	<b>0.665</b>	<b>302</b>	<b>0.786</b>	<b>357</b>	<b>0.510</b>	<b>232</b>	<b>0.77</b>	<b>93</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**IALL-B0862**

**General Information**

<b>Site:</b>	<b>IALL-B0862</b>
Description of Location:	Island Avenue
Data Range:	2/16/2002 to 9/9/2002
Pipe Diameter:	24"
Interceptor:	Island Avenue Lower Level
Drainage Area (Acres):	202
Service Population:	2,201

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/24/2002	0.63	0.43	2.08	10.4	0.63	1.77	9.65	2.66
6/27/2002	0.81	0.46	1.87	9.91	0.78	1.49	8.92	2.24
8/29/2002	1.15	0.19	1.72	9.56	0.37	1.49	8.95	2.24
6/19/2002	0.34	0.20	1.56	9.14	0.34	1.41	8.73	2.12
7/19/2002	0.62	0.47	1.51	9.00	0.57	1.34	8.53	2.01
<b>Five-Storm Average</b>	<b>0.71</b>	<b>0.35</b>	<b>1.75</b>	<b>9.60</b>	<b>0.54</b>	<b>1.50</b>	<b>8.96</b>	<b>2.26</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

M-0045

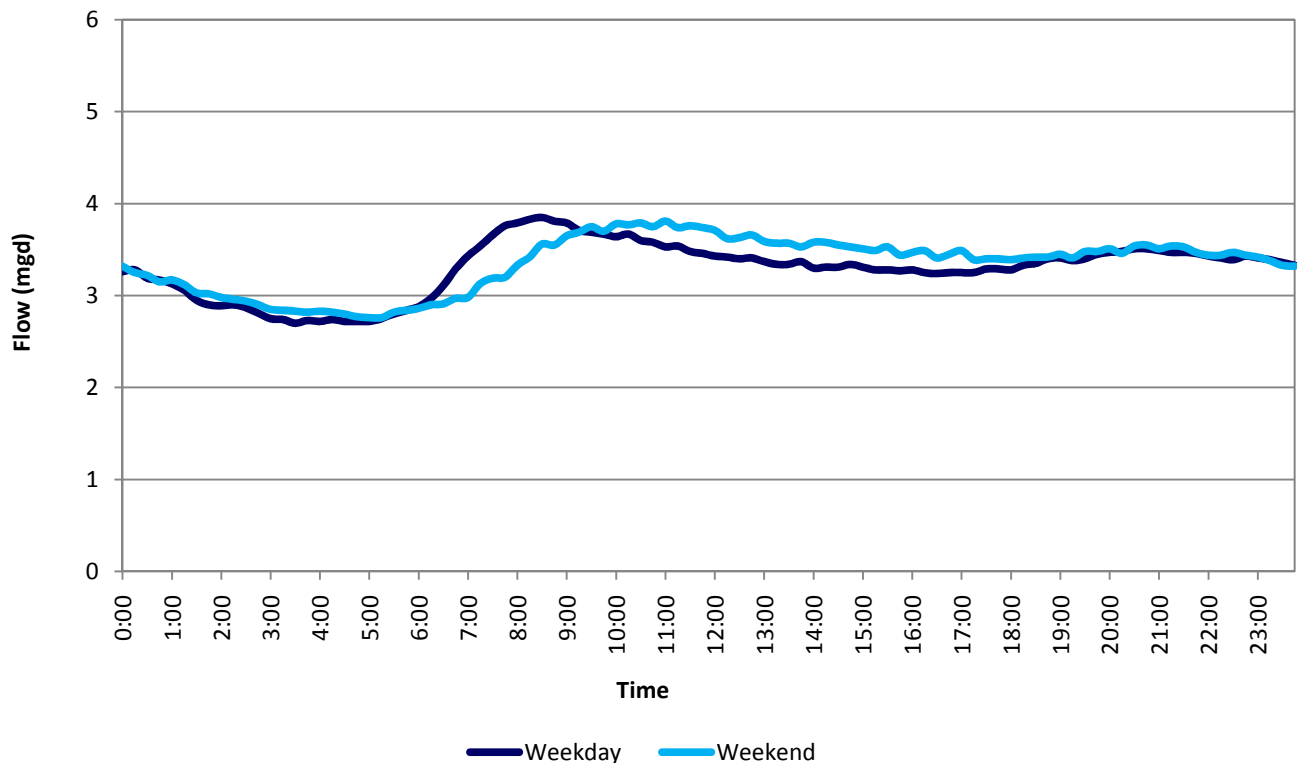
### General Information

Site:	M-0045
Description of Location:	Lincoln Drive and West Rittenhouse Street
Data Range:	6/1/2013 to 9/30/2013
Pipe Diameter:	30"
Interceptor:	Monoshone
Drainage Area (Acres):	868
Service Population:	15,682

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	3.29	210	3.85	246	2.70	172	0.82	47
Weekend	3.35	213	3.81	243	2.76	176	0.83	26
<b>Total</b>	<b>3.31</b>	<b>211</b>	<b>3.84</b>	<b>245</b>	<b>2.72</b>	<b>174</b>	<b>0.82</b>	<b>73</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**M-0045**

**General Information**

<b>Site:</b>	<b>M-0045</b>
Description of Location:	Lincoln Drive and West Rittenhouse Street
Data Range:	6/1/2013 to 9/30/2013
Pipe Diameter:	30"
Interceptor:	Monoshone
Drainage Area (Acres):	868
Service Population:	15,682

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/2/2013	0.70	0.18	43.1	28.8	0.42	27.7	21.2	8.36
9/13/2013	0.67	0.17	38.1	25.8	0.47	26.8	20.8	8.09
8/13/2013	2.25	0.60	35.5	36.0	1.36	25.9	22.4	7.82
6/27/2013	0.58	0.20	34.1	27.5	0.36	16.4	15.5	4.95
6/10/2013	1.72	0.33	32.3	29.9	0.64	24.3	28.3	7.34
<b>Five-Storm Average</b>	<b>1.18</b>	<b>0.30</b>	<b>36.6</b>	<b>29.6</b>	<b>0.65</b>	<b>24.2</b>	<b>21.6</b>	<b>7.31</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### W068-05-S0047

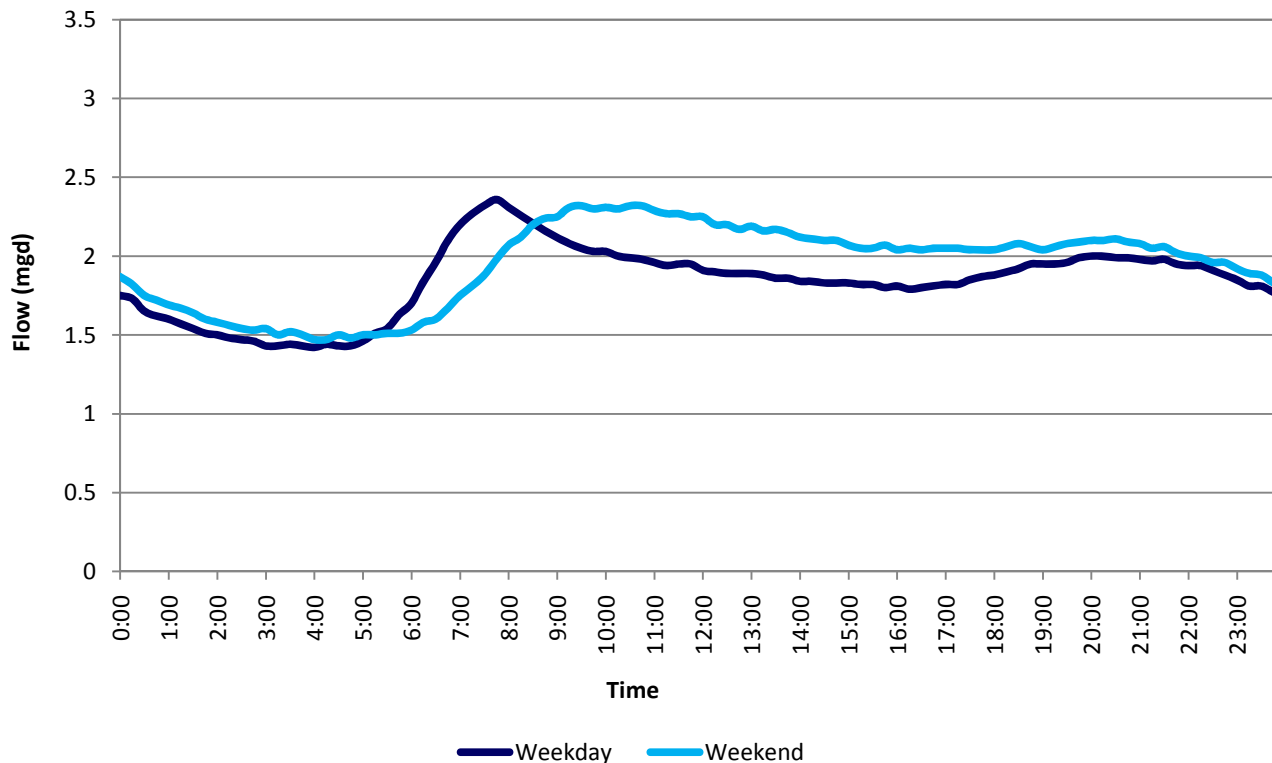
#### General Information

Site:	W068-05-S0047
Description of Location:	Across from 6502A Lincoln Drive
Data Range:	11/30/2011 to 12/3/2012
Pipe Diameter:	30"
Interceptor:	Monoshone
Drainage Area (Acres):	520
Service Population:	8,863

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.84	208	2.36	266	1.42	160	0.77	77
Weekend	1.95	220	2.32	262	1.47	166	0.75	34
<b>Total</b>	<b>1.87</b>	<b>211</b>	<b>2.35</b>	<b>265</b>	<b>1.44</b>	<b>162</b>	<b>0.77</b>	<b>111</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**W068-05-S0047**

**General Information**

<b>Site:</b>	<b>W068-05-S0047</b>
Description of Location:	Across from 6502A Lincoln Drive
Data Range:	11/30/2011 to 12/3/2012
Pipe Diameter:	30"
Interceptor:	Monoshone
Drainage Area (Acres):	520
Service Population:	8,863

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/1/2012	1.22	0.50	15.9	18.7	0.77	7.78	12.0	4.15
5/16/2012	1.31	0.32	15.2	16.8	0.88	11.8	13.8	6.30
7/20/2012	1.32	0.61	13.0	17.8	0.82	7.50	11.9	4.00
9/4/2012	0.43	0.17	11.1	18.2	0.31	5.15	10.7	2.75
10/29/2012	3.20	0.14	10.4	13.7	0.43	8.80	12.1	4.70
<b>Five-Storm Average</b>	<b>1.50</b>	<b>0.35</b>	<b>13.1</b>	<b>17.0</b>	<b>0.64</b>	<b>8.21</b>	<b>12.1</b>	<b>4.38</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### W068-05-S0078

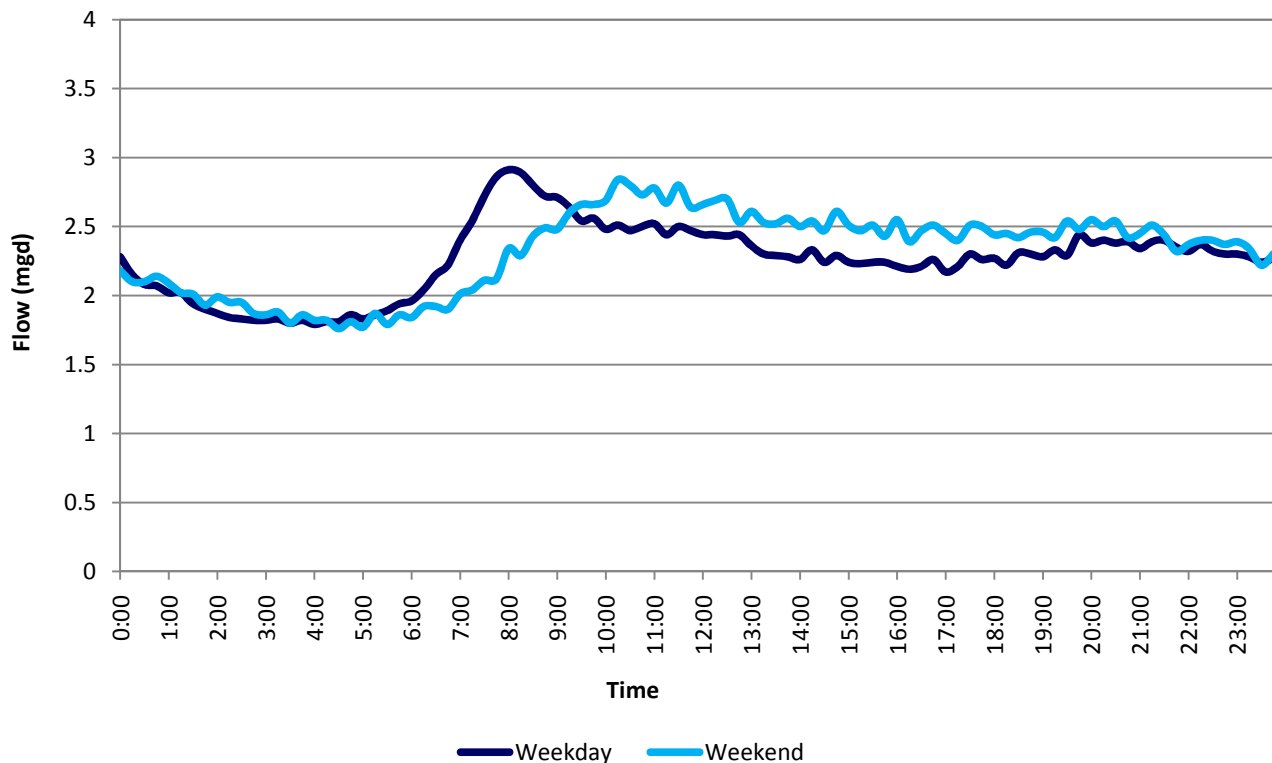
#### General Information

Site:	W068-05-S0078
Description of Location:	Monoshone Creek near Walnut Lane
Data Range:	10/17/2000 to 4/23/2001
Pipe Diameter:	30"
Interceptor:	Monoshone
Drainage Area (Acres):	691
Service Population:	11,780

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	2.26	192	2.91	247	1.79	152	0.79	31
Weekend	2.32	197	2.84	241	1.76	149	0.76	13
<b>Total</b>	<b>2.28</b>	<b>194</b>	<b>2.89</b>	<b>245</b>	<b>1.78</b>	<b>151</b>	<b>0.78</b>	<b>44</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**W068-05-S0078**

**General Information**

<b>Site:</b>	<b>W068-05-S0078</b>
Description of Location:	Monoshone Creek near Walnut Lane
Data Range:	10/17/2000 to 4/23/2001
Pipe Diameter:	30"
Interceptor:	Monoshone
Drainage Area (Acres):	691
Service Population:	11,780

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
4/9/2001	0.21	0.15	10.6	12.8	0.20	6.16	8.52	2.70
3/21/2001	0.80	0.07	6.42	8.71	0.20	5.52	7.93	2.42
11/26/2000	1.29	0.05	5.95	8.36	0.19	5.81	8.22	2.55
1/30/2001	0.79	0.08	5.29	7.96	0.23	4.62	7.31	2.03
3/13/2001	0.65	0.06	5.19	7.48	0.19	4.67	7.07	2.05
<b>Five-Storm Average</b>	<b>0.75</b>	<b>0.08</b>	<b>6.69</b>	<b>9.06</b>	<b>0.20</b>	<b>5.36</b>	<b>7.81</b>	<b>2.35</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**P108-17-S0010**

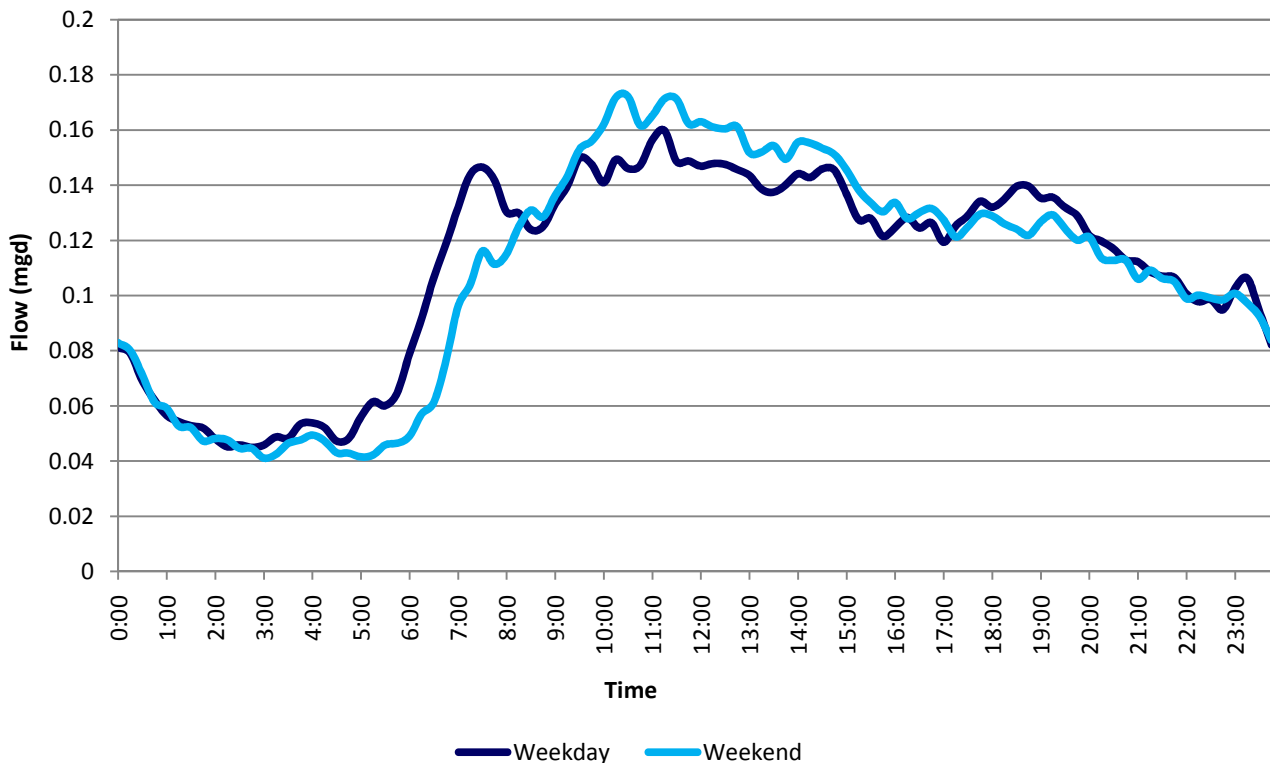
**General Information**

Site:	P108-17-S0010
Description of Location:	1093 Welsh Road
Data Range:	9/24/2010 to 9/29/2011
Pipe Diameter:	12"
Interceptor:	Paul's Run
Drainage Area (Acres):	79
Service Population:	675

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.110	163	0.160	237	0.0450	67	0.41	65
Weekend	0.109	161	0.172	255	0.0412	61	0.38	36
<b>Total</b>	<b>0.110</b>	<b>162</b>	<b>0.164</b>	<b>243</b>	<b>0.0436</b>	<b>65</b>	<b>0.40</b>	<b>101</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P108-17-S0010**

**General Information**

<b>Site:</b>	<b>P108-17-S0010</b>
Description of Location:	1093 Welsh Road
Data Range:	9/24/2010 to 9/29/2011
Pipe Diameter:	12"
Interceptor:	Paul's Run
Drainage Area (Acres):	79
Service Population:	675

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/14/2011	4.49	0.44	5.40	136	1.02	3.37	115	30.7
8/21/2011	2.53	0.78	4.88	116	1.24	1.88	96.8	17.1
8/27/2011	6.95	0.75	4.77	165	1.86	2.16	156	19.7
9/23/2011	1.84	0.44	4.59	75.6	0.98	2.13	66.2	19.4
9/28/2011	0.86	0.42	4.16	92.9	0.78	1.79	68.8	16.3
<b>Five-Storm Average</b>	<b>3.33</b>	<b>0.56</b>	<b>4.76</b>	<b>117</b>	<b>1.18</b>	<b>2.27</b>	<b>100</b>	<b>20.7</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

P113-04-S0463

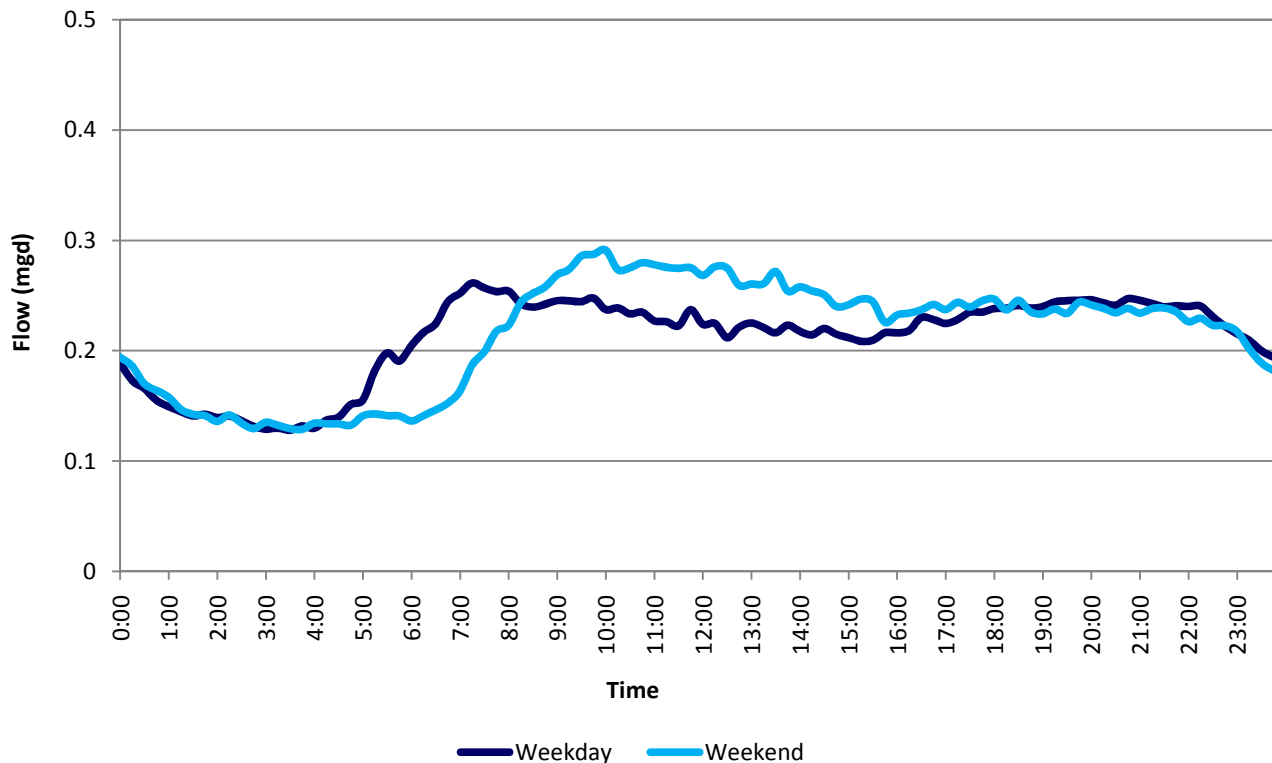
### General Information

Site:	P113-04-S0463
Description of Location:	Across from 10812 Gifford Avenue
Data Range:	11/29/2011 to 6/6/2012
Pipe Diameter:	12"
Interceptor:	Paul's Run
Drainage Area (Acres):	80
Service Population:	1,327

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.211	159	0.261	197	0.128	96	0.61	92
Weekend	0.215	162	0.291	219	0.129	97	0.60	43
<b>Total</b>	<b>0.212</b>	<b>160</b>	<b>0.271</b>	<b>204</b>	<b>0.128</b>	<b>97</b>	<b>0.60</b>	<b>135</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P113-04-S0463**

**General Information**

<b>Site:</b>	<b>P113-04-S0463</b>
Description of Location:	Across from 10812 Gifford Avenue
Data Range:	11/29/2011 to 6/6/2012
Pipe Diameter:	12"
Interceptor:	Paul's Run
Drainage Area (Acres):	80
Service Population:	1,327

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
5/16/2012	1.40	0.24	1.13	5.49	0.08	0.880	4.78	4.14
1/27/2012	0.50	0.13	0.981	5.40	0.27	0.573	3.96	2.70
1/12/2012	1.67	0.14	0.913	5.06	0.41	0.795	4.73	3.74
12/27/2011	0.62	0.13	0.828	4.42	0.21	0.577	3.88	2.72
12/31/2011	1.35	0.14	0.753	4.50	0.48	0.670	4.29	3.15
<b>Five-Storm Average</b>	<b>1.11</b>	<b>0.15</b>	<b>0.921</b>	<b>4.97</b>	<b>0.29</b>	<b>0.699</b>	<b>4.33</b>	<b>3.29</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

PR-0060

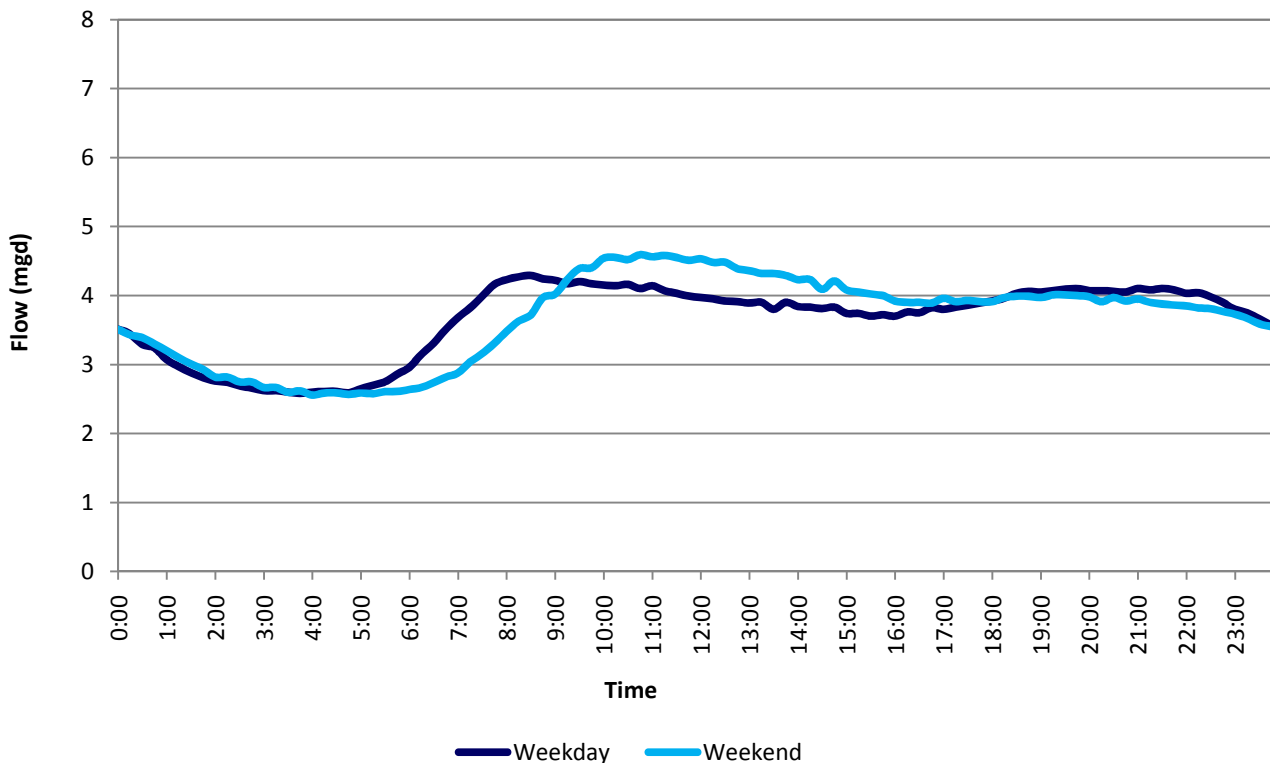
### General Information

Site:	PR-0060
Description of Location:	1015 Bloomfield Avenue
Data Range:	11/30/2011 to 12/6/2012
Pipe Diameter:	30"
Interceptor:	Paul's Run
Drainage Area (Acres):	1,421
Service Population:	23,030

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	3.65	159	4.29	186	2.58	112	0.71	207
Weekend	3.67	159	4.59	199	2.56	111	0.70	85
<b>Total</b>	<b>3.66</b>	<b>159</b>	<b>4.38</b>	<b>190</b>	<b>2.57</b>	<b>112</b>	<b>0.70</b>	<b>292</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PR-0060**

**General Information**

<b>Site:</b>	<b>PR-0060</b>
Description of Location:	1015 Bloomfield Avenue
Data Range:	11/30/2011 to 12/6/2012
Pipe Diameter:	30"
Interceptor:	Paul's Run
Drainage Area (Acres):	1,421
Service Population:	23,030

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/4/2012	3.00	0.61	20.7	80.9	1.06	20.2	71.6	5.54
5/16/2012	2.50	0.26	19.1	68.6	0.78	18.5	49.0	5.07
9/3/2012	1.22	0.25	18.8	40.9	0.64	18.4	38.2	5.03
7/15/2012	1.08	0.44	18.4	44.5	0.88	16.6	33.0	4.55
8/1/2012	1.32	0.49	18.4	78.9	1.28	18.0	50.6	4.91
<b>Five-Storm Average</b>	<b>1.83</b>	<b>0.41</b>	<b>19.1</b>	<b>62.8</b>	<b>0.93</b>	<b>18.3</b>	<b>48.5</b>	<b>5.02</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### PR-0150

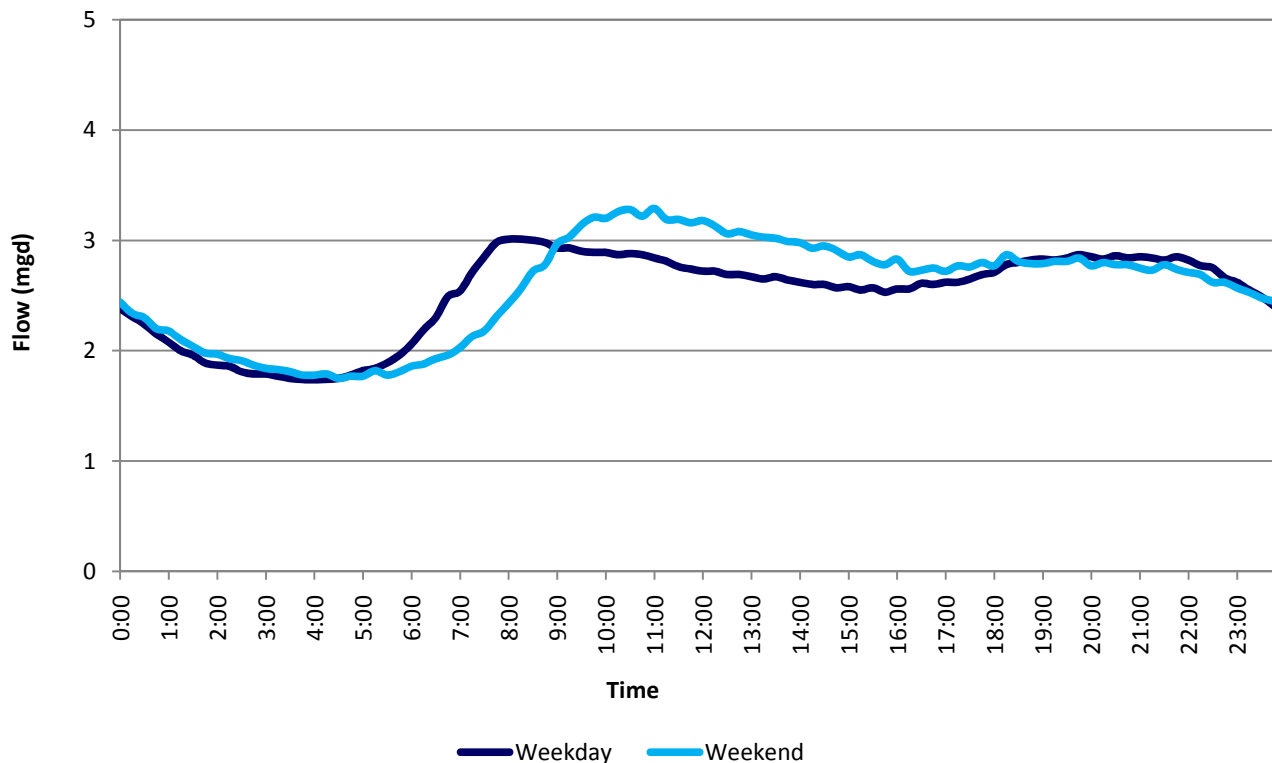
#### General Information

Site:	PR-0150
Description of Location:	South of Walley Avenue and Glenhope Road
Data Range:	10/20/2011 to 12/6/2012
Pipe Diameter:	27"
Interceptor:	Paul's Run
Drainage Area (Acres):	1,069
Service Population:	19,728

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	2.52	128	3.01	153	1.74	88	0.69	226
Weekend	2.57	130	3.29	167	1.75	89	0.68	97
<b>Total</b>	<b>2.53</b>	<b>128</b>	<b>3.09</b>	<b>157</b>	<b>1.74</b>	<b>88</b>	<b>0.69</b>	<b>323</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PR-0150**

**General Information**

<b>Site:</b>	<b>PR-0150</b>
Description of Location:	South of Walley Avenue and Glenhope Road
Data Range:	10/20/2011 to 12/6/2012
Pipe Diameter:	27"
Interceptor:	Paul's Run
Drainage Area (Acres):	1,069
Service Population:	19,728

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/3/2012	1.20	0.26	16.4	67.4	0.63	15.0	63.6	5.92
7/15/2012	1.09	0.45	15.9	93.3	0.89	14.9	65.0	5.90
12/7/2011	2.51	0.20	14.9	61.2	0.42	14.6	55.3	5.76
1/12/2012	1.67	0.14	14.9	61.9	0.42	14.4	52.7	5.67
7/20/2012	1.37	0.33	14.9	56.1	0.69	12.2	41.7	4.81
<b>Five-Storm Average</b>	<b>1.57</b>	<b>0.27</b>	<b>15.4</b>	<b>68.0</b>	<b>0.61</b>	<b>14.2</b>	<b>55.6</b>	<b>5.61</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

PR-B0405

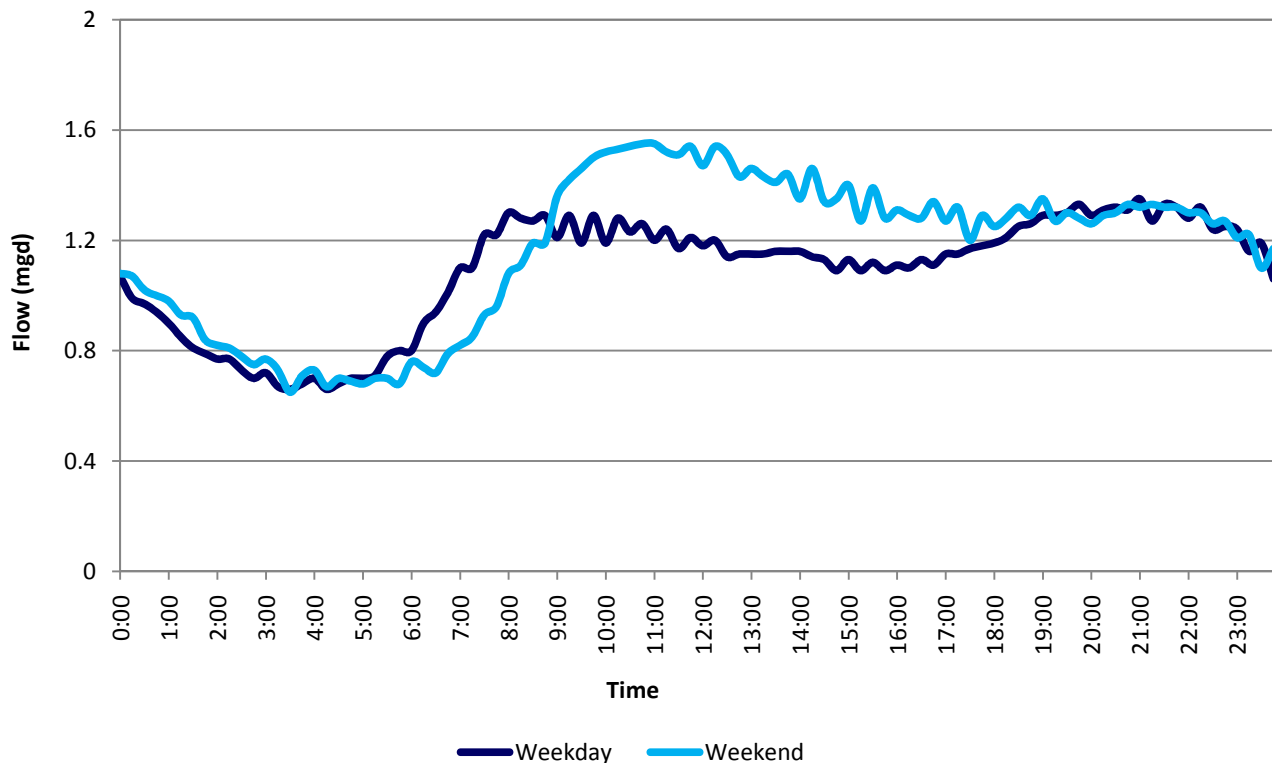
### General Information

Site:	PR-B0405
Description of Location:	Red Lion Road and Northeast Avenue
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Paul's Run
Drainage Area (Acres):	441
Service Population:	9,757

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.09	112	1.35	138	0.660	68	0.61	98
Weekend	1.17	120	1.55	159	0.650	67	0.56	43
<b>Total</b>	<b>1.11</b>	<b>114</b>	<b>1.41</b>	<b>145</b>	<b>0.657</b>	<b>67</b>	<b>0.59</b>	<b>141</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PR-B0405**

**General Information**

<b>Site:</b>	<b>PR-B0405</b>
Description of Location:	Red Lion Road and Northeast Avenue
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Paul's Run
Drainage Area (Acres):	441
Service Population:	9,757

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	2.20	0.68	8.88	114	1.50	8.30	99.7	7.45
9/21/2013	1.26	0.26	8.80	48.6	0.59	7.44	29.0	6.68
6/10/2013	1.93	0.40	8.08	47.8	0.63	7.23	32.1	6.49
6/3/2013	1.35	0.63	7.99	53.8	0.90	6.34	32.4	5.69
6/7/2013	3.83	0.34	7.89	67.4	0.72	7.43	45.1	6.67
<b>Five-Storm Average</b>	<b>2.11</b>	<b>0.46</b>	<b>8.33</b>	<b>66.3</b>	<b>0.87</b>	<b>7.35</b>	<b>47.7</b>	<b>6.60</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PR-B0455**

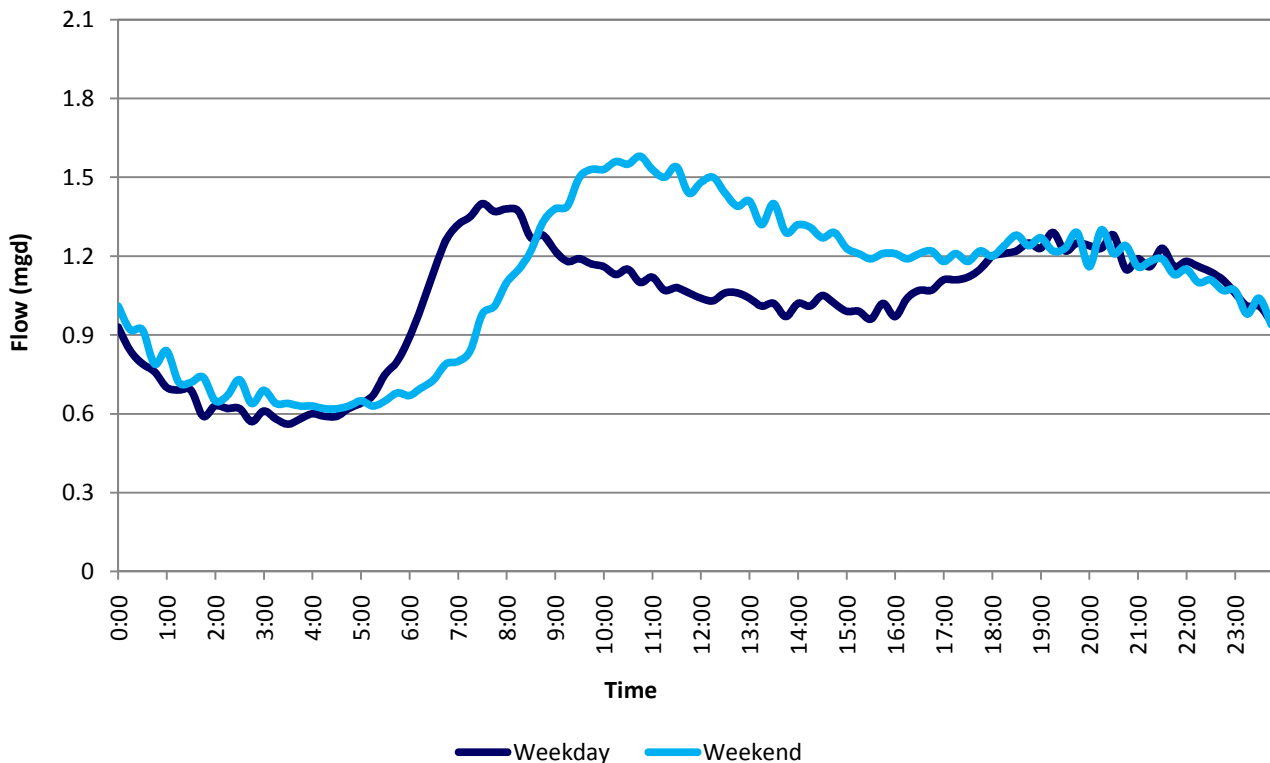
**General Information**

Site:	PR-B0455
Description of Location:	Gorman Street
Data Range:	8/9/1999 to 4/27/2000
Pipe Diameter:	24"
Interceptor:	Paul's Run
Drainage Area (Acres):	391
Service Population:	9,369

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	1.02	109	1.40	149	0.560	60	0.55	147
Weekend	1.10	117	1.58	169	0.620	66	0.57	66
<b>Total</b>	<b>1.04</b>	<b>111</b>	<b>1.46</b>	<b>155</b>	<b>0.579</b>	<b>62</b>	<b>0.55</b>	<b>213</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PR-B0455**

**General Information**

<b>Site:</b>	<b>PR-B0455</b>
Description of Location:	Gorman Street
Data Range:	8/9/1999 to 4/27/2000
Pipe Diameter:	24"
Interceptor:	Paul's Run
Drainage Area (Acres):	391
Service Population:	9,369

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/16/1999	6.47	0.28	7.55	101	0.79	7.34	99.0	7.04
8/14/1999	1.92	0.36	6.70	101	1.00	6.34	91.9	6.08
4/16/2000	0.38	0.18	6.16	13.7	0.31	4.52	13.1	4.34
8/26/1999	1.17	0.16	5.34	14.2	0.52	4.15	12.3	3.98
9/7/1999	0.68	0.11	4.98	13.8	0.27	3.64	11.1	3.49
<b>Five-Storm Average</b>	<b>2.12</b>	<b>0.22</b>	<b>6.15</b>	<b>48.7</b>	<b>0.58</b>	<b>5.20</b>	<b>45.5</b>	<b>4.99</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PR-B0540**

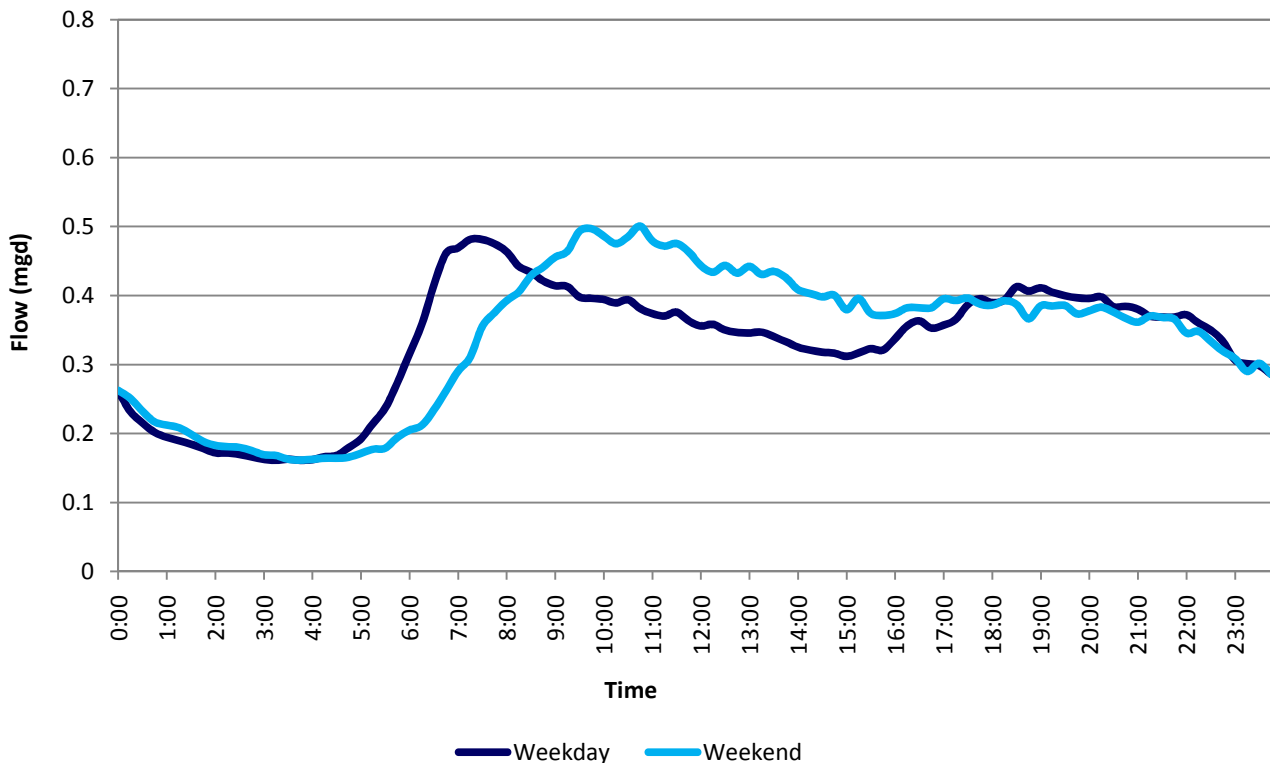
**General Information**

Site:	PR-B0540
Description of Location:	Bartlett Street at Lackman playground
Data Range:	7/11/2001 to 9/10/2002
Pipe Diameter:	15"
Interceptor:	Paul's Run
Drainage Area (Acres):	133
Service Population:	2,221

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.329	148	0.481	217	0.161	72	0.49	221
Weekend	0.338	152	0.500	225	0.162	73	0.48	100
<b>Total</b>	<b>0.332</b>	<b>149</b>	<b>0.487</b>	<b>219</b>	<b>0.161</b>	<b>73</b>	<b>0.49</b>	<b>321</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PR-B0540**

**General Information**

<b>Site:</b>	<b>PR-B0540</b>
Description of Location:	Bartlett Street at Lackman playground
Data Range:	7/11/2001 to 9/10/2002
Pipe Diameter:	15"
Interceptor:	Paul's Run
Drainage Area (Acres):	133
Service Population:	2,221

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/24/2002	0.55	0.31	2.25	7.42	0.53	1.61	6.04	4.85
6/6/2002	1.24	0.16	2.21	7.51	0.45	1.61	5.92	4.85
6/27/2002	0.55	0.34	2.21	7.62	0.52	1.46	5.62	4.40
8/2/2002	1.45	0.57	2.10	6.87	1.00	1.54	5.81	4.64
8/4/2001	0.54	0.25	2.02	7.21	0.53	1.34	5.03	4.04
<b>Five-Storm Average</b>	<b>0.87</b>	<b>0.33</b>	<b>2.16</b>	<b>7.33</b>	<b>0.61</b>	<b>1.51</b>	<b>5.68</b>	<b>4.56</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

P104-09-S0025

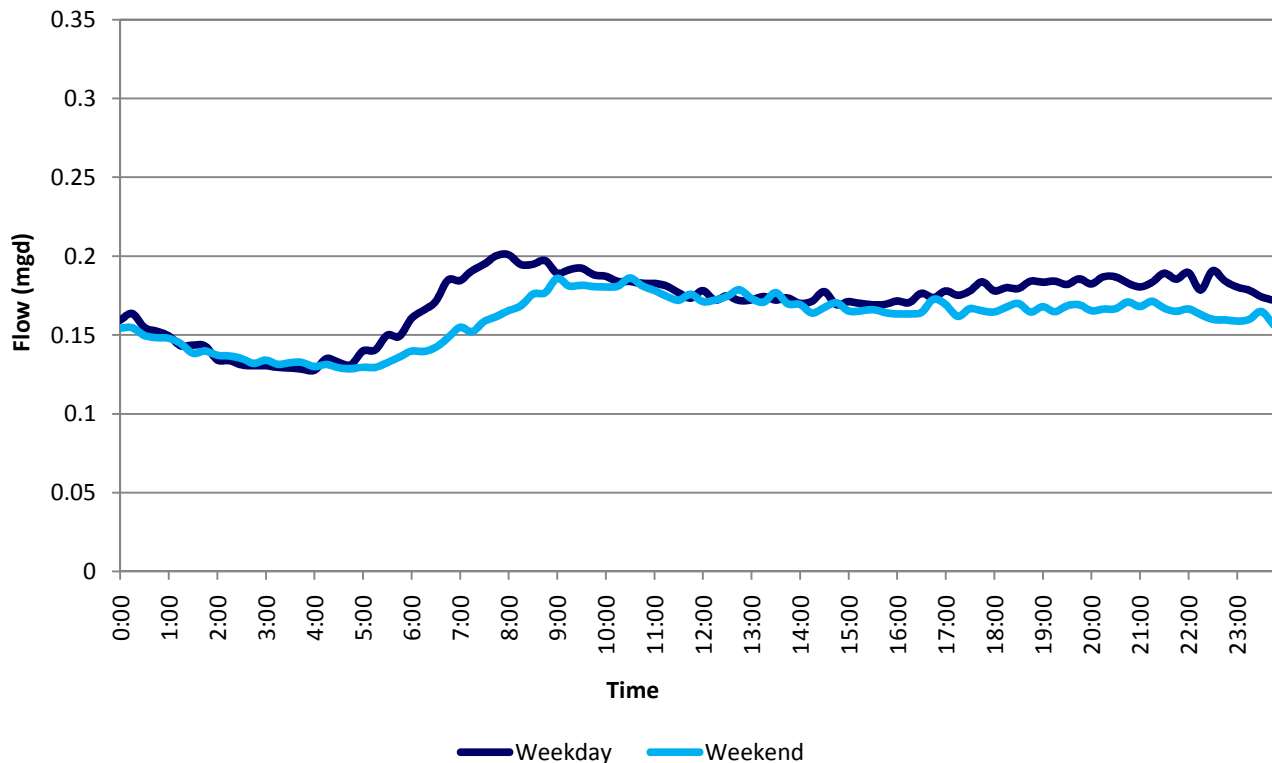
### General Information

Site:	P104-09-S0025
Description of Location:	8529 Algon Avenue
Data Range:	1/1/2011 to 6/30/2012
Pipe Diameter:	10"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	50
Service Population:	993

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.170	172	0.201	202	0.128	128	0.75	47
Weekend	0.160	161	0.186	188	0.129	130	0.80	44
<b>Total</b>	<b>0.165</b>	<b>167</b>	<b>0.194</b>	<b>195</b>	<b>0.128</b>	<b>129</b>	<b>0.78</b>	<b>91</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P104-09-S0025**

**General Information**

<b>Site:</b>	<b>P104-09-S0025</b>
Description of Location:	8529 Algon Avenue
Data Range:	1/1/2011 to 6/30/2012
Pipe Diameter:	10"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	50
Service Population:	993

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/27/2011	7.21	0.89	2.22	25.9	2.18	1.79	12.8	10.8
8/14/2011	4.85	0.35	1.40	8.29	1.06	0.810	5.76	4.90
9/23/2011	1.78	0.44	1.16	5.82	0.99	0.830	4.83	5.02
4/16/2011	2.74	0.32	1.02	8.24	0.82	0.800	6.87	4.84
12/8/2011	2.54	0.25	0.920	8.23	0.46	0.810	7.18	4.90
<b>Five-Storm Average</b>	<b>3.82</b>	<b>0.45</b>	<b>1.34</b>	<b>11.3</b>	<b>1.10</b>	<b>1.01</b>	<b>7.49</b>	<b>6.10</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

P105-06-S0035

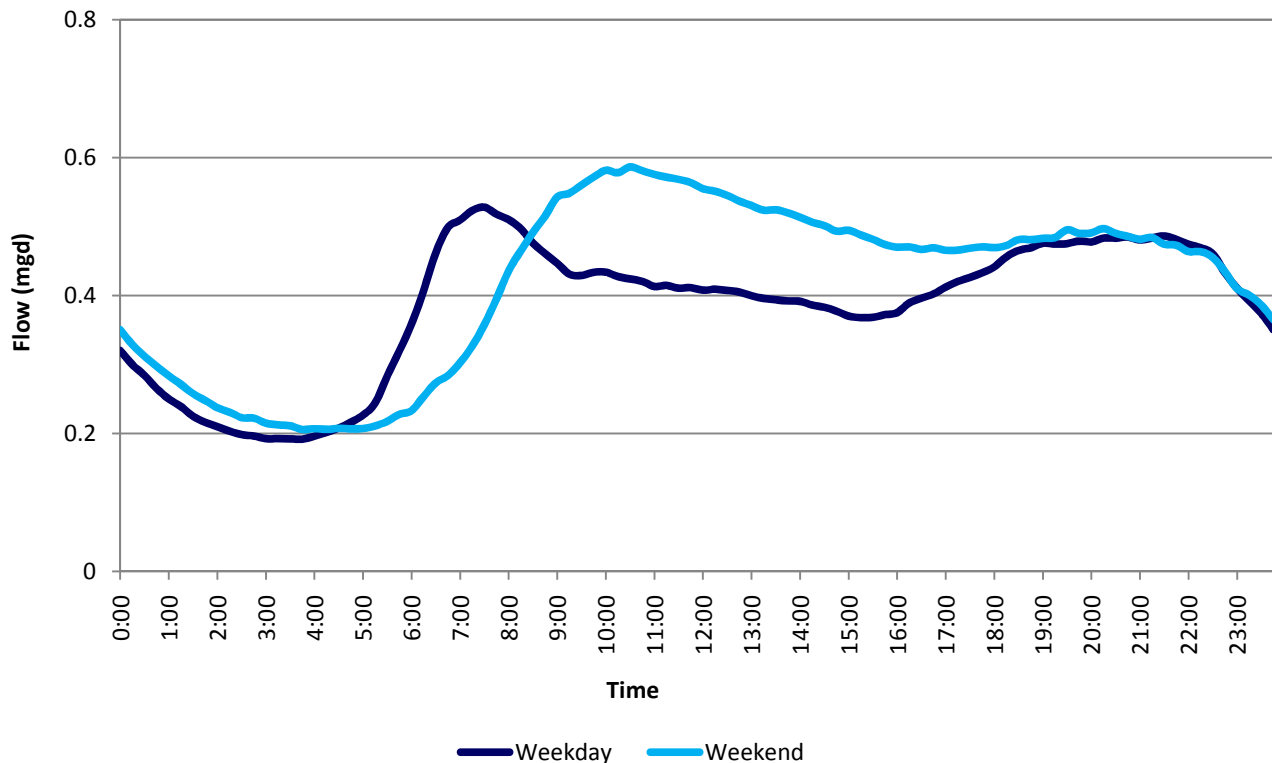
### General Information

Site:	P105-06-S0035
Description of Location:	Old Bustleton Avenue and Winchester Avenue
Data Range:	6/11/2010 to 6/13/2011
Pipe Diameter:	18"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	184
Service Population:	3,174

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.384	121	0.528	166	0.192	60	0.50	153
Weekend	0.417	132	0.586	185	0.206	65	0.49	68
<b>Total</b>	<b>0.394</b>	<b>124</b>	<b>0.546</b>	<b>172</b>	<b>0.196</b>	<b>62</b>	<b>0.50</b>	<b>221</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P105-06-S0035**

**General Information**

<b>Site:</b>	<b>P105-06-S0035</b>
Description of Location:	Old Bustleton Avenue and Winchester Avenue
Data Range:	6/11/2010 to 6/13/2011
Pipe Diameter:	18"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	184
Service Population:	3,174

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
7/13/2010	2.31	0.61	1.95	7.21	1.91	1.54	6.37	3.91
10/1/2010	4.65	0.57	1.63	6.70	1.30	1.53	6.37	3.88
8/22/2010	0.65	0.37	1.28	5.77	0.57	0.870	5.04	2.21
7/25/2010	0.70	0.42	1.04	5.27	0.64	0.804	4.76	2.04
4/16/2011	2.72	0.38	1.02	5.79	0.77	0.940	5.52	2.38
<b>Five-Storm Average</b>	<b>2.21</b>	<b>0.47</b>	<b>1.39</b>	<b>6.15</b>	<b>1.04</b>	<b>1.14</b>	<b>5.61</b>	<b>2.88</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PP-0215**

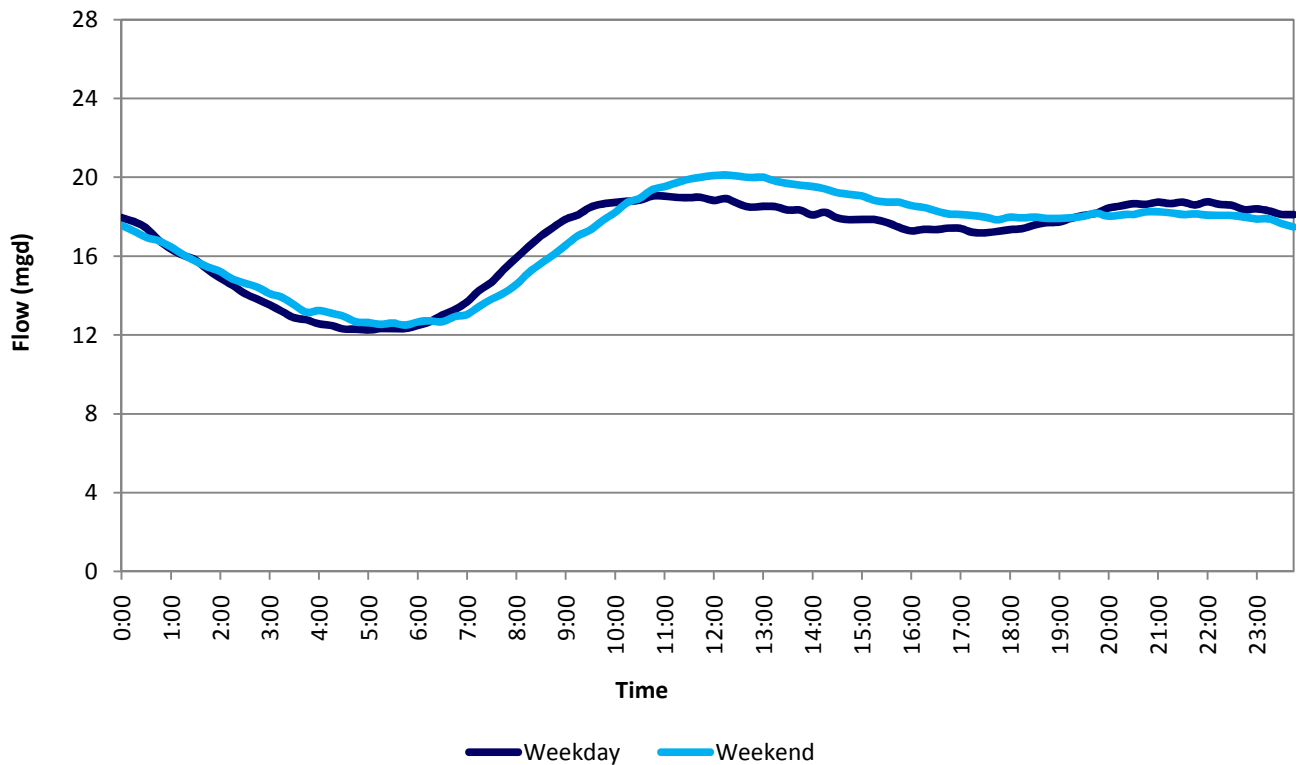
**General Information**

<b>Site:</b>	<b>PP-0215</b>
Description of Location:	Rowland Avenue at Hartel Avenue
Data Range:	6/6/2013 to 9/30/2013
Pipe Diameter:	63" X 54"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	10,986
Service Population:	115,729

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	16.8	145	19.1	165	12.3	106	0.73	55
Weekend	17.0	147	20.1	174	12.5	108	0.74	27
<b>Total</b>	<b>16.8</b>	<b>146</b>	<b>19.4</b>	<b>168</b>	<b>12.3</b>	<b>107</b>	<b>0.73</b>	<b>82</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PP-0215**

**General Information**

<b>Site:</b>	<b>PP-0215</b>
Description of Location:	Rowland Avenue at Hartel Avenue
Data Range:	6/6/2013 to 9/30/2013
Pipe Diameter:	63" X 54"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	10,986
Service Population:	115,729

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	2.26	0.66	91.2	57.6	1.46	87.2	55.7	5.18
6/7/2013	3.88	0.27	70.4	47.3	0.75	66.3	46.9	3.94
7/23/2013	1.16	0.39	64.6	48.6	0.78	63.2	48.3	3.75
6/10/2013	1.93	0.36	62.4	46.3	0.63	61.2	45.8	3.63
9/2/2013	0.86	0.27	56.6	44.9	0.67	56.1	44.7	3.33
<b>Five-Storm Average</b>	<b>2.02</b>	<b>0.39</b>	<b>69.0</b>	<b>48.9</b>	<b>0.86</b>	<b>66.8</b>	<b>48.3</b>	<b>3.97</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PP-B0650**

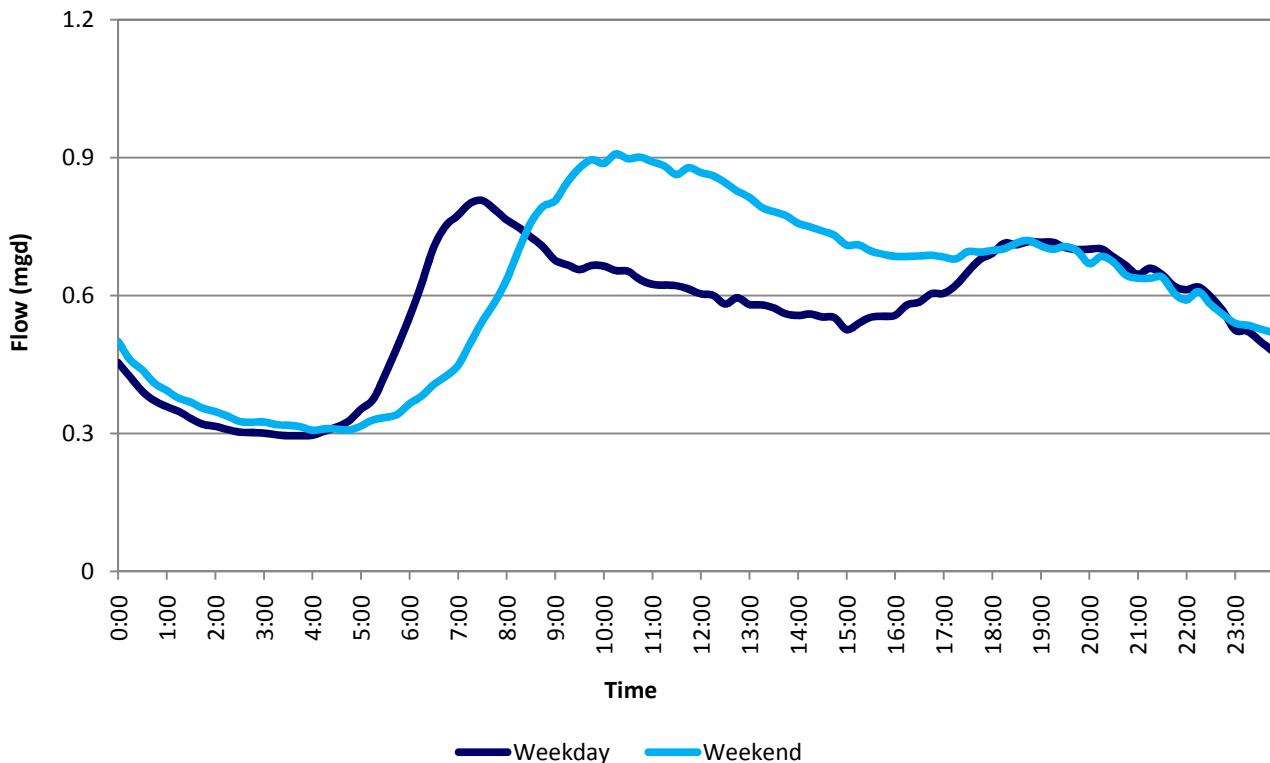
**General Information**

Site:	PP-B0650
Description of Location:	Holmes Avenue
Data Range:	8/12/1999 to 4/28/2000
Pipe Diameter:	15"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	181
Service Population:	5,372

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.564	105	0.806	150	0.295	55	0.52	122
Weekend	0.611	114	0.908	169	0.308	57	0.50	59
<b>Total</b>	<b>0.580</b>	<b>108</b>	<b>0.839</b>	<b>156</b>	<b>0.299</b>	<b>56</b>	<b>0.52</b>	<b>181</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PP-B0650**

**General Information**

<b>Site:</b>	<b>PP-B0650</b>
Description of Location:	Holmes Avenue
Data Range:	8/12/1999 to 4/28/2000
Pipe Diameter:	15"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	181
Service Population:	5,372

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/16/1999	6.48	0.31	3.66	83.1	1.00	3.53	82.9	6.09
8/14/1999	1.71	0.40	3.05	39.1	1.08	2.97	34.8	5.12
8/26/1999	1.12	0.18	2.76	21.7	0.60	2.75	19.6	4.75
3/21/2000	1.53	0.07	2.70	14.3	0.24	2.56	14.0	4.42
4/16/2000	0.28	0.13	2.64	13.5	0.21	2.31	12.3	3.99
<b>Five-Storm Average</b>	<b>2.22</b>	<b>0.22</b>	<b>2.96</b>	<b>34.3</b>	<b>0.63</b>	<b>2.82</b>	<b>32.7</b>	<b>4.87</b>



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PP-B0790**

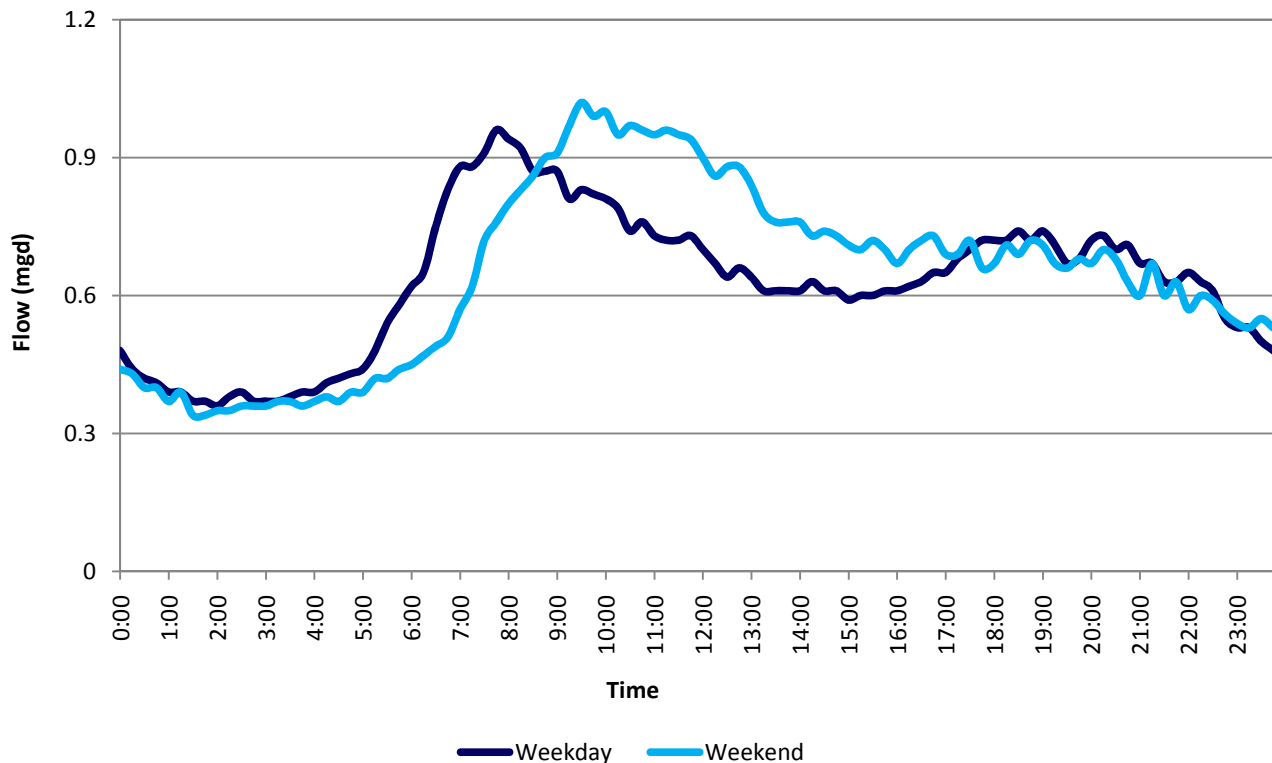
**General Information**

Site:	PP-B0790
Description of Location:	Roosevelt Boulevard
Data Range:	8/10/1999 to 4/10/2000
Pipe Diameter:	15"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	187
Service Population:	4,893

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.628	128	0.960	196	0.360	74	0.57	101
Weekend	0.645	132	1.02	208	0.340	69	0.53	51
<b>Total</b>	<b>0.634</b>	<b>129</b>	<b>0.980</b>	<b>200</b>	<b>0.353</b>	<b>72</b>	<b>0.56</b>	<b>152</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PP-B0790**

**General Information**

<b>Site:</b>	<b>PP-B0790</b>
Description of Location:	Roosevelt Boulevard
Data Range:	8/10/1999 to 4/10/2000
Pipe Diameter:	15"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	187
Service Population:	4,893

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/16/1999	6.48	0.31	5.78	110	1.00	4.81	109	7.59
8/14/1999	1.71	0.40	5.51	94.7	1.08	3.69	51.4	5.82
8/26/1999	1.12	0.18	5.29	57.6	0.60	3.54	30.4	5.59
11/2/1999	1.19	0.30	3.04	29.0	0.48	2.08	10.7	3.28
9/9/1999	0.99	0.22	2.73	7.89	0.38	2.21	6.45	3.49
<b>Five-Storm Average</b>	<b>2.30</b>	<b>0.28</b>	<b>4.47</b>	<b>59.8</b>	<b>0.71</b>	<b>3.27</b>	<b>41.6</b>	<b>5.15</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### PP-B0790

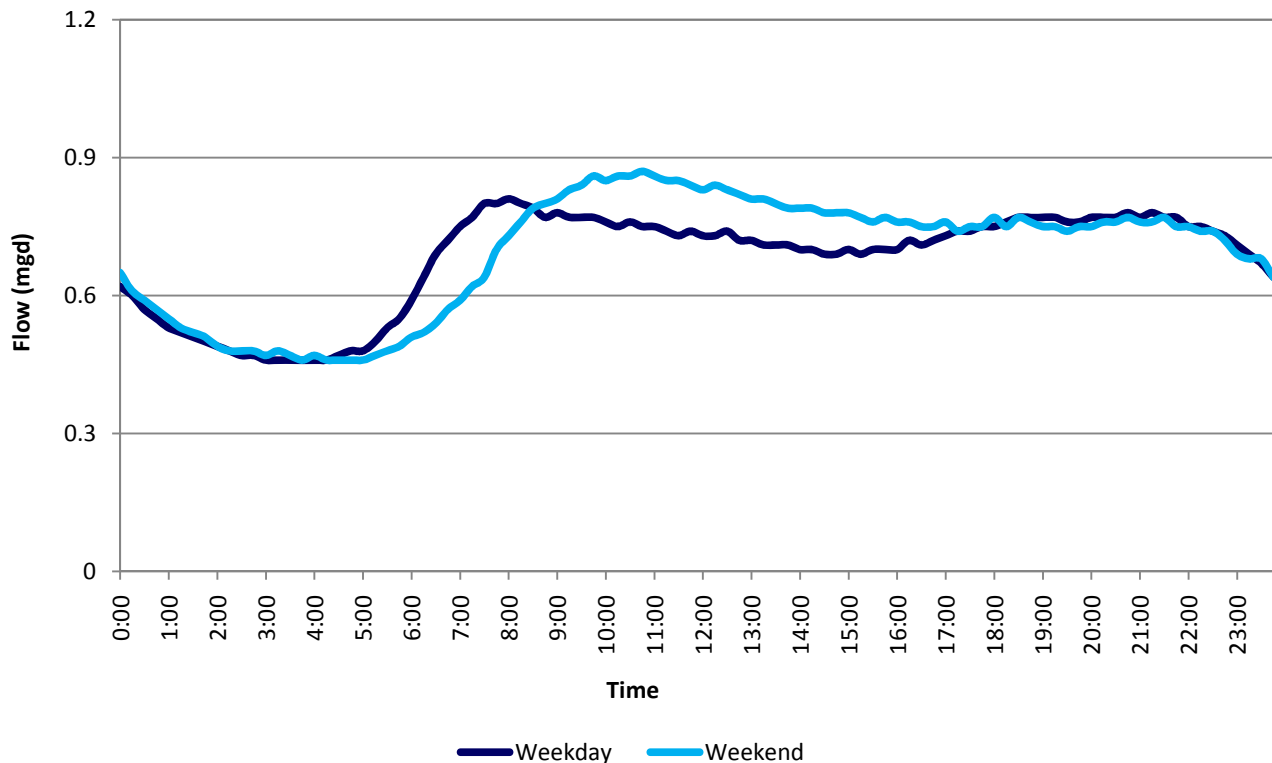
#### General Information

Site:	PP-B0790
Description of Location:	Roosevelt Boulevard
Data Range:	3/14/2013 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	187
Service Population:	4,893

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.679	139	0.810	166	0.460	94	0.68	96
Weekend	0.693	142	0.870	178	0.460	94	0.66	47
<b>Total</b>	<b>0.684</b>	<b>140</b>	<b>0.830</b>	<b>170</b>	<b>0.460</b>	<b>94</b>	<b>0.67</b>	<b>143</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PP-B0790**

**General Information**

<b>Site:</b>	<b>PP-B0790</b>
Description of Location:	Roosevelt Boulevard
Data Range:	3/14/2013 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	187
Service Population:	4,893

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/10/2013	1.99	0.49	5.97	13.3	0.74	4.45	10.1	6.51
6/7/2013	4.07	0.37	5.47	25.9	0.92	3.79	12.2	5.54
9/21/2013	1.21	0.25	4.28	14.3	0.53	2.63	7.96	3.85
6/27/2013	0.76	0.18	3.91	8.90	0.49	2.90	7.21	4.24
9/2/2013	1.38	0.58	3.29	8.52	1.23	2.50	6.97	3.66
<b>Five-Storm Average</b>	<b>1.88</b>	<b>0.37</b>	<b>4.58</b>	<b>14.2</b>	<b>0.78</b>	<b>3.25</b>	<b>8.89</b>	<b>4.76</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### PP-B0840

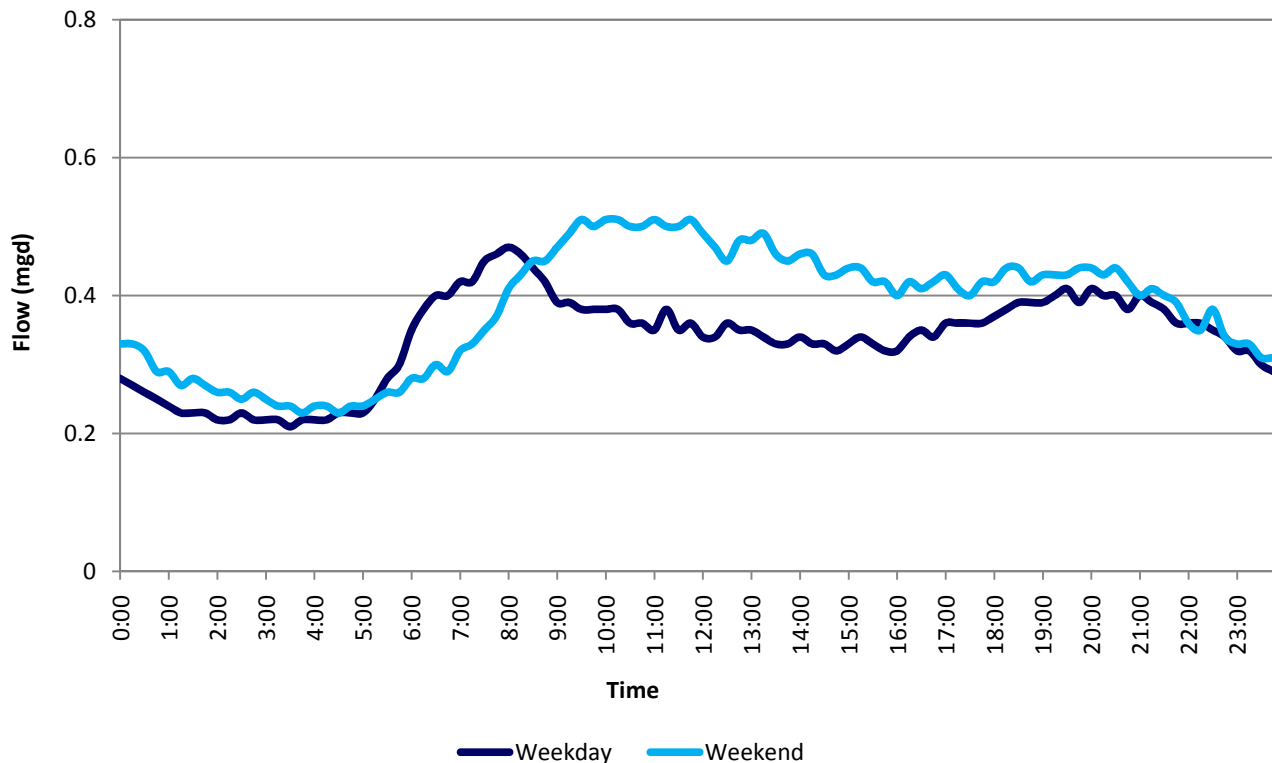
#### General Information

Site:	PP-B0840
Description of Location:	Krewstown Road
Data Range:	10/1/2004 to 5/18/2005
Pipe Diameter:	24"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	338
Service Population:	7,121

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.336	47	0.470	66	0.210	29	0.62	43
Weekend	0.382	54	0.510	72	0.230	32	0.60	18
<b>Total</b>	<b>0.350</b>	<b>49</b>	<b>0.482</b>	<b>68</b>	<b>0.216</b>	<b>30</b>	<b>0.62</b>	<b>61</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PP-B0840**

**General Information**

<b>Site:</b>	<b>PP-B0840</b>
Description of Location:	Krewstown Road
Data Range:	10/1/2004 to 5/18/2005
Pipe Diameter:	24"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	338
Service Population:	7,121

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/16/1999	6.48	0.31	7.54	156	1.00	6.82	156	19.5
9/9/1999	1.00	0.22	3.94	16.4	0.38	2.60	12.4	7.43
4/21/2000	0.61	0.19	3.93	14.6	0.22	2.58	11.1	7.38
4/16/2000	0.28	0.13	3.92	14.9	0.21	2.35	10.9	6.72
3/16/2000	1.32	0.08	3.87	13.40	0.26	2.76	11.2	7.89
<b>Five-Storm Average</b>	<b>1.94</b>	<b>0.19</b>	<b>4.64</b>	<b>43.1</b>	<b>0.41</b>	<b>3.42</b>	<b>40.3</b>	<b>9.78</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PP-B1035**

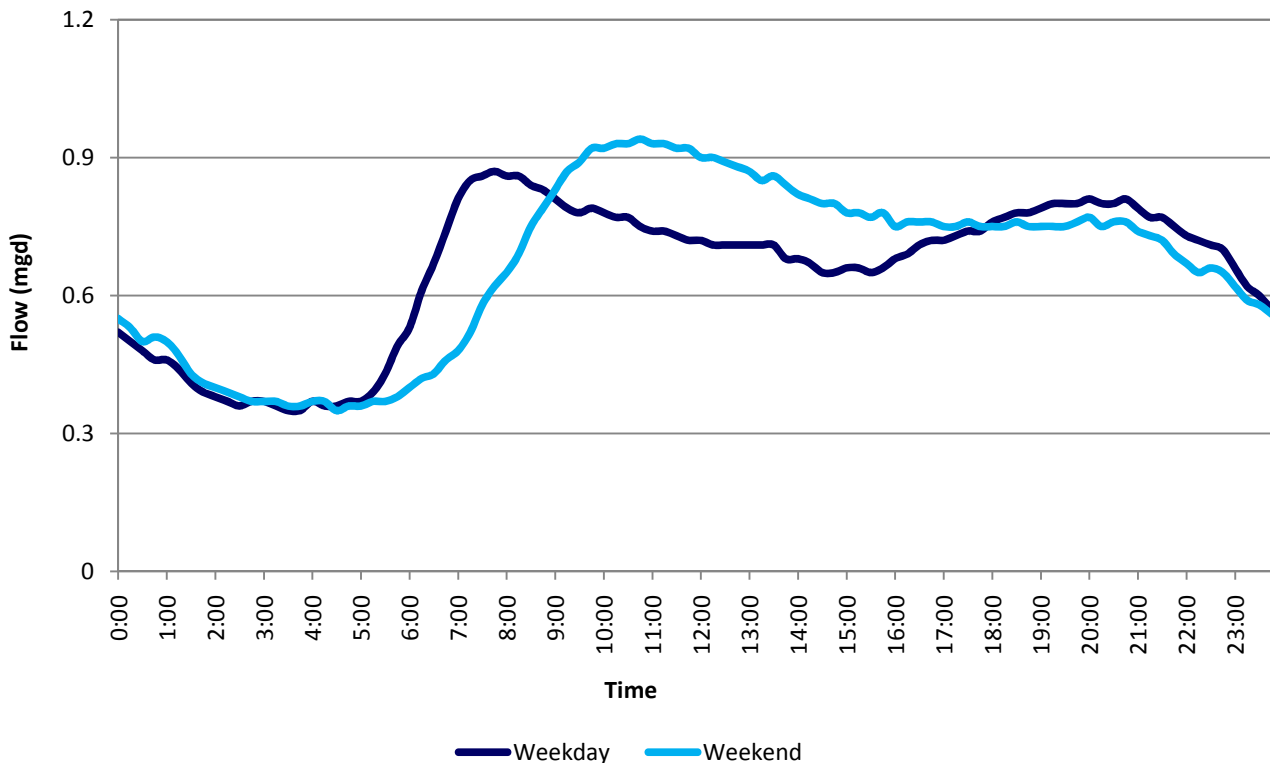
**General Information**

Site:	PP-B1035
Description of Location:	Pennypack Park off Pine Road
Data Range:	3/9/2013 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	392
Service Population:	4,469

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.654	146	0.870	195	0.350	78	0.54	118
Weekend	0.665	149	0.940	210	0.350	78	0.53	54
<b>Total</b>	<b>0.657</b>	<b>147</b>	<b>0.892</b>	<b>200</b>	<b>0.350</b>	<b>78</b>	<b>0.53</b>	<b>172</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PP-B1035**

**General Information**

<b>Site:</b>	<b>PP-B1035</b>
Description of Location:	Pennypack Park off Pine Road
Data Range:	3/9/2013 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	392
Service Population:	4,469

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	2.25	0.76	3.13	12.4	1.54	2.61	9.66	3.97
6/10/2013	1.94	0.30	2.43	8.09	0.60	2.31	7.91	3.51
9/2/2013	1.28	0.78	2.29	10.0	1.14	1.73	7.57	2.63
6/7/2013	3.95	0.23	2.22	9.82	0.69	2.19	9.35	3.33
6/27/2013	1.00	0.30	2.06	9.41	0.59	1.86	8.77	2.83
<b>Five-Storm Average</b>	<b>2.08</b>	<b>0.47</b>	<b>2.43</b>	<b>9.94</b>	<b>0.91</b>	<b>2.14</b>	<b>8.65</b>	<b>3.26</b>



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PP-B1080**

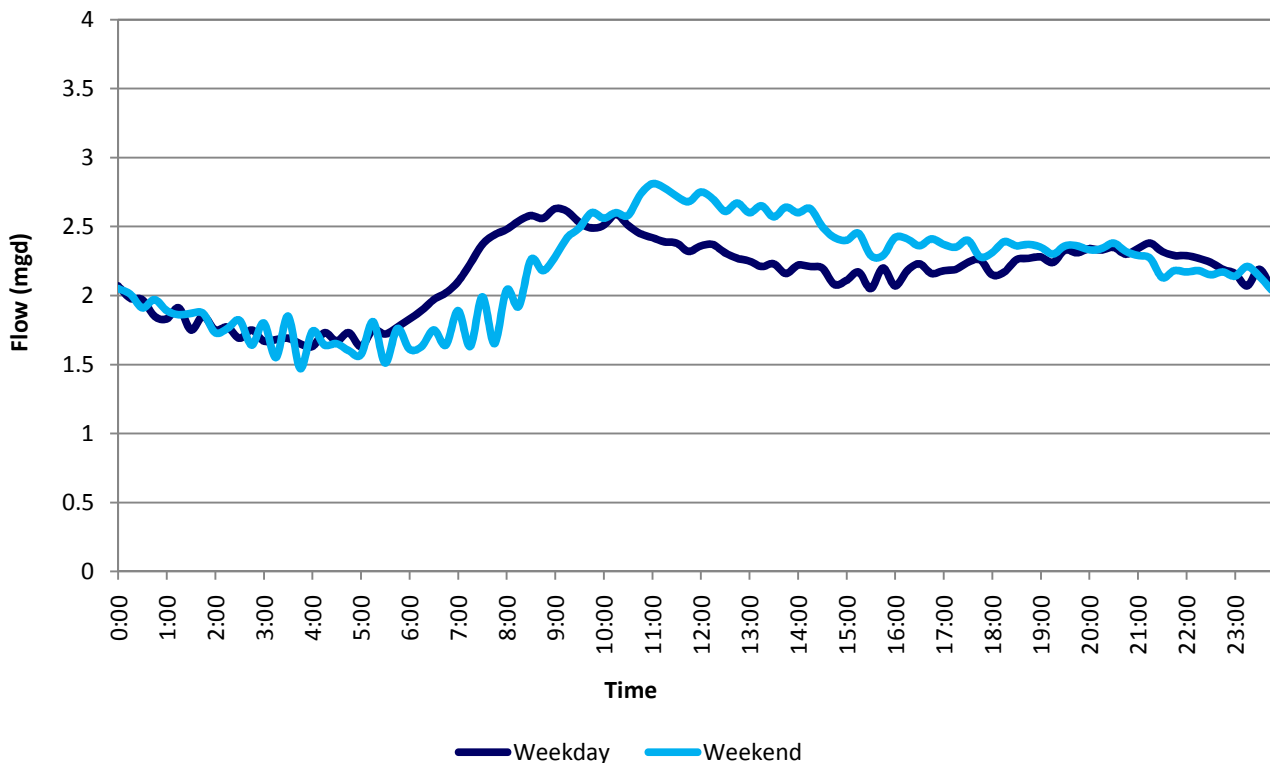
**General Information**

Site:	PP-B1080
Description of Location:	Pennypack Park parking area
Data Range:	1/27/2012 to 3/19/2012
Pipe Diameter:	24"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	2,549
Service Population:	11,596

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	2.15	185	2.63	227	1.63	141	0.76	28
Weekend	2.19	188	2.81	242	1.47	127	0.67	11
<b>Total</b>	<b>2.16</b>	<b>186</b>	<b>2.68</b>	<b>231</b>	<b>1.58</b>	<b>137</b>	<b>0.73</b>	<b>39</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PP-B1080**

**General Information**

<b>Site:</b>	<b>PP-B1080</b>
Description of Location:	Pennypack Park parking area
Data Range:	1/27/2012 to 3/19/2012
Pipe Diameter:	24"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	2,549
Service Population:	11,596

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
2/29/2012	0.96	0.08	4.10	14.7	0.18	3.70	13.9	1.71
3/3/2012	0.35	0.04	3.71	13.1	0.10	3.39	12.8	1.57
2/11/2012	0.20	0.03	3.60	13.0	0.08	3.35	12.8	1.55
2/1/2012	0.06	0.02	3.56	13.0	0.05	3.33	12.7	1.54
3/13/2012	0.10	0.02	3.46	12.7	0.07	2.75	11.4	1.27
<b>Five-Storm Average</b>	<b>0.34</b>	<b>0.04</b>	<b>3.69</b>	<b>13.3</b>	<b>0.10</b>	<b>3.30</b>	<b>12.7</b>	<b>1.53</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### PP-B1215

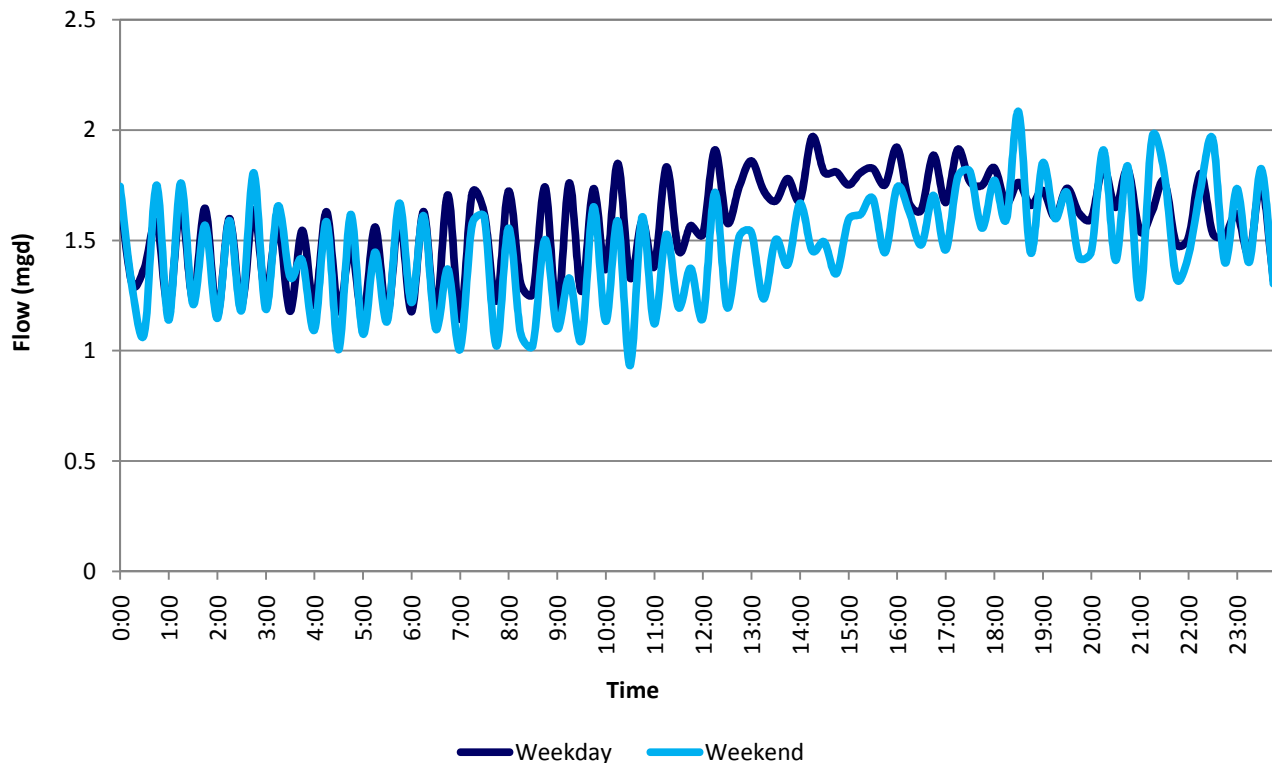
#### General Information

Site:	PP-B1215
Description of Location:	Bartlett Street
Data Range:	11/3/1999 to 6/12/2000
Pipe Diameter:	21"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	2,225
Service Population:	9,181

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.58	172	1.97	214	1.14	124	0.72	112
Weekend	1.47	160	2.08	227	0.933	102	0.64	47
<b>Total</b>	<b>1.54</b>	<b>168</b>	<b>2.00</b>	<b>218</b>	<b>1.08</b>	<b>118</b>	<b>0.70</b>	<b>159</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PP-B1215**

**General Information**

<b>Site:</b>	<b>PP-B1215</b>
Description of Location:	Bartlett Street
Data Range:	11/3/1999 to 6/12/2000
Pipe Diameter:	21"
Interceptor:	Pennypack Creek
Drainage Area (Acres):	2,225
Service Population:	9,181

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
3/21/2000	1.87	0.08	4.70	13.9	0.30	4.44	13.0	2.88
2/19/2000	1.29	0.07	4.53	11.9	0.20	3.99	11.4	2.58
2/14/2000	0.64	0.12	4.31	12.3	0.20	3.67	11.1	2.38
4/17/2000	0.72	0.04	4.11	12.2	0.10	3.23	10.9	2.09
4/21/2000	0.52	0.13	4.10	11.4	0.25	3.21	10.2	2.08
<b>Five-Storm Average</b>	<b>1.01</b>	<b>0.09</b>	<b>4.35</b>	<b>12.3</b>	<b>0.21</b>	<b>3.71</b>	<b>11.3</b>	<b>2.40</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### PC-0010

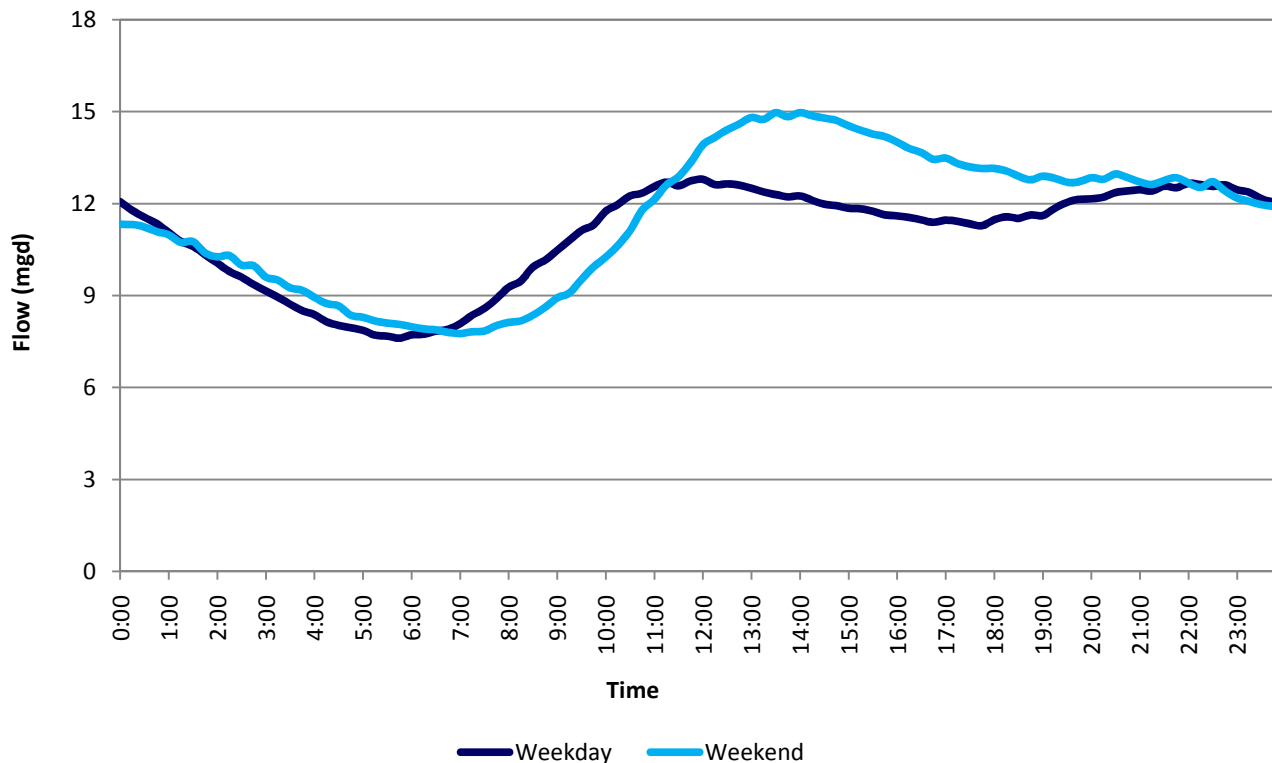
#### General Information

Site:	PC-0010
Description of Location:	Fleuhr Park Grant Avenue Entrance
Data Range:	7/29/2008 to 1/31/2010
Pipe Diameter:	60"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	10,349
Service Population:	74,868

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	11.0	146	12.8	171	7.61	102	0.69	155
Weekend	11.5	154	15.0	200	7.76	104	0.67	49
<b>Total</b>	<b>11.1</b>	<b>148</b>	<b>13.3</b>	<b>178</b>	<b>7.65</b>	<b>102</b>	<b>0.69</b>	<b>204</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PC-0010**

**General Information**

<b>Site:</b>	<b>PC-0010</b>
Description of Location:	Fleuhr Park Grant Avenue Entrance
Data Range:	7/29/2008 to 1/31/2010
Pipe Diameter:	60"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	10,349
Service Population:	74,868

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
1/25/2010	1.69	0.15	55.6	148	0.38	50.5	146	4.55
10/24/2009	1.79	0.40	54.6	151	0.83	51.3	149	4.62
12/27/2009	2.26	0.13	54.0	163	0.26	50.7	163	4.57
12/9/2009	2.10	0.15	53.0	164	0.49	50.7	163	4.56
12/13/2009	1.07	0.09	51.4	141	0.28	46.9	139	4.23
<b>Five-Storm Average</b>	<b>1.78</b>	<b>0.18</b>	<b>53.7</b>	<b>153</b>	<b>0.45</b>	<b>50.0</b>	<b>152</b>	<b>4.50</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### PC-0010

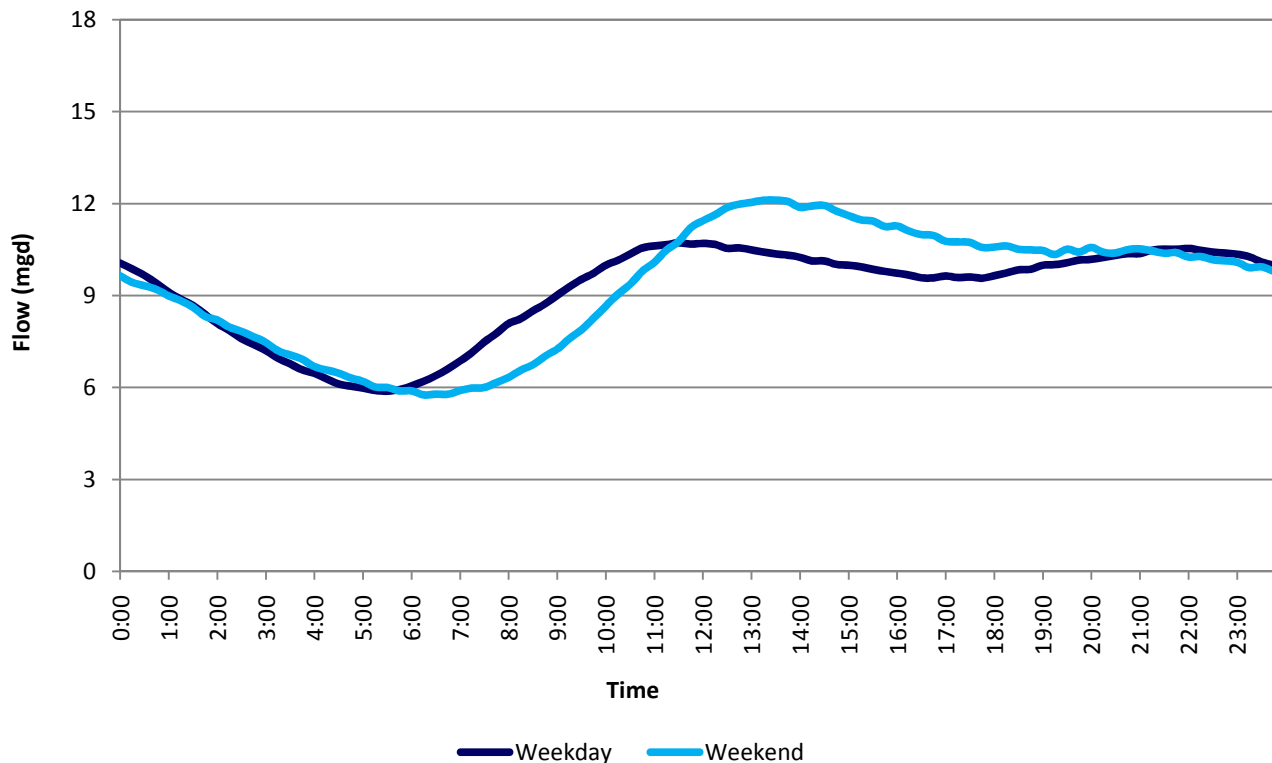
#### General Information

Site:	PC-0010
Description of Location:	Fleuhr Park Grant Avenue Entrance
Data Range:	4/1/2012 to 1/16/2013
Pipe Diameter:	60"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	10,349
Service Population:	74,868

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	9.13	122	10.7	143	5.89	79	0.65	157
Weekend	9.28	124	12.1	162	5.76	77	0.62	70
<b>Total</b>	<b>9.18</b>	<b>123</b>	<b>11.1</b>	<b>149</b>	<b>5.85</b>	<b>78</b>	<b>0.64</b>	<b>227</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PC-0010**

**General Information**

<b>Site:</b>	<b>PC-0010</b>
Description of Location:	Fleuhr Park Grant Avenue Entrance
Data Range:	4/1/2012 to 1/16/2013
Pipe Diameter:	60"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	10,349
Service Population:	74,868

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/4/2012	2.31	0.35	34.6	164	0.85	33.5	162	3.65
10/29/2012	2.04	0.09	31.5	138	0.29	29.2	135	3.18
5/16/2012	0.86	0.12	31.1	135	0.41	28.8	132	3.13
12/21/2012	1.84	0.14	29.7	131	0.41	28.6	130	3.11
12/26/2012	1.25	0.11	29.6	129	0.34	27.4	128	2.99
<b>Five-Storm Average</b>	<b>1.66</b>	<b>0.16</b>	<b>31.3</b>	<b>139</b>	<b>0.46</b>	<b>29.5</b>	<b>137</b>	<b>3.21</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### PC-0045

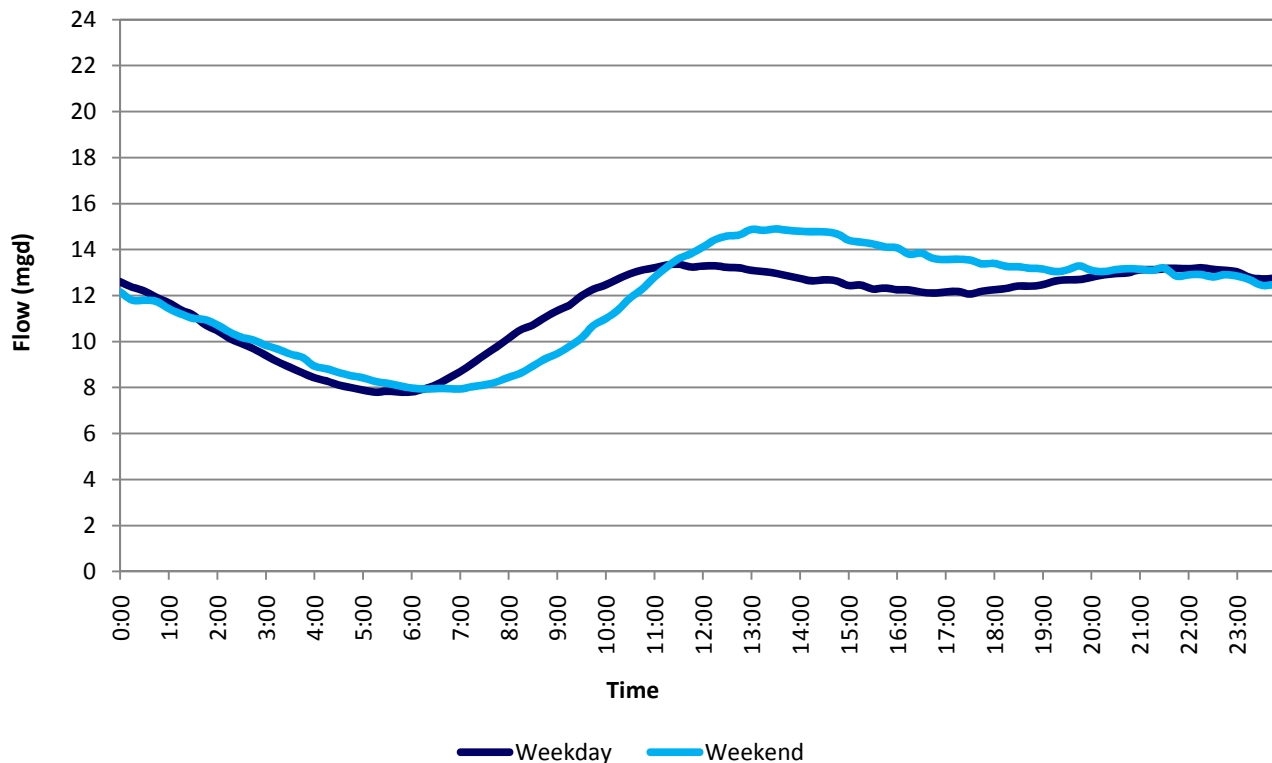
#### General Information

Site:	PC-0045
Description of Location:	4800 Stevenson Street
Data Range:	7/29/2008 to 7/9/2009
Pipe Diameter:	60"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	10,330
Service Population:	74,868

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	11.5	154	13.4	179	7.79	104	0.67	172
Weekend	11.8	158	14.9	199	7.93	106	0.67	80
<b>Total</b>	<b>11.6</b>	<b>155</b>	<b>13.9</b>	<b>185</b>	<b>7.83</b>	<b>105</b>	<b>0.67</b>	<b>252</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PC-0045**

**General Information**

<b>Site:</b>	<b>PC-0045</b>
Description of Location:	4800 Stevenson Street
Data Range:	7/29/2008 to 7/9/2009
Pipe Diameter:	60"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	10,330
Service Population:	74,868

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
12/11/2008	3.26	0.13	40.4	155	0.40	37.9	154	3.26
9/28/2008	1.25	0.22	33.1	84.4	0.59	29.7	81.2	2.55
5/7/2009	0.94	0.14	31.8	93.6	0.43	29.0	92.7	2.49
9/6/2008	2.17	0.20	29.6	128	0.71	29.0	127	2.50
10/28/2008	1.77	0.09	29.6	103	0.32	28.6	102	2.46
<b>Five-Storm Average</b>	<b>1.88</b>	<b>0.16</b>	<b>32.9</b>	<b>113</b>	<b>0.49</b>	<b>30.8</b>	<b>111</b>	<b>2.65</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### PC-1210

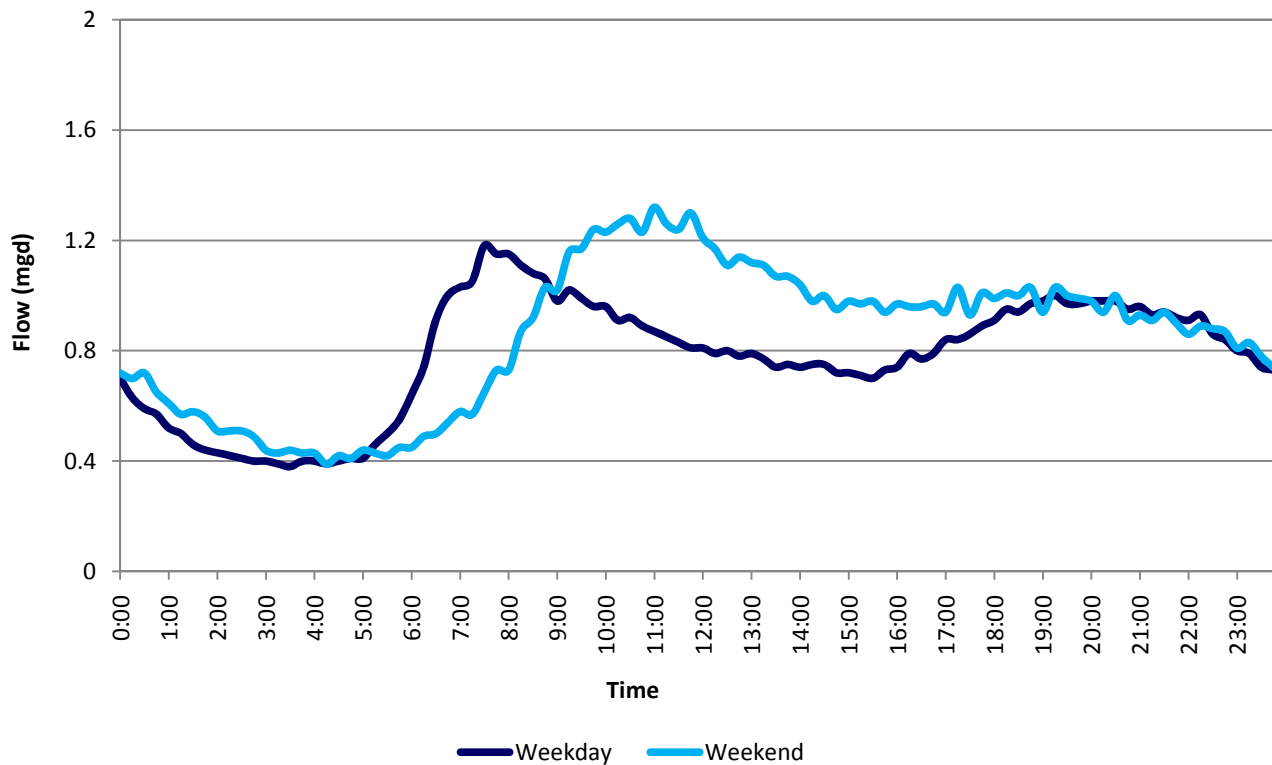
#### General Information

Site:	PC-1210
Description of Location:	Byberry Road
Data Range:	8/12/1999 to 4/27/2000
Pipe Diameter:	24"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	732
Service Population:	6,745

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.779	115	1.18	175	0.380	56	0.49	54
Weekend	0.852	126	1.32	196	0.390	58	0.46	25
<b>Total</b>	<b>0.802</b>	<b>119</b>	<b>1.22</b>	<b>182</b>	<b>0.383</b>	<b>57</b>	<b>0.48</b>	<b>79</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PC-1210**

**General Information**

<b>Site:</b>	<b>PC-1210</b>
Description of Location:	Byberry Road
Data Range:	8/12/1999 to 4/27/2000
Pipe Diameter:	24"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	732
Service Population:	6,745

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/16/1999	6.47	0.28	7.38	148	0.79	6.99	145	8.72
8/14/1999	1.92	0.36	6.58	121	1.01	5.21	81.9	6.50
2/19/2000	1.21	0.07	3.23	10.3	0.19	2.75	9.67	3.43
4/4/2000	0.18	0.08	3.18	10.8	0.13	2.94	10.4	3.67
12/20/1999	0.64	0.08	3.17	10.3	0.22	2.42	9.11	3.02
<b>Five-Storm Average</b>	<b>2.08</b>	<b>0.17</b>	<b>4.71</b>	<b>60.1</b>	<b>0.47</b>	<b>4.06</b>	<b>51.2</b>	<b>5.07</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

PC-B1330

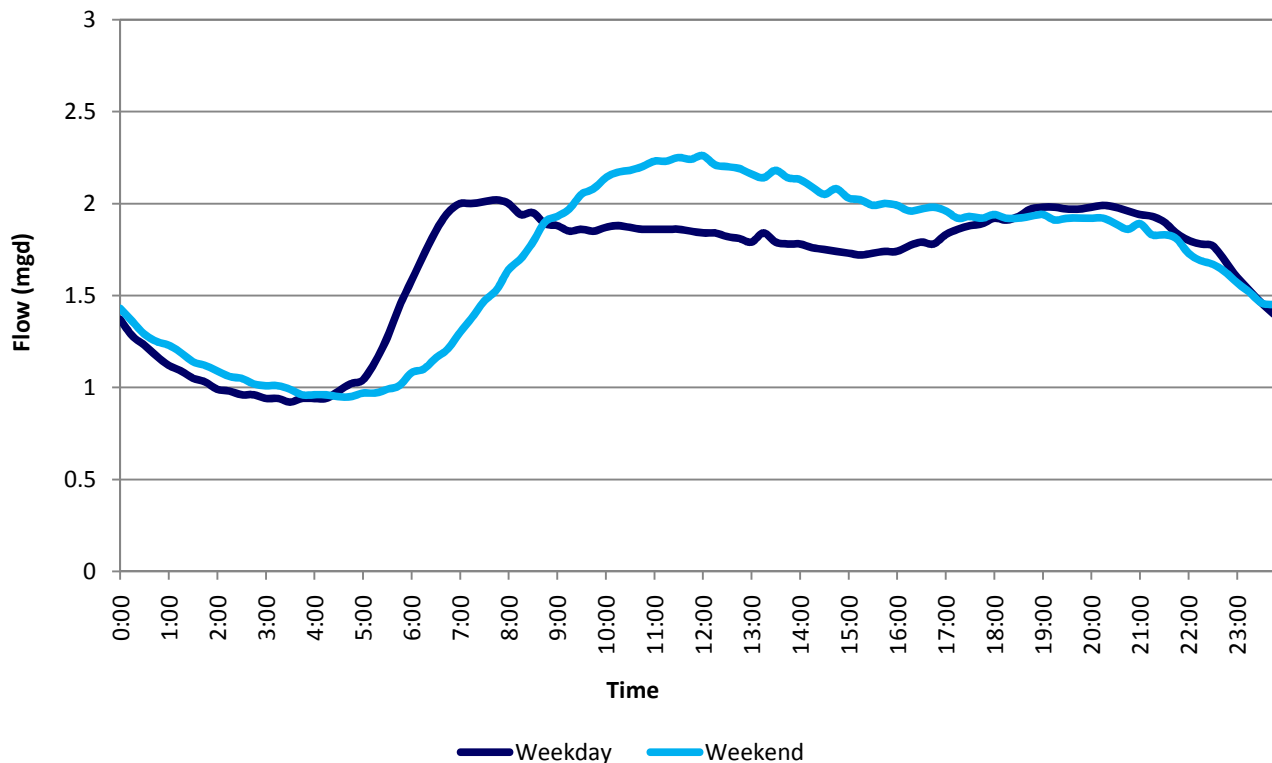
### General Information

Site:	PC-B1330
Description of Location:	Vinton Road
Data Range:	2/14/2009 to 1/31/2010
Pipe Diameter:	18"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	478
Service Population:	9,427

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.65	175	2.02	214	0.920	98	0.56	144
Weekend	1.68	178	2.26	240	0.950	101	0.56	69
<b>Total</b>	<b>1.66</b>	<b>176</b>	<b>2.10</b>	<b>223</b>	<b>0.930</b>	<b>99</b>	<b>0.56</b>	<b>213</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PC-B1330**

**General Information**

<b>Site:</b>	<b>PC-B1330</b>
Description of Location:	Vinton Road
Data Range:	2/14/2009 to 1/31/2010
Pipe Diameter:	18"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	478
Service Population:	9,427

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/2/2009	1.34	0.56	9.15	65.0	1.05	8.45	59.2	5.10
10/24/2009	1.22	0.49	7.99	59.1	0.74	6.50	55.6	3.92
12/9/2009	2.22	0.15	7.59	138	0.53	7.34	137	4.43
8/13/2009	0.70	0.25	7.45	21.7	0.59	6.65	19.3	4.01
7/31/2009	0.75	0.31	7.41	20.5	0.70	6.57	19.8	3.96
<b>Five-Storm Average</b>	<b>1.25</b>	<b>0.35</b>	<b>7.92</b>	<b>60.8</b>	<b>0.72</b>	<b>7.10</b>	<b>58.2</b>	<b>4.28</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PC-B1360**

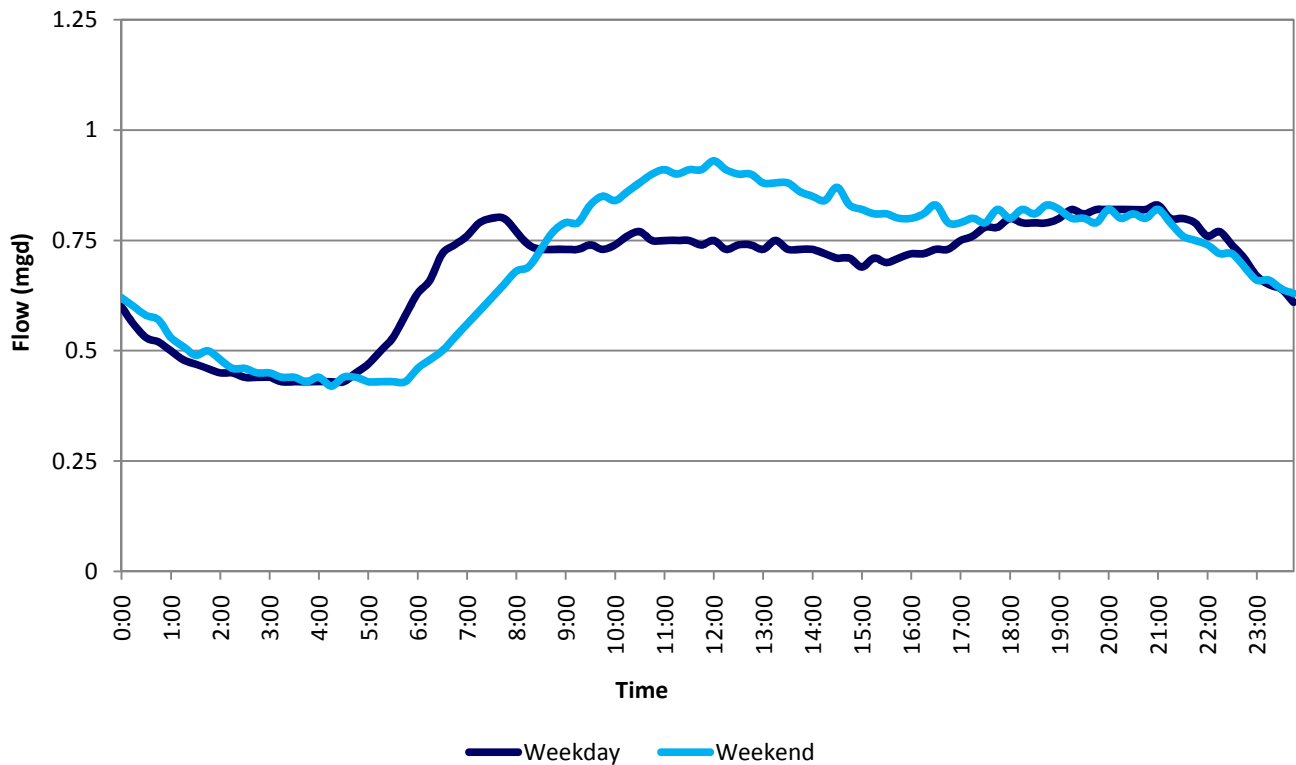
**General Information**

Site:	PC-B1360
Description of Location:	Off Medford Road
Data Range:	3/9/2013 to 9/30/2013
Pipe Diameter:	18"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	374
Service Population:	6,435

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.680	106	0.830	129	0.430	67	0.63	72
Weekend	0.704	109	0.930	145	0.420	65	0.60	31
<b>Total</b>	<b>0.687</b>	<b>107</b>	<b>0.860</b>	<b>134</b>	<b>0.427</b>	<b>66</b>	<b>0.62</b>	<b>103</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PC-B1360**

**General Information**

<b>Site:</b>	<b>PC-B1360</b>
Description of Location:	Off Medford Road
Data Range:	3/9/2013 to 9/30/2013
Pipe Diameter:	18"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	374
Service Population:	6,435

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/22/2013	1.15	0.24	5.49	73.9	0.45	4.48	53.3	6.52
8/28/2013	0.53	0.08	4.71	22.5	0.21	2.92	14.4	4.25
6/10/2013	2.16	0.27	4.63	80.4	0.67	4.29	79.6	6.24
8/8/2013	0.53	0.31	4.53	48.2	0.43	2.98	32.4	4.34
8/1/2013	0.95	0.14	4.42	64.0	0.34	2.77	49.5	4.03
<b>Five-Storm Average</b>	<b>1.06</b>	<b>0.21</b>	<b>4.76</b>	<b>57.8</b>	<b>0.42</b>	<b>3.49</b>	<b>45.8</b>	<b>5.08</b>



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PC-B1440**

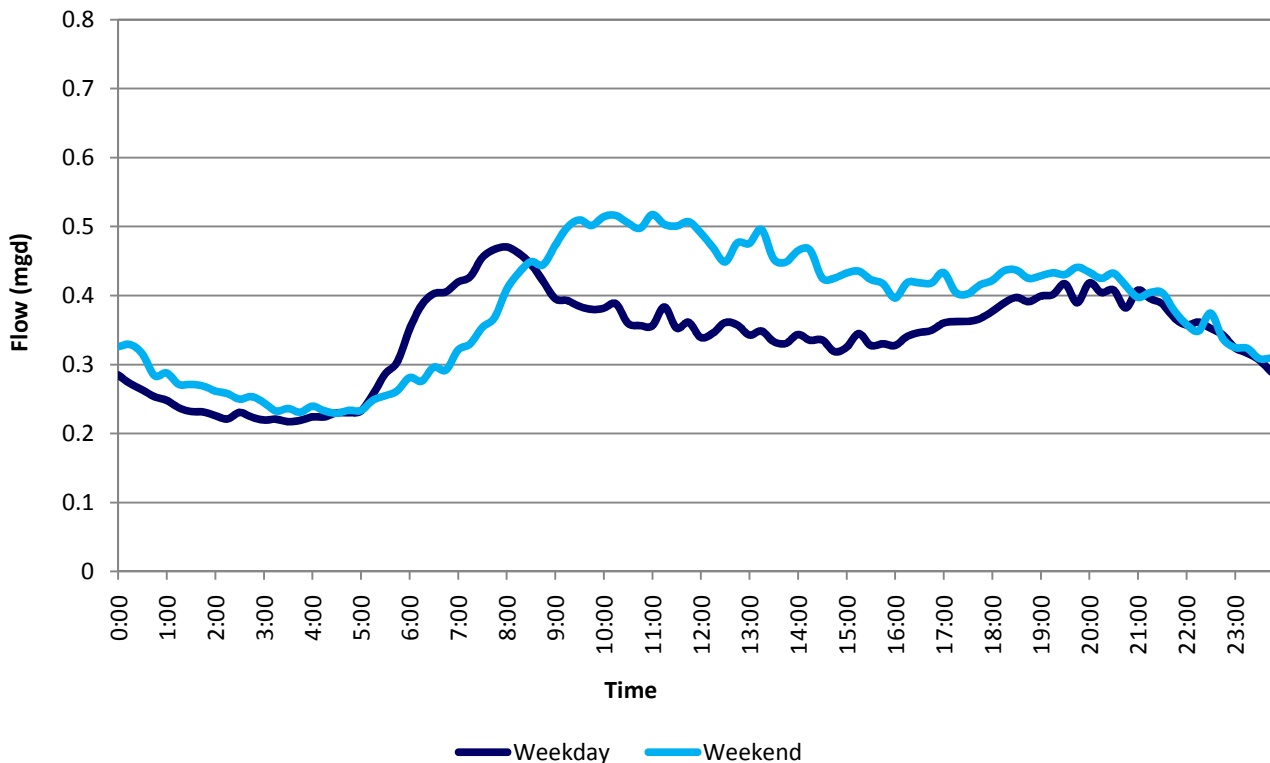
**General Information**

Site:	PC-B1440
Description of Location:	Dunksferry Road
Data Range:	10/1/2004 to 5/18/2005
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	212
Service Population:	1,894

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.340	179	0.470	248	0.217	115	0.64	42
Weekend	0.381	201	0.517	273	0.230	121	0.60	17
<b>Total</b>	<b>0.352</b>	<b>186</b>	<b>0.484</b>	<b>256</b>	<b>0.221</b>	<b>117</b>	<b>0.63</b>	<b>59</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PC-B1440**

**General Information**

<b>Site:</b>	<b>PC-B1440</b>
Description of Location:	Dunksferry Road
Data Range:	10/1/2004 to 5/18/2005
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	212
Service Population:	1,894

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
3/28/2005	1.47	0.10	2.89	13.9	0.34	2.53	13.4	7.20
11/28/2004	1.53	0.23	2.83	28.7	0.57	2.74	27.1	7.79
4/2/2005	2.92	0.26	2.70	124	0.63	2.52	123	7.17
1/14/2005	1.75	0.17	2.63	33.6	0.45	2.55	31.6	7.25
1/8/2005	0.45	0.07	1.18	6.07	0.21	1.03	5.92	2.93
<b>Five-Storm Average</b>	<b>1.62</b>	<b>0.17</b>	<b>2.45</b>	<b>41.3</b>	<b>0.44</b>	<b>2.27</b>	<b>40.2</b>	<b>6.47</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**PC-B1530**

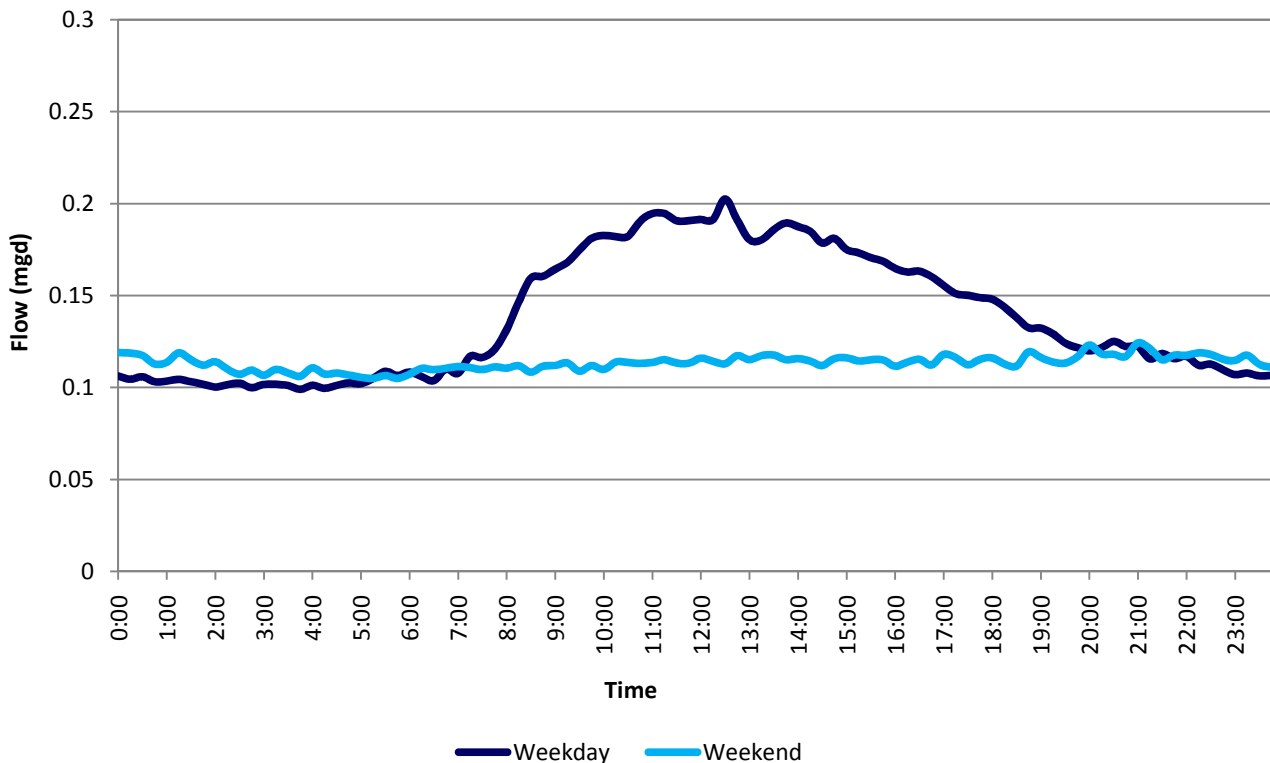
**General Information**

Site:	PC-B1530
Description of Location:	Mechanicsville Road and Black Lake Run
Data Range:	1/1/2009 to 1/3/2010
Pipe Diameter:	18"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	224
Service Population:	219

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.138	630	0.203	925	0.099	452	0.72	189
Weekend	0.113	518	0.124	567	0.105	480	0.93	73
<b>Total</b>	<b>0.131</b>	<b>599</b>	<b>0.181</b>	<b>825</b>	<b>0.101</b>	<b>460</b>	<b>0.78</b>	<b>262</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**PC-B1530**

**General Information**

<b>Site:</b>	<b>PC-B1530</b>
Description of Location:	Mechanicsville Road and Black Lake Run
Data Range:	1/1/2009 to 1/3/2010
Pipe Diameter:	18"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	224
Service Population:	219

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/22/2009	0.70	0.20	1.82	6.69	0.51	1.60	6.18	12.2
12/9/2009	2.18	0.14	1.60	18.0	0.54	1.51	18.0	11.5
12/26/2009	2.25	0.14	1.13	18.0	0.26	0.974	18.0	7.42
1/7/2009	1.68	0.05	1.12	5.01	0.19	1.05	4.82	8.00
8/2/2009	1.24	0.46	1.08	4.92	0.22	0.637	4.22	4.86
<b>Five-Storm Average</b>	<b>1.61</b>	<b>0.20</b>	<b>1.35</b>	<b>10.5</b>	<b>0.34</b>	<b>1.15</b>	<b>10.2</b>	<b>8.80</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

Q107-02-S0025

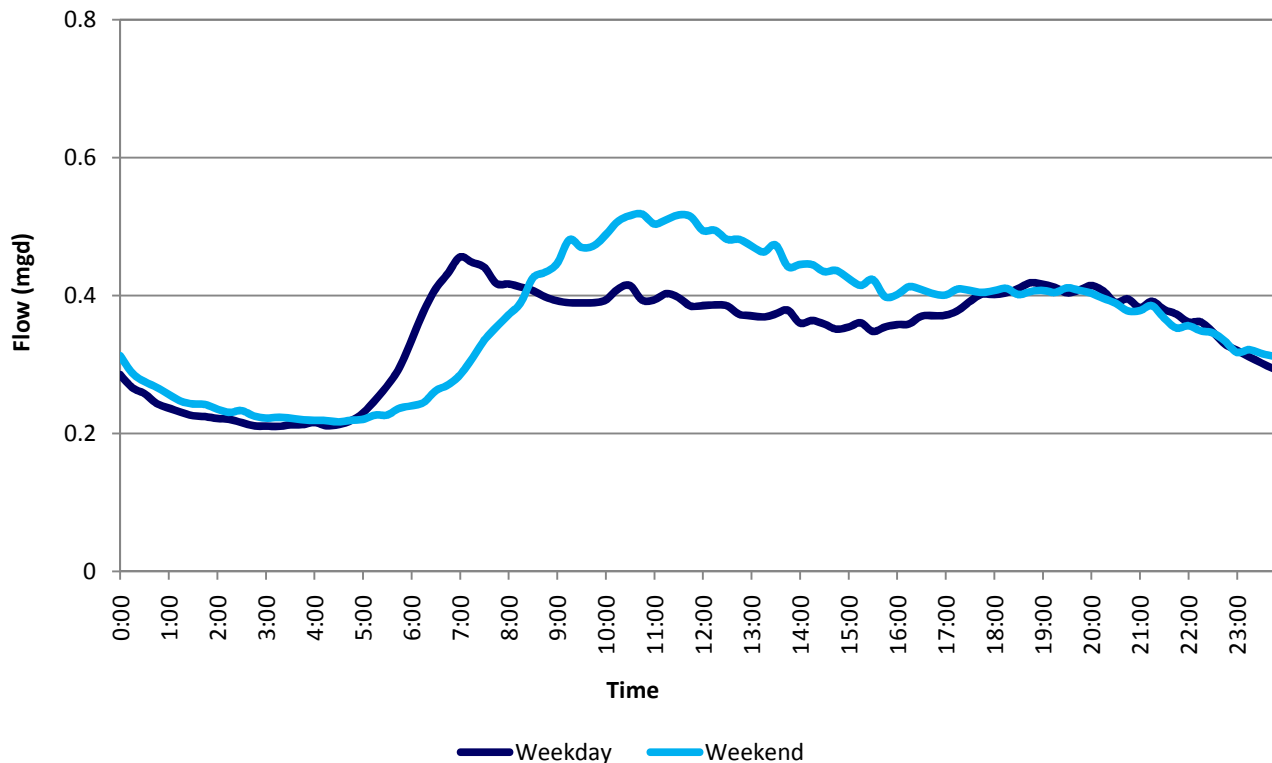
### General Information

Site:	Q107-02-S0025
Description of Location:	Deerpath Road
Data Range:	10/1/2003 to 8/5/2004
Pipe Diameter:	15"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	176
Service Population:	2,954

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.346	117	0.456	154	0.210	71	0.61	100
Weekend	0.365	124	0.518	175	0.217	73	0.59	48
<b>Total</b>	<b>0.352</b>	<b>119</b>	<b>0.476</b>	<b>161</b>	<b>0.212</b>	<b>72</b>	<b>0.60</b>	<b>148</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q107-02-S0025**

**General Information**

<b>Site:</b>	<b>Q107-02-S0025</b>
Description of Location:	Deerpath Road
Data Range:	10/1/2003 to 8/5/2004
Pipe Diameter:	15"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	176
Service Population:	2,954

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
7/27/2004	1.90	0.83	3.99	55.7	1.04	3.12	35.8	8.86
8/1/2004	2.07	0.44	3.93	74.8	1.38	3.63	43.2	10.3
4/13/2004	1.67	0.46	3.74	58.5	1.01	3.16	57.1	8.98
11/19/2003	2.03	0.38	3.56	26.7	0.83	3.19	22.0	9.06
7/12/2004	4.82	0.37	3.40	83.0	0.92	2.99	78.8	8.49
<b>Five-Storm Average</b>	<b>2.50</b>	<b>0.50</b>	<b>3.72</b>	<b>59.7</b>	<b>1.04</b>	<b>3.22</b>	<b>47.4</b>	<b>9.14</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### Q110-17-S0015

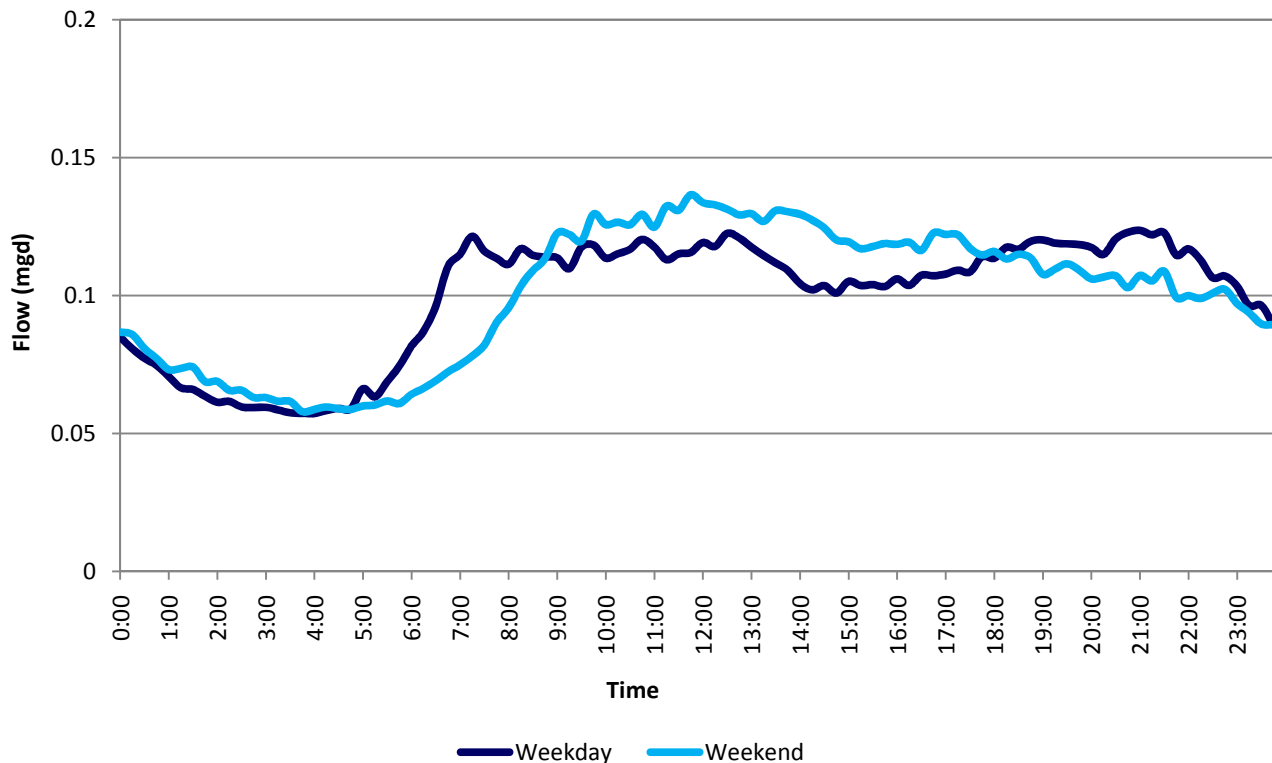
#### General Information

Site:	Q110-17-S0015
Description of Location:	Waldemire Drive and Chalfont Drive
Data Range:	5/31/2013 to 9/30/2013
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	59
Service Population:	709

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.100	141	0.124	174	0.0572	81	0.57	59
Weekend	0.100	142	0.137	193	0.0579	82	0.58	29
<b>Total</b>	<b>0.100</b>	<b>141</b>	<b>0.128</b>	<b>180</b>	<b>0.0574</b>	<b>81</b>	<b>0.57</b>	<b>88</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q110-17-S0015**

**General Information**

<b>Site:</b>	<b>Q110-17-S0015</b>
Description of Location:	Waldemire Drive and Chalfont Drive
Data Range:	5/31/2013 to 9/30/2013
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	59
Service Population:	709

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	1.95	0.73	1.85	95.7	1.43	1.22	92.0	12.2
7/13/2013	0.90	0.56	1.69	10.5	0.75	0.740	6.05	7.39
7/23/2013	1.66	0.68	1.65	10.5	1.37	1.09	8.13	10.9
6/7/2013	3.80	0.38	1.28	8.48	0.95	0.930	7.24	9.29
6/10/2013	2.25	0.24	1.23	8.28	0.71	0.810	6.33	8.09
<b>Five-Storm Average</b>	<b>2.11</b>	<b>0.52</b>	<b>1.54</b>	<b>26.7</b>	<b>1.04</b>	<b>0.958</b>	<b>24.0</b>	<b>9.57</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

Q120-02-S0010

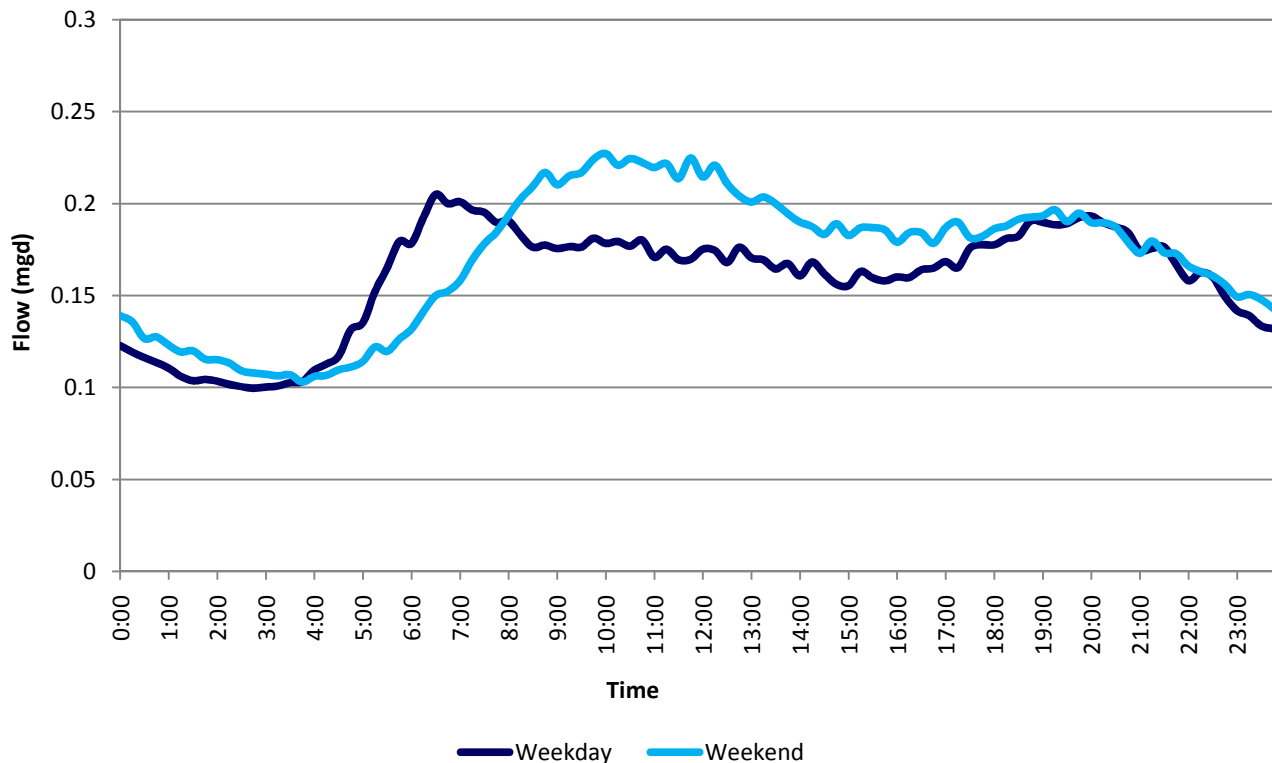
### General Information

Site:	Q120-02-S0010
Description of Location:	1 Petoni Place
Data Range:	12/8/2007 to 12/10/2008
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	85
Service Population:	1,131

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.159	141	0.205	181	0.100	88	0.63	88
Weekend	0.170	151	0.227	201	0.103	91	0.61	33
<b>Total</b>	<b>0.162</b>	<b>144</b>	<b>0.211</b>	<b>187</b>	<b>0.101</b>	<b>89</b>	<b>0.62</b>	<b>121</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q120-02-S0010**

**General Information**

<b>Site:</b>	<b>Q120-02-S0010</b>
Description of Location:	1 Petoni Place
Data Range:	12/8/2007 to 12/10/2008
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	84
Service Population:	1,131

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
3/8/2008	2.68	0.49	1.98	94.3	1.25	1.72	76.7	10.6
5/20/2008	0.60	0.13	1.71	7.69	0.39	1.67	7.59	10.3
5/16/2008	1.13	0.15	1.25	5.53	0.47	1.05	4.83	6.47
2/13/2008	1.51	0.09	1.07	4.97	0.25	1.03	4.96	6.34
5/31/2008	0.47	0.33	1.01	5.02	0.45	0.52	3.29	3.20
<b>Five-Storm Average</b>	<b>1.28</b>	<b>0.24</b>	<b>1.40</b>	<b>23.5</b>	<b>0.56</b>	<b>1.20</b>	<b>19.5</b>	<b>7.38</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

Q120-08-S0010

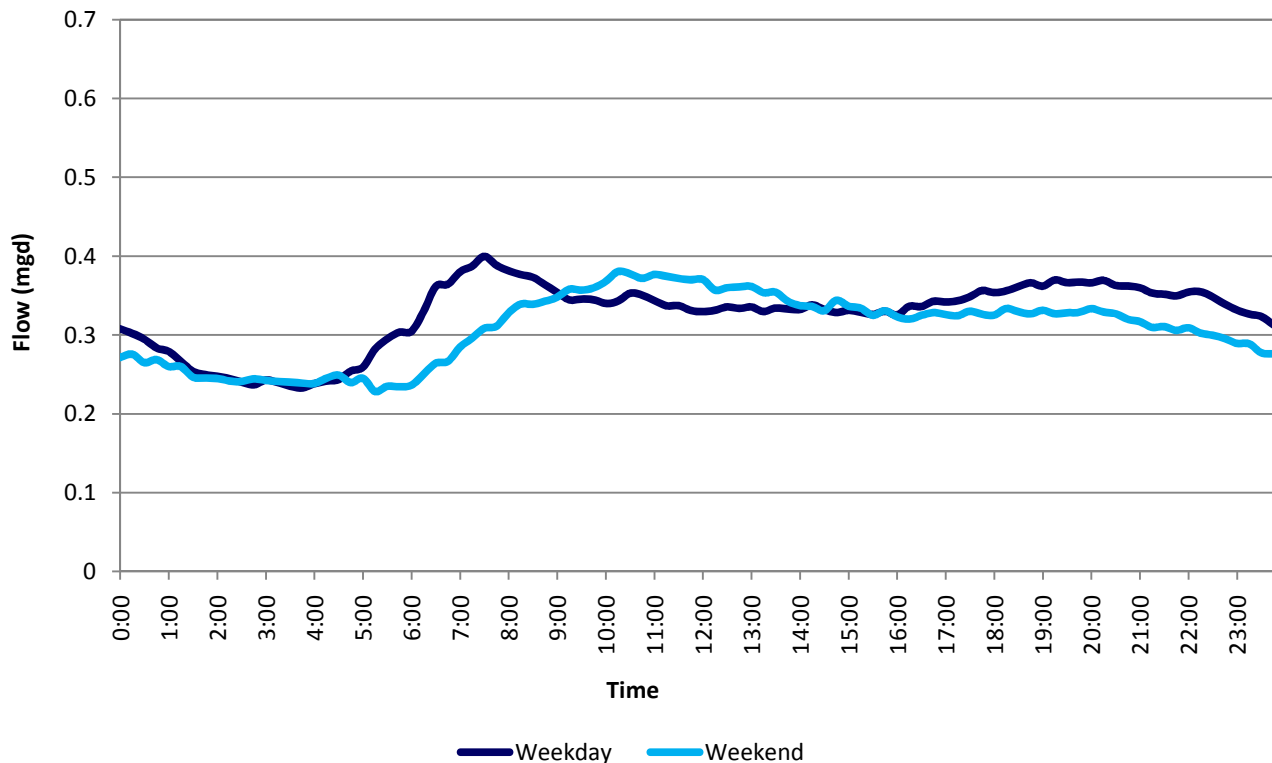
### General Information

Site:	Q120-08-S0010
Description of Location:	690 Edison Avenue
Data Range:	3/26/2008 to 3/18/2009
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	108
Service Population:	1,069

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.326	305	0.400	374	0.233	218	0.71	183
Weekend	0.308	288	0.381	356	0.228	214	0.74	68
<b>Total</b>	<b>0.321</b>	<b>301</b>	<b>0.395</b>	<b>369</b>	<b>0.232</b>	<b>217</b>	<b>0.72</b>	<b>251</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q120-08-S0010**

**General Information**

<b>Site:</b>	<b>Q120-08-S0010</b>
Description of Location:	690 Edison Avenue
Data Range:	3/26/2008 to 3/18/2009
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	108
Service Population:	1,069

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/30/2008	0.47	0.29	1.47	5.81	0.43	1.05	4.65	3.27
9/6/2008	2.07	0.20	1.41	5.55	0.74	1.25	5.19	3.88
9/9/2008	0.60	0.19	1.37	5.31	0.52	1.16	4.89	3.60
5/31/2008	0.45	0.26	1.35	5.80	0.43	0.784	3.82	2.44
9/28/2008	0.93	0.23	1.24	5.24	0.48	0.886	4.14	2.76
<b>Five-Storm Average</b>	<b>0.90</b>	<b>0.23</b>	<b>1.37</b>	<b>5.54</b>	<b>0.52</b>	<b>1.03</b>	<b>4.54</b>	<b>3.19</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**Q120-10-S0010**

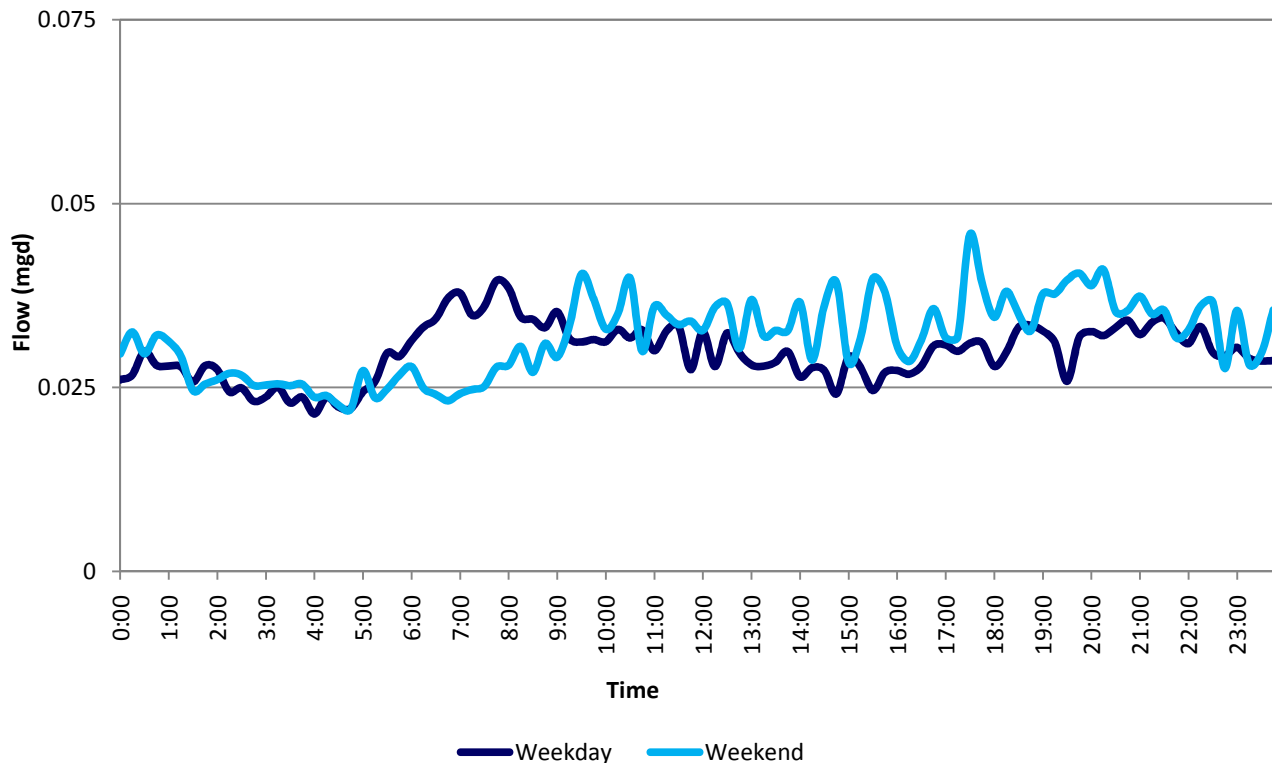
**General Information**

Site:	Q120-10-S0010
Description of Location:	14060 Trevoise Avenue
Data Range:	12/7/2007 to 2/24/2008
Pipe Diameter:	10"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	67
Service Population:	323

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.0298	92	0.0395	122	0.0214	66	0.72	47
Weekend	0.0317	98	0.0458	142	0.0221	68	0.70	23
<b>Total</b>	<b>0.0304</b>	<b>94</b>	<b>0.0416</b>	<b>129</b>	<b>0.0216</b>	<b>67</b>	<b>0.71</b>	<b>70</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q120-10-S0010**

**General Information**

<b>Site:</b>	<b>Q120-10-S0010</b>
Description of Location:	14060 Trevoise Avenue
Data Range:	12/7/2007 to 2/24/2008
Pipe Diameter:	10"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	67
Service Population:	323

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
12/23/2007	0.40	0.05	0.33	2.48	0.13	0.24	2.32	1.48
12/16/2007	1.07	0.07	0.32	2.38	0.24	0.23	2.28	1.42
12/31/2007	0.42	0.06	0.32	2.79	0.14	0.26	2.49	1.60
2/1/2008	1.52	0.17	0.29	2.52	0.46	0.22	2.25	1.35
12/28/2007	0.71	0.13	0.27	2.67	0.27	0.24	2.36	1.48
<b>Five-Storm Average</b>	<b>0.82</b>	<b>0.10</b>	<b>0.31</b>	<b>2.57</b>	<b>0.25</b>	<b>0.24</b>	<b>2.34</b>	<b>1.47</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### Q120-11-S0010

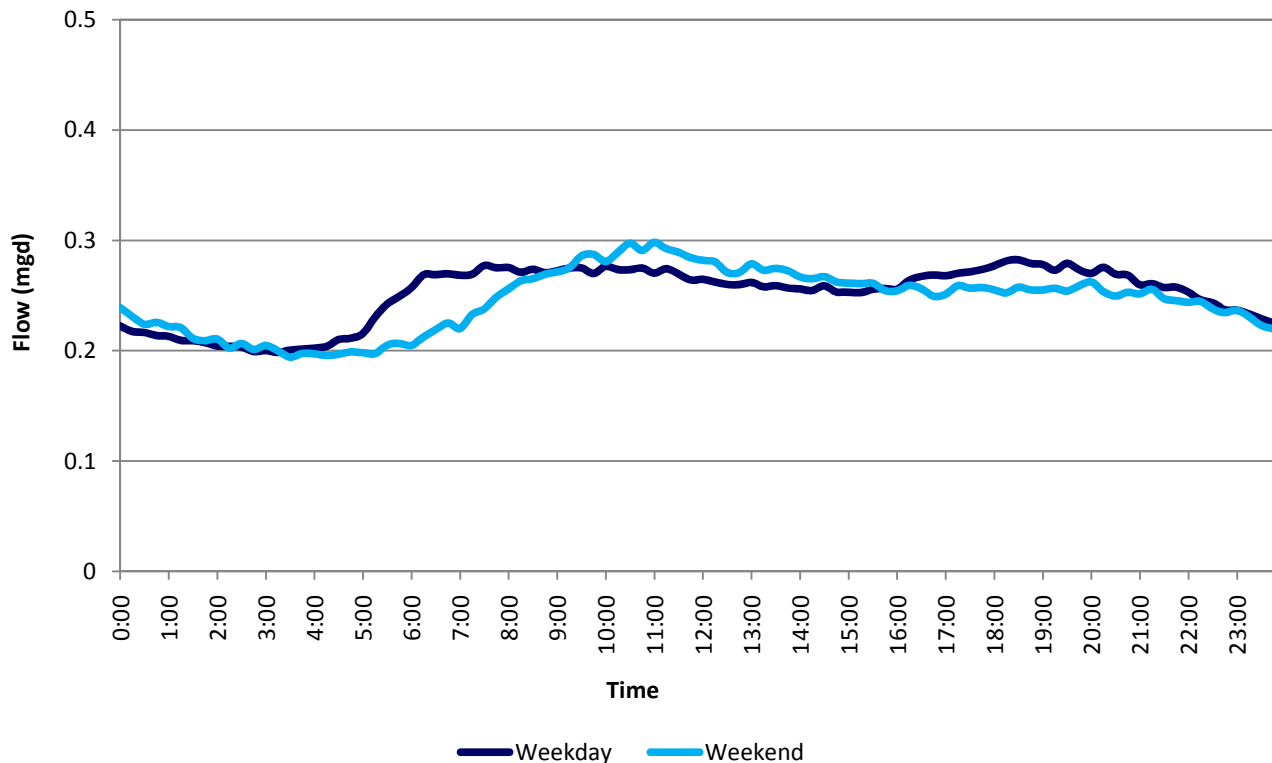
#### General Information

Site:	Q120-11-S0010
Description of Location:	145 Brookshire Drive
Data Range:	12/6/2007 to 12/9/2008
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	81
Service Population:	932

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.251	269	0.282	303	0.198	213	0.79	159
Weekend	0.246	263	0.298	320	0.194	208	0.79	71
<b>Total</b>	<b>0.249</b>	<b>268</b>	<b>0.287</b>	<b>308</b>	<b>0.197</b>	<b>212</b>	<b>0.79</b>	<b>230</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q120-11-S0010**

**General Information**

<b>Site:</b>	<b>Q120-11-S0010</b>
Description of Location:	145 Brookshire Drive
Data Range:	12/6/2007 to 12/9/2008
Pipe Diameter:	12"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	81
Service Population:	932

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
2/13/2008	2.34	0.10	1.63	17.9	0.30	1.53	17.5	6.13
2/1/2008	1.52	0.16	1.54	14.4	0.46	1.41	14.3	5.65
11/15/2008	0.49	0.21	1.51	11.4	0.25	1.11	11.4	4.43
9/6/2008	2.11	0.21	1.42	50.4	0.74	1.34	43.4	5.37
10/28/2008	1.73	0.08	1.38	13.4	0.27	1.31	13.2	5.26
<b>Five-Storm Average</b>	<b>1.64</b>	<b>0.15</b>	<b>1.50</b>	<b>21.5</b>	<b>0.40</b>	<b>1.34</b>	<b>19.9</b>	<b>5.37</b>



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**Q121-02-S0015**

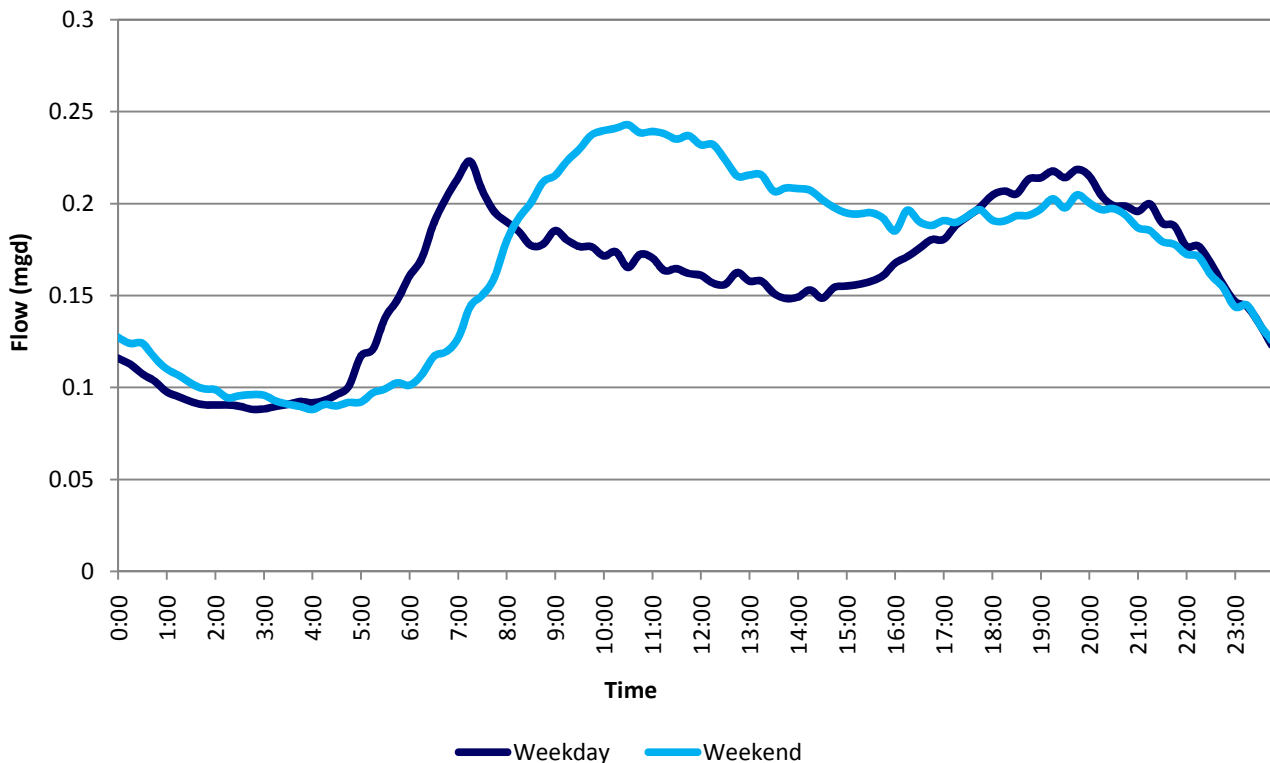
**General Information**

Site:	Q121-02-S0015
Description of Location:	Kovats Drive and Poquessing Creek Drive
Data Range:	12/11/2007 to 12/9/2008
Pipe Diameter:	10"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	73
Service Population:	1,076

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.159	148	0.223	207	0.0881	82	0.56	204
Weekend	0.169	157	0.243	226	0.0881	82	0.52	92
<b>Total</b>	<b>0.162</b>	<b>150</b>	<b>0.229</b>	<b>213</b>	<b>0.0881</b>	<b>82</b>	<b>0.54</b>	<b>296</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**Q121-02-S0015**

**General Information**

<b>Site:</b>	<b>Q121-02-S0015</b>
Description of Location:	Kovats Drive and Poquessing Creek Drive
Data Range:	12/11/2007 to 12/9/2008
Pipe Diameter:	10"
Interceptor:	Poquessing Creek
Drainage Area (Acres):	73
Service Population:	1,076

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/28/2008	0.97	0.30	0.981	5.01	0.50	0.533	3.65	3.29
9/6/2008	2.01	0.20	0.909	5.44	0.73	0.802	4.80	4.95
9/30/2008	0.44	0.24	0.837	5.48	0.40	0.623	4.02	3.85
2/1/2008	1.54	0.19	0.810	5.80	0.47	0.703	5.04	4.34
3/8/2008	2.43	0.38	0.720	6.61	1.00	0.685	5.93	4.23
<b>Five-Storm Average</b>	<b>1.48</b>	<b>0.26</b>	<b>0.851</b>	<b>5.67</b>	<b>0.62</b>	<b>0.669</b>	<b>4.69</b>	<b>4.13</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

P090-02-S0090

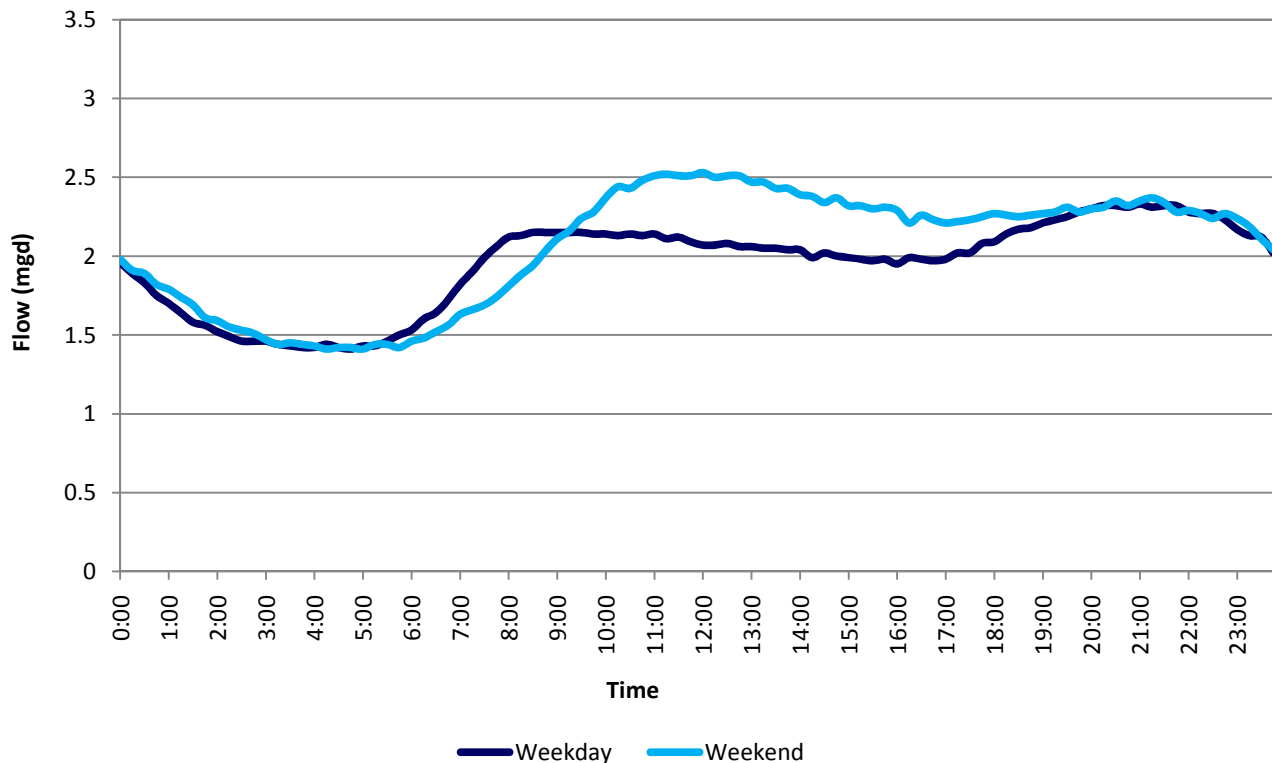
### General Information

Site:	P090-02-S0090
Description of Location:	Brier Street and Glendale Avenue
Data Range:	5/30/2013 to 9/30/2013
Pipe Diameter:	27"
Interceptor:	Sandy Run
Drainage Area (Acres):	581
Service Population:	11,971

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.95	163	2.33	195	1.41	118	0.72	54
Weekend	2.06	172	2.53	211	1.41	118	0.68	23
<b>Total</b>	<b>1.98</b>	<b>166</b>	<b>2.39</b>	<b>200</b>	<b>1.41</b>	<b>118</b>	<b>0.71</b>	<b>77</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P090-02-S0090**

**General Information**

<b>Site:</b>	<b>P090-02-S0090</b>
Description of Location:	Brier Street and Glendale Avenue
Data Range:	5/30/2013 to 9/30/2013
Pipe Diameter:	27"
Interceptor:	Sandy Run
Drainage Area (Acres):	581
Service Population:	11,971

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	1.85	0.59	14.3	100	1.37	13.3	61.1	6.70
9/2/2013	1.29	0.51	13.8	26.2	1.16	10.5	21.2	5.29
6/7/2013	4.11	0.38	13.1	36.8	0.89	10.1	24.2	5.09
7/23/2013	1.58	0.61	12.9	61.2	1.27	12.5	45.9	6.30
7/12/2013	0.92	0.17	11.3	19.7	0.57	9.67	17.0	4.87
<b>Five-Storm Average</b>	<b>1.95</b>	<b>0.45</b>	<b>13.1</b>	<b>48.8</b>	<b>1.05</b>	<b>11.2</b>	<b>33.9</b>	<b>5.65</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### P090-02-S0590

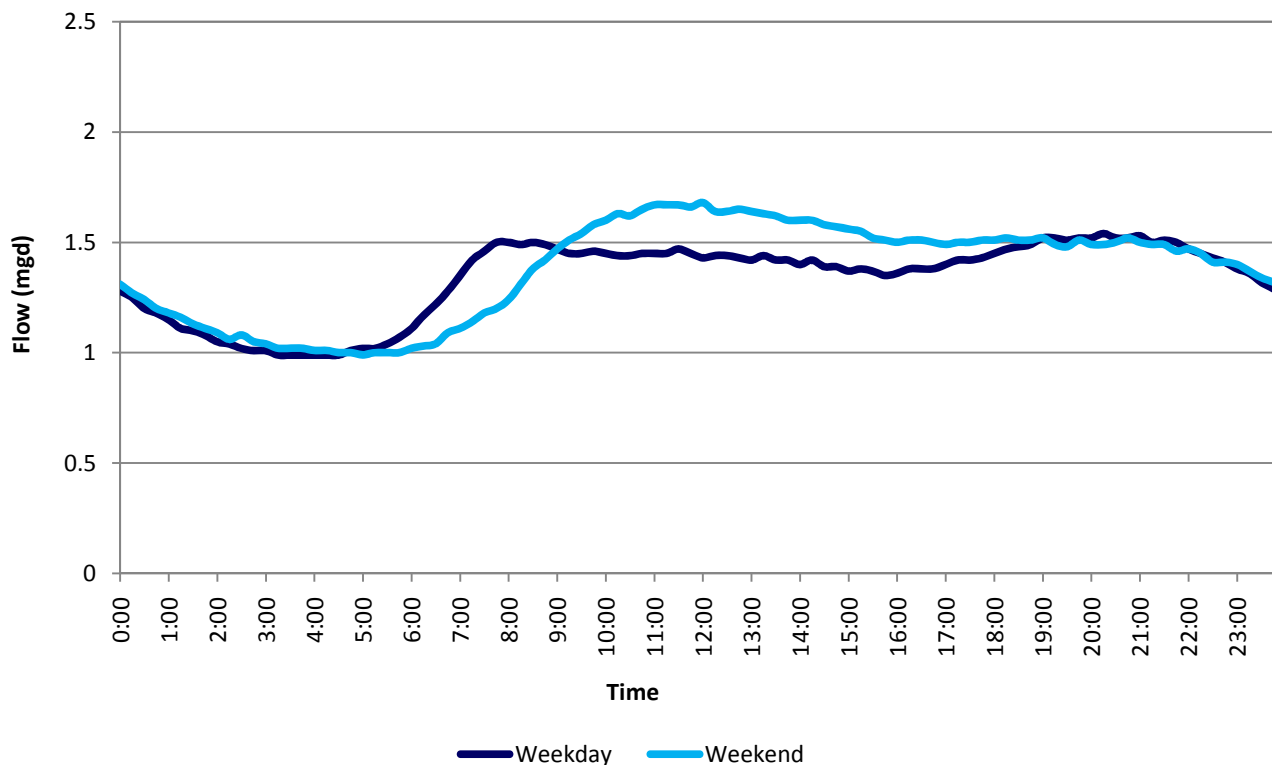
#### General Information

Site:	P090-02-S0590
Description of Location:	Glendale Avenue
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Sandy Run
Drainage Area (Acres):	635
Service Population:	9,971

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.34	134	1.54	154	0.990	99	0.74	116
Weekend	1.38	138	1.68	168	0.990	99	0.72	36
<b>Total</b>	<b>1.35</b>	<b>135</b>	<b>1.57</b>	<b>158</b>	<b>0.990</b>	<b>99</b>	<b>0.74</b>	<b>152</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P090-02-S0590**

**General Information**

<b>Site:</b>	<b>P090-02-S0590</b>
Description of Location:	Glendale Avenue
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Sandy Run
Drainage Area (Acres):	635
Service Population:	9,971

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/3/2013	1.63	0.54	10.4	83.7	1.01	9.74	76.4	7.23
6/7/2013	4.11	0.34	9.67	98.9	0.81	9.45	86.2	7.02
12/21/2012	1.78	0.15	9.48	65.4	0.34	8.58	48.1	6.37
1/31/2013	1.24	0.25	9.48	66.2	0.53	8.60	50.3	6.39
8/13/2013	1.88	0.64	8.86	119	1.33	8.44	94.8	6.27
<b>Five-Storm Average</b>	<b>2.13</b>	<b>0.38</b>	<b>9.58</b>	<b>86.6</b>	<b>0.80</b>	<b>8.96</b>	<b>71.2</b>	<b>6.65</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**P090-02-S0715**

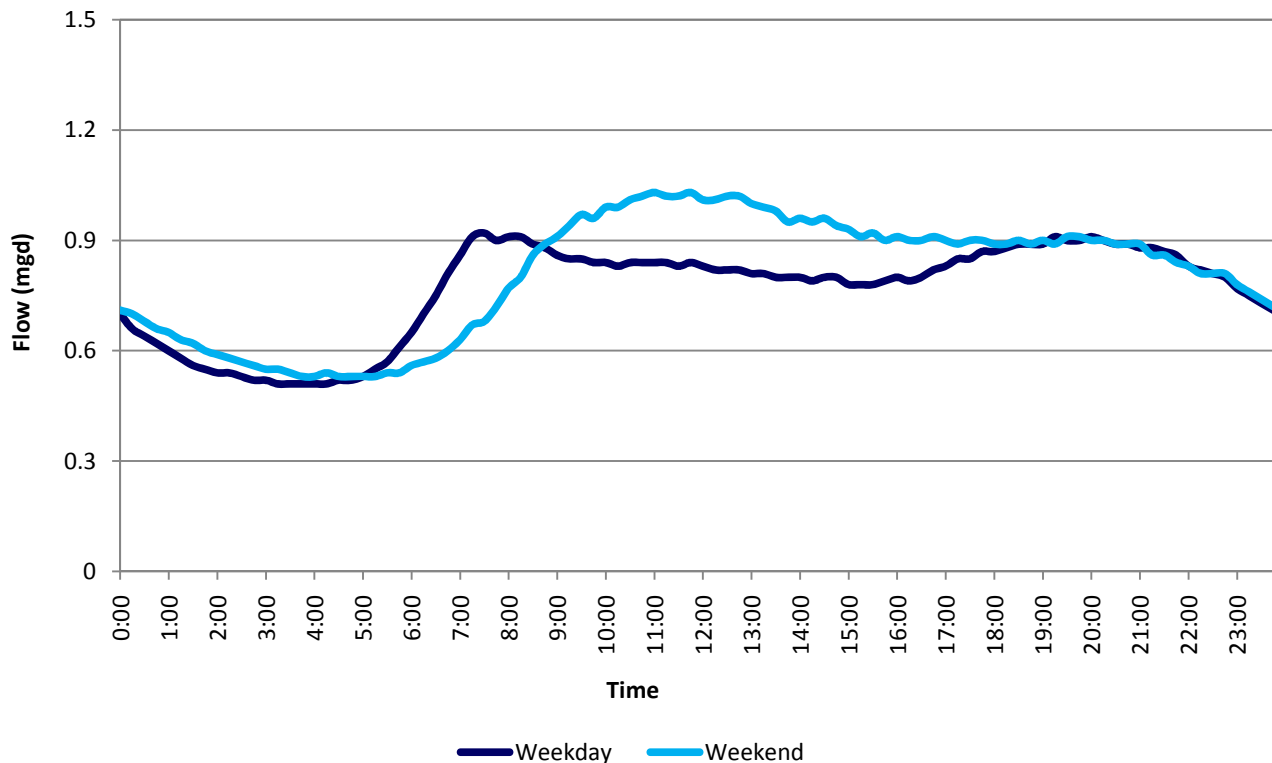
**General Information**

Site:	P090-02-S0715
Description of Location:	1426 Faunce Street
Data Range:	11/29/2011 to 12/5/2012
Pipe Diameter:	24"
Interceptor:	Sandy Run
Drainage Area (Acres):	388
Service Population:	5,559

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.765	138	0.920	165	0.510	92	0.67	152
Weekend	0.806	145	1.03	185	0.530	95	0.66	63
<b>Total</b>	<b>0.777</b>	<b>140</b>	<b>0.952</b>	<b>171</b>	<b>0.516</b>	<b>93</b>	<b>0.66</b>	<b>215</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P090-02-S0715**

**General Information**

<b>Site:</b>	<b>P090-02-S0715</b>
Description of Location:	1426 Faunce Street
Data Range:	11/29/2011 to 12/5/2012
Pipe Diameter:	24"
Interceptor:	Sandy Run
Drainage Area (Acres):	388
Service Population:	5,559

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/4/2012	3.56	0.74	10.4	22.3	1.36	8.34	21.5	10.7
5/16/2012	2.92	0.46	8.09	22.3	0.99	7.39	19.9	9.51
7/15/2012	0.98	0.44	7.57	21.2	0.81	5.91	17.7	7.60
8/1/2012	1.29	0.55	7.49	22.3	1.28	4.42	15.9	5.69
9/3/2012	1.49	0.26	7.40	20.3	0.82	6.61	19.1	8.51
<b>Five-Storm Average</b>	<b>2.05</b>	<b>0.49</b>	<b>8.19</b>	<b>21.7</b>	<b>1.05</b>	<b>6.53</b>	<b>18.8</b>	<b>8.41</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### P-090-02-S0865

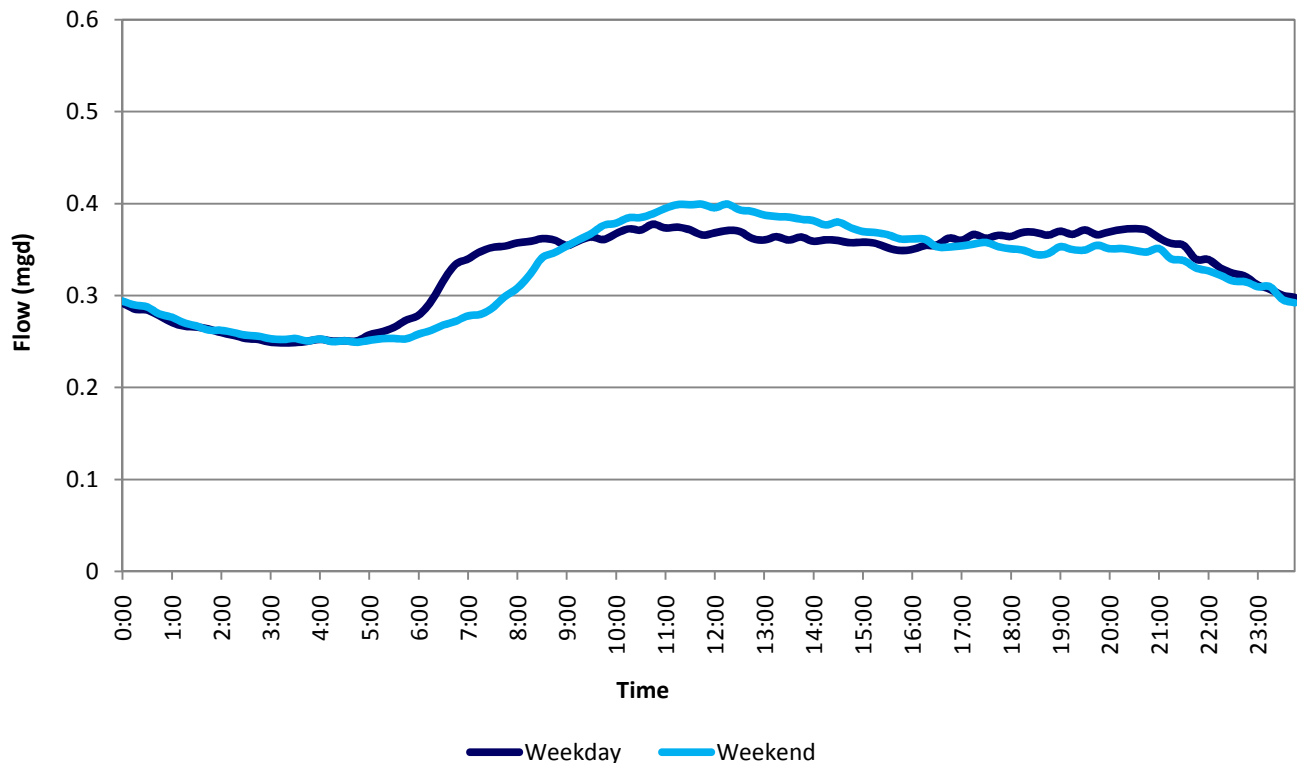
#### General Information

Site:	P-090-02-S0865
Description of Location:	707 Hartel Avenue
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Sandy Run
Drainage Area (Acres):	148
Service Population:	1,537

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.331	215	0.378	246	0.249	162	0.75	81
Weekend	0.327	213	0.399	260	0.249	162	0.76	40
<b>Total</b>	<b>0.330</b>	<b>214</b>	<b>0.385</b>	<b>250</b>	<b>0.249</b>	<b>162</b>	<b>0.76</b>	<b>121</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P-090-02-S0865**

**General Information**

<b>Site:</b>	<b>P-090-02-S0865</b>
Description of Location:	707 Hartel Avenue
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Sandy Run
Drainage Area (Acres):	148
Service Population:	1,537

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/10/2013	2.05	0.32	2.98	61.1	0.66	2.24	25.8	6.80
6/7/2013	4.04	0.29	2.81	49.4	0.76	2.45	21.0	7.43
6/27/2013	1.05	0.32	2.77	15.0	0.65	2.05	12.2	6.22
6/3/2013	1.67	0.58	2.71	55.8	1.04	2.34	22.5	7.10
1/31/2013	1.28	0.25	2.61	15.0	0.55	1.51	10.3	4.58
<b>Five-Storm Average</b>	<b>2.02</b>	<b>0.35</b>	<b>2.78</b>	<b>39.2</b>	<b>0.73</b>	<b>2.12</b>	<b>18.4</b>	<b>6.42</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

T088-01-S0050

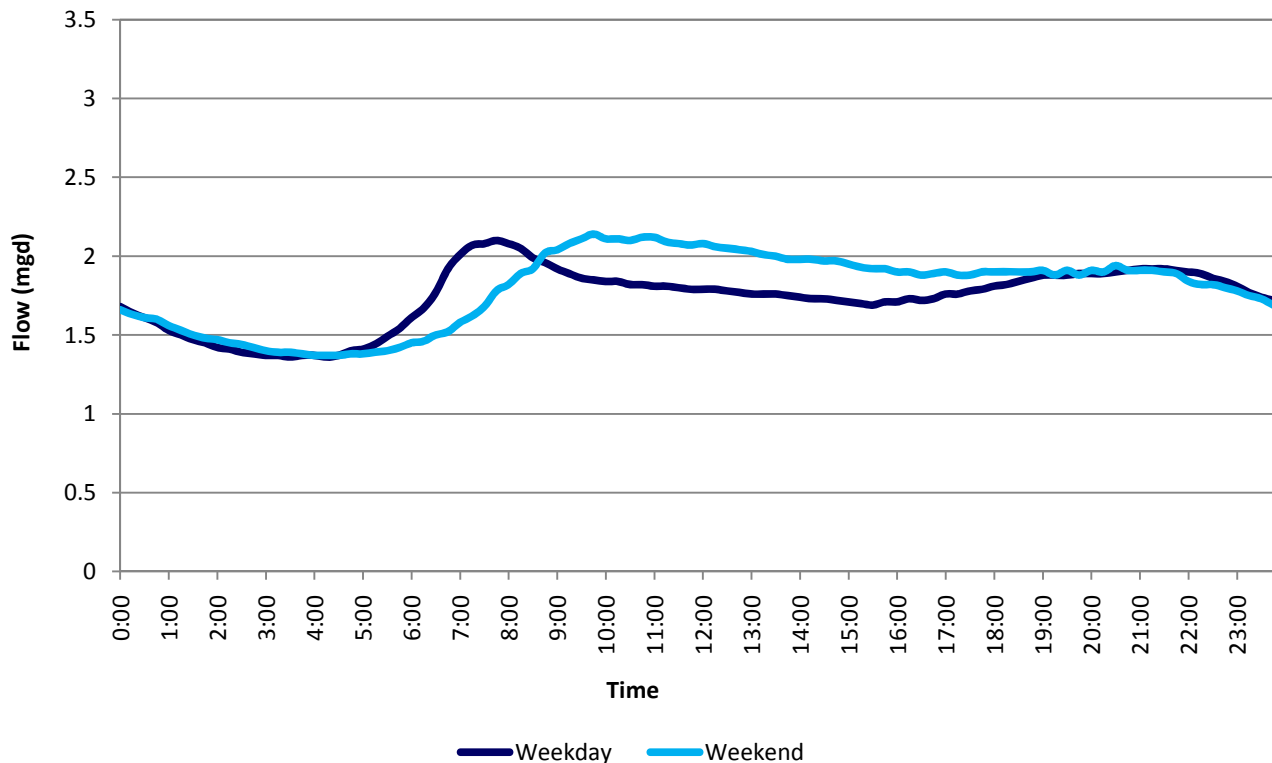
### General Information

Site:	T088-01-S0050
Description of Location:	Lakeside Avenue
Data Range:	10/21/2011 to 12/3/2012
Pipe Diameter:	24"
Interceptor:	Tacony High Level
Drainage Area (Acres):	497
Service Population:	12,452

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.74	140	2.10	169	1.36	109	0.78	87
Weekend	1.79	144	2.14	172	1.37	110	0.76	38
<b>Total</b>	<b>1.75</b>	<b>141</b>	<b>2.11</b>	<b>170</b>	<b>1.36</b>	<b>109</b>	<b>0.78</b>	<b>125</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**T088-01-S0050**

**General Information**

<b>Site:</b>	<b>T088-01-S0050</b>
Description of Location:	Lakeside Avenue
Data Range:	10/21/2011 to 12/3/2012
Pipe Diameter:	24"
Interceptor:	Tacony High Level
Drainage Area (Acres):	497
Service Population:	12,452

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
5/16/2012	2.97	0.45	9.39	11.9	1.31	8.01	10.6	4.57
10/29/2012	2.84	0.15	7.00	9.32	0.46	6.05	9.23	3.45
6/1/2012	0.53	0.11	6.69	10.1	0.24	5.83	9.06	3.32
6/29/2012	0.25	0.15	6.55	13.9	0.25	5.25	9.90	2.99
4/22/2012	2.19	0.12	6.44	8.90	0.40	5.99	8.58	3.41
<b>Five-Storm Average</b>	<b>1.76</b>	<b>0.20</b>	<b>7.21</b>	<b>10.8</b>	<b>0.53</b>	<b>6.23</b>	<b>9.47</b>	<b>3.55</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

T088-01-S0155

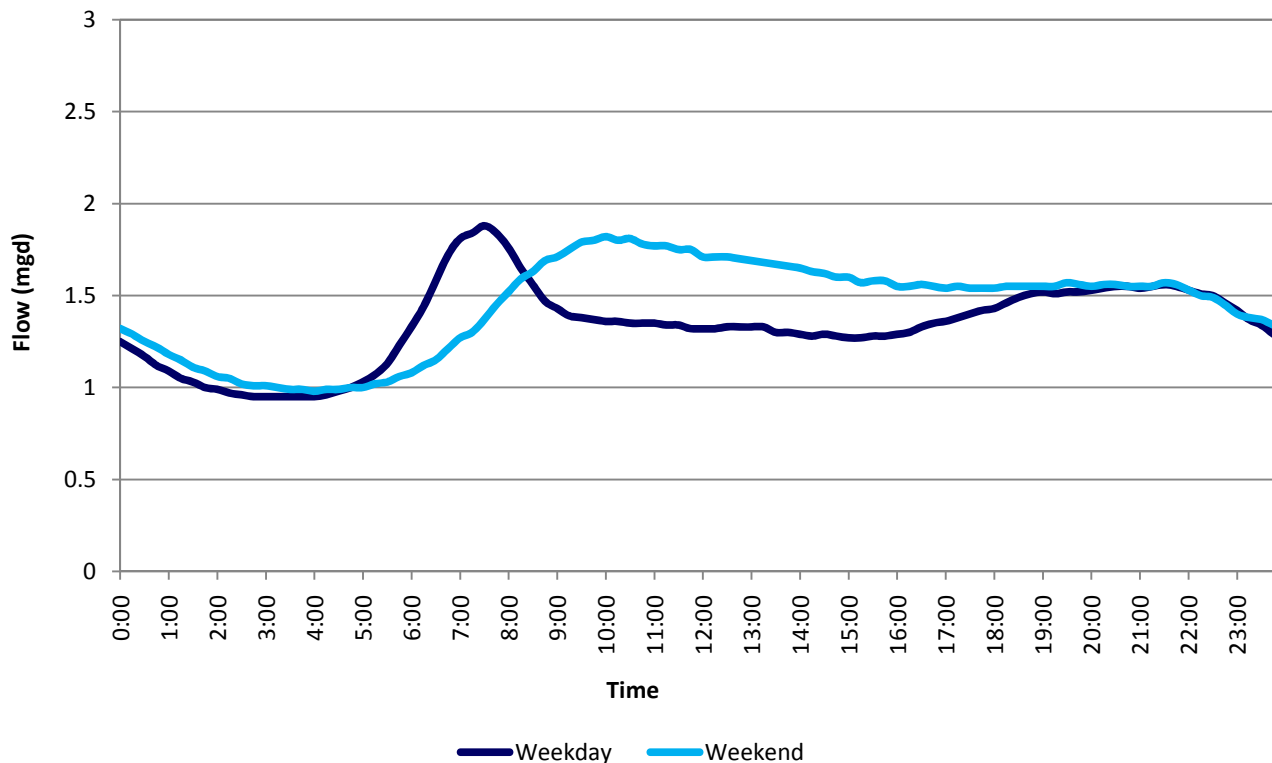
### General Information

Site:	T088-01-S0155
Description of Location:	15th Street
Data Range:	8/10/1999 to 6/12/2000
Pipe Diameter:	18"
Interceptor:	Tacony High Level
Drainage Area (Acres):	380
Service Population:	9,816

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.34	136	1.88	192	0.950	97	0.71	132
Weekend	1.44	147	1.82	185	0.980	100	0.68	62
<b>Total</b>	<b>1.37</b>	<b>140</b>	<b>1.86</b>	<b>190</b>	<b>0.960</b>	<b>98</b>	<b>0.70</b>	<b>194</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**T088-01-S0155**

**General Information**

<b>Site:</b>	<b>T088-01-S0155</b>
Description of Location:	15th Street
Data Range:	8/10/1999 to 6/12/2000
Pipe Diameter:	18"
Interceptor:	Tacony High Level
Drainage Area (Acres):	380
Service Population:	9,816

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/16/1999	6.94	0.28	4.97	52.4	0.81	4.83	51.3	3.52
9/7/1999	0.74	0.15	4.72	26.5	0.44	3.60	20.4	2.62
8/14/1999	1.63	0.68	4.68	50.7	1.20	4.44	37.7	3.24
2/14/2000	0.70	0.15	4.40	23.7	0.37	4.11	23.1	2.99
8/20/1999	0.62	0.19	4.40	22.4	0.38	3.67	19.4	2.67
<b>Five-Storm Average</b>	<b>2.13</b>	<b>0.29</b>	<b>4.63</b>	<b>35.1</b>	<b>0.64</b>	<b>4.13</b>	<b>30.4</b>	<b>3.01</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

T088-01-S0220

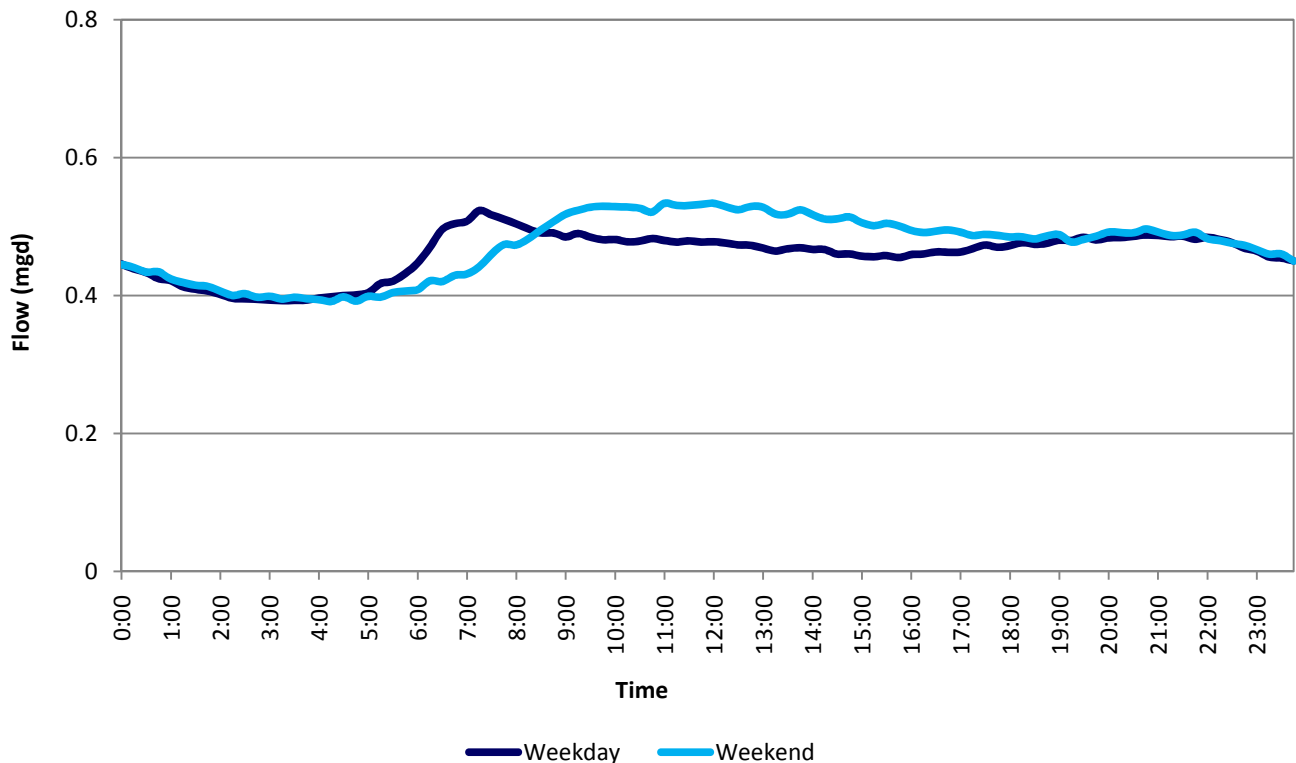
### General Information

Site:	T088-01-S0220
Description of Location:	7320 North Bouvier Street
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Tacony High Level
Drainage Area (Acres):	62
Service Population:	3,044

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.460	151	0.523	172	0.393	129	0.85	136
Weekend	0.472	155	0.534	175	0.392	129	0.83	59
<b>Total</b>	<b>0.464</b>	<b>152</b>	<b>0.526</b>	<b>173</b>	<b>0.392</b>	<b>129</b>	<b>0.85</b>	<b>195</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**T088-01-S0220**

**General Information**

<b>Site:</b>	<b>T088-01-S0220</b>
Description of Location:	7320 North Bouvier Street
Data Range:	12/11/2012 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Tacony High Level
Drainage Area (Acres):	62
Service Population:	3,044

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
5/8/2013	0.78	0.20	2.89	39.9	0.34	2.02	27.9	4.36
7/28/2013	0.36	0.12	2.69	24.9	0.16	1.59	16.0	3.43
12/18/2012	0.12	0.06	2.66	29.9	0.12	1.62	15.8	3.49
12/21/2012	2.06	0.21	2.66	57.6	0.45	2.57	51.6	5.54
3/12/2013	1.06	0.07	2.63	26.9	0.18	2.43	22.4	5.24
<b>Five-Storm Average</b>	<b>0.88</b>	<b>0.13</b>	<b>2.71</b>	<b>35.8</b>	<b>0.25</b>	<b>2.05</b>	<b>26.7</b>	<b>4.41</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### THL-B0375

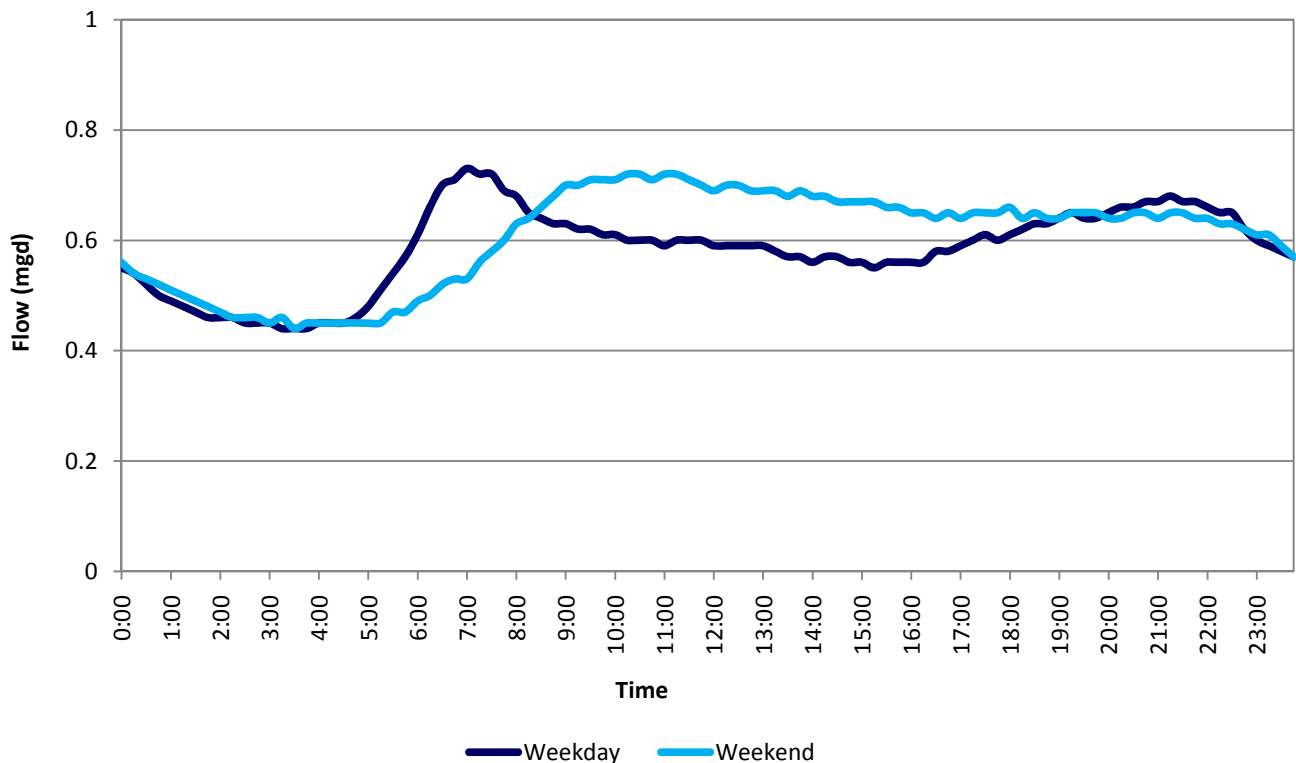
#### General Information

Site:	THL-B0375
Description of Location:	Crescentville Road
Data Range:	11/9/2010 to 6/3/2012
Pipe Diameter:	15"
Interceptor:	Tacony High Level
Drainage Area (Acres):	186
Service Population:	4,704

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.584	124	0.730	155	0.440	94	0.75	98
Weekend	0.606	129	0.720	153	0.440	94	0.73	41
<b>Total</b>	<b>0.591</b>	<b>126</b>	<b>0.727</b>	<b>155</b>	<b>0.440</b>	<b>94</b>	<b>0.75</b>	<b>139</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**THL-B0375**

**General Information**

<b>Site:</b>	<b>THL-B0375</b>
Description of Location:	Crescentville Road
Data Range:	11/9/2010 to 6/3/2012
Pipe Diameter:	15"
Interceptor:	Tacony High Level
Drainage Area (Acres):	186
Service Population:	4,704

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
4/16/2011	2.69	0.42	10.2	80.8	0.86	7.31	64.8	12.4
8/21/2011	2.76	0.80	6.99	74.9	1.86	5.81	68.7	9.84
12/1/2010	1.36	0.16	6.47	11.3	0.37	4.45	8.33	7.53
7/25/2011	0.89	0.36	6.32	45.3	0.66	3.46	25.4	5.86
9/23/2011	2.33	0.34	6.02	68.6	0.89	4.08	47.9	6.91
<b>Five-Storm Average</b>	<b>2.01</b>	<b>0.42</b>	<b>7.20</b>	<b>56.2</b>	<b>0.93</b>	<b>5.02</b>	<b>43.0</b>	<b>8.50</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### P083-03-S0050

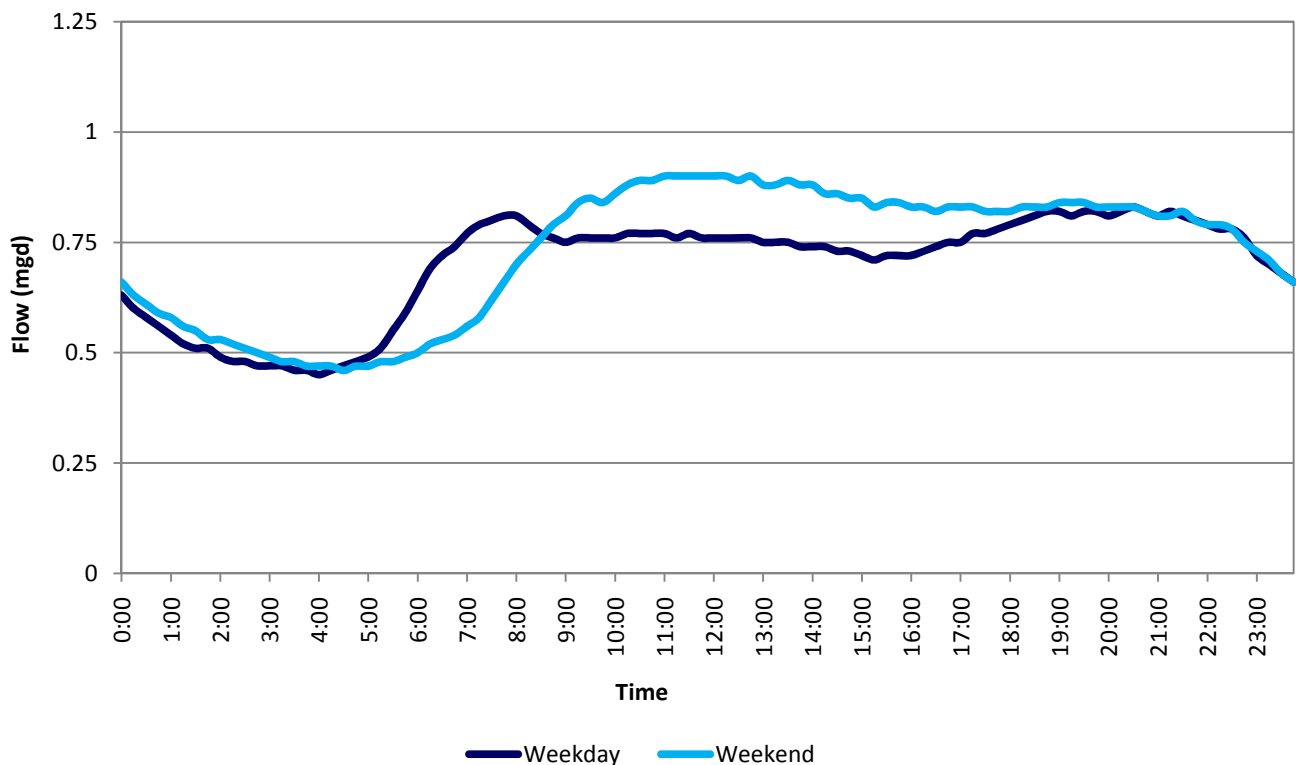
#### General Information

Site:	P083-03-S0050
Description of Location:	Blakiston Street
Data Range:	10/11/2011 to 9/30/2012
Pipe Diameter:	24"
Interceptor:	Upper Delaware Low Level
Drainage Area (Acres):	270
Service Population:	4,775

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.700	147	0.830	174	0.450	94	0.64	160
Weekend	0.730	153	0.900	188	0.460	96	0.63	68
<b>Total</b>	<b>0.709</b>	<b>148</b>	<b>0.851</b>	<b>178</b>	<b>0.453</b>	<b>95</b>	<b>0.64</b>	<b>228</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P083-03-S0050**

**General Information**

<b>Site:</b>	<b>P083-03-S0050</b>
Description of Location:	Blakiston Street
Data Range:	10/11/2011 to 9/30/2012
Pipe Diameter:	24"
Interceptor:	Upper Delaware Low Level
Drainage Area (Acres):	270
Service Population:	4,775

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/4/2012	2.61	0.38	10.5	15.2	1.10	7.59	14.7	10.7
8/4/2012	0.66	0.43	8.68	22.5	0.66	3.98	11.6	5.61
7/15/2012	0.82	0.52	6.89	13.6	0.58	3.64	9.26	5.13
5/16/2012	1.20	0.27	6.56	12.1	0.54	4.28	10.4	6.04
6/2/2012	0.60	0.17	5.43	12.3	0.34	2.48	8.05	3.50
<b>Five-Storm Average</b>	<b>1.18</b>	<b>0.35</b>	<b>7.61</b>	<b>15.1</b>	<b>0.64</b>	<b>4.39</b>	<b>10.8</b>	<b>6.20</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### P083-03-S0050

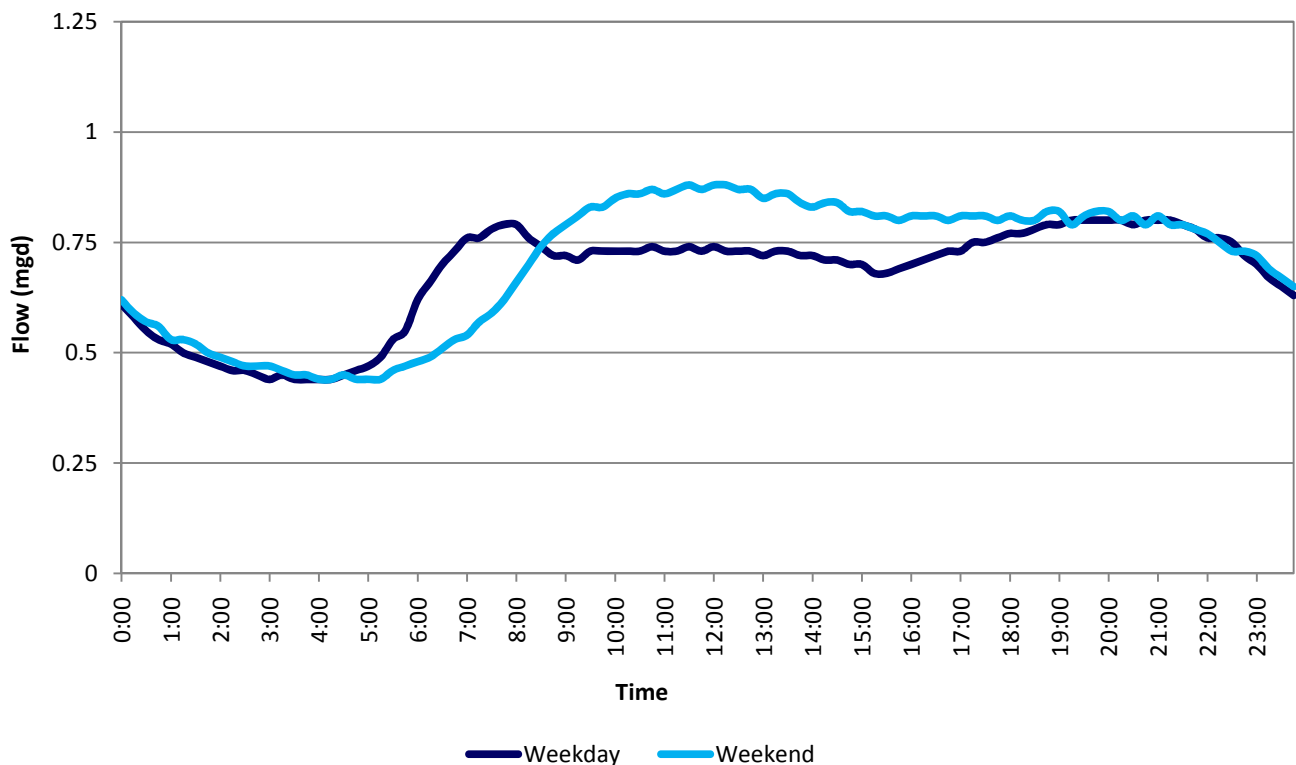
#### General Information

Site:	P083-03-S0050
Description of Location:	Blakiston Street
Data Range:	10/1/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Upper Delaware Low Level
Drainage Area (Acres):	270
Service Population:	4,775

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.675	141	0.800	168	0.440	92	0.65	122
Weekend	0.704	148	0.880	184	0.440	92	0.62	51
<b>Total</b>	<b>0.684</b>	<b>143</b>	<b>0.824</b>	<b>172</b>	<b>0.440</b>	<b>92</b>	<b>0.64</b>	<b>173</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**P083-03-S0050**

**General Information**

<b>Site:</b>	<b>P083-03-S0050</b>
Description of Location:	Blakiston Street
Data Range:	10/1/2012 to 9/30/2013
Pipe Diameter:	24"
Interceptor:	Upper Delaware Low Level
Drainage Area (Acres):	270
Service Population:	4,775

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
7/23/2013	1.71	0.64	7.55	67.1	1.46	4.25	38.7	6.21
8/13/2013	1.37	0.50	6.12	22.8	0.99	4.69	19.5	6.86
6/7/2013	3.73	0.39	5.81	74.3	0.88	4.65	55.8	6.80
8/28/2013	0.71	0.16	5.80	15.0	0.49	4.00	12.3	5.85
6/10/2013	2.28	0.35	5.37	43.2	0.70	4.11	31.2	6.01
<b>Five-Storm Average</b>	<b>1.96</b>	<b>0.41</b>	<b>6.13</b>	<b>44.5</b>	<b>0.90</b>	<b>4.34</b>	<b>31.5</b>	<b>6.35</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### UDLL-0270

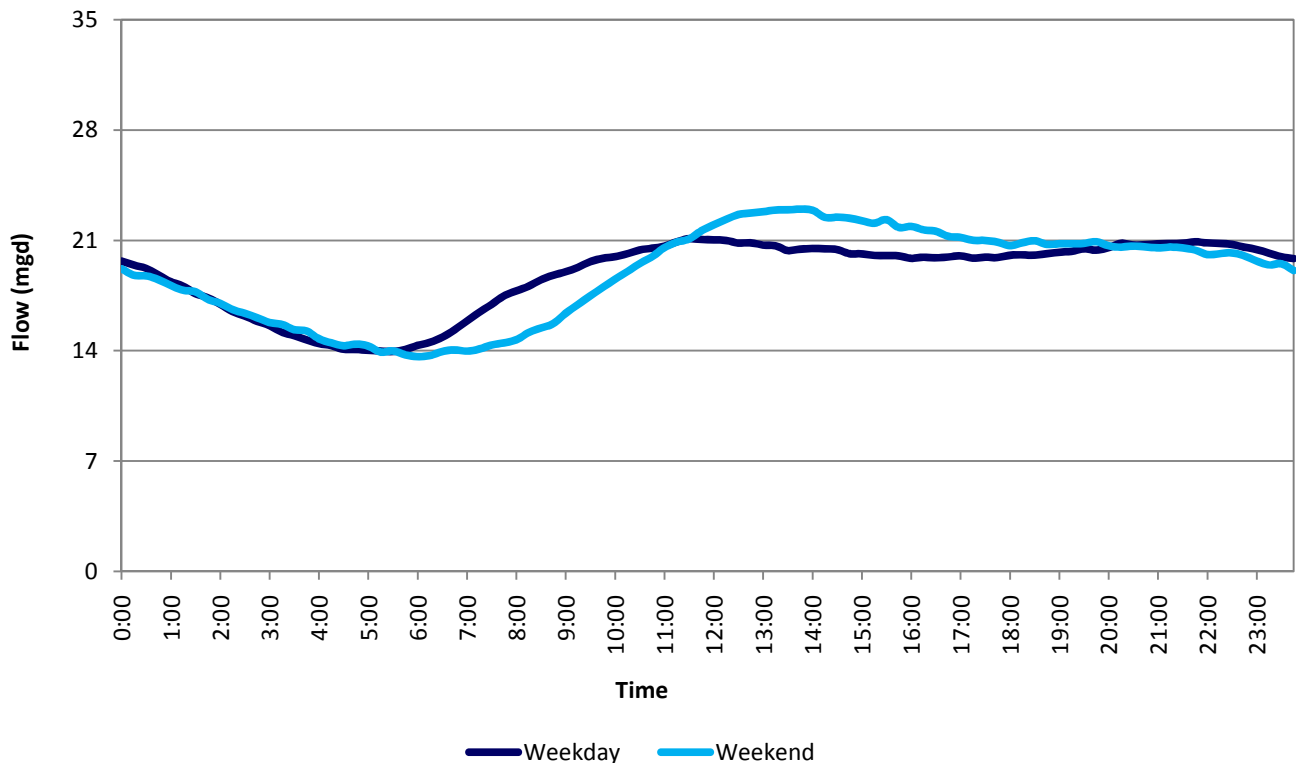
#### General Information

Site:	UDLL-0270
Description of Location:	9551 State Road
Data Range:	10/5/2012 to 9/30/2013
Pipe Diameter:	72" x 62"
Interceptor:	Upper Delaware Low Level
Drainage Area (Acres):	14,644
Service Population:	118,393

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	18.8	159	21.1	178	14.0	118	0.74	179
Weekend	18.9	159	23.0	194	13.6	115	0.72	80
<b>Total</b>	<b>18.8</b>	<b>159</b>	<b>21.7</b>	<b>183</b>	<b>13.9</b>	<b>117</b>	<b>0.74</b>	<b>259</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**UDLL-0270**

**General Information**

<b>Site:</b>	<b>UDLL-0270</b>
Description of Location:	9551 State Road
Data Range:	10/5/2012 to 9/30/2013
Pipe Diameter:	72" x 62"
Interceptor:	Upper Delaware Low Level
Drainage Area (Acres):	14,644
Service Population:	118,393

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
12/26/2012	1.24	0.10	54.0	146	0.32	52.7	145	2.80
8/13/2013	2.05	0.72	53.1	154	1.40	50.1	154	2.66
6/10/2013	1.96	0.27	51.4	149	0.61	48.8	148	2.59
10/19/2012	0.78	0.22	51.1	86.0	0.50	44.9	82.9	2.38
12/21/2012	1.90	0.17	46.9	146	0.37	44.6	146	2.37
<b>Five-Storm Average</b>	<b>1.59</b>	<b>0.30</b>	<b>51.3</b>	<b>136</b>	<b>0.64</b>	<b>48.2</b>	<b>135</b>	<b>2.56</b>



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**S051-05-S0020**

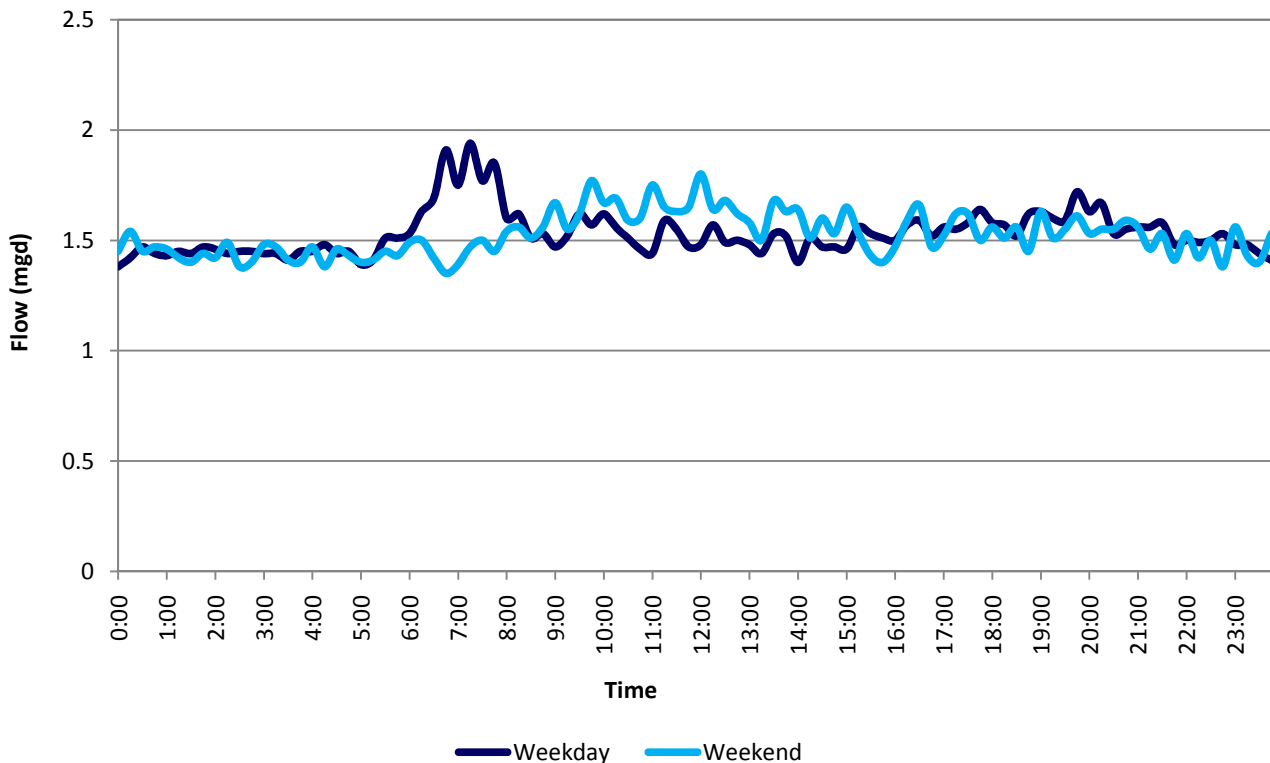
**General Information**

Site:	S051-05-S0020
Description of Location:	Cresson Street and Levering Street
Data Range:	2/16/2001 to 4/24/2001
Pipe Diameter:	15"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	90
Service Population:	2,264

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.53	677	1.94	857	1.38	610	0.90	22
Weekend	1.52	673	1.80	795	1.35	596	0.89	13
<b>Total</b>	<b>1.53</b>	<b>675</b>	<b>1.89</b>	<b>834</b>	<b>1.37</b>	<b>605</b>	<b>0.90</b>	<b>35</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**S051-05-S0020**

**General Information**

<b>Site:</b>	<b>S051-05-S0020</b>
Description of Location:	Cresson Street and Levering Street
Data Range:	2/16/2001 to 4/24/2001
Pipe Diameter:	15"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	90
Service Population:	2,264

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
3/30/2001	2.32	0.18	2.00	11.2	0.45	1.43	10.0	0.94
4/9/2001	0.36	0.23	1.59	11.7	0.35	1.09	9.31	0.71
3/21/2001	1.22	0.11	1.47	9.75	0.30	1.23	9.23	0.80
3/13/2001	0.90	0.07	1.38	8.88	0.21	1.21	8.37	0.79
3/15/2001	0.30	0.07	1.17	9.31	0.20	0.94	8.91	0.61
<b>Five-Storm Average</b>	<b>1.02</b>	<b>0.13</b>	<b>1.52</b>	<b>10.2</b>	<b>0.30</b>	<b>1.18</b>	<b>9.16</b>	<b>0.77</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**S051-08-S0175**

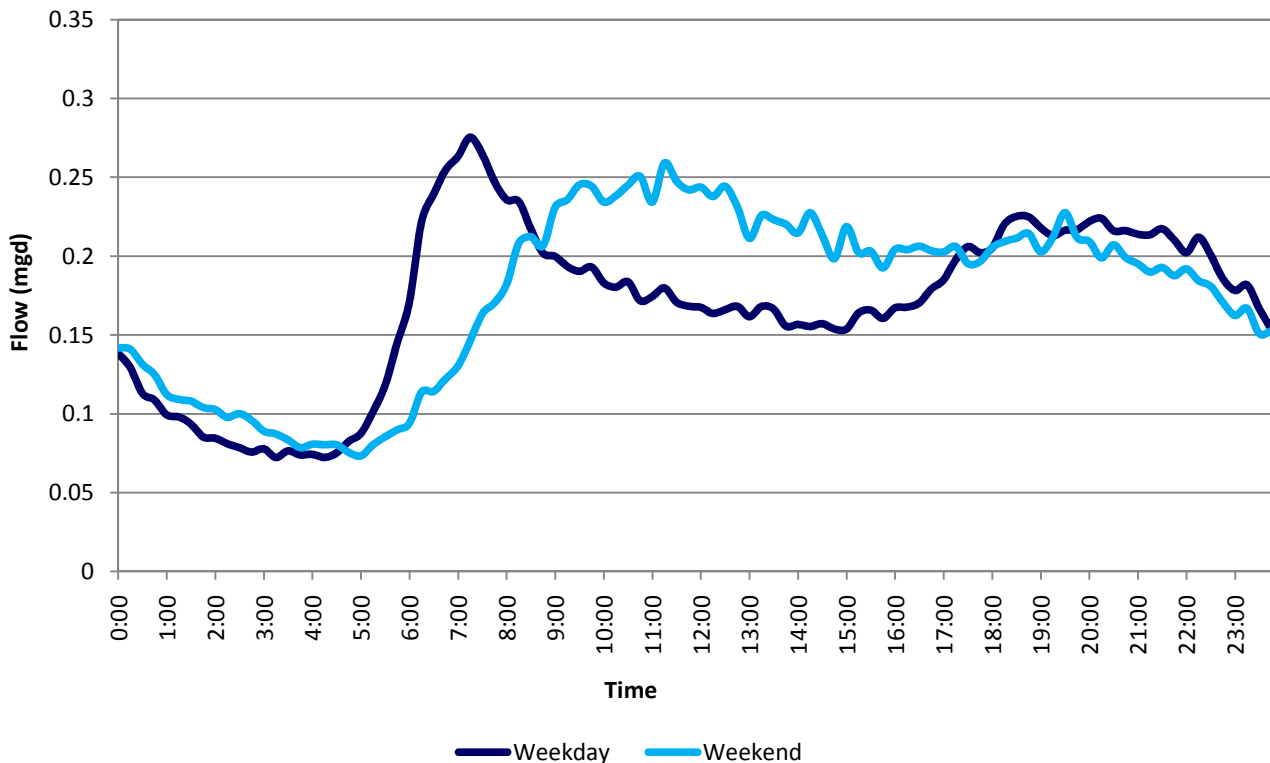
**General Information**

Site:	S051-08-S0175
Description of Location:	Cresson Street and Davis Street
Data Range:	2/13/2001 to 9/10/2001
Pipe Diameter:	12"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	68
Service Population:	2,092

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.170	81	0.275	132	0.0724	35	0.43	84
Weekend	0.176	84	0.259	124	0.0733	35	0.42	37
<b>Total</b>	<b>0.171</b>	<b>82</b>	<b>0.270</b>	<b>129</b>	<b>0.0727</b>	<b>35</b>	<b>0.42</b>	<b>121</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**S051-08-S0175**

**General Information**

<b>Site:</b>	<b>S051-08-S0175</b>
Description of Location:	Cresson Street and Davis Street
Data Range:	2/13/2001 to 9/10/2001
Pipe Diameter:	12"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	68
Service Population:	2,092

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/16/2001	3.93	0.71	3.32	53.1	0.83	1.72	29.1	10.0
6/1/2001	1.36	0.15	2.25	7.43	0.35	1.52	5.94	8.86
3/30/2001	1.92	0.13	2.19	6.83	0.33	1.99	5.79	11.6
5/22/2001	1.80	0.13	1.99	6.78	0.39	1.76	5.86	10.3
3/13/2001	0.89	0.06	1.82	5.95	0.23	1.57	5.56	9.16
<b>Five-Storm Average</b>	<b>1.98</b>	<b>0.24</b>	<b>2.31</b>	<b>16.0</b>	<b>0.43</b>	<b>1.71</b>	<b>10.5</b>	<b>9.98</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**S059-01-S0010**

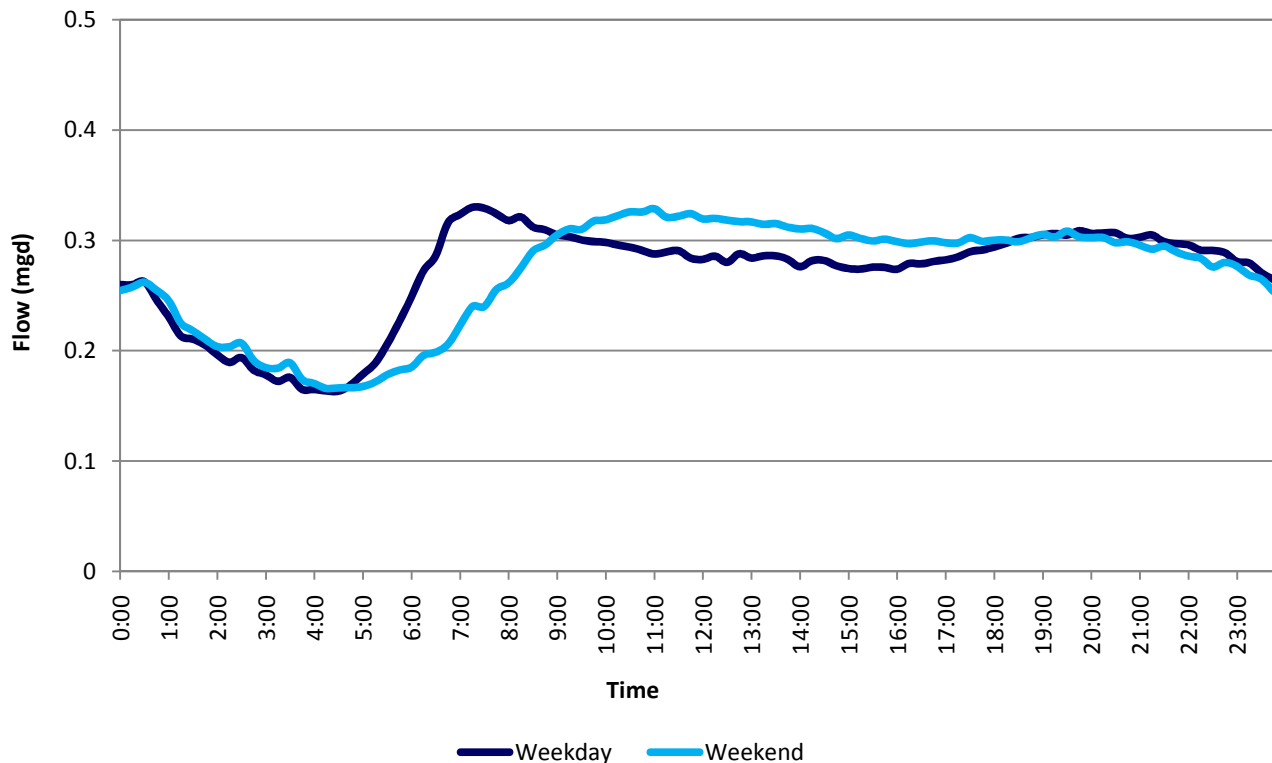
**General Information**

Site:	S059-01-S0010
Description of Location:	PaperWorks Industries, East Flat Rock Road
Data Range:	12/12/2012 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	134
Service Population:	1,565

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.270	172	0.330	211	0.163	104	0.61	161
Weekend	0.270	172	0.329	210	0.166	106	0.62	76
<b>Total</b>	<b>0.270</b>	<b>172</b>	<b>0.330</b>	<b>211</b>	<b>0.164</b>	<b>105</b>	<b>0.61</b>	<b>237</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**S059-01-S0010**

**General Information**

<b>Site:</b>	<b>S059-01-S0010</b>
Description of Location:	PaperWorks Industries, East Flat Rock Road
Data Range:	12/12/2012 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	134
Service Population:	1,565

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/2/2013	1.36	0.57	0.840	16.3	1.20	0.620	11.1	2.30
6/27/2013	0.71	0.41	0.770	6.50	0.52	0.510	4.93	1.89
9/21/2013	1.17	0.21	0.730	5.79	0.52	0.600	5.15	2.23
6/10/2013	1.80	0.47	0.730	7.98	0.77	0.560	6.19	2.08
12/21/2012	2.32	0.21	0.710	7.89	0.48	0.590	5.86	2.19
<b>Five-Storm Average</b>	<b>1.47</b>	<b>0.37</b>	<b>0.756</b>	<b>8.89</b>	<b>0.70</b>	<b>0.576</b>	<b>6.65</b>	<b>2.14</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### S059-02-S0010

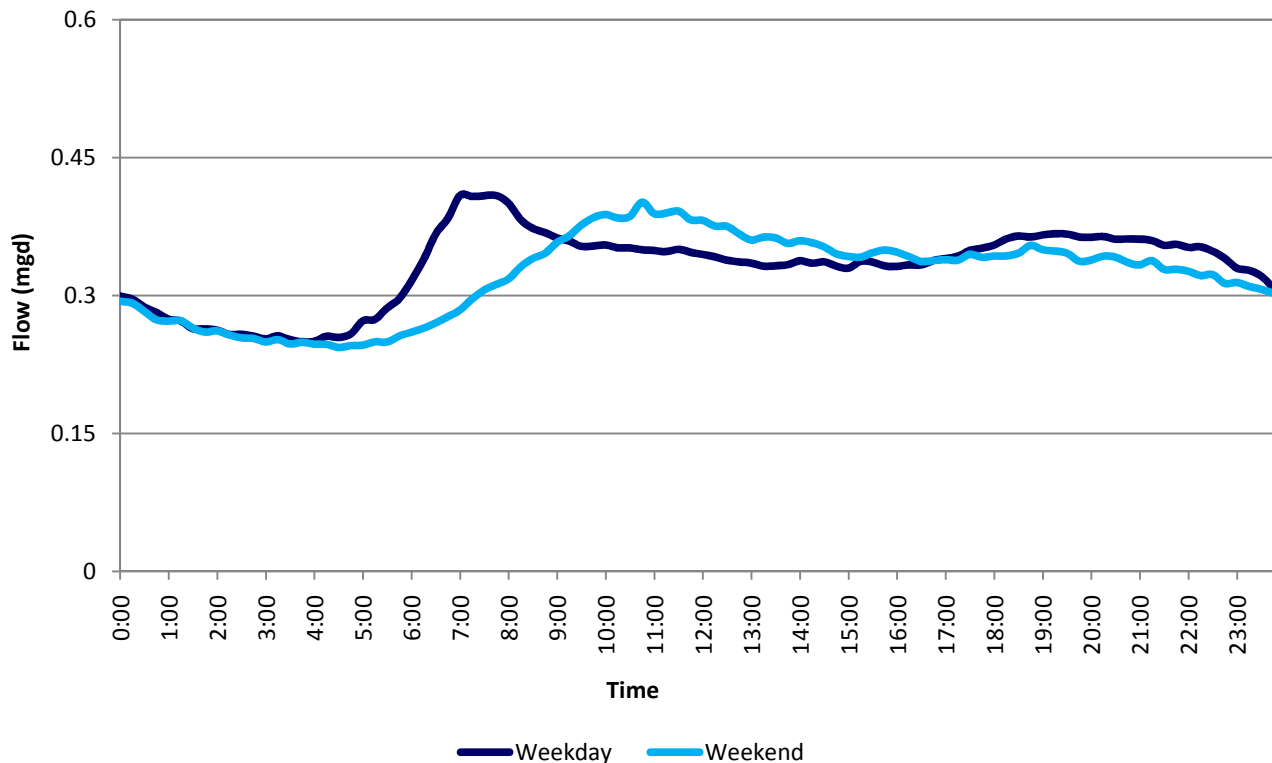
#### General Information

Site:	S059-02-S0010
Description of Location:	Gates Street
Data Range:	6/27/2000 to 9/27/2001
Pipe Diameter:	10"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	86
Service Population:	2,029

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.331	163	0.409	201	0.250	123	0.75	162
Weekend	0.321	158	0.401	198	0.243	120	0.76	81
<b>Total</b>	<b>0.328</b>	<b>162</b>	<b>0.406</b>	<b>200</b>	<b>0.248</b>	<b>122</b>	<b>0.76</b>	<b>243</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**S059-02-S0010**

**General Information**

<b>Site:</b>	<b>S059-02-S0010</b>
Description of Location:	Gates Street
Data Range:	6/27/2000 to 9/27/2001
Pipe Diameter:	10"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	86
Service Population:	2,029

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/27/2000	0.57	0.21	2.19	8.89	0.45	1.63	6.72	4.97
8/1/2000	0.76	0.27	2.09	8.34	0.44	1.00	4.64	3.05
8/11/2000	0.49	0.23	2.05	8.49	0.29	1.25	5.64	3.81
9/13/2000	0.77	0.38	2.04	7.71	0.71	1.36	5.82	4.15
7/26/2000	2.55	0.25	2.03	8.55	0.67	1.45	6.52	4.42
<b>Five-Storm Average</b>	<b>1.03</b>	<b>0.27</b>	<b>2.08</b>	<b>8.40</b>	<b>0.51</b>	<b>1.34</b>	<b>5.87</b>	<b>4.08</b>



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**S059-04-S0035**

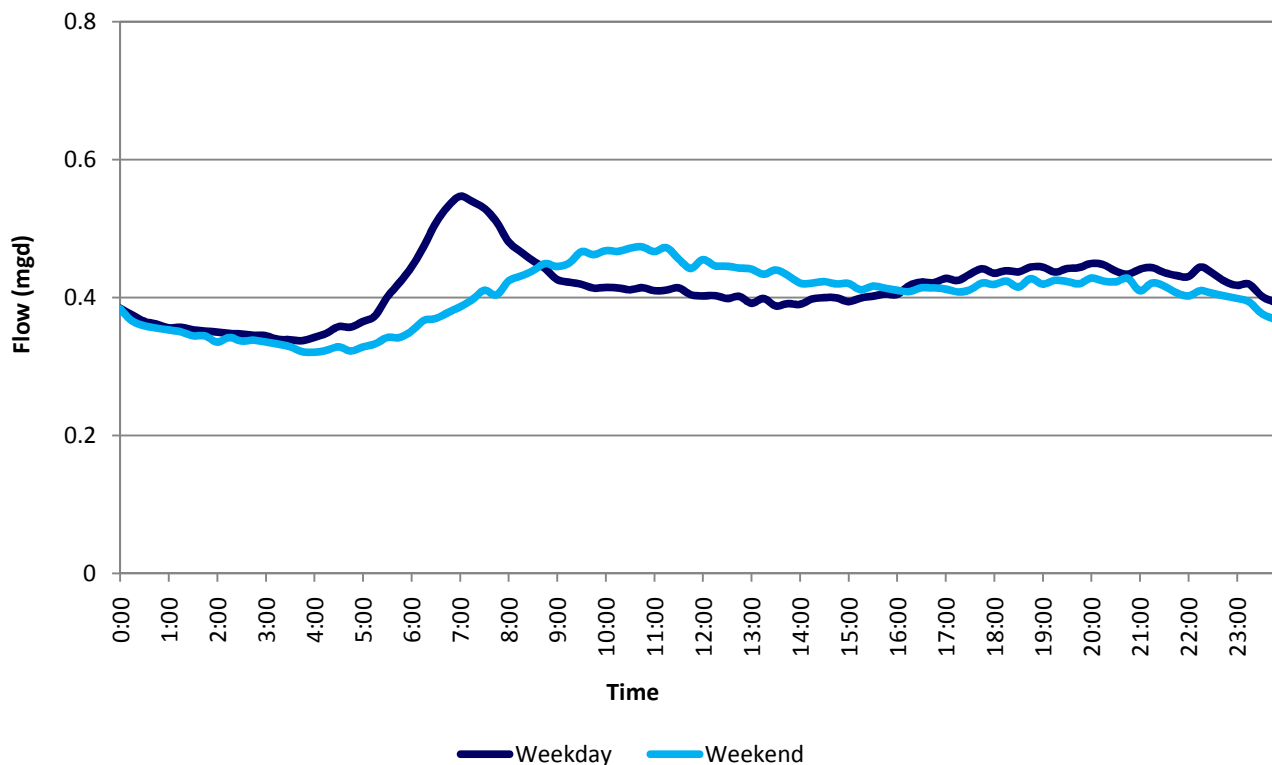
**General Information**

Site:	S059-04-S0035
Description of Location:	Leverington Avenue
Data Range:	6/13/2000 to 9/10/2001
Pipe Diameter:	15"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	141
Service Population:	3,734

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.413	111	0.547	146	0.337	90	0.82	126
Weekend	0.402	108	0.474	127	0.320	86	0.80	49
<b>Total</b>	<b>0.410</b>	<b>110</b>	<b>0.526</b>	<b>141</b>	<b>0.333</b>	<b>89</b>	<b>0.81</b>	<b>175</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**S059-04-S0035**

**General Information**

<b>Site:</b>	<b>S059-04-S0035</b>
Description of Location:	Leverington Avenue
Data Range:	6/13/2000 to 9/10/2001
Pipe Diameter:	15"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	141
Service Population:	3,734

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/11/2000	0.49	0.23	12.2	18.9	0.29	5.60	9.90	13.7
6/18/2000	1.77	0.57	7.51	12.9	1.26	5.79	10.8	14.1
8/1/2000	0.76	0.27	5.38	10.1	0.40	2.95	6.91	7.19
7/26/2000	2.55	0.25	5.17	11.4	0.67	4.13	7.87	10.1
9/15/2000	1.76	0.32	5.13	21.9	0.89	4.30	15.3	10.5
<b>Five-Storm Average</b>	<b>1.47</b>	<b>0.33</b>	<b>7.08</b>	<b>15.0</b>	<b>0.70</b>	<b>4.55</b>	<b>10.2</b>	<b>11.1</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

USE-0365

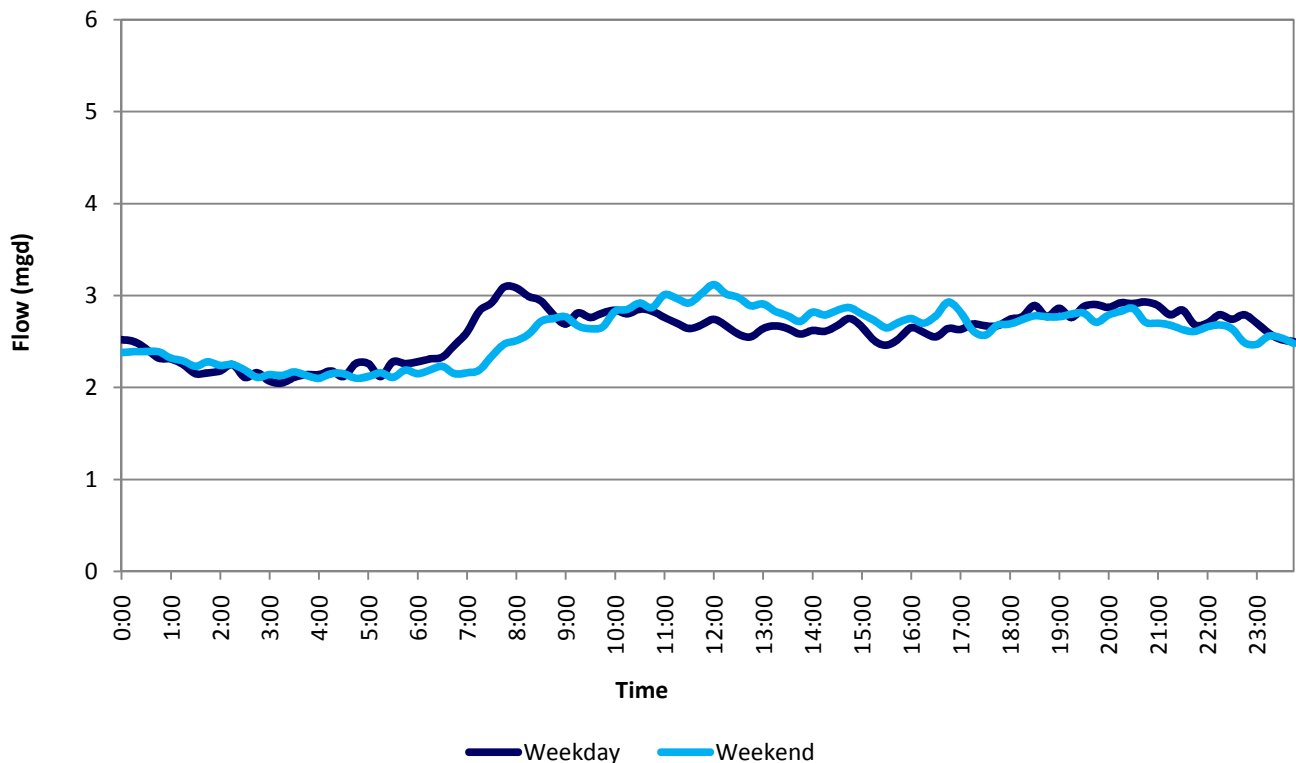
### General Information

Site:	USE-0365
Description of Location:	Main Street and Jamestown Street
Data Range:	5/1/2010 to 8/23/2010
Pipe Diameter:	48"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	773
Service Population:	13,233

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	2.59	196	3.09	234	2.05	155	0.79	28
Weekend	2.58	195	3.12	236	2.10	159	0.81	20
<b>Total</b>	<b>2.59</b>	<b>195</b>	<b>3.10</b>	<b>234</b>	<b>2.07</b>	<b>156</b>	<b>0.80</b>	<b>48</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**USE-0365**

**General Information**

<b>Site:</b>	<b>USE-0365</b>
Description of Location:	Main Street and Jamestown Street
Data Range:	5/1/2010 to 8/23/2010
Pipe Diameter:	48"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	773
Service Population:	13,233

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
7/13/2010	2.38	0.56	19.4	83.9	1.22	18.0	82.1	6.96
7/25/2010	0.92	0.45	17.3	66.9	0.86	12.9	61.3	4.99
7/10/2010	1.12	0.19	13.0	63.4	0.38	12.3	60.9	4.76
7/9/2010	1.53	0.25	11.5	67.4	0.57	11.0	59.1	4.25
5/3/2010	0.97	0.17	10.8	65.1	0.54	9.82	61.7	3.80
<b>Five-Storm Average</b>	<b>1.38</b>	<b>0.32</b>	<b>14.4</b>	<b>69.3</b>	<b>0.71</b>	<b>12.8</b>	<b>65.0</b>	<b>4.95</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**USE-0365**

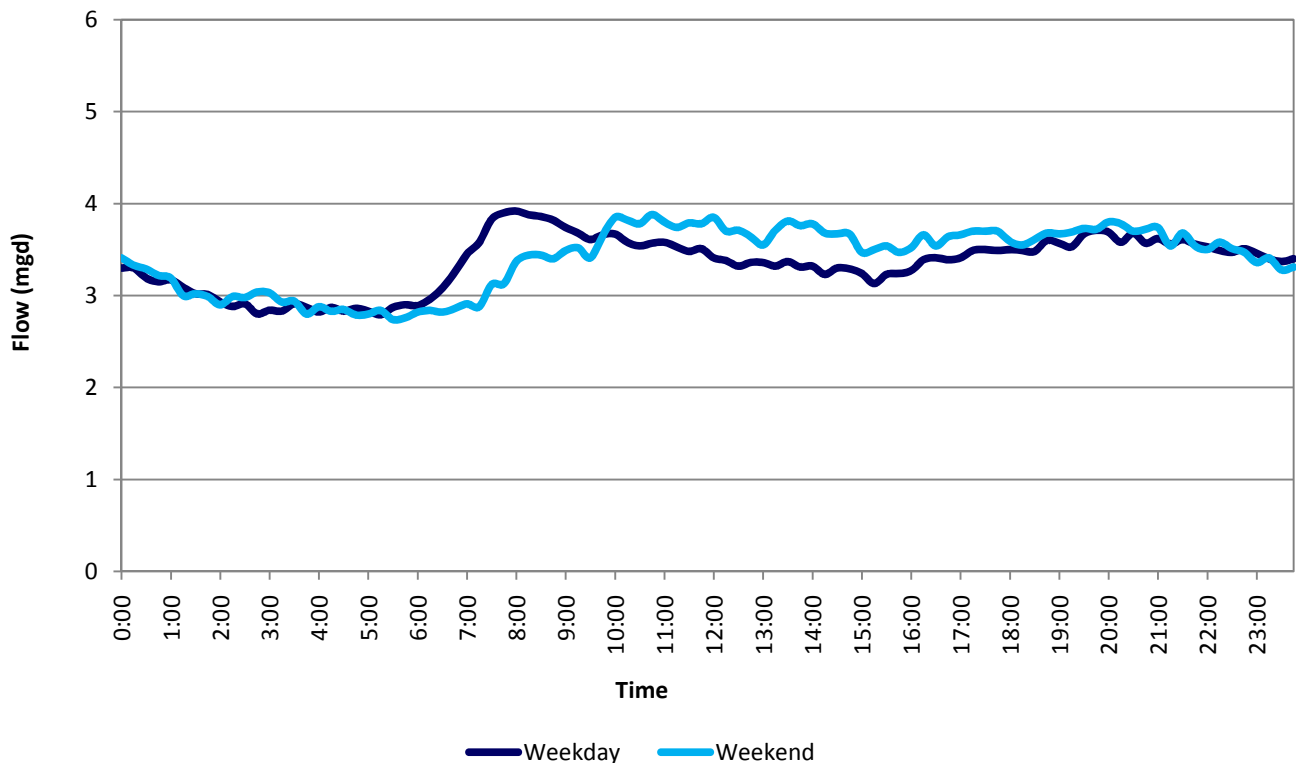
**General Information**

<b>Site:</b>	<b>USE-0365</b>
Description of Location:	Main Street and Jamestown Street
Data Range:	4/1/2012 to 1/7/2013
Pipe Diameter:	48"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	773
Service Population:	13,233

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	3.35	253	3.92	296	2.79	211	0.83	55
Weekend	3.41	257	3.88	293	2.74	207	0.80	27
<b>Total</b>	<b>3.37</b>	<b>255</b>	<b>3.91</b>	<b>295</b>	<b>2.77</b>	<b>210</b>	<b>0.82</b>	<b>82</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**USE-0365**

**General Information**

<b>Site:</b>	<b>USE-0365</b>
Description of Location:	Main Street and Jamestown Street
Data Range:	4/1/2012 to 1/7/2013
Pipe Diameter:	48"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	773
Service Population:	13,233

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
5/16/2012	1.03	0.31	24.6	77.1	0.78	21.4	67.6	6.35
7/20/2012	1.34	0.63	22.6	68.1	0.82	17.6	57.8	5.22
12/21/2012	2.31	0.20	20.7	68.4	0.48	18.5	62.7	5.49
6/22/2012	0.96	0.22	19.5	68.0	0.66	18.2	64.1	5.40
5/15/2012	0.84	0.14	18.2	65.7	0.42	16.2	58.4	4.81
<b>Five-Storm Average</b>	<b>1.30</b>	<b>0.30</b>	<b>21.1</b>	<b>69.5</b>	<b>0.63</b>	<b>18.4</b>	<b>62.1</b>	<b>5.46</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**USE-0500**

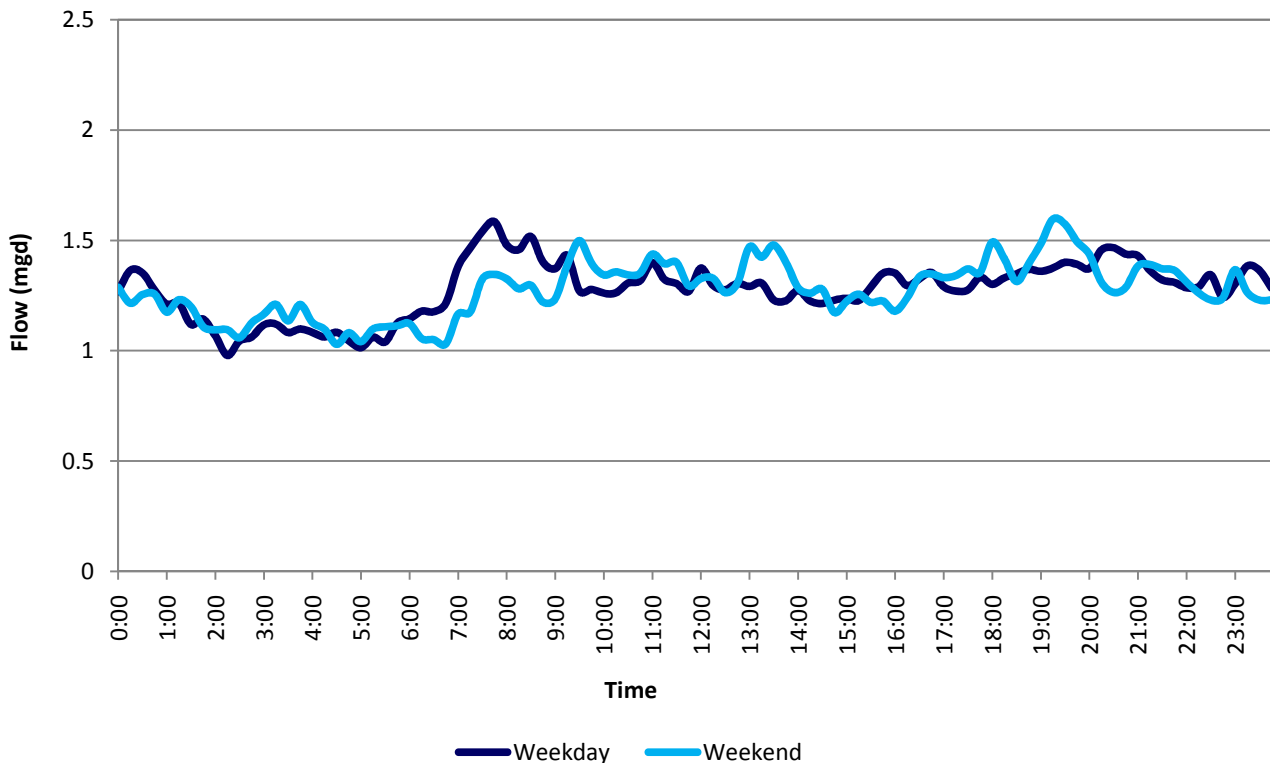
**General Information**

Site:	USE-0500
Description of Location:	East Flat Rock Road and Fountain Street
Data Range:	4/1/2012 to 6/30/2012
Pipe Diameter:	43" x 34"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	397
Service Population:	3,193

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	1.28	400	1.58	496	0.979	307	0.77	46
Weekend	1.28	399	1.60	500	1.03	322	0.81	22
<b>Total</b>	<b>1.28</b>	<b>400</b>	<b>1.59</b>	<b>497</b>	<b>1.00</b>	<b>312</b>	<b>0.78</b>	<b>68</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**USE-0500**

**General Information**

<b>Site:</b>	<b>USE-0500</b>
Description of Location:	East Flat Rock Road and Fountain Street
Data Range:	4/1/2012 to 6/30/2012
Pipe Diameter:	43" x 34"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	397
Service Population:	3,193

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
5/16/2012	1.04	0.42	8.68	40.1	0.80	7.56	40.1	5.92
6/1/2012	0.94	0.38	7.26	32.2	0.54	4.25	26.4	3.33
6/22/2012	0.87	0.19	5.80	41.5	0.56	4.15	36.7	3.25
5/27/2012	0.77	0.19	4.93	40.1	0.61	3.55	31.4	2.78
4/22/2012	2.34	0.11	4.78	29.2	0.43	4.15	26.9	3.25
<b>Five-Storm Average</b>	<b>1.19</b>	<b>0.26</b>	<b>6.29</b>	<b>36.6</b>	<b>0.59</b>	<b>4.73</b>	<b>32.3</b>	<b>3.70</b>



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**USE-0660**

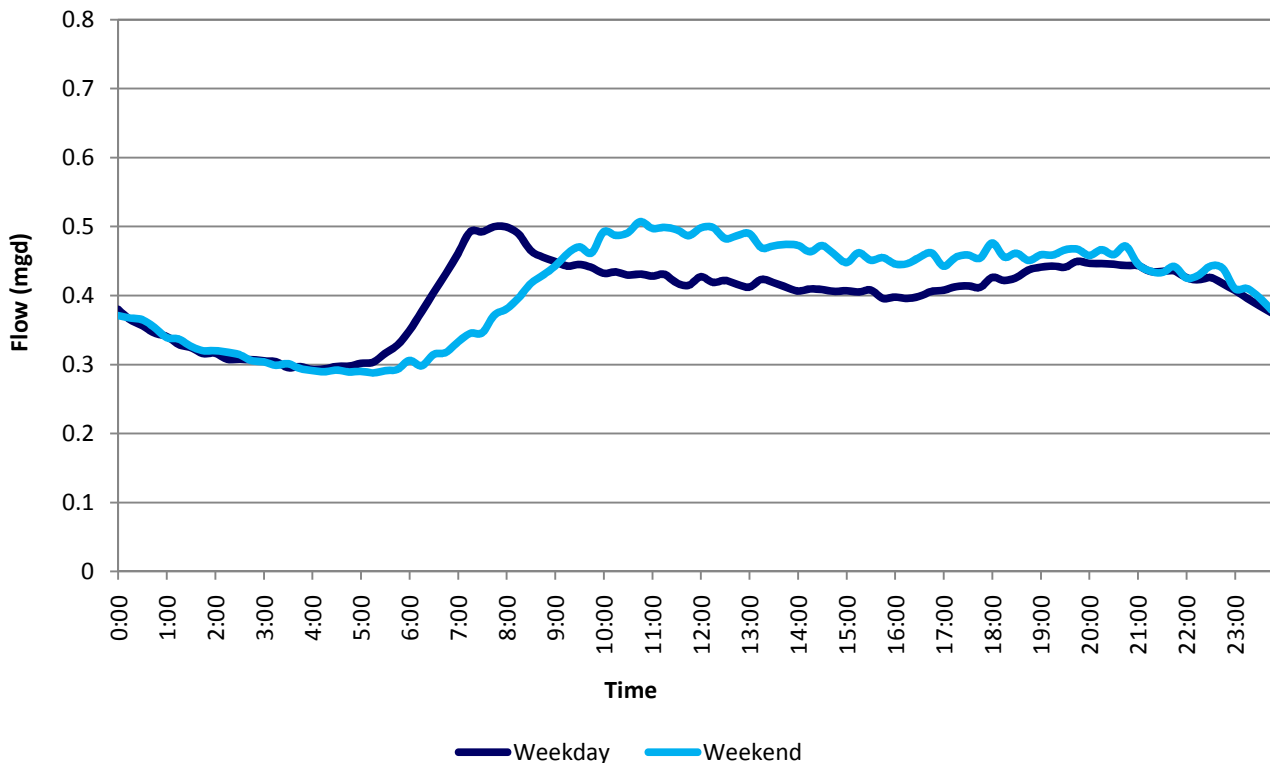
**General Information**

Site:	USE-0660
Description of Location:	End of East Flat Rock Road
Data Range:	7/12/2012 to 8/4/2013
Pipe Diameter:	31"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	246
Service Population:	1,627

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.399	246	0.500	307	0.293	180	0.73	77
Weekend	0.411	252	0.507	312	0.288	177	0.70	28
<b>Total</b>	<b>0.402</b>	<b>247</b>	<b>0.502</b>	<b>308</b>	<b>0.292</b>	<b>179</b>	<b>0.72</b>	<b>105</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**USE-0660**

**General Information**

<b>Site:</b>	<b>USE-0660</b>
Description of Location:	End of East Flat Rock Road
Data Range:	7/12/2012 to 8/4/2013
Pipe Diameter:	31"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	246
Service Population:	1,627

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
7/20/2012	1.36	0.52	12.9	18.6	0.85	6.86	11.9	17.0
8/11/2012	0.72	0.32	11.7	15.5	0.56	6.56	11.3	16.3
7/15/2012	0.92	0.56	11.6	16.5	0.77	6.65	11.5	16.5
8/14/2012	0.69	0.48	10.8	15.8	0.68	5.99	10.8	14.9
8/10/2012	1.03	0.36	10.2	15.8	0.76	4.76	10.1	11.8
<b>Five-Storm Average</b>	<b>0.94</b>	<b>0.45</b>	<b>11.4</b>	<b>16.4</b>	<b>0.72</b>	<b>6.16</b>	<b>11.1</b>	<b>15.3</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### USE-0760

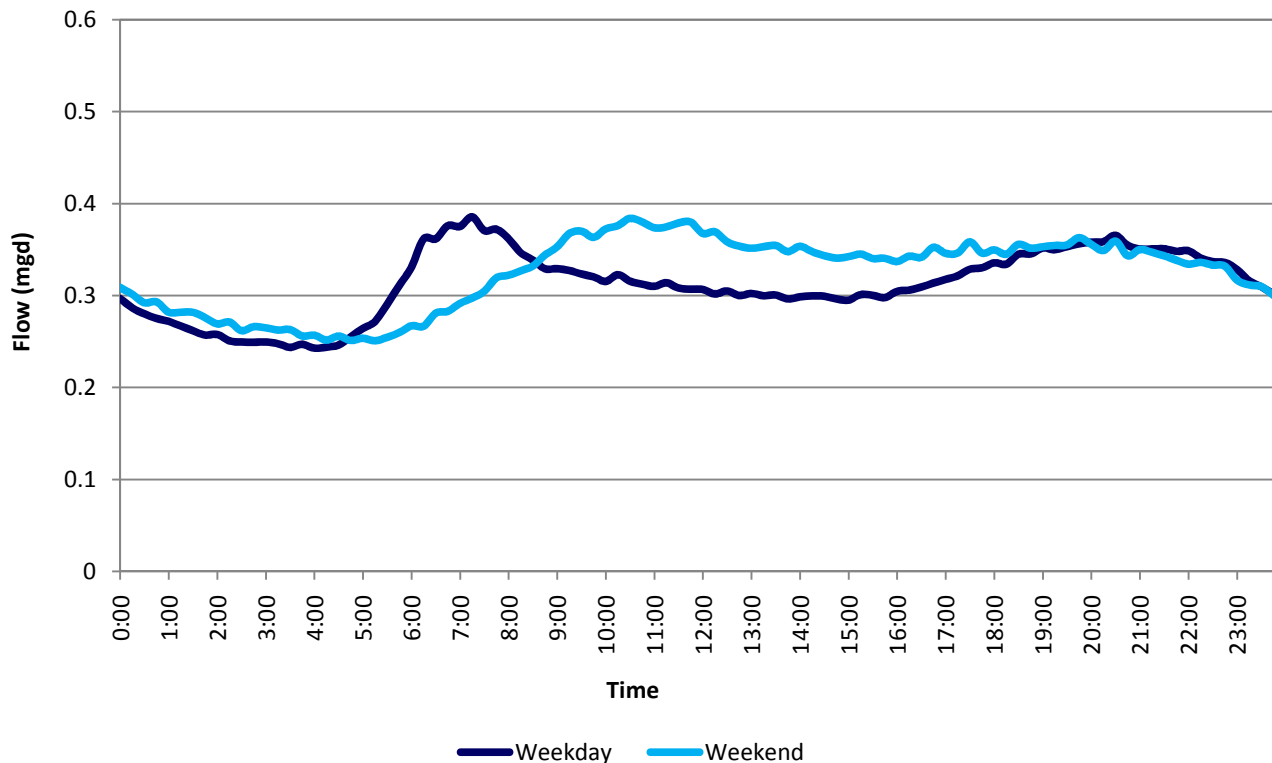
#### General Information

Site:	USE-0760
Description of Location:	End of Nixon Street
Data Range:	11/29/2007 to 11/30/2008
Pipe Diameter:	32"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	184
Service Population:	1,310

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.312	239	0.386	294	0.243	185	0.78	165
Weekend	0.324	248	0.384	293	0.251	191	0.77	78
<b>Total</b>	<b>0.316</b>	<b>241</b>	<b>0.385</b>	<b>294</b>	<b>0.245</b>	<b>187</b>	<b>0.78</b>	<b>243</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**USE-0760**

**General Information**

<b>Site:</b>	<b>USE-0760</b>
Description of Location:	End of Nixon Street
Data Range:	11/29/2007 to 11/30/2008
Pipe Diameter:	32"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	184
Service Population:	1,310

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
3/8/2008	1.95	0.14	7.49	19.5	0.44	6.71	17.8	21.2
12/30/2007	0.45	0.05	5.82	16.0	0.16	5.35	15.6	16.9
12/23/2007	0.50	0.07	5.03	16.6	0.17	3.57	13.3	11.3
2/13/2008	2.28	0.09	5.03	15.4	0.30	4.54	14.2	14.3
9/6/2008	3.26	0.28	4.99	18.8	0.91	2.38	17.3	7.52
<b>Five-Storm Average</b>	<b>1.69</b>	<b>0.12</b>	<b>5.67</b>	<b>17.3</b>	<b>0.39</b>	<b>4.51</b>	<b>15.6</b>	<b>14.3</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### USE-0855

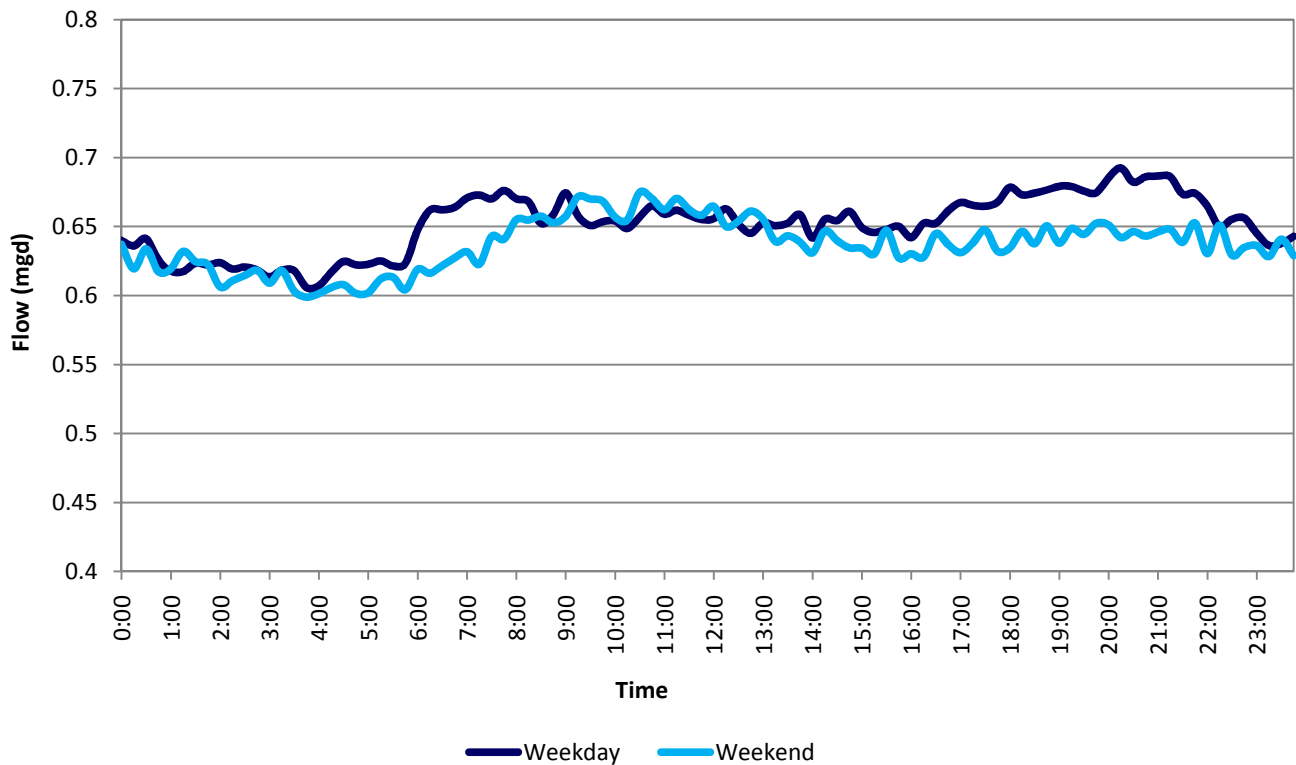
#### General Information

Site:	USE-0855
Description of Location:	Shawmont Avenue
Data Range:	5/4/2000 to 4/24/2001
Pipe Diameter:	15"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	171
Service Population:	1,260

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.652	517	0.692	550	0.606	481	0.93	131
Weekend	0.637	505	0.675	536	0.599	475	0.94	70
<b>Total</b>	<b>0.647</b>	<b>513</b>	<b>0.686</b>	<b>545</b>	<b>0.603</b>	<b>479</b>	<b>0.93</b>	<b>201</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**USE-0855**

**General Information**

<b>Site:</b>	<b>USE-0855</b>
Description of Location:	Shawmont Avenue
Data Range:	5/4/2000 to 4/24/2001
Pipe Diameter:	15"
Interceptor:	Upper Schuylkill East Side
Drainage Area (Acres):	171
Service Population:	1,260

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
5/13/2000	0.77	0.31	5.11	8.55	0.57	2.26	5.13	3.50
3/30/2001	2.32	0.18	4.90	7.29	0.45	4.03	6.80	6.23
6/18/2000	1.77	0.57	4.89	9.18	1.26	3.17	6.67	4.90
8/1/2000	0.76	0.27	4.53	8.34	0.44	2.00	4.48	3.09
6/21/2000	0.53	0.25	4.41	8.61	0.40	2.78	6.24	4.30
<b>Five-Storm Average</b>	<b>1.23</b>	<b>0.32</b>	<b>4.77</b>	<b>8.39</b>	<b>0.62</b>	<b>2.85</b>	<b>5.86</b>	<b>4.40</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### W067-01-S0060

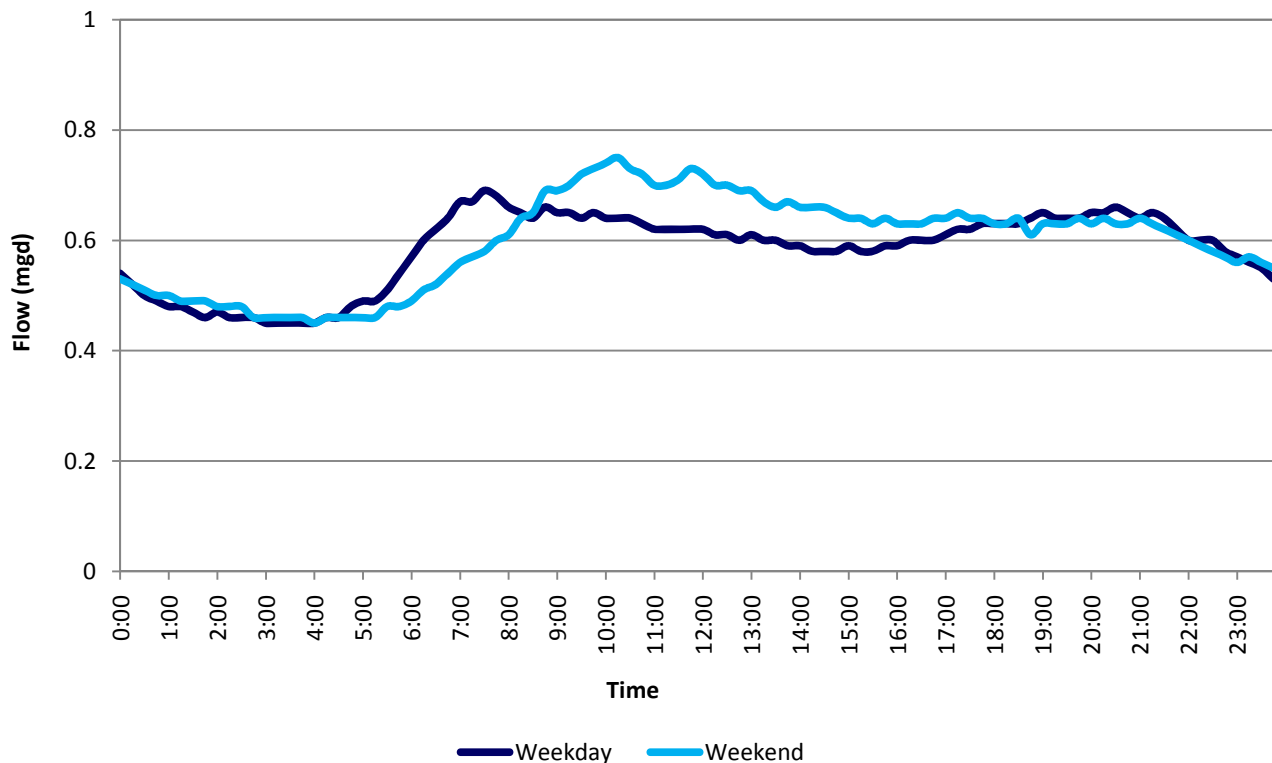
#### General Information

Site:	W067-01-S0060
Description of Location:	Valley Avenue and Livezey Street
Data Range:	6/1/2013 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Wissahickon High Level
Drainage Area (Acres):	257
Service Population:	3,990

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.584	146	0.690	173	0.450	113	0.77	56
Weekend	0.599	150	0.750	188	0.450	113	0.75	26
<b>Total</b>	<b>0.589</b>	<b>148</b>	<b>0.709</b>	<b>178</b>	<b>0.450</b>	<b>113</b>	<b>0.76</b>	<b>82</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**W067-01-S0060**

**General Information**

<b>Site:</b>	<b>W067-01-S0060</b>
Description of Location:	Valley Avenue and Livezey Street
Data Range:	6/1/2013 to 9/30/2013
Pipe Diameter:	15"
Interceptor:	Wissahickon High Level
Drainage Area (Acres):	257
Service Population:	3,990

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	2.33	0.47	5.79	47.6	1.09	4.34	24.0	7.37
8/28/2013	1.48	0.49	5.65	38.0	1.09	2.93	15.1	4.98
6/10/2013	1.79	0.48	4.52	15.4	0.77	2.32	8.15	3.94
6/13/2013	0.47	0.32	4.43	18.2	0.45	2.22	8.63	3.77
9/2/2013	1.52	0.61	3.75	29.7	1.36	2.19	19.5	3.72
<b>Five-Storm Average</b>	<b>1.52</b>	<b>0.47</b>	<b>4.83</b>	<b>29.8</b>	<b>0.95</b>	<b>2.80</b>	<b>15.1</b>	<b>4.76</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

WHL-0110

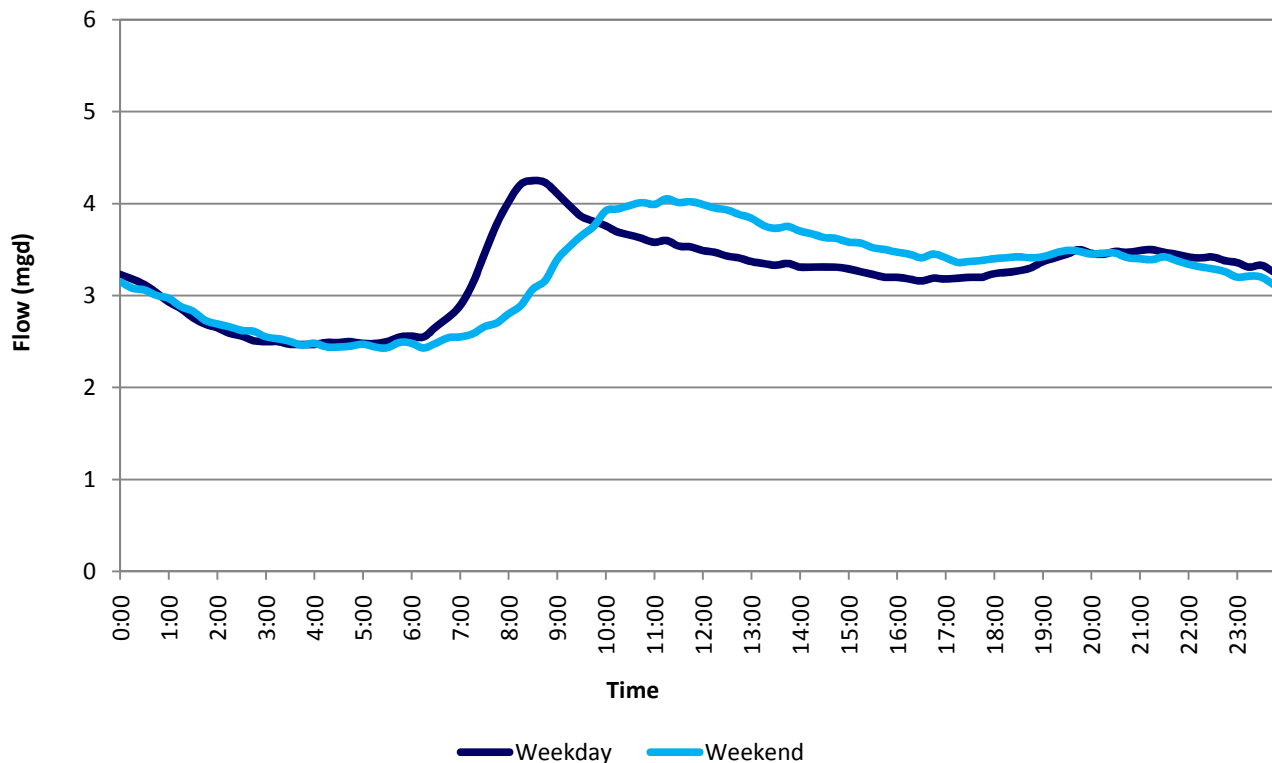
### General Information

Site:	WHL-0110
Description of Location:	Wissahickon Park
Data Range:	1/18/2001 to 3/31/2002
Pipe Diameter:	52.25"
Interceptor:	Wissahickon High Level
Drainage Area (Acres):	1,834
Service Population:	13,706

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	3.22	235	4.25	310	2.47	180	0.77	246
Weekend	3.23	236	4.05	295	2.43	177	0.75	108
<b>Total</b>	<b>3.23</b>	<b>235</b>	<b>4.19</b>	<b>306</b>	<b>2.46</b>	<b>179</b>	<b>0.76</b>	<b>354</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WHL-0110**

**General Information**

<b>Site:</b>	<b>WHL-0110</b>
Description of Location:	Wissahickon Park
Data Range:	1/18/2001 to 3/31/2002
Pipe Diameter:	52.25"
Interceptor:	Wissahickon High Level
Drainage Area (Acres):	1,834
Service Population:	13,706

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/16/2001	2.69	0.59	21.3	23.8	0.62	15.5	20.7	4.80
5/22/2001	1.73	0.12	16.6	21.7	0.31	13.6	19.8	4.21
11/25/2001	0.67	0.29	14.2	19.4	0.52	9.31	16.2	2.89
8/12/2001	1.07	0.31	12.4	18.4	0.53	9.31	16.2	2.89
8/10/2001	0.58	0.37	12.2	18.4	0.55	8.05	15.2	2.49
<b>Five-Storm Average</b>	<b>1.35</b>	<b>0.34</b>	<b>15.3</b>	<b>20.3</b>	<b>0.51</b>	<b>11.2</b>	<b>17.6</b>	<b>3.46</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

WHL-0110

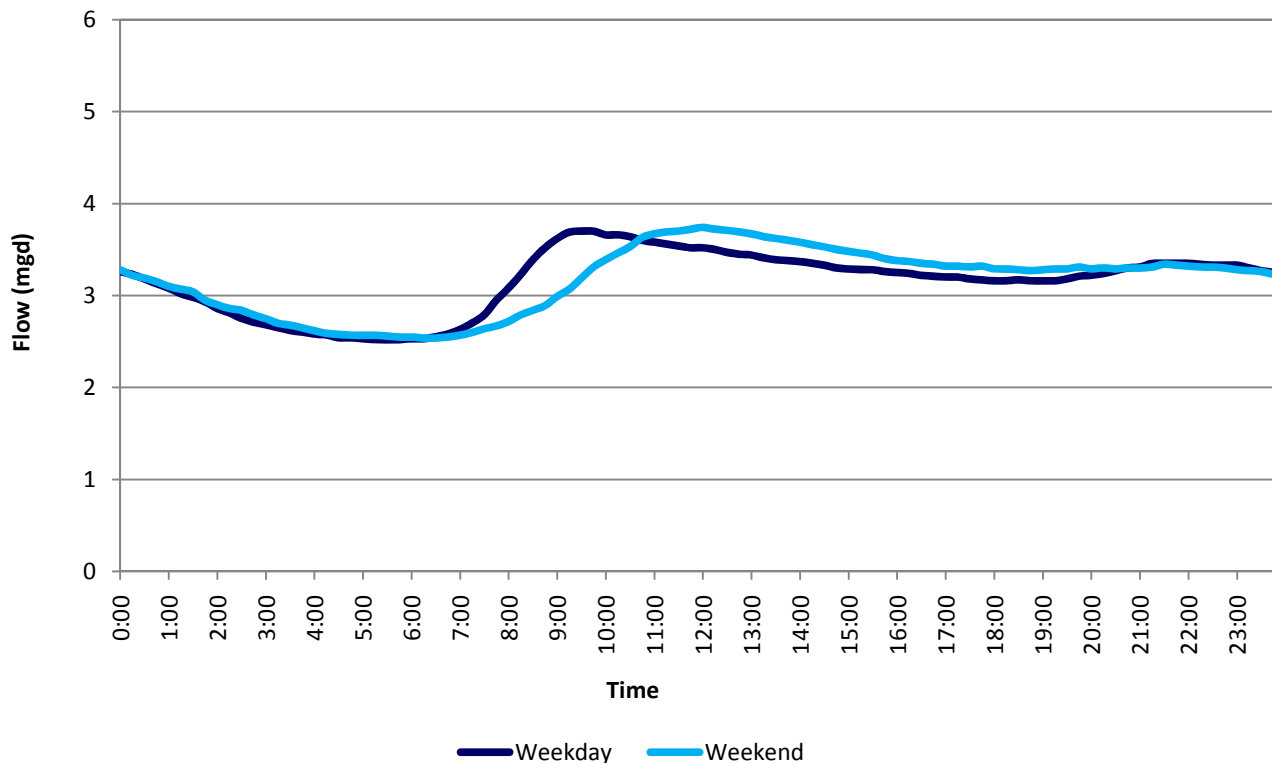
### General Information

Site:	WHL-0110
Description of Location:	Wissahickon Park
Data Range:	5/30/2013 to 9/30/2013
Pipe Diameter:	54"
Interceptor:	Wissahickon High Level
Drainage Area (Acres):	1,834
Service Population:	13,706

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	3.15	230	3.70	270	2.52	184	0.80	62
Weekend	3.17	231	3.74	273	2.54	185	0.80	27
<b>Total</b>	<b>3.16</b>	<b>230</b>	<b>3.71</b>	<b>271</b>	<b>2.53</b>	<b>184</b>	<b>0.80</b>	<b>89</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WHL-0110**

**General Information**

<b>Site:</b>	<b>WHL-0110</b>
Description of Location:	Wissahickon Park
Data Range:	5/30/2013 to 9/30/2013
Pipe Diameter:	54"
Interceptor:	Wissahickon High Level
Drainage Area (Acres):	1,834
Service Population:	13,706

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	2.42	0.37	17.8	21.6	1.14	17.5	21.5	5.54
9/2/2013	0.93	0.36	17.7	21.2	0.81	15.9	19.7	5.04
8/28/2013	1.75	0.64	17.6	22.0	1.25	15.9	20.9	5.04
6/7/2013	3.54	0.20	17.3	21.0	0.71	17.0	20.9	5.38
6/3/2013	0.90	0.25	16.2	19.9	0.50	11.6	17.7	3.67
<b>Five-Storm Average</b>	<b>1.91</b>	<b>0.36</b>	<b>17.3</b>	<b>21.1</b>	<b>0.88</b>	<b>15.6</b>	<b>20.1</b>	<b>4.93</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

W075-01-S0018

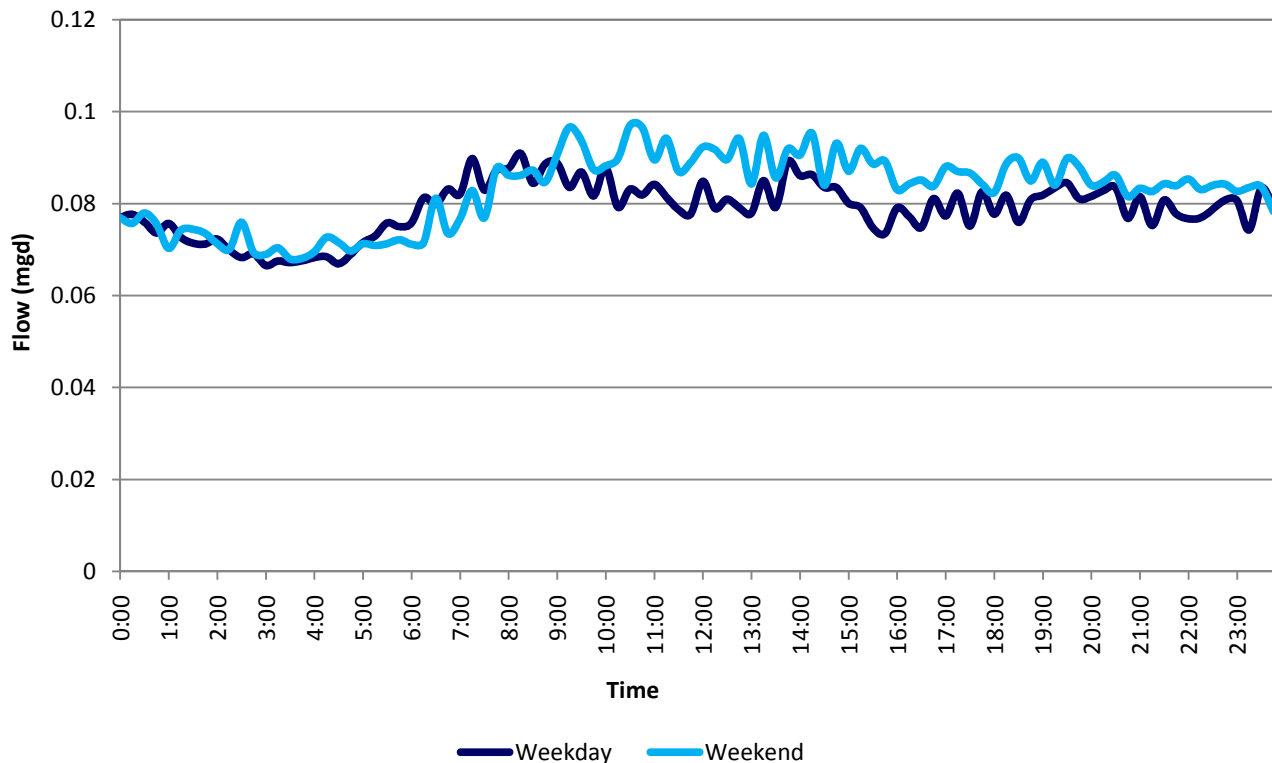
### General Information

Site:	W075-01-S0018
Description of Location:	Henry Avenue and Port Royal Avenue
Data Range:	5/31/2013 to 7/9/2013
Pipe Diameter:	12"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	141
Service Population:	1,185

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	0.0788	67	0.0909	77	0.0665	56	0.84	16
Weekend	0.0829	70	0.097	82	0.0680	57	0.82	8
<b>Total</b>	<b>0.0802</b>	<b>68</b>	<b>0.0929</b>	<b>78</b>	<b>0.0670</b>	<b>57</b>	<b>0.84</b>	<b>24</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**W075-01-S0018**

**General Information**

<b>Site:</b>	<b>W075-01-S0018</b>
Description of Location:	Henry Avenue and Port Royal Avenue
Data Range:	5/31/2013 to 7/9/2013
Pipe Diameter:	12"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	141
Service Population:	1,185

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
6/10/2013	1.94	0.55	1.67	6.29	0.91	1.11	4.65	13.8
6/27/2013	0.53	0.32	1.35	4.98	0.45	0.840	3.56	10.5
6/7/2013	3.68	0.17	1.15	4.60	0.59	1.08	4.46	13.5
6/13/2013	0.54	0.38	1.12	4.71	0.52	0.740	3.49	9.23
6/3/2013	0.67	0.16	0.900	4.09	0.40	0.700	3.39	8.73
<b>Five-Storm Average</b>	<b>1.47</b>	<b>0.32</b>	<b>1.24</b>	<b>4.93</b>	<b>0.57</b>	<b>0.894</b>	<b>3.91</b>	<b>11.2</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### W076-13-S0100

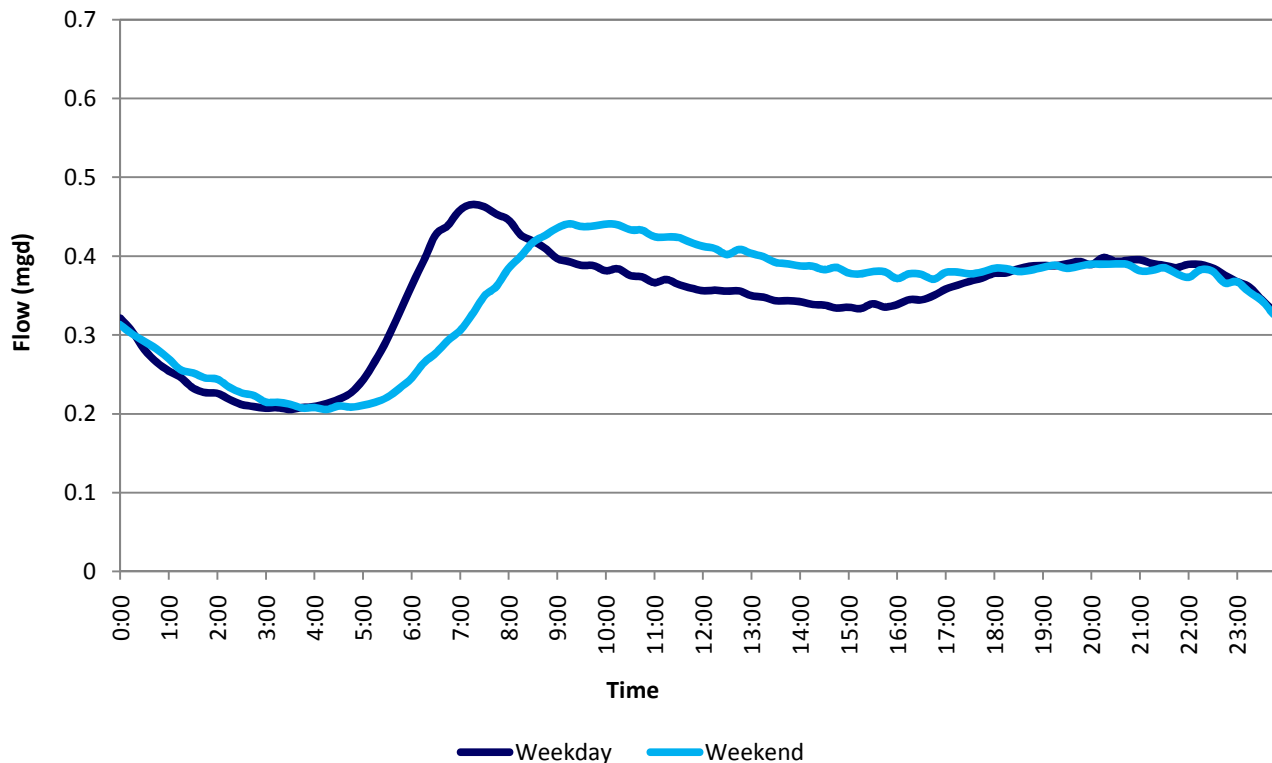
#### General Information

Site:	W076-13-S0100
Description of Location:	Wise's Mill Road
Data Range:	7/9/2010 to 6/30/2011
Pipe Diameter:	12"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	110
Service Population:	2,175

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.344	158	0.466	214	0.205	94	0.60	183
Weekend	0.347	159	0.441	203	0.206	95	0.59	82
<b>Total</b>	<b>0.345</b>	<b>159</b>	<b>0.458</b>	<b>211</b>	<b>0.205</b>	<b>94</b>	<b>0.60</b>	<b>265</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**W076-13-S0100**

**General Information**

<b>Site:</b>	<b>W076-13-S0100</b>
Description of Location:	Wise's Mill Road
Data Range:	7/9/2010 to 6/30/2011
Pipe Diameter:	12"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	110
Service Population:	2,175

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
7/13/2010	2.07	0.49	2.47	6.61	1.07	1.79	5.69	5.19
7/12/2010	1.39	0.53	2.42	7.75	0.87	1.30	5.29	3.77
10/1/2010	6.40	0.60	2.33	7.29	1.53	1.85	5.84	5.36
7/25/2010	1.13	0.57	2.25	7.36	1.07	1.31	5.32	3.80
4/16/2011	2.92	0.41	1.75	6.71	1.00	1.42	5.64	4.12
<b>Five-Storm Average</b>	<b>2.78</b>	<b>0.52</b>	<b>2.24</b>	<b>7.14</b>	<b>1.11</b>	<b>1.53</b>	<b>5.56</b>	<b>4.45</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

WLL-0028

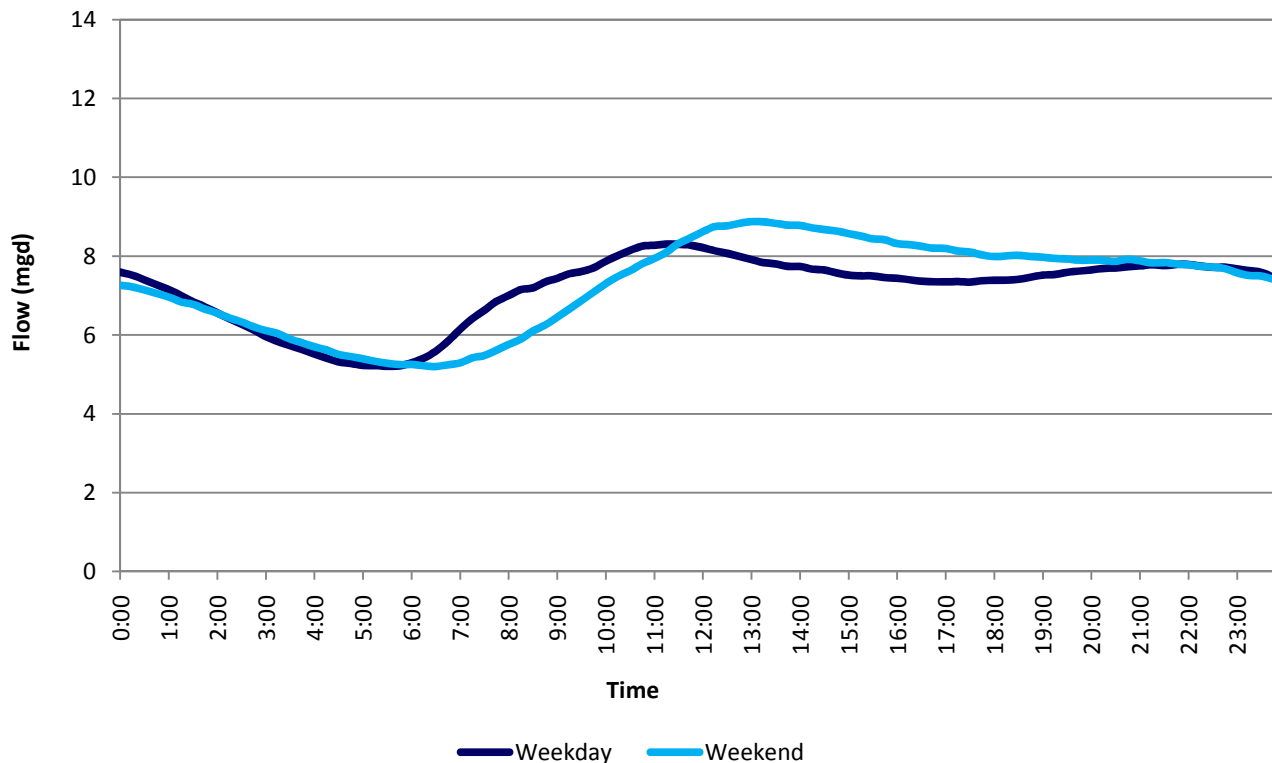
### General Information

Site:	WLL-0028
Description of Location:	Lincoln Drive and Gypsy Road
Data Range:	8/11/2010 to 8/11/2011
Pipe Diameter:	42"H x 28"W
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	5,639
Service Population:	37,760

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	7.16	190	8.30	220	5.20	138	0.73	184
Weekend	7.27	193	8.88	235	5.20	138	0.72	97
<b>Total</b>	<b>7.20</b>	<b>191</b>	<b>8.50</b>	<b>225</b>	<b>5.20</b>	<b>138</b>	<b>0.72</b>	<b>281</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WLL-0028**

**General Information**

<b>Site:</b>	<b>WLL-0028</b>
Description of Location:	Lincoln Drive and Gypsy Road
Data Range:	8/11/2010 to 8/11/2011
Pipe Diameter:	42"H x 28"W
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	5,639
Service Population:	37,760

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/30/2010	6.13	0.63	22.6	42.5	1.38	22.4	42.3	3.11
4/16/2011	2.70	0.33	19.3	37.8	0.92	18.9	37.6	2.63
3/10/2011	1.84	0.10	17.9	36.3	0.26	17.2	36.2	2.39
8/9/2011	0.92	0.35	17.4	35.2	0.72	16.2	34.5	2.25
3/7/2011	2.32	0.16	16.9	36.6	0.38	16.7	36.4	2.32
<b>Five-Storm Average</b>	<b>2.78</b>	<b>0.31</b>	<b>18.8</b>	<b>37.7</b>	<b>0.73</b>	<b>18.3</b>	<b>37.4</b>	<b>2.54</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### WLL-0100

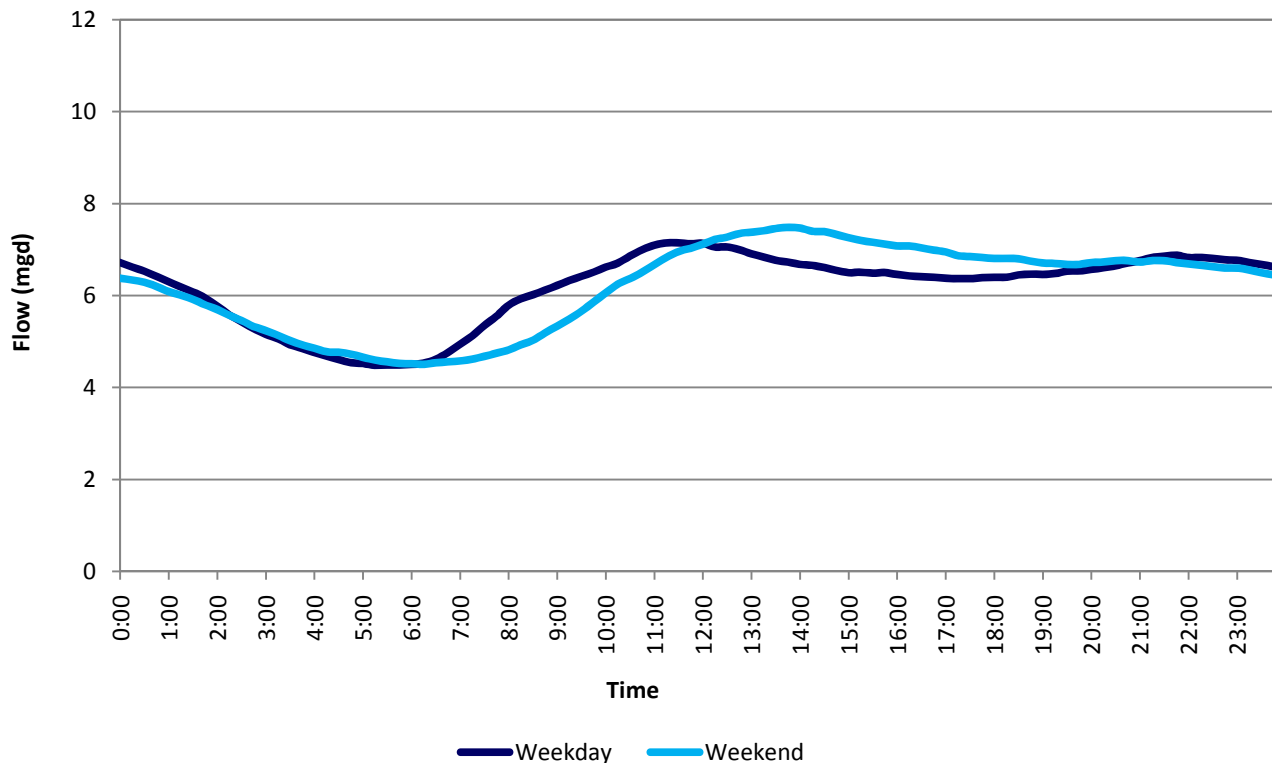
#### General Information

Site:	WLL-0100
Description of Location:	Forbidden Drive and Lincoln Drive
Data Range:	5/30/2013 to 9/30/2013
Pipe Diameter:	36.5"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	5,626
Service Population:	37,746

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	6.17	164	7.15	189	4.48	119	0.73	66
Weekend	6.19	164	7.48	198	4.51	119	0.73	32
<b>Total</b>	<b>6.18</b>	<b>164</b>	<b>7.26</b>	<b>192</b>	<b>4.49</b>	<b>119</b>	<b>0.73</b>	<b>98</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WLL-0100**

**General Information**

<b>Site:</b>	<b>WLL-0100</b>
Description of Location:	Forbidden Drive and Lincoln Drive
Data Range:	5/30/2013 to 9/30/2013
Pipe Diameter:	36.5"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	5,626
Service Population:	37,746

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	3.26	0.48	19.3	28.6	1.66	18.2	27.9	2.95
6/7/2013	3.65	0.18	18.0	28.6	0.61	17.7	28.5	2.86
9/2/2013	1.01	0.42	17.0	26.0	0.89	16.5	25.8	2.67
6/10/2013	1.78	0.37	15.7	26.2	0.79	15.6	26.2	2.52
6/13/2013	0.49	0.35	14.2	24.7	0.47	14.0	24.5	2.27
<b>Five-Storm Average</b>	<b>2.04</b>	<b>0.36</b>	<b>16.8</b>	<b>26.8</b>	<b>0.88</b>	<b>16.4</b>	<b>26.6</b>	<b>2.65</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**WLL-0105**

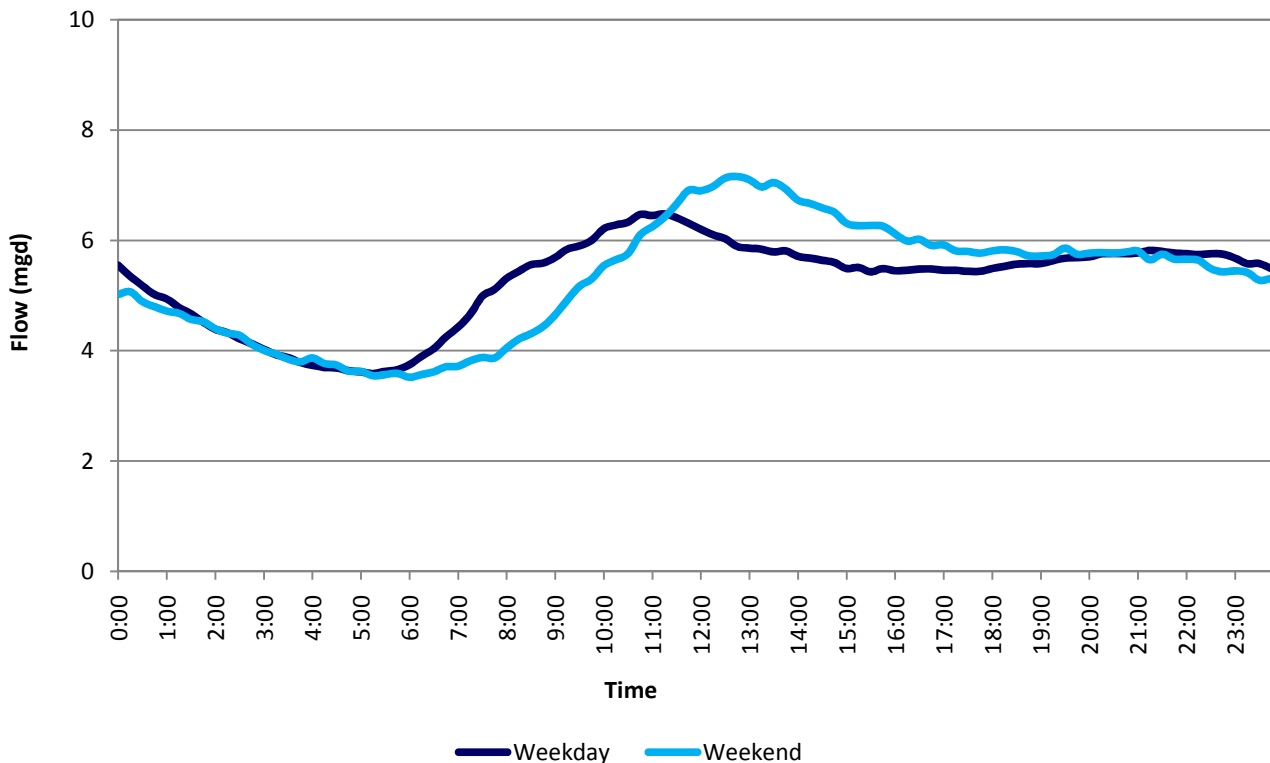
**General Information**

Site:	WLL-0105
Description of Location:	Wissahickon Drive
Data Range:	10/1/2000 to 11/6/2001
Pipe Diameter:	36"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	5,626
Service Population:	37,746

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio (min/avg)	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)		
Weekday	5.26	139	6.48	172	3.59	95	0.68	94
Weekend	5.29	140	7.16	190	3.52	93	0.67	40
<b>Total</b>	<b>5.27</b>	<b>140</b>	<b>6.68</b>	<b>177</b>	<b>3.57</b>	<b>95</b>	<b>0.68</b>	<b>134</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WLL-0105**

**General Information**

<b>Site:</b>	<b>WLL-0105</b>
Description of Location:	Wissahickon Drive
Data Range:	10/1/2000 to 11/6/2001
Pipe Diameter:	36"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	5,626
Service Population:	37,746

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ADDWF)
	(inches)	(inches/15 min)	(mgd)	(inches)	(inches/hour)	(mgd)	(inches)	
6/17/2001	2.69	0.59	15.2	26.6	0.62	14.9	26.5	2.83
5/22/2001	1.73	0.12	13.8	24.6	0.31	13.2	24.2	2.50
3/21/2001	0.80	0.07	13.3	23.5	0.20	13.0	23.4	2.47
1/30/2001	0.79	0.08	12.4	22.7	0.23	11.8	22.4	2.24
6/1/2001	1.47	0.16	12.2	22.8	0.45	11.7	22.6	2.22
<b>Five-Storm Average</b>	<b>1.50</b>	<b>0.20</b>	<b>13.4</b>	<b>24.0</b>	<b>0.36</b>	<b>12.9</b>	<b>23.8</b>	<b>2.45</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

WLL-0332

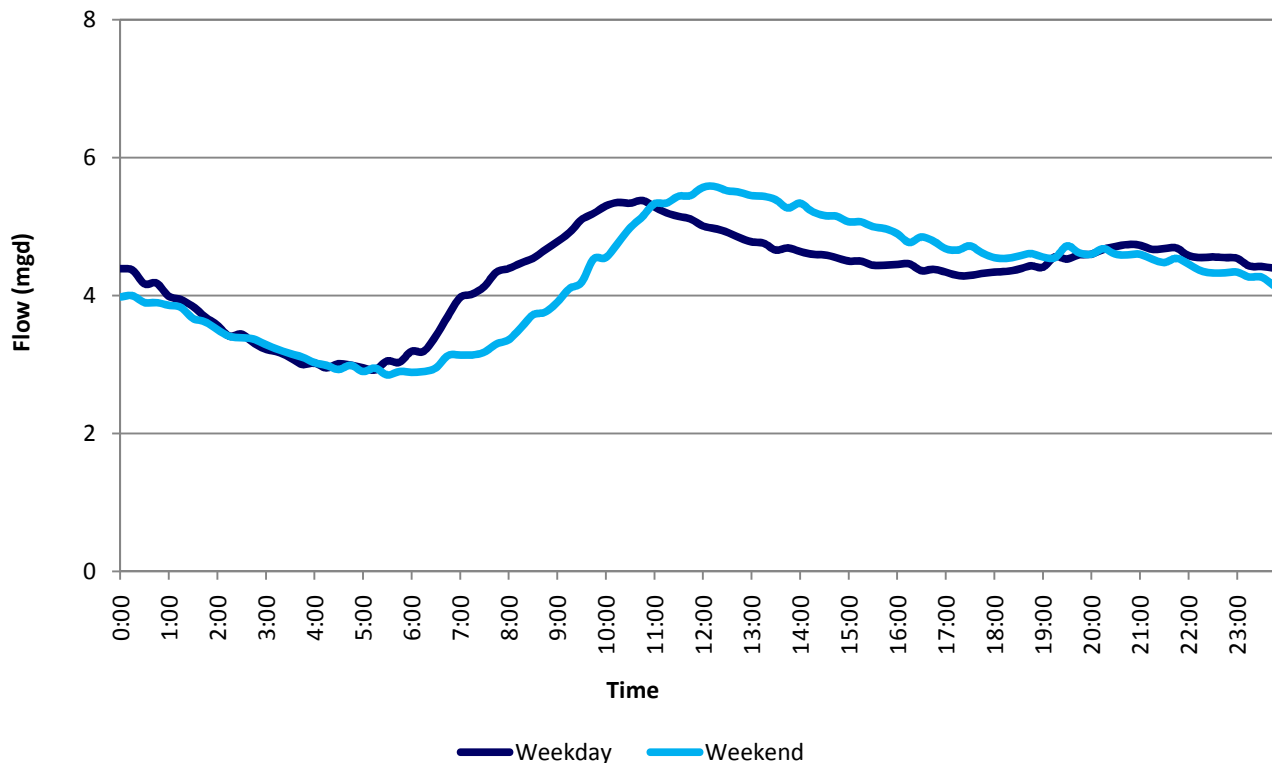
### General Information

Site:	WLL-0332
Description of Location:	Valley Green Inn
Data Range:	5/3/2000 to 2/1/2001
Pipe Diameter:	36"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	4,966
Service Population:	27,664

### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	4.29	155	5.38	194	2.92	106	0.68	114
Weekend	4.25	154	5.58	202	2.85	103	0.67	55
<b>Total</b>	<b>4.28</b>	<b>155</b>	<b>5.45</b>	<b>197</b>	<b>2.90</b>	<b>105</b>	<b>0.68</b>	<b>169</b>

### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WLL-0332**

**General Information**

<b>Site:</b>	<b>WLL-0332</b>
Description of Location:	Valley Green Inn
Data Range:	5/3/2000 to 2/1/2001
Pipe Diameter:	36"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	4,966
Service Population:	27,664

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
12/17/2000	1.34	0.08	9.70	26.7	0.25	8.69	26.3	2.03
1/19/2001	1.61	0.04	9.21	23.8	0.14	8.23	22.9	1.92
7/16/2000	0.52	0.18	8.71	23.9	0.28	7.81	28.1	1.83
12/14/2000	0.95	0.09	8.63	21.7	0.31	7.77	21.5	1.82
7/26/2000	2.55	0.25	8.52	24.3	0.67	7.88	22.7	1.84
<b>Five-Storm Average</b>	<b>1.39</b>	<b>0.13</b>	<b>8.95</b>	<b>24.1</b>	<b>0.33</b>	<b>8.08</b>	<b>24.3</b>	<b>1.89</b>



# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### WLL-0565

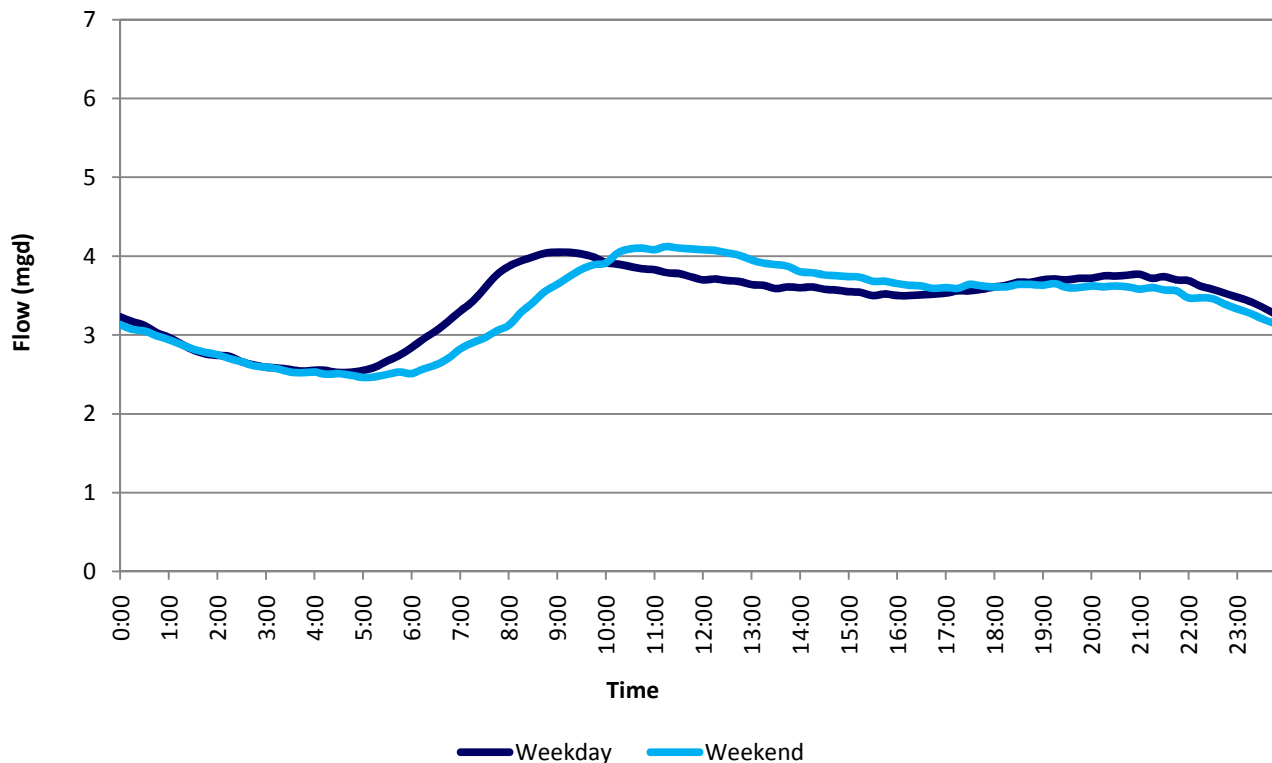
#### General Information

Site:	WLL-0565
Description of Location:	Wissahickon Creek at Bells Mill Bridge
Data Range:	3/8/2013 to 9/30/2013
Pipe Diameter:	27.5"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	4,214
Service Population:	19,592

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	3.41	174	4.05	207	2.52	129	0.74	113
Weekend	3.36	172	4.12	210	2.46	126	0.73	54
<b>Total</b>	<b>3.40</b>	<b>173</b>	<b>4.07</b>	<b>208</b>	<b>2.50</b>	<b>128</b>	<b>0.74</b>	<b>167</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WLL-0565**

**General Information**

<b>Site:</b>	<b>WLL-0565</b>
Description of Location:	Wissahickon Creek at Bells Mill Bridge
Data Range:	3/8/2013 to 9/30/2013
Pipe Diameter:	27.5"
Interceptor:	Wissahickon Low Level
Drainage Area (Acres):	4,214
Service Population:	19,592

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
8/13/2013	3.48	0.56	10.3	110	1.81	10.2	101	3.00
6/8/2013	3.65	0.18	9.31	111	0.60	9.02	106	2.66
6/10/2013	1.75	0.33	8.93	65.8	0.78	8.83	65.2	2.60
9/2/2013	0.90	0.52	8.37	25.5	0.86	8.28	25.4	2.44
3/12/2013	0.99	0.07	7.25	30.5	0.17	7.12	30.3	2.10
<b>Five-Storm Average</b>	<b>2.15</b>	<b>0.33</b>	<b>8.83</b>	<b>68.6</b>	<b>0.84</b>	<b>8.69</b>	<b>65.6</b>	<b>2.56</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### WBR-0375

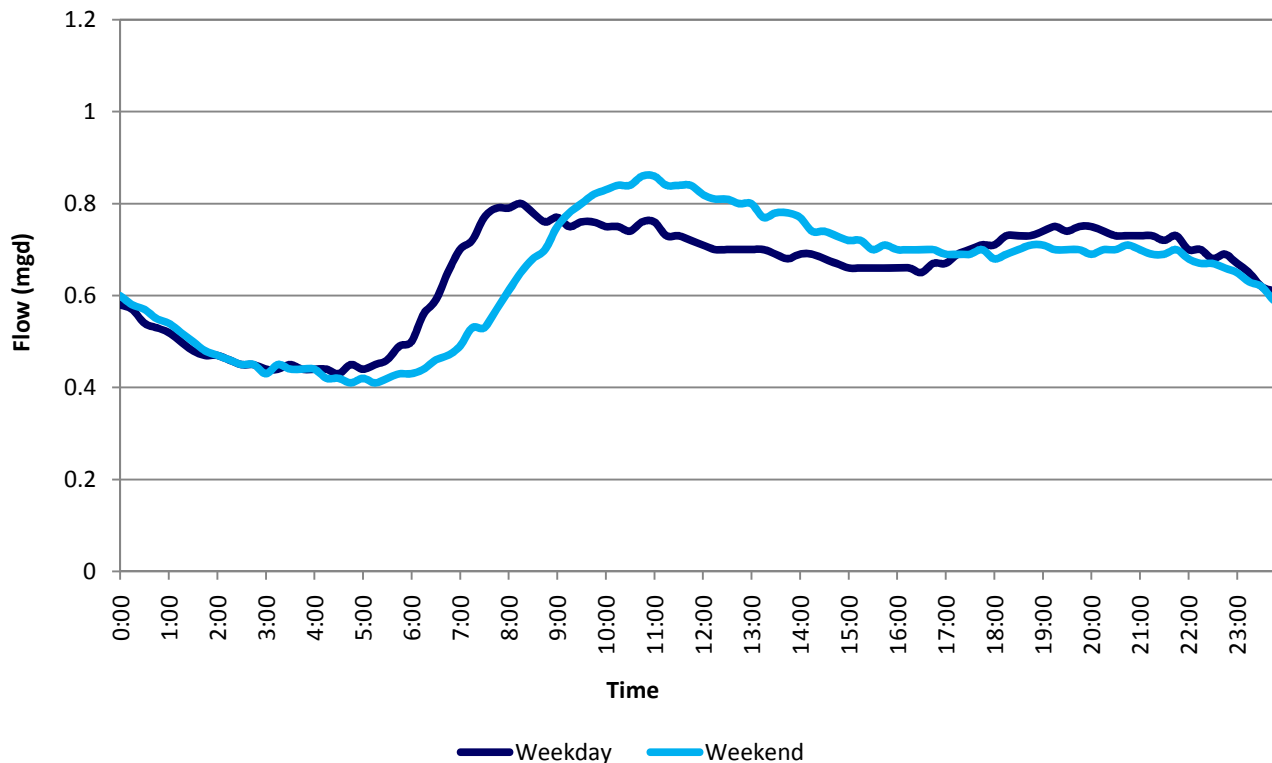
#### General Information

Site:	WBR-0375
Description of Location:	Grant Avenue near Blue Grass Road
Data Range:	1/14/2004 to 6/28/2005
Pipe Diameter:	24"
Interceptor:	Wooden Bridge
Drainage Area (Acres):	301
Service Population:	4,310

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.648	150	0.800	186	0.430	100	0.66	45
Weekend	0.644	150	0.860	200	0.410	95	0.64	26
<b>Total</b>	<b>0.647</b>	<b>150</b>	<b>0.822</b>	<b>191</b>	<b>0.423</b>	<b>98</b>	<b>0.65</b>	<b>71</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WBR-0375**

**General Information**

<b>Site:</b>	<b>WBR-0375</b>
Description of Location:	Grant Avenue near Blue Grass Road
Data Range:	1/14/2004 to 6/28/2005
Pipe Diameter:	24"
Interceptor:	Wooden Bridge
Drainage Area (Acres):	301
Service Population:	4,310

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
9/28/2004	6.63	0.53	5.83	15.2	1.37	4.46	14.1	6.90
4/2/2005	2.68	0.18	3.81	10.7	0.54	3.45	10.4	5.34
6/6/2005	1.07	0.65	3.74	10.5	0.91	2.76	8.93	4.27
8/1/2004	2.39	0.55	3.56	10.8	1.61	2.89	9.61	4.47
6/10/2005	0.87	0.25	2.98	9.38	0.36	1.88	7.39	2.91
<b>Five-Storm Average</b>	<b>2.73</b>	<b>0.43</b>	<b>3.98</b>	<b>11.3</b>	<b>0.96</b>	<b>3.09</b>	<b>10.1</b>	<b>4.78</b>

# Philadelphia Water Department - Sanitary Sewer Evaluation Program

## Dry Weather Flow Analysis Results

### WBR-B0585

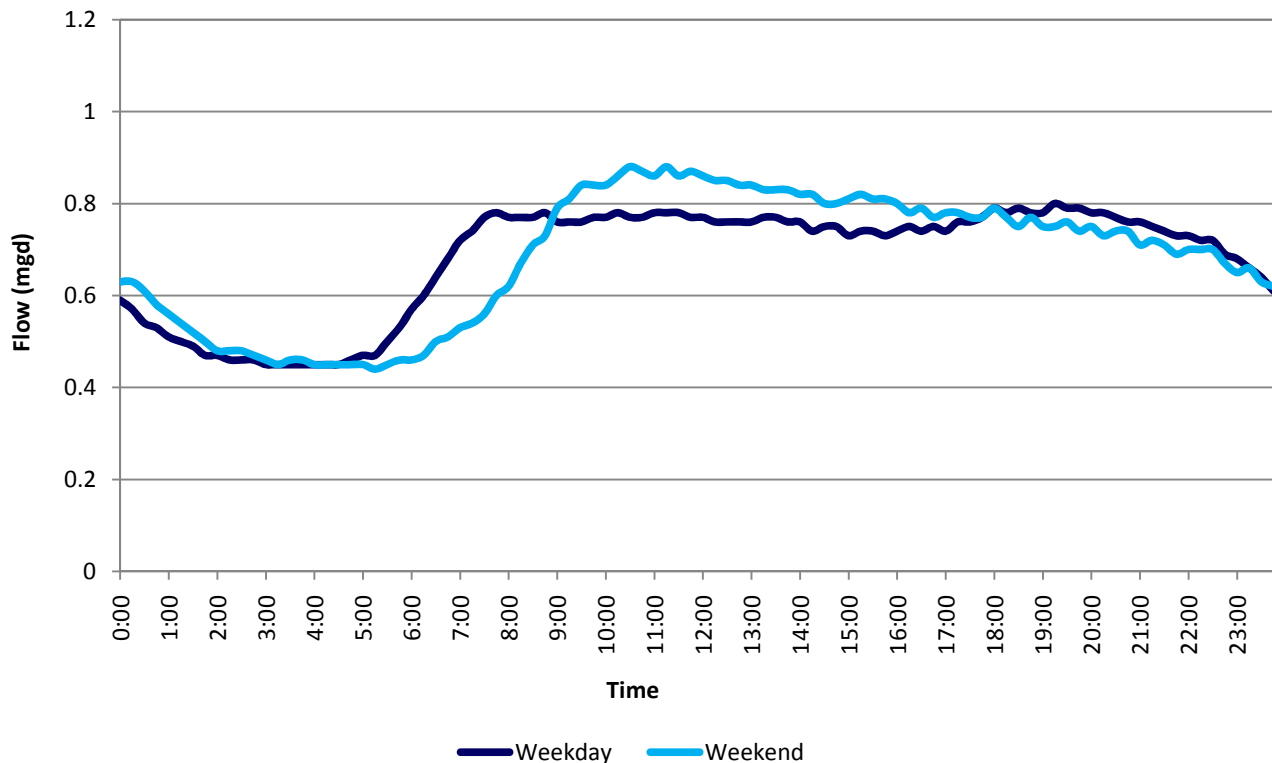
#### General Information

Site:	WBR-B0585
Description of Location:	Marshall Road and Blue Grass Road
Data Range:	1/1/2003 to 1/1/2004
Pipe Diameter:	18"
Interceptor:	Wooden Bridge
Drainage Area (Acres):	278
Service Population:	3,693

#### Dry Weather Flow Summary

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.681	184	0.800	217	0.450	122	0.66	108
Weekend	0.684	185	0.880	238	0.440	119	0.64	39
<b>Total</b>	<b>0.682</b>	<b>185</b>	<b>0.821</b>	<b>222</b>	<b>0.447</b>	<b>121</b>	<b>0.66</b>	<b>147</b>

#### Average Dry Weather Flow Hydrographs



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WBR-B0585**

**General Information**

<b>Site:</b>	<b>WBR-B0585</b>
Description of Location:	Marshall Road and Blue Grass Road
Data Range:	1/1/2003 to 1/1/2004
Pipe Diameter:	18"
Interceptor:	Wooden Bridge
Drainage Area (Acres):	278
Service Population:	3,693

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
5/26/2003	2.06	0.22	3.39	15.2	0.65	2.54	13.8	3.73
12/11/2003	1.56	0.27	2.95	17.2	0.62	2.73	15.8	4.01
8/1/2003	0.50	0.28	2.61	15.1	0.42	2.22	13.4	3.26
5/7/2003	0.84	0.17	2.57	13.3	0.62	2.33	12.2	3.42
7/23/2003	0.28	0.09	2.51	14.6	0.20	1.80	11.7	2.64
<b>Five-Storm Average</b>	<b>1.05</b>	<b>0.21</b>	<b>2.81</b>	<b>15.1</b>	<b>0.50</b>	<b>2.32</b>	<b>13.4</b>	<b>3.41</b>

**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Dry Weather Flow Analysis Results**  
**WBR-B0585**

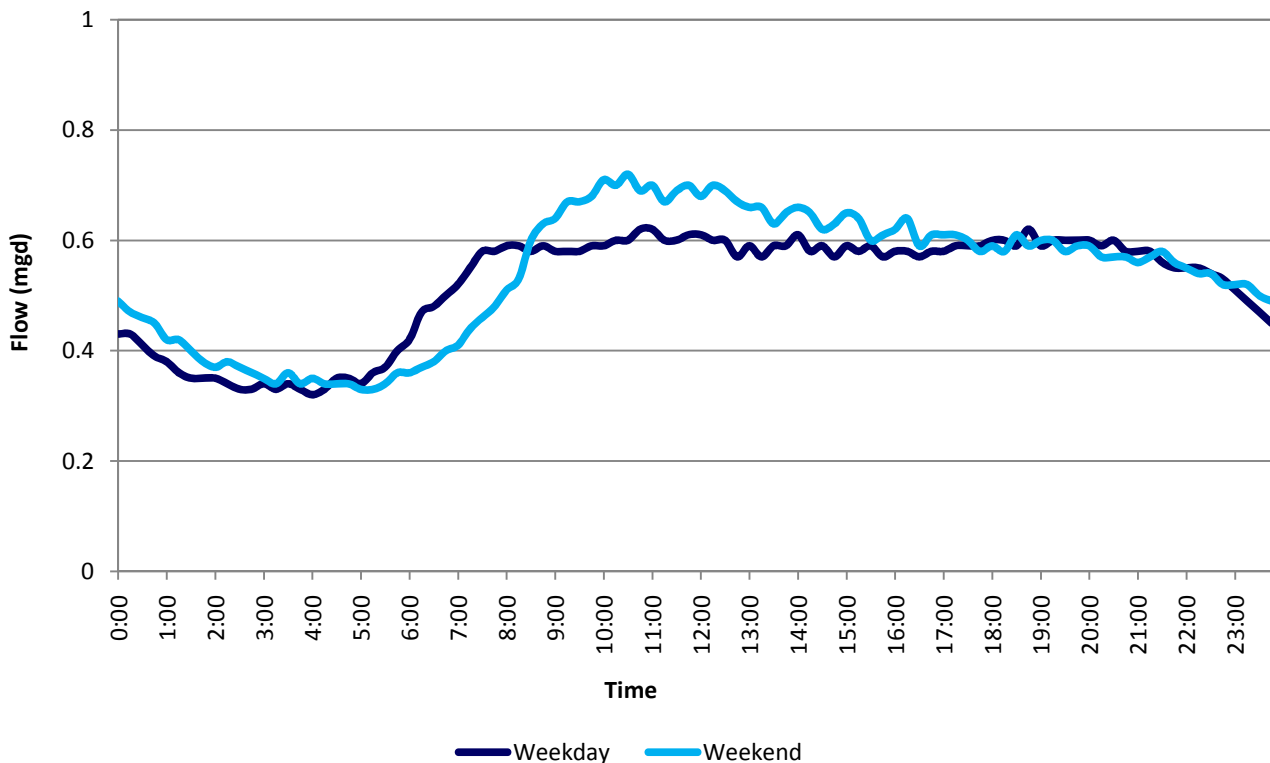
**General Information**

Site:	WBR-B0585
Description of Location:	Marshall Road and Blue Grass Road
Data Range:	1/1/2004 to 9/9/2004
Pipe Diameter:	18"
Interceptor:	Wooden Bridge
Drainage Area (Acres):	278
Service Population:	3,693

**Dry Weather Flow Summary**

	Average Daily Flow		Average Daily Maximum Flow		Average Daily Minimum Flow		GWI Ratio	Days Analyzed
	(mgd)	(gpcd)	(mgd)	(gpcd)	(mgd)	(gpcd)	(min/avg)	
Weekday	0.519	141	0.620	168	0.320	87	0.62	39
Weekend	0.538	146	0.720	195	0.330	89	0.61	21
<b>Total</b>	<b>0.526</b>	<b>142</b>	<b>0.655</b>	<b>177</b>	<b>0.324</b>	<b>88</b>	<b>0.62</b>	<b>60</b>

**Average Dry Weather Flow Hydrographs**



**Philadelphia Water Department - Sanitary Sewer Evaluation Program**  
**Wet Weather Flow Analysis Results**  
**WBR-B0585**

**General Information**

<b>Site:</b>	<b>WBR-B0585</b>
Description of Location:	Marshall Road and Blue Grass Road
Data Range:	1/1/2004 to 9/9/2004
Pipe Diameter:	18"
Interceptor:	Wooden Bridge
Drainage Area (Acres):	278
Service Population:	3,693

**Wet Weather Flow Summary**

Storm Date	Total Event Rainfall	Monitored Peak 15 Minute Rainfall	Monitored Peak 15 Minute Flow	Monitored Peak 15 Minute Level	Peak Hourly Rainfall	Monitored Peak Hourly Flow	Monitored Peak Hourly Level	Peaking Factor (PHF/ ADDWF)
	(inches)	(inches/ 15 min)	(mgd)	(inches)	(inches/ hour)	(mgd)	(inches)	
4/13/2004	1.64	0.34	3.10	12.2	0.90	2.79	12.1	5.31
7/27/2004	1.99	0.90	2.72	13.6	1.00	2.13	13.5	4.05
8/1/2004	3.29	0.55	2.47	12.4	1.61	2.10	11.8	4.00
5/31/2004	0.61	0.07	1.84	10.9	0.14	1.62	10.7	3.08
6/1/2004	0.36	0.33	1.61	10.8	0.36	1.26	10.1	2.40
<b>Five-Storm Average</b>	<b>1.58</b>	<b>0.44</b>	<b>2.35</b>	<b>12.0</b>	<b>0.80</b>	<b>1.98</b>	<b>11.6</b>	<b>3.77</b>



## **Appendix C**

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### **Event Summary Tables**

# Appendix C

## Event Summary Tables

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This appendix provides a series of tables that summarize the results of the wet weather flow analyses that were conducted on the monitored precipitation and wastewater flow data collected at each monitoring site. The analyses were conducted using the Environmental Protection Agency (US EPA) Sanitary Sewer Overflow Analysis Program (SSOAP).

In short, the program was used to analyze the precipitation and flow monitoring data collected to develop an understanding of the system rainfall dependent infiltration and inflow (RDII) characteristics. More specifically, the total monitored flows were segregated into their characteristic flow components of base wastewater flow (BWVF), groundwater infiltration (GWI), and RDII. The BWVF and GWI flows represent the dry weather flow component of the total monitored flow. This deconstruction of the total monitored flows was accomplished by adjusting the GWI flows to derive the RDII flows (difference between the observed flows and the total dry weather flow) that are approximately equal to zero during dry periods not directly affected by RDII events. After the GWI adjustments were made, the analyst identified the start and end times of the individual RDII events during the period of record. After adjustments for GWI variations were made and individual events were defined, summaries were produced of RDII volume, rainfall volumes, and total-R values. These summaries allow for an understanding of the sources of flow in the system, the relative quantities of RDII into the system, and whether RDII is excessive.

An individual spreadsheet of results was prepared for each flow monitoring site that was analyzed. The tables contain the following information.

- Column 1: Indicates an event number assigned in chronological order for each analyzed storm.
- Columns 2 - 4: Shows the start and ending dates and times for each storm, along with the associated duration in hours.
- Column 5: Total I/I volume during the event.
- Column 6: Total precipitation volume during the event.
- Column 7: Total-R value, which represent the fraction of the precipitation that was observed in the sanitary sewer system during an event. These values were calculated by dividing the total event I/I volume by the total event precipitation volume.
- Column 8: Peak I/I flow observed during the event.
- Column 9: Peak total flow during the event.
- Column 10: Peak 15 minute precipitation over the duration of the event.

- Columns 11 - 13: Average observed flow rate, average GWI flow rate, and average base wastewater flow rate over the duration of the event.
- Columns 14 - 16: Shows the start and ending dates and times for each period of precipitation within the defined event, along with the associated duration in hours.

The individual site summary tables are organized and grouped by the interceptor sewer into which the monitored sewershed conveys flow. A listing of the analyzed sewershed monitoring sites for each interceptor sewer is provided.

# Appendix C

## List of Event Summary Tables

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### **Byberry Creek Interceptor**

- BC-0010
- BC-0055 (2012)
- BC-0055 (2013)
- BC-0200
- BC-B0675
- BC-B0755
- BC-B1575 (first location)
- BC-B1575 (second location)
- Q101-03-S0020
- Q109-07-S0025
- Q114-12-S0010

### **Cheltenham Interceptor**

- T089-04-S0055
- THL-B0705

### **Cresheim Valley Interceptor**

- CV-0145
- W077-02-S0060
- W086-01-S0060

### **Island Avenue Lower Level Interceptor**

- IALL-B0355
- IALL-B0810
- IALL-B0862

### **Monoshone Interceptor**

- M0045
- W068-05-S0047
- W068-05-S0078

### **Paul's Run Interceptor**

- P108-17-S0010
- P113-04-S0463
- PR-0060
- PR-0150

- PR-B0405
- PR-B0455
- PR-B0540

**Pennypack Interceptor**

- P104-09-S0025
- P105-06-S0035
- PP-0215
- PP-B0650
- PP-B0790 (1999)
- PP-B0790 (2013)
- PP-B0840
- PP-B1035
- PP-B1080
- PP-B1215

**Poquessing Interceptor**

- PC-0010 (2009)
- PC-0010 (2013)
- PC-0045
- PC-1210
- PC-B1330
- PC-P1360
- PC-B1440
- PC-B1530
- Q107-02-S0025
- Q110-17-S0015
- Q120-02-S0010
- Q120-08-S0010
- Q120-10-S0010
- Q120-11-S0010
- Q121-02-S0015

**Sandy Run Interceptor**

- P-090-02-S0090
- P-090-02-S0590
- P090-02-S0715
- P-090-02-S0865

**Tacony High Level Interceptor**

- T088-01-S0050

- T088-01-S0155
- T088-01-S0220
- THL-B0375

**Upper Delaware Low Level Interceptor**

- P083-03-S0050 (2012)
- P083-03-S0050 (2013)
- UDLL-0270

**Upper Schuylkill East Side Interceptor**

- S051-05-S0020
- S051-08-S0175
- S059-01-S0010
- S059-02-S0010
- S059-04-S0035
- USE-0365 (2010)
- USE-0365 (2012)
- USE-0500
- USE-0660
- USE-0760
- USE-0855

**Wissahickon High Level Interceptor**

- W067-01-S0060
- WHL-0110 (2001)
- WHL-0110 (2013)

**Wissahickon Low Level Interceptor**

- W075-01-S0018
- W076-13-S0100
- WLL-0028
- WLL-0100
- WLL-0105
- WLL-0332
- WLL-0565

**Wooden Bridge Interceptor**

- WBR-0375
- WBR-B0585 (2003)
- WBR-B0585 (2004)

BC\_0010 Byberry Creek Interceptor

Pipe Size (In.): 48

Tributary Drainage Area (acres): 3,271

Tributary Service Population: 40,961

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	7/27/2008 14:00	7/28/2008 1:45	11.75	0.003	0.44	0.006	1.41	9.57	0.29	8.39	5.18	2.73	7/27/2008 14:00	7/27/2008 16:15	2.25
2	8/10/2008 12:15	8/11/2008 1:30	13.25	0.002	0.31	0.006	1.64	9.21	0.05	7.90	4.71	2.91	8/10/2008 12:30	8/11/2008 0:45	12.25
3	8/14/2008 21:30	8/15/2008 7:00	9.5	0.002	0.13	0.018	1.45	8.69	0.04	6.45	4.61	1.34	8/14/2008 21:30	8/15/2008 0:00	2.5
4	8/29/2008 23:15	8/30/2008 13:30	14.25	0.008	0.42	0.019	5.21	9.78	0.27	7.13	4.24	1.72	8/29/2008 23:15	8/30/2008 4:45	5.5
5	9/5/2008 23:15	9/6/2008 10:15	11	0.006	0.19	0.032	5.13	11.1	0.09	6.47	4.25	1.10	9/5/2008 23:15	9/6/2008 1:30	2.25
6	9/6/2008 11:45	9/7/2008 3:00	15.25	0.048	2.05	0.023	22.50	29.6	0.20	13.63	4.24	2.78	9/6/2008 12:30	9/6/2008 21:30	9
7	9/9/2008 10:00	9/10/2008 3:30	17.5	0.017	0.57	0.029	13.54	21.1	0.19	8.96	4.29	2.67	9/9/2008 10:45	9/10/2008 0:30	13.75
8	9/12/2008 13:15	9/13/2008 18:30	29.25	0.030	0.64	0.046	10.00	17.3	0.07	8.87	4.28	2.44	9/12/2008 14:15	9/13/2008 7:15	17
9	9/25/2008 20:00	9/26/2008 21:45	25.75	0.016	0.33	0.051	4.52	11.6	0.06	7.77	4.00	2.43	9/25/2008 20:15	9/26/2008 21:00	24.75
10	9/27/2008 0:45	9/27/2008 21:15	20.5	0.014	0.24	0.060	6.89	11.4	0.11	7.64	3.99	2.21	9/27/2008 1:30	9/27/2008 21:00	19.5
11	9/28/2008 4:15	9/30/2008 1:00	44.75	0.054	1.42	0.038	22.56	29.5	0.45	9.00	4.06	2.38	9/28/2008 4:30	9/28/2008 22:00	17.5
12	9/30/2008 21:45	10/1/2008 15:30	17.75	0.015	0.46	0.033	10.08	16.6	0.19	8.01	4.12	2.10	9/30/2008 22:45	10/1/2008 0:15	1.5
13	10/1/2008 15:45	10/2/2008 13:15	21.5	0.011	0.11	0.098	3.73	11.1	0.02	7.49	4.14	2.29	10/1/2008 15:45	10/2/2008 1:15	9.5
14	10/25/2008 12:30	10/26/2008 7:30	19	0.021	0.86	0.024	13.06	19.8	0.30	8.32	3.89	2.14	10/25/2008 12:45	10/26/2008 4:15	15.5
15	10/27/2008 22:30	10/29/2008 17:15	42.75	0.075	1.86	0.040	15.03	21.8	0.11	9.97	4.02	2.25	10/27/2008 22:30	10/28/2008 18:15	19.75
16	11/5/2008 16:00	11/7/2008 1:30	33.5	0.020	0.34	0.061	6.02	13.7	0.05	8.27	4.50	2.48	11/5/2008 16:45	11/6/2008 21:15	28.5
17	11/8/2008 10:45	11/8/2008 21:15	10.5	0.005	0.16	0.028	4.59	13.1	0.05	8.70	4.44	3.35	11/8/2008 11:00	11/8/2008 13:45	2.75
18	11/13/2008 10:30	11/14/2008 15:30	29	0.038	0.91	0.042	10.73	17.9	0.07	9.49	4.24	2.48	11/13/2008 10:30	11/14/2008 15:15	28.75
19	11/15/2008 3:00	11/17/2008 0:15	45.25	0.052	1.05	0.050	10.69	14.9	0.14	9.00	4.27	2.27	11/15/2008 3:00	11/16/2008 1:30	22.5
20	11/24/2008 19:00	11/26/2008 3:30	32.5	0.027	0.37	0.075	6.49	13.6	0.02	8.81	4.69	2.33	11/24/2008 20:00	11/25/2008 12:45	16.75
21	11/30/2008 4:45	12/1/2008 16:30	35.75	0.045	0.84	0.053	8.45	16.5	0.05	9.61	4.69	2.28	11/30/2008 5:00	12/1/2008 2:15	21.25
22	12/1/2008 17:45	12/2/2008 16:00	22.25	0.010	0.14	0.075	4.87	12.7	0.08	8.16	4.88	2.31	12/1/2008 17:45	12/1/2008 22:30	4.75
23	12/10/2008 6:00	12/13/2008 5:15	71.25	0.129	3.21	0.040	20.18	29.4	0.15	12.15	5.92	2.37	12/10/2008 6:00	12/12/2008 8:15	50.25
24	12/15/2008 23:15	12/18/2008 9:30	58.25	0.048	0.81	0.059	7.66	15.2	0.24	10.42	6.49	2.17	12/15/2008 23:30	12/17/2008 15:30	40
25	12/19/2008 7:15	12/20/2008 19:45	36.5	0.040	0.98	0.040	11.79	21.1	0.09	11.24	6.39	2.55	12/19/2008 8:30	12/19/2008 22:15	13.75
26	12/21/2008 7:00	12/22/2008 8:30	25.5	0.019	0.28	0.065	6.25	15.8	0.12	10.02	6.26	2.22	12/21/2008 7:45	12/21/2008 16:15	8.5
27	1/7/2009 0:00	1/9/2009 0:30	48.5	0.070	1.57	0.045	10.41	20.0	0.43	11.72	6.30	2.34	1/7/2009 1:30	1/7/2009 22:45	21.25
28	1/28/2009 8:15	1/29/2009 6:00	21.75	0.045	0.80	0.057	11.57	20.8	0.08	12.82	6.02	2.42	1/28/2009 8:15	1/28/2009 22:00	13.75
29	3/19/2009 12:00	3/20/2009 7:00	19	0.012	0.13	0.089	3.22	11.2	0.03	8.54	5.08	2.18	3/19/2009 12:15	3/20/2009 7:00	18.75
30	3/26/2009 15:15	3/27/2009 21:45	30.5	0.016	0.32	0.051	6.00	14.4	0.05	8.67	5.05	2.51	3/26/2009 16:00	3/27/2009 0:00	8
31	3/28/2009 1:45	3/28/2009 17:15	15.5	0.007	0.22	0.033	5.19	10.5	0.04	8.10	5.03	2.07	3/28/2009 2:00	3/28/2009 8:15	6.25
32	3/29/2009 2:45	3/29/2009 16:00	13.25	0.006	0.26	0.022	5.08	10.2	0.06	7.99	5.06	2.04	3/29/2009 2:45	3/29/2009 14:00	11.25
33	3/29/2009 19:00	3/30/2009 3:00	8	0.001	0.32	0.004	3.14	11.1	0.24	7.60	5.09	2.15	3/29/2009 19:15	3/29/2009 22:45	3.5
34	4/1/2009 15:30	4/2/2009 6:00	14.5	0.011	0.22	0.052	4.85	11.4	0.03	8.80	5.09	2.07	4/1/2009 15:30	4/2/2009 1:15	9.75

BC\_0010 Byberry Creek Interceptor

Pipe Size (In.): 48

Tributary Drainage Area (acres): 3,271

Tributary Service Population: 40,961

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
35	4/3/2009 5:15	4/4/2009 11:30	30.25	0.022	0.62	0.036	7.22	15.1	0.18	8.73	4.96	2.19	4/3/2009 5:30	4/3/2009 19:00	13.5
36	4/6/2009 7:15	4/7/2009 6:00	22.75	0.021	0.43	0.048	4.64	12.3	0.06	9.19	4.87	2.41	4/6/2009 7:15	4/6/2009 19:30	12.25
37	4/11/2009 6:15	4/12/2009 1:30	19.25	0.018	0.55	0.034	8.28	16.1	0.05	9.44	4.80	2.63	4/11/2009 6:30	4/11/2009 15:30	9
38	4/13/2009 23:15	4/16/2009 4:45	53.5	0.061	1.27	0.048	9.36	14.3	0.08	9.51	4.89	2.22	4/13/2009 23:45	4/15/2009 17:30	41.75
39	4/20/2009 10:00	4/21/2009 11:15	25.25	0.032	0.70	0.045	8.05	16.2	0.09	10.08	5.03	2.40	4/20/2009 10:15	4/21/2009 6:45	20.5
40	4/21/2009 21:30	4/22/2009 6:00	8.5	0.006	0.17	0.034	4.52	11.7	0.05	7.84	5.05	1.39	4/21/2009 21:45	4/22/2009 3:15	5.5
41	4/22/2009 17:15	4/23/2009 4:45	11.5	0.006	0.08	0.070	4.76	13.1	0.04	8.29	5.07	2.17	4/22/2009 18:00	4/22/2009 20:45	2.75
42	4/29/2009 4:30	4/29/2009 17:30	13	0.005	0.16	0.030	2.43	11.0	0.02	8.60	5.42	2.44	4/29/2009 4:30	4/29/2009 8:45	4.25
43	5/3/2009 4:15	5/5/2009 16:30	60.25	0.070	1.48	0.048	8.05	17.0	0.08	10.45	5.68	2.29	5/3/2009 4:45	5/5/2009 15:45	59
44	5/5/2009 18:00	5/6/2009 18:30	24.5	0.024	0.31	0.078	7.71	14.8	0.05	10.23	5.80	2.37	5/5/2009 19:30	5/6/2009 1:45	6.25
45	5/6/2009 20:30	5/8/2009 12:45	40.25	0.053	1.21	0.044	15.37	23.1	0.24	10.91	5.89	2.23	5/6/2009 20:45	5/8/2009 6:00	33.25
46	5/14/2009 22:00	5/16/2009 3:00	29	0.015	0.38	0.040	7.33	15.9	0.17	9.63	6.24	2.29	5/14/2009 23:00	5/15/2009 0:30	1.5
47	5/24/2009 20:30	5/25/2009 2:30	6	0.002	0.18	0.009	3.50	12.3	0.15	9.02	6.35	2.13	5/24/2009 21:45	5/24/2009 23:45	2
48	5/29/2009 3:00	5/29/2009 14:45	11.75	0.015	0.49	0.030	12.14	18.5	0.12	11.00	6.33	2.09	5/29/2009 3:00	5/29/2009 6:15	3.25
49	5/29/2009 18:00	5/29/2009 23:30	5.5	0.002	0.08	0.031	2.67	12.2	0.05	10.36	6.30	3.16	5/29/2009 18:00	5/29/2009 18:45	0.75
50	6/3/2009 4:00	6/3/2009 12:30	8.5	0.008	0.31	0.025	8.69	15.0	0.13	10.21	6.29	2.03	6/3/2009 4:15	6/3/2009 5:45	1.5
51	6/3/2009 23:45	6/4/2009 15:00	15.25	0.017	0.32	0.053	5.94	14.7	0.04	10.58	6.31	1.97	6/3/2009 23:45	6/4/2009 14:45	15
52	6/5/2009 0:45	6/6/2009 16:15	39.5	0.051	0.83	0.061	7.82	17.4	0.03	11.23	6.31	2.20	6/5/2009 0:45	6/5/2009 22:45	22
53	6/9/2009 7:30	6/9/2009 16:45	9.25	0.008	0.23	0.033	6.51	16.1	0.07	11.12	6.41	3.01	6/9/2009 7:45	6/9/2009 9:00	1.25
54	6/11/2009 3:15	6/11/2009 14:30	11.25	0.011	0.27	0.041	8.30	14.9	0.09	10.59	6.46	2.10	6/11/2009 3:30	6/11/2009 11:45	8.25
55	6/13/2009 14:00	6/14/2009 6:00	16	0.019	0.46	0.042	12.20	21.6	0.05	11.10	6.44	2.15	6/13/2009 14:00	6/14/2009 1:30	11.5
56	6/15/2009 23:45	6/16/2009 22:15	22.5	0.023	0.58	0.039	12.65	19.7	0.13	10.89	6.45	2.32	6/16/2009 1:30	6/16/2009 5:30	4
57	6/18/2009 3:30	6/19/2009 14:00	34.5	0.042	0.69	0.061	10.44	19.9	0.09	11.26	6.42	2.27	6/18/2009 3:30	6/18/2009 20:30	17
58	6/20/2009 9:45	6/21/2009 5:30	19.75	0.018	0.34	0.053	7.20	17.7	0.06	10.82	6.36	2.52	6/20/2009 9:45	6/21/2009 3:00	17.25
59	6/26/2009 18:15	6/26/2009 23:15	5	0.010	0.90	0.011	18.17	27.8	0.64	13.65	6.32	3.19	6/26/2009 19:30	6/26/2009 21:00	1.5
60	7/2/2009 1:30	7/2/2009 10:45	9.25	0.018	0.62	0.029	19.27	26.3	0.36	11.79	6.31	1.47	7/2/2009 1:30	7/2/2009 6:15	4.75
61	7/11/2009 21:15	7/12/2009 11:30	14.25	0.029	1.37	0.022	20.31	26.4	0.52	10.24	4.39	1.51	7/11/2009 22:45	7/12/2009 3:30	4.75
62	7/16/2009 18:15	7/17/2009 14:45	20.5	0.007	0.13	0.056	4.41	12.2	0.08	7.52	4.49	2.27	7/16/2009 19:00	7/17/2009 11:30	16.5
63	7/17/2009 18:45	7/18/2009 4:45	10	0.007	0.24	0.027	5.54	13.3	0.14	7.97	4.46	2.12	7/17/2009 20:00	7/17/2009 21:15	1.25
64	7/21/2009 3:15	7/22/2009 7:00	27.75	0.041	1.07	0.038	15.60	22.7	0.15	9.72	4.52	2.06	7/21/2009 3:30	7/21/2009 16:30	13
65	7/23/2009 10:30	7/24/2009 1:15	14.75	0.009	0.22	0.041	3.93	11.6	0.04	8.83	4.60	2.93	7/23/2009 10:45	7/23/2009 18:45	8
66	7/29/2009 16:00	7/30/2009 3:45	11.75	0.013	0.62	0.021	10.27	18.2	0.21	9.50	4.78	2.41	7/29/2009 16:45	7/29/2009 23:00	6.25
67	7/31/2009 5:30	7/31/2009 13:30	8	0.004	0.20	0.022	5.28	10.8	0.17	8.43	4.80	2.53	7/31/2009 6:00	7/31/2009 6:30	0.5
68	7/31/2009 15:30	8/1/2009 6:00	14.5	0.015	0.80	0.019	16.38	24.1	0.31	9.09	4.79	2.12	7/31/2009 15:30	8/1/2009 1:00	9.5



BC\_0010 Byberry Creek Interceptor

Pipe Size (In.): 48

Tributary Drainage Area (acres): 3,271

Tributary Service Population: 40,961

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
69	8/2/2009 7:00	8/2/2009 21:15	14.25	0.029	1.27	0.023	23.01	31.7	0.57	12.01	4.82	2.87	8/2/2009 7:15	8/2/2009 17:45	10.5
70	8/6/2009 7:00	8/7/2009 0:00	17	0.009	0.20	0.047	7.11	15.2	0.06	9.04	4.89	2.99	8/6/2009 7:15	8/6/2009 10:45	3.5
71	8/9/2009 2:00	8/10/2009 2:45	24.75	0.022	0.64	0.034	11.43	17.5	0.13	8.98	4.98	2.16	8/9/2009 2:00	8/9/2009 19:45	17.75
72	8/13/2009 13:45	8/14/2009 6:00	16.25	0.018	0.85	0.021	21.57	29.6	0.38	9.71	5.22	2.16	8/13/2009 14:00	8/14/2009 5:45	15.75
73	8/21/2009 16:00	8/23/2009 9:00	41	0.066	2.47	0.027	28.84	35.7	0.45	10.84	5.38	2.07	8/21/2009 16:15	8/23/2009 7:00	38.75
74	8/29/2009 21:45	8/30/2009 6:30	8.75	0.015	0.58	0.026	13.90	22.1	0.17	10.59	5.82	1.22	8/29/2009 22:00	8/30/2009 0:15	2.25
75	9/10/2009 18:30	9/12/2009 14:00	43.5	0.083	1.94	0.043	17.67	26.7	0.16	12.23	5.93	2.25	9/10/2009 18:30	9/12/2009 7:30	37
76	9/16/2009 10:15	9/17/2009 9:45	23.5	0.021	0.40	0.052	11.12	20.0	0.09	10.34	6.13	2.33	9/16/2009 10:30	9/16/2009 18:30	8
77	10/15/2009 6:45	10/16/2009 5:30	22.75	0.029	0.74	0.040	8.82	17.8	0.05	11.26	6.11	2.43	10/15/2009 10:00	10/16/2009 3:45	17.75
78	10/17/2009 2:45	10/18/2009 23:45	45	0.041	0.82	0.050	9.10	17.7	0.07	10.33	6.12	2.27	10/17/2009 4:15	10/18/2009 11:30	31.25
79	10/23/2009 18:45	10/24/2009 11:00	16.25	0.017	0.33	0.051	7.09	14.9	0.06	10.49	6.50	1.79	10/23/2009 18:45	10/24/2009 10:45	16
80	10/24/2009 12:00	10/26/2009 0:00	36	0.050	1.49	0.033	23.69	33.1	0.56	11.95	6.50	2.52	10/24/2009 12:00	10/24/2009 21:45	9.75
81	10/27/2009 20:45	10/29/2009 10:45	38	0.083	1.26	0.066	17.33	23.9	0.14	13.26	6.47	2.17	10/27/2009 20:45	10/29/2009 6:15	33.5
82	10/31/2009 18:15	11/1/2009 16:45	22.5	0.020	0.29	0.068	8.53	17.7	0.12	10.37	6.33	2.18	10/31/2009 19:15	11/1/2009 8:30	13.25
83	11/11/2009 23:15	11/13/2009 18:30	43.25	0.030	0.29	0.103	5.34	13.8	0.01	9.27	5.53	2.26	11/11/2009 23:15	11/13/2009 15:00	39.75
84	11/13/2009 20:00	11/15/2009 0:00	28	0.022	0.18	0.123	7.21	14.2	0.02	9.46	5.48	2.35	11/13/2009 20:45	11/14/2009 12:15	15.5
85	11/19/2009 17:45	11/20/2009 19:45	26	0.027	0.66	0.041	12.24	18.1	0.12	10.06	5.46	2.42	11/19/2009 18:45	11/20/2009 4:45	10
86	11/25/2009 11:15	11/26/2009 7:15	20	0.013	0.13	0.100	5.37	13.7	0.01	8.91	5.39	2.20	11/25/2009 11:15	11/25/2009 23:45	12.5
87	11/30/2009 11:00	12/1/2009 0:45	13.75	0.014	0.26	0.054	5.89	14.4	0.03	10.75	5.63	2.97	11/30/2009 11:15	11/30/2009 19:45	8.5
88	12/2/2009 15:15	12/3/2009 14:45	23.5	0.047	1.16	0.041	14.41	22.6	0.09	12.34	5.77	2.34	12/2/2009 15:30	12/3/2009 3:30	12
89	12/5/2009 11:45	12/6/2009 7:30	19.75	0.028	0.53	0.053	6.24	15.1	0.02	11.02	5.87	2.21	12/5/2009 11:45	12/6/2009 0:45	13
90	12/9/2009 0:30	12/10/2009 1:15	24.75	0.087	2.02	0.043	31.15	40.3	0.13	15.83	6.08	2.32	12/9/2009 1:00	12/9/2009 10:30	9.5
91	12/13/2009 8:45	12/14/2009 10:45	26	0.046	1.14	0.040	13.65	23.0	0.09	12.53	6.37	2.41	12/13/2009 9:30	12/13/2009 19:00	9.5
92	12/25/2009 9:30	12/28/2009 2:30	65	0.163	1.97	0.083	22.18	32.1	0.09	14.73	7.00	2.40	12/25/2009 9:30	12/27/2009 2:15	40.75
93	12/31/2009 12:45	1/1/2010 19:15	30.5	0.014	0.25	0.055	4.26	13.7	0.02	10.70	7.28	2.46	12/31/2009 12:45	1/1/2010 11:45	23
94	1/17/2010 10:30	1/18/2010 8:30	22	0.051	0.86	0.060	18.76	28.4	0.06	13.91	6.69	2.35	1/17/2010 10:30	1/18/2010 6:00	19.5
95	1/24/2010 20:15	1/26/2010 9:45	37.5	0.106	1.57	0.067	37.00	47.0	0.11	14.89	6.83	2.11	1/24/2010 20:15	1/26/2010 5:15	33
Average:			24.3	0.029	0.69	0.044	10.3	18.2	0.14	10.0	5.41	2.29			14.6
Maximum Value:			71.3	0.163	3.21	0.123	37.0	47.0	0.64	15.8	7.28	3.35			59.0
Minimum Value:			5.0	0.001	0.08	0.004	1.4	8.7	0.01	6.45	3.89	1.10			0.50
Standard Deviation:			14.0	0.028	0.59	0.022	6.9	7.2	0.13	1.85	0.87	0.38			12.0
Weighted Mean R-Value*:						0.042									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

BC-0055 Byberry Creek Interceptor (2012)

Pipe Size (In.): 51 x 48

Tributary Drainage Area (acres): 2,715

Tributary Service Population: 33,648

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/6/2011 14:15	12/9/2011 10:15	68	0.132	2.58	0.051	24.70	32.71	0.16	10.88	5.78	1.69	12/6/2011 14:15	12/8/2011 1:45	35.5
2	12/21/2011 17:45	12/22/2011 6:30	12.75	0.003	0.18	0.018	3.26	10.78	0.13	7.58	5.84	1.32	12/21/2011 17:45	12/21/2011 23:00	5.25
3	12/22/2011 21:30	12/23/2011 20:30	23	0.047	1.36	0.035	18.85	24.93	0.14	10.99	5.70	1.72	12/22/2011 21:30	12/23/2011 5:45	8.25
4	12/27/2011 13:30	12/28/2011 17:45	28.25	0.022	0.60	0.037	7.58	15.28	0.13	8.69	5.54	1.78	12/27/2011 13:30	12/27/2011 19:45	6.25
5	1/11/2012 20:15	1/13/2012 20:45	48.5	0.061	1.70	0.036	18.77	26.3	0.15	9.34	5.38	1.74	1/11/2012 20:15	1/13/2012 8:45	36.5
6	1/16/2012 22:45	1/18/2012 16:45	42	0.015	0.34	0.044	4.49	12.2	0.03	7.63	5.35	1.64	1/16/2012 23:00	1/17/2012 14:30	15.5
7	1/23/2012 11:00	1/24/2012 21:45	34.75	0.030	0.27	0.111	6.23	13.9	0.05	8.94	5.54	1.88	1/23/2012 11:00	1/23/2012 18:00	7
8	1/27/2012 6:00	1/28/2012 11:15	29.25	0.017	0.37	0.045	8.70	16.7	0.09	8.27	5.58	1.69	1/27/2012 6:00	1/27/2012 11:30	5.5
9	2/11/2012 3:45	2/12/2012 9:30	29.75	0.012	0.22	0.056	2.14	10.2	0.03	7.34	5.19	1.43	2/11/2012 4:00	2/11/2012 22:45	18.75
10	2/16/2012 12:00	2/17/2012 21:15	33.25	0.010	0.16	0.065	1.85	9.1	0.02	7.52	5.11	1.88	2/16/2012 12:00	2/16/2012 20:30	8.5
11	2/24/2012 3:00	2/25/2012 20:30	41.5	0.008	0.33	0.023	2.83	8.9	0.05	7.06	5.00	1.74	2/24/2012 3:00	2/25/2012 11:00	32
12	2/29/2012 10:15	3/2/2012 0:15	38	0.038	0.97	0.039	8.18	15.2	0.08	8.57	4.93	1.89	2/29/2012 10:15	3/1/2012 0:45	14.5
13	3/2/2012 20:30	3/3/2012 20:15	23.75	0.015	0.33	0.046	3.60	9.9	0.04	7.67	4.87	1.68	3/2/2012 20:45	3/3/2012 10:00	13.25
14	3/31/2012 0:45	4/1/2012 8:00	31.25	0.016	0.36	0.045	5.14	9.4	0.06	6.46	4.23	1.33	3/31/2012 0:45	3/31/2012 4:00	3.25
15	4/1/2012 18:15	4/3/2012 3:45	33.5	0.012	0.17	0.071	3.32	8.4	0.04	6.64	4.37	1.63	4/1/2012 18:30	4/2/2012 2:30	8
16	4/21/2012 21:45	4/24/2012 1:30	51.75	0.073	2.26	0.032	16.30	22.6	0.13	8.42	4.28	1.65	4/21/2012 21:45	4/23/2012 18:15	44.5
17	5/1/2012 4:00	5/2/2012 5:00	25	0.009	0.33	0.029	4.64	10.3	0.11	6.50	4.21	1.64	5/1/2012 4:15	5/1/2012 10:15	6
18	5/3/2012 2:15	5/4/2012 1:30	23.25	0.007	0.14	0.045	2.76	7.9	0.04	6.56	4.31	1.76	5/3/2012 2:15	5/3/2012 5:00	2.75
19	5/9/2012 0:00	5/9/2012 16:00	16	0.010	0.29	0.035	4.71	10.9	0.06	7.08	4.48	1.50	5/9/2012 0:00	5/9/2012 7:15	7.25
20	5/9/2012 21:45	5/11/2012 1:30	27.75	0.012	0.21	0.059	3.43	7.9	0.02	6.89	4.41	1.70	5/9/2012 21:45	5/10/2012 4:45	7
21	5/14/2012 20:15	5/17/2012 9:00	60.75	0.079	2.32	0.034	24.16	28.7	0.25	8.16	4.25	1.62	5/14/2012 20:15	5/16/2012 4:45	32.5
22	5/21/2012 1:30	5/23/2012 3:00	49.5	0.017	0.50	0.034	3.46	8.4	0.08	6.64	4.36	1.68	5/21/2012 1:30	5/22/2012 9:45	32.25
23	5/24/2012 7:30	5/25/2012 4:00	20.5	0.009	0.39	0.023	7.48	14.2	0.25	7.05	4.38	1.90	5/24/2012 7:30	5/25/2012 4:00	20.5
24	5/27/2012 4:15	5/28/2012 0:00	19.75	0.010	0.35	0.030	8.22	12.8	0.11	7.05	4.32	1.82	5/27/2012 4:15	5/27/2012 22:00	17.75
25	6/1/2012 20:30	6/3/2012 2:30	30	0.020	0.55	0.037	14.94	19.6	0.21	7.13	4.30	1.63	6/1/2012 20:45	6/2/2012 2:15	5.5
26	6/3/2012 14:00	6/4/2012 9:00	19	0.008	0.28	0.029	4.22	11.0	0.16	6.68	4.39	1.53	6/3/2012 14:00	6/4/2012 3:45	13.75
27	6/12/2012 9:30	6/14/2012 0:45	39.25	0.025	0.68	0.036	5.80	12.4	0.07	7.36	4.36	1.89	6/12/2012 9:45	6/12/2012 23:30	13.75
28	6/22/2012 18:45	6/23/2012 20:45	26	0.009	0.23	0.040	3.44	9.7	0.06	6.51	4.16	1.74	6/22/2012 18:45	6/22/2012 22:45	4
29	7/5/2012 0:15	7/5/2012 20:30	20.25	0.005	0.19	0.027	5.69	10.7	0.13	6.19	4.07	1.66	7/5/2012 0:30	7/5/2012 3:45	3.25
30	7/14/2012 4:00	7/14/2012 20:00	16	0.005	0.24	0.019	3.29	7.3	0.05	6.21	3.87	1.83	7/14/2012 4:15	7/14/2012 13:15	9
31	7/15/2012 21:30	7/16/2012 20:30	23	0.031	0.97	0.032	22.20	27.8	0.50	8.07	4.05	1.67	7/15/2012 21:30	7/16/2012 0:00	2.5
32	7/18/2012 17:45	7/19/2012 0:00	6.25	0.002	0.14	0.011	3.10	9.6	0.10	6.76	4.15	2.18	7/18/2012 17:45	7/18/2012 18:00	0.25
33	7/20/2012 0:30	7/21/2012 9:15	32.75	0.021	0.90	0.024	9.42	15.6	0.25	6.64	4.08	1.42	7/20/2012 0:30	7/20/2012 10:00	9.5
34	7/26/2012 19:45	7/27/2012 22:15	26.5	0.013	0.44	0.029	6.98	13.5	0.24	6.78	4.12	1.80	7/26/2012 20:00	7/27/2012 0:30	4.5

**BC-0055 Byberry Creek Interceptor (2012)**

Pipe Size (In.): 51 x 48

Tributary Drainage Area (acres): 2,715

Tributary Service Population: 33,648

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
35	7/28/2012 12:45	7/29/2012 17:30	28.75	0.014	0.55	0.026	12.24	19.0	0.17	6.66	4.02	1.78	7/28/2012 12:45	7/28/2012 22:30	9.75
36	8/1/2012 4:00	8/2/2012 16:30	36.5	0.019	0.37	0.051	11.96	18.2	0.11	6.65	4.01	1.74	8/1/2012 4:15	8/1/2012 18:00	13.75
37	8/4/2012 13:45	8/4/2012 23:00	9.25	0.009	0.50	0.018	8.73	15.1	0.34	7.79	3.90	2.22	8/4/2012 14:00	8/4/2012 14:30	0.5
38	8/5/2012 18:45	8/6/2012 22:30	27.75	0.027	0.78	0.034	7.82	13.7	0.11	7.53	4.09	1.75	8/5/2012 18:45	8/6/2012 2:15	7.5
39	8/10/2012 10:00	8/11/2012 9:00	23	0.007	0.24	0.030	5.70	12.2	0.07	6.25	4.12	1.57	8/10/2012 10:15	8/10/2012 12:15	2
40	8/14/2012 10:00	8/16/2012 7:00	45	0.021	0.71	0.030	9.82	16.3	0.17	6.67	4.15	1.69	8/14/2012 10:15	8/15/2012 18:00	31.75
41	8/17/2012 22:15	8/19/2012 1:45	27.5	0.018	0.58	0.031	6.63	11.9	0.07	6.89	4.11	1.62	8/17/2012 22:15	8/18/2012 7:30	9.25
42	8/27/2012 10:00	8/29/2012 0:00	38	0.029	0.97	0.030	12.79	19.1	0.20	7.15	3.91	1.90	8/27/2012 10:15	8/28/2012 7:30	21.25
43	9/2/2012 22:15	9/3/2012 5:45	7.5	0.002	0.14	0.015	1.41	6.2	0.03	4.96	3.77	0.73	9/2/2012 22:15	9/3/2012 0:45	2.5
44	9/3/2012 10:00	9/6/2012 6:45	68.75	0.192	4.21	0.046	33.86	39.9	0.53	10.56	3.94	1.70	9/3/2012 10:15	9/5/2012 12:45	50.5
45	9/8/2012 16:45	9/9/2012 15:00	22.25	0.006	0.24	0.026	3.66	10.0	0.04	6.24	4.16	1.59	9/8/2012 17:00	9/8/2012 22:00	5
46	9/18/2012 3:30	9/20/2012 0:00	44.5	0.025	1.04	0.024	10.21	16.7	0.33	6.95	4.18	1.79	9/18/2012 3:30	9/18/2012 21:00	17.5
47	9/22/2012 19:45	9/23/2012 19:15	23.5	0.006	0.29	0.022	3.64	9.9	0.11	6.16	4.06	1.62	9/22/2012 20:00	9/22/2012 22:30	2.5
48	10/7/2012 10:45	10/8/2012 2:30	15.75	0.006	0.19	0.029	2.49	8.6	0.03	6.68	4.02	2.04	10/7/2012 11:00	10/7/2012 21:00	10
49	10/9/2012 5:00	10/9/2012 11:00	6	0.001	0.13	0.010	2.12	8.1	0.04	6.07	4.00	1.69	10/9/2012 5:00	10/9/2012 9:15	4.25
50	10/15/2012 13:15	10/16/2012 9:45	20.5	0.012	0.28	0.043	11.68	17.6	0.09	6.42	3.78	1.62	10/15/2012 13:15	10/15/2012 21:45	8.5
51	10/19/2012 9:30	10/19/2012 20:30	11	0.027	0.91	0.030	27.68	33.8	0.23	10.28	3.67	2.29	10/19/2012 9:30	10/19/2012 14:15	4.75
52	10/28/2012 15:30	10/30/2012 16:45	49.25	0.085	2.27	0.037	30.71	36.6	0.12	8.45	3.71	1.70	10/28/2012 15:30	10/30/2012 9:15	41.75
53	11/7/2012 11:15	11/8/2012 15:00	27.75	0.023	0.55	0.042	3.66	9.6	0.03	7.03	3.79	1.80	11/7/2012 11:15	11/8/2012 1:15	14
54	11/13/2012 3:00	11/14/2012 3:00	24	0.007	0.20	0.036	1.82	8.0	0.04	6.08	3.86	1.70	11/13/2012 3:00	11/13/2012 12:30	9.5
55	11/27/2012 6:15	11/28/2012 15:45	33.5	0.023	0.62	0.037	5.34	11.5	0.02	6.93	3.88	1.84	11/27/2012 6:30	11/27/2012 16:00	9.5
56	12/7/2012 10:00	12/8/2012 20:00	34	0.015	0.36	0.041	5.24	10.1	0.06	6.36	3.74	1.87	12/7/2012 10:15	12/8/2012 1:45	15.5
57	12/9/2012 8:45	12/10/2012 22:30	37.75	0.023	0.36	0.062	2.76	9.2	0.04	6.89	3.90	1.94	12/9/2012 8:45	12/10/2012 2:30	17.75
58	12/18/2012 0:15	12/18/2012 5:45	5.5	0.006	0.41	0.014	6.94	11.9	0.17	6.17	3.98	0.43	12/18/2012 1:00	12/18/2012 2:15	1.25
59	12/20/2012 21:30	12/21/2012 22:00	24.5	0.058	1.63	0.035	15.58	21.2	0.12	9.92	4.03	1.76	12/20/2012 21:30	12/21/2012 8:00	10.5
60	12/24/2012 17:30	12/25/2012 6:15	12.75	0.005	0.19	0.027	1.76	7.7	0.02	6.10	4.04	1.35	12/24/2012 17:45	12/24/2012 21:30	3.75
61	12/26/2012 13:30	12/28/2012 6:15	40.75	0.061	1.30	0.047	13.40	19.8	0.10	8.29	4.02	1.64	12/26/2012 13:30	12/27/2012 9:30	20
Average:			29.4	0.025	0.68	0.036	8.75	14.9	0.12	7.35	4.36	1.69			13.1
Maximum Value:			68.8	0.192	4.21	0.111	33.9	39.9	0.53	11.0	5.84	2.29			50.5
Minimum Value:			5.5	0.001	0.13	0.010	1.41	6.23	0.02	4.96	3.67	0.432			0.25
Standard Deviation:			14.1	0.032	0.75	0.016	7.60	7.69	0.11	1.26	0.580	0.278			11.7
Weighted Mean R-Value:						0.037									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**BC-0055 Byberry Creek Interceptor (2013)**

Pipe Size (In.): 51 x 48

Tributary Drainage Area (acres): 2,715

Tributary Service Population: 33,648

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/11/2013 16:15	1/13/2013 0:00	31.75	0.017	0.45	0.037	6.13	12.51	0.06	6.72	4.25	1.53	1/11/2013 16:15	1/11/2013 21:00	4.75
2	1/14/2013 20:45	1/15/2013 11:00	14.25	0.014	0.36	0.038	4.61	9.74	0.04	7.17	4.36	1.11	1/14/2013 20:45	1/15/2013 2:45	6
3	1/15/2013 21:30	1/17/2013 8:30	35	0.047	1.02	0.046	12.42	16.86	0.07	8.06	4.46	1.25	1/15/2013 21:30	1/16/2013 12:00	14.5
4	1/28/2013 12:45	1/28/2013 23:30	10.75	0.007	0.20	0.036	3.10	9.20	0.03	7.41	4.36	1.86	1/28/2013 12:45	1/28/2013 17:00	4.25
5	1/30/2013 21:45	2/1/2013 1:00	27.25	0.037	1.09	0.034	14.43	19.0	0.26	8.40	4.54	1.43	1/30/2013 21:45	1/31/2013 21:30	23.75
6	2/8/2013 7:30	2/9/2013 10:00	26.5	0.012	0.42	0.028	2.34	8.8	0.03	6.59	4.41	1.40	2/8/2013 7:30	2/9/2013 3:00	19.5
7	2/11/2013 4:00	2/12/2013 10:00	30	0.020	0.34	0.058	4.82	11.2	0.04	7.06	4.56	1.35	2/11/2013 4:15	2/11/2013 9:00	4.75
8	2/13/2013 18:45	2/14/2013 16:30	21.75	0.008	0.16	0.050	1.98	8.0	0.02	6.76	4.74	1.39	2/13/2013 18:45	2/14/2013 0:30	5.75
9	2/19/2013 11:30	2/20/2013 1:00	13.5	0.008	0.20	0.039	2.33	8.8	0.02	7.37	4.58	1.80	2/19/2013 11:45	2/19/2013 18:00	6.25
10	2/26/2013 19:15	2/28/2013 2:15	31	0.024	0.68	0.036	5.41	10.5	0.07	7.25	4.43	1.45	2/26/2013 19:15	2/27/2013 11:45	16.5
11	3/8/2013 5:00	3/9/2013 2:15	21.25	0.011	0.22	0.051	2.36	8.6	0.02	7.02	4.43	1.64	3/8/2013 5:00	3/8/2013 13:15	8.25
12	3/12/2013 3:15	3/13/2013 21:45	42.5	0.041	0.97	0.042	9.77	16.1	0.07	7.71	4.53	1.48	3/12/2013 3:30	3/12/2013 14:45	11.25
13	3/16/2013 9:45	3/17/2013 3:15	17.5	0.006	0.14	0.042	2.11	8.4	0.02	6.83	4.46	1.77	3/16/2013 9:45	3/16/2013 18:00	8.25
14	3/18/2013 18:00	3/20/2013 10:45	40.75	0.035	0.82	0.042	5.88	11.8	0.05	7.39	4.54	1.35	3/18/2013 18:15	3/19/2013 18:45	24.5
15	3/25/2013 6:30	3/26/2013 22:15	39.75	0.028	0.61	0.046	4.78	11.5	0.04	7.63	4.77	1.60	3/25/2013 6:45	3/26/2013 22:00	39.25
16	3/31/2013 15:30	4/1/2013 3:30	12	0.007	0.21	0.034	2.80	9.1	0.04	6.91	4.49	1.37	3/31/2013 15:30	3/31/2013 22:45	7.25
17	4/10/2013 20:30	4/11/2013 23:00	26.5	0.012	0.38	0.033	4.83	10.9	0.17	6.76	4.48	1.47	4/10/2013 20:45	4/11/2013 0:00	3.25
18	4/12/2013 7:00	4/14/2013 4:00	45	0.040	1.18	0.034	7.76	14.2	0.10	7.59	4.49	1.52	4/12/2013 7:15	4/12/2013 23:30	16.25
19	4/19/2013 21:15	4/21/2013 0:00	26.75	0.016	0.45	0.035	4.45	10.1	0.05	6.93	4.45	1.45	4/19/2013 21:30	4/20/2013 3:00	5.5
20	4/29/2013 3:30	4/30/2013 9:30	30	0.016	0.37	0.043	2.10	8.4	0.02	6.69	4.44	1.31	4/29/2013 3:30	4/30/2013 1:45	22.25
21	5/8/2013 5:30	5/8/2013 23:00	17.5	0.006	0.32	0.020	4.59	10.9	0.06	6.77	4.37	1.76	5/8/2013 5:45	5/8/2013 18:15	12.5
22	5/9/2013 4:00	5/10/2013 1:00	21	0.014	0.44	0.031	7.66	12.8	0.08	7.13	4.37	1.59	5/9/2013 4:15	5/9/2013 6:45	2.5
23	5/10/2013 22:30	5/12/2013 11:30	37	0.024	0.77	0.031	7.13	11.8	0.08	6.59	4.22	1.22	5/10/2013 22:45	5/12/2013 6:15	31.5
24	5/18/2013 18:00	5/20/2013 0:15	30.25	0.012	0.36	0.033	3.28	8.2	0.04	6.54	4.42	1.44	5/18/2013 18:00	5/19/2013 18:30	24.5
25	5/23/2013 11:00	5/25/2013 17:45	54.75	0.020	0.62	0.032	4.17	9.3	0.24	6.38	4.23	1.51	5/23/2013 11:00	5/24/2013 22:15	35.25
26	5/28/2013 9:30	5/29/2013 12:00	26.5	0.012	0.30	0.040	3.07	9.0	0.03	6.43	4.15	1.48	5/28/2013 9:30	5/28/2013 22:30	13
27	6/3/2013 1:00	6/4/2013 3:15	26.25	0.030	1.39	0.022	19.99	25.9	0.63	7.45	4.06	1.34	6/3/2013 1:15	6/3/2013 17:30	16.25
28	6/6/2013 19:30	6/10/2013 2:30	79	0.120	3.78	0.032	18.74	24.2	0.36	7.70	3.61	1.42	6/6/2013 19:30	6/8/2013 2:15	30.75
29	6/10/2013 7:15	6/13/2013 4:00	68.75	0.092	2.06	0.045	18.08	23.6	0.29	7.75	3.90	1.48	6/10/2013 7:15	6/11/2013 1:00	17.75
30	6/13/2013 9:30	6/13/2013 21:15	11.75	0.008	0.36	0.022	5.46	11.6	0.18	7.23	4.10	1.91	6/13/2013 9:30	6/13/2013 20:30	11
31	6/18/2013 12:45	6/19/2013 15:15	26.5	0.015	0.29	0.051	4.54	10.6	0.03	6.73	4.28	1.47	6/18/2013 12:45	6/18/2013 20:15	7.5
32	6/25/2013 16:00	6/25/2013 22:00	6	0.004	0.10	0.038	3.24	9.2	0.10	7.21	4.18	1.91	6/25/2013 16:15	6/25/2013 16:45	0.5
33	6/26/2013 20:30	6/27/2013 3:30	7	0.003	0.15	0.019	3.83	10.0	0.09	6.14	4.24	1.18	6/26/2013 20:45	6/26/2013 21:30	0.75
34	6/27/2013 18:30	6/28/2013 7:45	13.25	0.015	0.62	0.025	10.31	16.6	0.18	7.41	4.29	1.07	6/27/2013 18:30	6/27/2013 22:00	3.5

**BC-0055 Byberry Creek Interceptor (2013)**

Pipe Size (In.): 51 x 48

Tributary Drainage Area (acres): 2,715

Tributary Service Population: 33,648

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
35	6/30/2013 13:30	6/30/2013 20:15	6.75	0.004	0.20	0.019	3.55	9.8	0.06	7.18	4.20	1.96	6/30/2013 13:30	6/30/2013 16:00	2.5
36	7/1/2013 8:30	7/1/2013 19:30	11	0.007	0.25	0.029	4.20	10.3	0.05	7.37	4.30	1.89	7/1/2013 8:45	7/1/2013 15:15	6.5
37	7/3/2013 21:30	7/4/2013 9:00	11.5	0.003	0.25	0.014	2.32	7.5	0.14	5.63	4.39	0.72	7/3/2013 21:30	7/3/2013 23:15	1.75
38	7/9/2013 17:00	7/9/2013 22:45	5.75	0.002	0.16	0.012	3.96	10.8	0.09	7.41	4.92	1.93	7/9/2013 17:00	7/9/2013 19:45	2.75
39	7/10/2013 12:30	7/10/2013 21:15	8.75	0.004	0.18	0.023	4.11	10.9	0.11	7.58	4.89	1.88	7/10/2013 12:45	7/10/2013 13:45	1
40	7/12/2013 15:45	7/13/2013 12:00	20.25	0.029	0.88	0.033	14.99	21.6	0.18	8.46	4.67	1.29	7/12/2013 15:45	7/12/2013 22:30	6.75
41	7/13/2013 15:30	7/14/2013 13:30	22	0.020	0.53	0.039	18.22	24.6	0.22	7.55	4.59	1.32	7/13/2013 15:45	7/13/2013 20:00	4.25
42	7/23/2013 1:30	7/23/2013 11:00	9.5	0.031	1.28	0.024	27.23	32.3	0.49	11.59	4.91	0.91	7/23/2013 1:30	7/23/2013 3:45	2.25
43	7/23/2013 16:30	7/24/2013 0:30	8	0.003	0.14	0.021	2.59	9.3	0.06	7.32	4.85	1.80	7/23/2013 16:45	7/23/2013 18:15	1.5
44	7/28/2013 16:00	7/29/2013 21:00	29	0.019	0.46	0.041	5.74	12.0	0.09	7.15	4.52	1.47	7/28/2013 16:15	7/29/2013 2:30	10.25
45	8/1/2013 6:30	8/2/2013 7:00	24.5	0.038	0.97	0.039	12.13	18.3	0.12	8.48	4.30	1.42	8/1/2013 6:30	8/1/2013 15:00	8.5
46	8/8/2013 0:15	8/9/2013 6:15	30	0.025	0.60	0.042	15.04	19.5	0.26	6.97	4.28	1.21	8/8/2013 0:30	8/8/2013 17:00	16.5
47	8/9/2013 15:45	8/10/2013 19:00	27.25	0.008	0.16	0.050	2.75	9.0	0.07	6.23	4.18	1.51	8/9/2013 15:45	8/9/2013 18:00	2.25
48	8/13/2013 5:00	8/14/2013 12:30	31.5	0.057	2.05	0.028	28.82	35.2	0.80	9.03	4.41	1.44	8/13/2013 5:00	8/13/2013 10:00	5
49	8/22/2013 6:15	8/23/2013 4:15	22	0.009	0.34	0.026	5.13	11.3	0.15	6.71	4.46	1.55	8/22/2013 6:30	8/22/2013 17:15	10.75
50	8/28/2013 10:45	8/29/2013 11:30	24.75	0.016	0.46	0.035	8.12	14.0	0.07	6.67	4.06	1.45	8/28/2013 11:00	8/28/2013 16:00	5
51	9/2/2013 10:30	9/4/2013 6:00	43.5	0.026	0.55	0.047	8.99	15.2	0.16	6.33	3.83	1.45	9/2/2013 10:30	9/3/2013 3:30	17
52	9/12/2013 19:00	9/13/2013 16:00	21	0.011	0.40	0.028	6.77	10.6	0.12	6.11	3.78	1.39	9/12/2013 19:15	9/13/2013 3:15	8
53	9/21/2013 20:15	9/23/2013 4:00	31.75	0.031	1.19	0.026	11.61	15.6	0.27	6.45	3.45	1.29	9/21/2013 20:15	9/22/2013 2:15	6
Average:			25.6	0.021	0.62	0.034	7.64	13.5	0.13	7.21	4.36	1.47			10.9
Maximum Value:			79.0	0.120	3.78	0.058	28.8	35.2	0.80	11.6	4.92	1.96			39.3
Minimum Value:			5.8	0.002	0.10	0.012	1.98	7.50	0.02	5.63	3.45	0.720			0.50
Standard Deviation:			14.9	0.021	0.63	0.010	6.33	6.19	0.15	0.893	0.298	0.256			9.4
Weighted Mean R-Value:						0.034									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**BC-0200 Byberry Creek Interceptor**

Pipe Size (In.): 42

Tributary Drainage Area (acres): 2,326

Tributary Service Population: 23,909

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	11/25/1999 2:45	11/25/1999 17:15	14.5	0.002	0.35	0.007	4.36	9.43	0.07	4.83	3.11	1.47	11/25/1999 5:15	11/25/1999 9:45	4.5
2	11/26/1999 5:45	11/27/1999 21:15	39.5	0.018	0.94	0.019	4.24	7.79	0.11	5.50	3.26	1.57	11/26/1999 6:15	11/27/1999 5:30	23.25
3	12/6/1999 5:15	12/7/1999 6:00	24.75	0.014	0.54	0.026	4.62	10.22	0.06	5.84	3.62	1.37	12/6/1999 6:15	12/6/1999 20:15	14
4	12/10/1999 12:30	12/10/1999 23:15	10.75	0.007	0.33	0.021	3.86	9.47	0.06	6.27	3.46	1.85	12/10/1999 12:30	12/10/1999 17:30	5
5	12/13/1999 15:15	12/15/1999 12:30	45.25	0.044	1.41	0.031	8.48	14.0	0.07	6.47	3.62	1.38	12/13/1999 16:15	12/15/1999 2:45	34.5
6	12/20/1999 8:45	12/21/1999 8:00	23.25	0.017	0.46	0.036	5.97	11.3	0.05	6.08	3.62	1.39	12/20/1999 9:45	12/20/1999 21:45	12
7	1/4/2000 15:15	1/5/2000 7:45	16.5	0.011	0.85	0.013	6.96	12.3	0.13	5.81	3.62	1.18	1/4/2000 16:15	1/4/2000 23:00	6.75
8	1/10/2000 8:30	1/11/2000 15:30	31	0.008	0.40	0.020	3.55	8.8	0.05	5.52	3.62	1.52	1/10/2000 11:15	1/10/2000 16:15	5
9	1/30/2000 21:00	2/1/2000 3:15	30.25	0.023	0.63	0.037	4.67	9.4	0.13	6.06	3.61	1.31	1/30/2000 22:00	1/31/2000 1:30	3.5
Average:			26.2	0.016	0.66	0.023	5.19	10.3	0.08	5.82	3.50	1.45			12.1
Maximum Value:			45.3	0.044	1.41	0.037	8.48	14.0	0.13	6.47	3.62	1.85			34.5
Minimum Value:			10.8	0.002	0.33	0.007	3.55	7.79	0.05	4.83	3.11	1.18			3.50
Standard Deviation:			11.5	0.012	0.35	0.010	1.63	1.91	0.03	0.49	0.190	0.190			10.6
Weighted Mean R-Value:						0.024									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**BC-0675 Byberry Creek Interceptor**

Pipe Size (In.): 20

Tributary Drainage Area (acres): 230

Tributary Service Population: 2,374

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/6/2009 21:30	1/8/2009 21:30	48	0.213	1.63	0.131	2.60	2.97	0.05	1.015	0.190	0.163	1/6/2009 21:30	1/7/2009 23:00	25.5
2	1/28/2009 0:15	1/29/2009 7:45	31.5	0.067	0.79	0.085	1.71	2.09	0.04	0.668	0.209	0.142	1/28/2009 0:30	1/28/2009 18:45	18.25
3	2/18/2009 13:00	2/18/2009 23:15	10.25	0.009	0.18	0.047	0.48	0.79	0.02	0.466	0.137	0.206	2/18/2009 13:15	2/18/2009 17:30	4.25
4	2/22/2009 8:15	2/23/2009 11:45	27.5	0.015	0.09	0.170	0.35	0.78	0.01	0.403	0.123	0.199	2/22/2009 8:15	2/22/2009 15:00	6.75
5	3/19/2009 12:15	3/20/2009 13:00	24.75	0.012	0.10	0.122	0.46	0.75	0.02	0.330	0.096	0.164	3/19/2009 12:30	3/20/2009 6:30	18
6	3/26/2009 15:45	3/27/2009 5:15	13.5	0.020	0.33	0.061	1.00	1.38	0.04	0.478	0.117	0.139	3/26/2009 16:30	3/27/2009 1:00	8.5
7	3/28/2009 2:00	3/28/2009 10:00	8	0.016	0.24	0.069	0.73	0.87	0.04	0.500	0.101	0.103	3/28/2009 2:00	3/28/2009 7:30	5.5
8	3/29/2009 1:00	3/29/2009 19:00	18	0.028	0.33	0.086	0.70	0.82	0.07	0.517	0.098	0.188	3/29/2009 2:30	3/29/2009 19:00	16.5
9	4/3/2009 5:30	4/4/2009 7:30	26	0.022	0.61	0.035	0.47	0.82	0.13	0.434	0.150	0.160	4/3/2009 6:00	4/3/2009 18:45	12.75
10	4/6/2009 6:00	4/7/2009 2:15	20.25	0.027	0.39	0.070	0.61	0.97	0.04	0.556	0.171	0.188	4/6/2009 6:45	4/6/2009 19:30	12.75
11	4/11/2009 6:30	4/12/2009 9:15	26.75	0.064	0.59	0.109	1.05	1.51	0.05	0.728	0.183	0.188	4/11/2009 6:30	4/11/2009 15:00	8.5
12	4/29/2009 4:30	4/30/2009 6:00	25.5	0.021	0.09	0.236	0.62	1.08	0.01	0.611	0.335	0.155	4/29/2009 4:30	4/29/2009 8:30	4
13	5/3/2009 5:45	5/6/2009 13:45	80	0.187	1.80	0.104	0.86	1.39	0.11	0.856	0.334	0.174	5/3/2009 5:45	5/6/2009 0:15	66.5
14	5/6/2009 20:45	5/7/2009 22:30	25.75	0.048	1.22	0.039	1.36	1.87	0.22	0.814	0.373	0.167	5/6/2009 20:45	5/7/2009 17:15	20.5
15	5/14/2009 22:15	5/15/2009 5:30	7.25	0.011	0.43	0.026	0.86	1.44	0.18	0.718	0.436	0.063	5/14/2009 22:15	5/15/2009 0:15	2
16	5/29/2009 3:15	5/30/2009 1:45	22.5	0.041	0.51	0.079	1.65	2.06	0.13	0.831	0.387	0.177	5/29/2009 3:30	5/29/2009 18:45	15.25
17	6/3/2009 4:00	6/3/2009 20:30	16.5	0.022	0.17	0.131	1.42	1.82	0.12	0.770	0.389	0.186	6/3/2009 4:15	6/3/2009 17:00	12.75
18	6/3/2009 23:45	6/4/2009 17:45	18	0.035	0.32	0.109	1.06	1.60	0.04	0.835	0.402	0.145	6/4/2009 0:00	6/4/2009 17:30	17.5
19	6/4/2009 18:15	6/7/2009 7:15	61	0.151	0.85	0.177	1.11	1.69	0.04	0.955	0.420	0.166	6/4/2009 18:30	6/5/2009 22:15	27.75
20	6/9/2009 6:30	6/9/2009 17:45	11.25	0.018	0.21	0.086	1.17	1.89	0.09	0.913	0.469	0.204	6/9/2009 7:30	6/9/2009 9:00	1.5
21	6/11/2009 3:00	6/12/2009 23:00	44	0.048	0.28	0.170	1.28	1.77	0.07	0.802	0.468	0.173	6/11/2009 3:15	6/12/2009 7:15	28
22	6/13/2009 13:15	6/14/2009 1:00	11.75	0.020	0.56	0.036	1.46	2.16	0.12	0.901	0.428	0.224	6/13/2009 14:15	6/14/2009 1:00	10.75
23	6/15/2009 23:45	6/17/2009 2:30	26.75	0.034	0.50	0.068	1.49	1.88	0.30	0.704	0.365	0.150	6/16/2009 1:45	6/16/2009 5:00	3.25
24	6/17/2009 20:30	6/19/2009 2:45	30.25	0.050	0.90	0.055	1.14	1.76	0.11	0.742	0.343	0.156	6/17/2009 20:45	6/18/2009 20:30	23.75
25	6/20/2009 9:45	6/21/2009 2:15	16.5	0.036	0.33	0.109	1.03	1.68	0.07	0.868	0.311	0.234	6/20/2009 9:45	6/20/2009 21:30	11.75
26	6/26/2009 18:30	6/27/2009 4:00	9.5	0.012	0.56	0.021	2.00	2.56	0.27	0.658	0.324	0.151	6/26/2009 19:15	6/26/2009 20:15	1
27	7/2/2009 0:30	7/2/2009 10:00	9.5	0.016	0.74	0.022	1.80	2.15	0.37	0.692	0.330	0.113	7/2/2009 1:15	7/2/2009 2:15	1
28	7/11/2009 22:30	7/12/2009 12:45	14.25	0.037	1.36	0.027	1.48	1.90	0.38	0.937	0.403	0.149	7/11/2009 22:30	7/12/2009 3:30	5
29	7/16/2009 18:45	7/17/2009 2:45	8	0.003	0.24	0.012	0.84	1.41	0.16	0.530	0.325	0.154	7/16/2009 18:45	7/16/2009 20:15	1.5
30	7/17/2009 19:45	7/18/2009 3:00	7.25	0.004	0.09	0.051	0.81	1.33	0.04	0.504	0.266	0.150	7/17/2009 20:00	7/17/2009 20:45	0.75
31	7/21/2009 4:15	7/22/2009 5:45	25.5	0.038	1.04	0.036	1.36	1.57	0.12	0.572	0.197	0.154	7/21/2009 4:30	7/21/2009 13:30	9
32	7/23/2009 10:30	7/24/2009 11:15	24.75	0.015	0.18	0.088	0.50	0.91	0.04	0.485	0.228	0.165	7/23/2009 11:00	7/23/2009 17:15	6.25
33	7/29/2009 16:00	7/30/2009 17:00	25	0.015	0.48	0.031	0.94	1.46	0.15	0.540	0.289	0.164	7/29/2009 16:30	7/29/2009 22:45	6.25
34	7/31/2009 5:15	8/1/2009 16:45	35.5	0.027	1.20	0.023	1.35	1.88	0.52	0.611	0.305	0.192	7/31/2009 5:45	7/31/2009 18:00	12.25

**BC-0675 Byberry Creek Interceptor**

Pipe Size (In.): 20

Tributary Drainage Area (acres): 230

Tributary Service Population: 2,374

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
35	8/2/2009 11:00	8/3/2009 21:15	34.25	0.053	1.27	0.042	1.19	1.83	0.61	0.752	0.330	0.194	8/2/2009 11:30	8/2/2009 13:30	2
36	8/6/2009 6:30	8/6/2009 17:15	10.75	0.010	0.16	0.063	0.74	1.29	0.03	0.663	0.327	0.203	8/6/2009 6:30	8/6/2009 10:30	4
37	8/9/2009 0:30	8/11/2009 22:15	69.75	0.089	0.73	0.122	1.46	1.89	0.13	0.622	0.260	0.172	8/9/2009 0:45	8/9/2009 19:30	18.75
38	8/21/2009 17:00	8/23/2009 10:00	41	0.087	2.22	0.039	3.40	3.78	0.46	0.873	0.384	0.174	8/21/2009 17:45	8/22/2009 22:00	28.25
39	8/28/2009 7:45	8/29/2009 12:15	28.5	0.028	0.55	0.050	1.15	1.68	0.17	0.675	0.350	0.182	8/28/2009 8:00	8/29/2009 7:30	23.5
40	8/29/2009 18:15	8/31/2009 10:00	39.75	0.072	1.07	0.067	1.40	1.89	0.32	0.809	0.368	0.173	8/29/2009 18:30	8/30/2009 0:00	5.5
41	9/10/2009 17:30	9/12/2009 19:45	50.25	0.095	2.00	0.048	1.16	1.57	0.13	0.846	0.381	0.182	9/10/2009 18:00	9/12/2009 8:00	38
42	9/16/2009 9:15	9/17/2009 15:45	30.5	0.025	0.53	0.048	0.54	1.15	0.07	0.695	0.403	0.168	9/16/2009 10:15	9/16/2009 18:00	7.75
43	9/28/2009 16:30	9/29/2009 9:00	16.5	0.011	0.34	0.034	0.54	1.23	0.13	0.713	0.455	0.155	9/28/2009 17:30	9/28/2009 18:30	1
44	10/7/2009 4:30	10/7/2009 14:30	10	0.009	0.06	0.158	0.72	1.41	0.03	0.727	0.413	0.180	10/7/2009 6:30	10/7/2009 7:30	1
45	10/15/2009 8:15	10/16/2009 13:00	28.75	0.054	0.76	0.070	0.87	1.48	0.04	0.874	0.426	0.171	10/15/2009 8:15	10/16/2009 10:15	26
46	10/17/2009 2:15	10/19/2009 1:30	47.25	0.082	0.81	0.101	0.89	1.61	0.05	0.850	0.400	0.190	10/17/2009 4:00	10/18/2009 8:30	28.5
47	10/23/2009 19:30	10/25/2009 17:45	46.25	0.181	1.46	0.124	5.68	6.34	0.49	1.179	0.406	0.189	10/23/2009 19:30	10/24/2009 21:30	26
48	10/27/2009 2:45	10/28/2009 17:30	38.75	0.148	1.76	0.084	9.46	9.99	0.12	1.180	0.450	0.162	10/27/2009 4:30	10/28/2009 14:00	33.5
49	10/31/2009 1:15	11/1/2009 23:45	46.5	0.045	0.55	0.081	0.98	1.69	0.13	0.818	0.483	0.192	10/31/2009 1:15	11/1/2009 10:30	33.25
50	11/12/2009 0:45	11/13/2009 5:15	28.5	0.033	0.29	0.111	0.46	1.15	0.01	0.814	0.504	0.139	11/12/2009 0:45	11/12/2009 20:00	19.25
51	11/13/2009 21:00	11/15/2009 5:15	32.25	0.045	0.14	0.314	0.85	1.37	0.02	0.866	0.490	0.167	11/13/2009 22:15	11/14/2009 11:00	12.75
52	11/19/2009 19:15	11/21/2009 8:00	36.75	0.034	0.67	0.051	0.65	1.10	0.23	0.726	0.439	0.148	11/19/2009 19:45	11/20/2009 4:30	8.75
53	11/23/2009 16:45	11/24/2009 12:00	19.25	0.012	0.17	0.069	0.40	1.04	0.02	0.645	0.395	0.159	11/23/2009 17:00	11/24/2009 5:45	12.75
54	11/25/2009 8:00	11/27/2009 5:15	45.25	0.063	0.13	0.487	0.92	1.52	0.01	0.787	0.401	0.177	11/25/2009 11:00	11/25/2009 23:30	12.5
55	11/30/2009 11:45	12/1/2009 5:30	17.75	0.020	0.25	0.081	0.58	1.12	0.03	0.691	0.377	0.147	11/30/2009 11:45	11/30/2009 19:00	7.25
56	12/2/2009 16:00	12/3/2009 19:15	27.25	0.077	1.09	0.070	5.73	6.20	0.09	1.051	0.463	0.170	12/2/2009 16:15	12/3/2009 3:15	11
57	12/5/2009 10:45	12/6/2009 6:45	20	0.021	0.59	0.036	0.44	1.24	0.03	0.899	0.558	0.183	12/5/2009 11:00	12/5/2009 22:00	11
58	12/8/2009 22:45	12/10/2009 6:15	31.5	0.136	2.28	0.060	2.80	3.67	0.16	1.385	0.608	0.137	12/9/2009 0:30	12/9/2009 9:15	8.75
59	12/13/2009 9:45	12/14/2009 21:15	35.5	0.079	1.13	0.070	1.66	2.52	0.12	1.159	0.628	0.199	12/13/2009 9:45	12/13/2009 17:30	7.75
Average:			27.9	0.049	0.68	0.088	1.40	1.91	0.13	0.750	0.346	0.168			13.8
Maximum Value:			80.0	0.213	2.28	0.487	9.46	10.0	0.61	1.39	0.628	0.234			66.5
Minimum Value:			7.3	0.003	0.06	0.012	0.350	0.749	0.01	0.330	0.096	0.063			0.75
Standard Deviation:			15.5	0.048	0.56	0.076	1.48	1.49	0.14	0.205	0.126	0.028			11.9
Weighted Mean R-Value:						0.072									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.



**BC-0755 Byberry Creek Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 275

Tributary Service Population: 4,752

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/11/2013 13:15	1/12/2013 4:00	14.75	0.03	0.45	0.055	1.84	2.44	0.08	0.821	0.332	0.190	1/11/2013 13:30	1/11/2013 21:15	7.75
2	1/14/2013 21:30	1/15/2013 9:00	11.5	0.03	0.33	0.087	1.65	1.99	0.03	0.891	0.317	0.138	1/14/2013 21:30	1/15/2013 2:45	5.25
3	4/10/2013 20:15	4/11/2013 7:00	10.75	0.02	0.43	0.046	2.17	2.76	0.14	0.836	0.385	0.131	4/10/2013 20:30	4/11/2013 0:00	3.5
4	4/12/2013 7:00	4/12/2013 20:30	13.5	0.05	0.89	0.061	2.32	2.96	0.09	1.332	0.387	0.243	4/12/2013 7:15	4/12/2013 14:00	6.75
5	4/12/2013 21:45	4/13/2013 11:45	14	0.03	0.38	0.078	2.50	3.10	0.09	0.912	0.391	0.153	4/12/2013 21:45	4/12/2013 23:30	1.75
6	4/19/2013 21:30	4/20/2013 10:45	13.25	0.03	0.45	0.063	1.79	2.34	0.05	0.901	0.384	0.141	4/19/2013 21:30	4/20/2013 3:45	6.25
7	4/29/2013 3:30	4/30/2013 4:00	24.5	0.02	0.37	0.061	0.64	1.27	0.02	0.694	0.347	0.187	4/29/2013 3:30	4/30/2013 1:45	22.25
8	5/7/2013 22:15	5/8/2013 16:30	18.25	0.01	0.20	0.053	0.69	1.27	0.04	0.598	0.329	0.168	5/7/2013 22:15	5/8/2013 14:00	15.75
9	5/9/2013 3:45	5/9/2013 15:15	11.5	0.03	0.54	0.052	2.84	3.34	0.09	0.944	0.329	0.195	5/9/2013 3:45	5/9/2013 6:45	3
10	5/10/2013 22:45	5/11/2013 14:30	15.75	0.03	0.46	0.062	1.94	2.45	0.13	0.830	0.336	0.176	5/10/2013 23:00	5/11/2013 9:15	10.25
11	5/11/2013 19:00	5/12/2013 6:00	11	0.01	0.13	0.046	0.82	1.43	0.04	0.569	0.336	0.137	5/11/2013 19:15	5/12/2013 5:30	10.25
12	5/18/2013 16:30	5/19/2013 15:30	23	0.02	0.36	0.049	1.25	1.78	0.06	0.657	0.317	0.206	5/18/2013 16:30	5/19/2013 15:00	22.5
13	5/23/2013 15:45	5/23/2013 23:00	7.25	0.01	0.14	0.049	1.49	2.02	0.09	0.736	0.308	0.263	5/23/2013 15:45	5/23/2013 16:30	0.75
14	5/23/2013 23:45	5/25/2013 5:15	29.5	0.02	0.36	0.053	2.16	2.58	0.20	0.586	0.309	0.164	5/23/2013 23:45	5/24/2013 22:15	22.5
15	5/28/2013 9:30	5/28/2013 23:30	14	0.02	0.29	0.057	0.89	1.39	0.04	0.746	0.297	0.244	5/28/2013 9:30	5/28/2013 22:00	12.5
16	6/3/2013 0:45	6/3/2013 21:00	20.25	0.05	1.36	0.038	4.09	4.69	0.29	0.944	0.304	0.188	6/3/2013 0:45	6/3/2013 17:30	16.75
17	6/6/2013 19:30	6/8/2013 12:00	40.5	0.27	3.78	0.072	5.35	5.88	0.37	1.705	0.326	0.184	6/6/2013 19:30	6/8/2013 2:15	30.75
18	6/10/2013 7:15	6/11/2013 17:00	33.75	0.18	2.23	0.082	5.89	6.43	0.36	1.507	0.345	0.205	6/10/2013 7:15	6/11/2013 0:45	17.5
19	6/13/2013 8:30	6/13/2013 21:00	12.5	0.02	0.36	0.044	2.12	2.72	0.15	0.829	0.361	0.244	6/13/2013 9:30	6/13/2013 19:15	9.75
20	6/14/2013 17:15	6/14/2013 20:30	3.25	0.01	0.17	0.039	2.22	2.86	0.13	0.976	0.373	0.270	6/14/2013 17:30	6/14/2013 19:00	1.5
21	6/18/2013 12:45	6/19/2013 6:00	17.25	0.02	0.31	0.080	0.94	1.52	0.04	0.805	0.383	0.172	6/18/2013 12:45	6/18/2013 20:15	7.5
22	6/25/2013 16:00	6/25/2013 19:00	3	0.01	0.19	0.037	2.84	3.42	0.15	0.993	0.358	0.252	6/25/2013 16:15	6/25/2013 16:45	0.5
23	6/26/2013 20:30	6/26/2013 23:30	3	0.01	0.21	0.034	2.82	3.47	0.11	0.998	0.356	0.259	6/26/2013 20:45	6/26/2013 21:30	0.75
24	6/27/2013 18:30	6/28/2013 6:45	12.25	0.02	0.50	0.048	3.09	3.75	0.18	0.846	0.354	0.149	6/27/2013 18:30	6/27/2013 21:30	3
25	6/28/2013 17:15	6/28/2013 21:30	4.25	0.00	0.10	0.024	0.41	1.05	0.03	0.726	0.357	0.274	6/28/2013 17:15	6/28/2013 20:00	2.75
26	6/30/2013 13:15	6/30/2013 21:00	7.75	0.01	0.15	0.054	1.27	1.92	0.03	0.821	0.354	0.286	6/30/2013 13:15	6/30/2013 15:45	2.5
27	7/1/2013 8:45	7/1/2013 23:15	14.5	0.02	0.28	0.080	2.34	2.93	0.06	0.868	0.351	0.246	7/1/2013 8:45	7/1/2013 15:15	6.5
28	7/12/2013 15:45	7/13/2013 6:15	14.5	0.05	0.88	0.055	3.85	4.43	0.21	1.087	0.345	0.160	7/12/2013 15:45	7/12/2013 22:30	6.75
29	7/13/2013 15:30	7/14/2013 12:00	20.5	0.05	0.58	0.088	5.64	6.27	0.29	0.986	0.353	0.191	7/13/2013 15:30	7/13/2013 19:30	4
30	7/23/2013 1:30	7/23/2013 16:00	14.5	0.06	1.54	0.039	6.37	6.71	0.60	1.233	0.339	0.168	7/23/2013 1:30	7/23/2013 16:00	14.5
31	7/28/2013 16:00	7/29/2013 4:30	12.5	0.04	0.74	0.048	2.17	2.77	0.13	1.008	0.336	0.178	7/28/2013 16:15	7/29/2013 2:30	10.25
Average:			15.1	0.04	0.62	0.056	2.46	3.0	0.14	0.92	0.35	0.20			9.2
Maximum Value:			40.5	0.27	3.78	0.088	6.4	6.7	0.60	1.7	0.39	0.29			30.8
Minimum Value:			3.0	0.00	0.10	0.024	0.41	1.05	0.02	0.57	0.30	0.131			0.50

**BC-0755 Byberry Creek Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 275

Tributary Service Population: 4,752

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
Standard Deviation:			8.5	0.05	0.75	0.016	1.58	1.57	0.13	0.25	0.026	0.046			7.8
Weighted Mean R-Value:						0.060									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**BC-1575 First Location - Byberry Creek Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 169

Tributary Service Population: 1,676

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	5/21/2001 0:30	5/23/2001 6:15	53.75	0.228	1.52	0.150	2.14	2.75	0.18	1.024	0.407	0.152	5/21/2001 0:45	5/22/2001 23:45	47
2	5/26/2001 6:30	5/28/2001 4:45	46.25	0.111	2.27	0.049	1.16	1.68	0.29	0.795	0.405	0.126	5/26/2001 6:45	5/28/2001 1:30	42.75
3	5/29/2001 14:30	5/29/2001 22:15	7.75	0.011	0.14	0.081	0.75	1.38	0.10	0.800	0.437	0.207	5/29/2001 14:45	5/29/2001 15:30	0.75
4	6/1/2001 18:45	6/3/2001 0:00	29.25	0.091	1.67	0.055	1.86	2.47	0.23	0.908	0.416	0.151	6/1/2001 19:00	6/2/2001 10:15	15.25
5	6/11/2001 22:15	6/12/2001 2:30	4.25	0.006	0.26	0.023	0.44	1.10	0.23	0.715	0.458	0.109	6/11/2001 22:30	6/11/2001 22:45	0.25
6	6/15/2001 15:15	6/15/2001 18:45	3.5	0.004	0.12	0.034	0.53	1.20	0.07	0.795	0.453	0.221	6/15/2001 15:30	6/15/2001 16:15	0.75
7	6/16/2001 11:30	6/17/2001 19:00	31.5	0.109	3.48	0.031	3.50	4.04	0.25	0.957	0.441	0.137	6/16/2001 11:45	6/17/2001 15:30	27.75
8	6/21/2001 11:00	6/21/2001 19:30	8.5	0.007	0.21	0.033	0.39	1.04	0.11	0.752	0.451	0.212	6/21/2001 11:00	6/21/2001 16:45	5.75
9	6/23/2001 4:00	6/24/2001 2:30	22.5	0.024	0.55	0.045	0.68	1.24	0.11	0.676	0.420	0.138	6/23/2001 4:45	6/23/2001 20:15	15.5
10	7/1/2001 18:15	7/2/2001 0:00	5.75	0.009	0.20	0.044	1.13	1.64	0.13	0.703	0.433	0.108	7/1/2001 18:30	7/1/2001 19:15	0.75
11	7/5/2001 0:15	7/5/2001 3:30	3.25	0.001	0.10	0.013	0.29	0.73	0.02	0.512	0.430	0.041	7/5/2001 0:45	7/5/2001 2:30	1.75
12	7/17/2001 21:30	7/18/2001 1:15	3.75	0.007	0.17	0.043	0.61	1.15	0.11	0.728	0.375	0.154	7/17/2001 21:30	7/17/2001 22:00	0.5
13	7/26/2001 9:15	7/26/2001 11:30	2.25	0.003	0.14	0.023	0.84	1.42	0.11	0.747	0.357	0.249	7/26/2001 9:30	7/26/2001 10:30	1
14	7/29/2001 18:15	7/30/2001 0:00	5.75	0.009	0.18	0.049	0.58	1.02	0.04	0.588	0.318	0.108	7/29/2001 18:30	7/29/2001 23:30	5
15	8/4/2001 15:45	8/5/2001 3:00	11.25	0.034	0.54	0.062	3.42	3.86	0.25	0.735	0.301	0.111	8/4/2001 16:00	8/4/2001 20:45	4.75
16	8/10/2001 15:15	8/10/2001 21:30	6.25	0.003	0.15	0.020	0.47	1.05	0.07	0.554	0.316	0.230	8/10/2001 15:45	8/10/2001 21:00	5.25
17	8/12/2001 10:00	8/13/2001 4:45	18.75	0.065	2.95	0.022	1.92	2.45	0.71	0.819	0.325	0.118	8/12/2001 10:15	8/13/2001 3:30	17.25
18	8/13/2001 20:45	8/13/2001 23:15	2.5	0.002	0.13	0.016	0.26	0.80	0.08	0.636	0.341	0.210	8/13/2001 21:00	8/13/2001 21:30	0.5
19	8/20/2001 1:30	8/20/2001 3:45	2.25	0.007	0.10	0.074	0.98	1.35	0.08	0.699	0.353	0.018	8/20/2001 1:30	8/20/2001 2:15	0.75
20	9/4/2001 19:00	9/4/2001 21:30	2.5	0.002	0.20	0.011	0.68	1.16	0.15	0.585	0.274	0.220	9/4/2001 19:15	9/4/2001 19:30	0.25
21	9/10/2001 16:00	9/10/2001 21:00	5	0.022	0.12	0.187	0.85	1.33	0.09	0.940	0.262	0.206	9/10/2001 16:15	9/10/2001 16:30	0.25
22	9/14/2001 3:15	9/14/2001 16:15	13	0.028	0.70	0.0394	1.32	1.75	0.20	0.664	0.252	0.182	9/14/2001 3:30	9/14/2001 12:00	8.5
Average:			13.2	0.036	0.72	0.050	1.13	1.66	0.16	0.742	0.374	0.155			9.2
Maximum Value:			53.8	0.228	3.48	0.187	3.50	4.04	0.71	1.024	0.458	0.249			47.0
Minimum Value:			2.3	0.001	0.10	0.011	0.26	0.73	0.02	0.512	0.252	0.018			0.25
Standard Deviation:			14.7	0.055	1.00	0.043	0.92	0.91	0.14	0.133	0.067	0.061			13.6
Weighted Mean R-Value*:						0.049									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**BC-1575 Second Location - Byberry Creek Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 169

Tributary Service Population: 1,676

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	9/20/2001 12:15	9/21/2001 8:30	20.25	0.012	0.91	0.013	0.51	0.93	0.28	0.434	0.258	0.112	9/20/2001 12:30	9/21/2001 4:30	16
2	9/24/2001 21:30	9/25/2001 11:15	13.75	0.020	0.47	0.042	0.66	0.91	0.14	0.493	0.242	0.094	9/24/2001 21:45	9/25/2001 10:15	12.5
3	9/30/2001 14:45	10/1/2001 9:00	18.25	0.015	0.33	0.047	0.55	0.92	0.05	0.403	0.220	0.091	9/30/2001 14:45	10/1/2001 6:15	15.5
4	10/14/2001 23:45	10/15/2001 5:15	5.5	0.010	0.32	0.031	0.73	0.97	0.13	0.423	0.204	0.027	10/14/2001 23:45	10/15/2001 2:30	2.75
5	12/8/2001 13:15	12/9/2001 6:30	17.25	0.057	0.76	0.074	0.84	1.13	0.03	0.608	0.159	0.093	12/8/2001 13:15	12/9/2001 2:30	13.25
6	12/14/2001 7:00	12/14/2001 17:00	10	0.009	0.25	0.038	0.48	0.82	0.04	0.438	0.187	0.149	12/14/2001 7:30	12/14/2001 15:30	8
7	12/17/2001 19:15	12/18/2001 10:15	15	0.063	0.50	0.127	0.73	1.00	0.03	0.735	0.174	0.102	12/17/2001 19:15	12/18/2001 8:45	13.5
8	12/23/2001 23:00	12/24/2001 6:15	7.25	0.018	0.67	0.027	0.80	1.04	0.15	0.525	0.221	0.037	12/23/2001 23:00	12/24/2001 5:45	6.75
9	1/6/2002 16:15	1/7/2002 1:15	9	0.031	0.66	0.047	1.00	1.31	0.06	0.666	0.193	0.100	1/6/2002 16:15	1/6/2002 22:30	6.25
10	1/11/2002 5:45	1/11/2002 14:15	8.5	0.018	0.33	0.054	0.67	1.06	0.03	0.607	0.238	0.145	1/11/2002 5:45	1/11/2002 12:15	6.5
11	1/24/2002 8:30	1/24/2002 23:00	14.5	0.045	0.78	0.057	1.33	1.85	0.14	0.843	0.358	0.150	1/24/2002 8:45	1/24/2002 12:45	4
12	1/30/2002 18:45	1/31/2002 2:30	7.75	0.014	0.25	0.055	0.55	1.08	0.03	0.674	0.370	0.113	1/30/2002 18:45	1/31/2002 2:30	7.75
13	2/10/2002 17:45	2/11/2002 1:30	7.75	0.009	0.31	0.030	0.50	0.86	0.07	0.467	0.248	0.092	2/10/2002 17:45	2/11/2002 1:00	7.25
14	3/2/2002 19:30	3/3/2002 8:45	13.25	0.036	1.16	0.031	1.12	1.42	0.11	0.590	0.228	0.068	3/2/2002 19:30	3/3/2002 4:45	9.25
15	3/10/2002 2:00	3/10/2002 4:30	2.5	0.003	0.17	0.020	0.58	0.83	0.10	0.385	0.222	0.030	3/10/2002 2:15	3/10/2002 2:45	0.5
16	3/17/2002 17:30	3/18/2002 21:45	28.25	0.061	0.77	0.080	0.73	1.04	0.04	0.554	0.203	0.114	3/17/2002 17:45	3/18/2002 11:15	17.5
17	3/20/2002 3:30	3/21/2002 0:00	20.5	0.075	1.17	0.064	0.96	1.30	0.05	0.754	0.223	0.131	3/20/2002 3:30	3/20/2002 19:00	15.5
18	3/26/2002 21:30	3/27/2002 8:15	10.75	0.043	0.65	0.067	1.21	1.56	0.10	0.742	0.230	0.077	3/26/2002 21:30	3/27/2002 3:00	5.5
19	3/31/2002 19:00	4/1/2002 5:45	10.75	0.017	0.36	0.049	0.71	1.07	0.07	0.471	0.233	0.062	3/31/2002 19:15	4/1/2002 2:45	7.5
20	4/19/2002 17:30	4/19/2002 23:00	5.5	0.010	0.17	0.061	1.11	1.55	0.15	0.635	0.268	0.169	4/19/2002 17:45	4/19/2002 18:00	0.25
21	4/22/2002 2:00	4/22/2002 15:45	13.75	0.012	0.29	0.043	0.30	0.72	0.08	0.485	0.281	0.107	4/22/2002 2:00	4/22/2002 12:00	10
22	4/25/2002 10:15	4/25/2002 18:30	8.25	0.012	0.35	0.034	0.44	0.84	0.04	0.582	0.286	0.143	4/25/2002 10:15	4/25/2002 16:15	6
23	4/28/2002 0:15	4/28/2002 15:45	15.5	0.036	1.04	0.035	0.68	0.96	0.05	0.626	0.275	0.099	4/28/2002 0:45	4/28/2002 11:45	11
24	4/30/2002 17:00	4/30/2002 21:45	4.75	0.016	0.20	0.078	0.65	1.10	0.04	0.799	0.289	0.167	4/30/2002 17:00	4/30/2002 19:15	2.25
25	5/2/2002 3:45	5/2/2002 21:30	17.75	0.013	0.44	0.030	0.48	0.92	0.07	0.511	0.296	0.134	5/2/2002 3:45	5/2/2002 20:45	17
26	5/9/2002 6:30	5/9/2002 12:30	6	0.012	0.48	0.025	0.65	1.08	0.09	0.648	0.286	0.151	5/9/2002 6:30	5/9/2002 10:00	3.5
27	5/12/2002 18:45	5/14/2002 1:45	31	0.032	0.93	0.034	1.41	1.88	0.22	0.515	0.291	0.110	5/12/2002 18:45	5/14/2002 0:30	29.75
28	5/18/2002 0:15	5/18/2002 16:00	15.75	0.056	1.49	0.038	1.47	1.86	0.08	0.785	0.296	0.101	5/18/2002 0:30	5/18/2002 10:15	9.75
29	6/6/2002 17:15	6/7/2002 5:45	12.5	0.039	1.24	0.032	1.89	2.36	0.16	0.737	0.302	0.095	6/6/2002 17:15	6/7/2002 4:00	10.75
30	6/11/2002 19:00	6/12/2002 2:00	7	0.012	0.31	0.039	1.50	1.98	0.29	0.611	0.308	0.118	6/11/2002 19:15	6/11/2002 22:00	2.75
31	6/13/2002 22:30	6/14/2002 21:15	22.75	0.040	0.78	0.052	1.34	1.79	0.14	0.624	0.312	0.119	6/13/2002 22:30	6/14/2002 14:45	16.25
32	6/19/2002 9:15	6/19/2002 14:45	5.5	0.009	0.33	0.028	0.55	1.01	0.23	0.631	0.311	0.142	6/19/2002 9:30	6/19/2002 10:15	0.75
33	6/24/2002 15:45	6/25/2002 3:00	11.25	0.049	0.55	0.088	3.65	4.07	0.31	0.841	0.256	0.119	6/24/2002 15:45	6/24/2002 18:00	2.25
34	6/27/2002 20:30	6/28/2002 3:45	7.25	0.017	0.51	0.033	2.00	2.43	0.34	0.573	0.248	0.081	6/27/2002 20:45	6/27/2002 21:45	1

**BC-1575 Second Location - Byberry Creek Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 169

Tributary Service Population: 1,676

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
Average:			12.5	0.027	0.59	0.047	0.96	1.34	0.12	0.600	0.256	0.107			8.8
Maximum Value:			31.0	0.075	1.49	0.127	3.65	4.07	0.34	0.843	0.370	0.169			29.8
Minimum Value:			2.5	0.003	0.17	0.013	0.30	0.72	0.03	0.385	0.159	0.027			0.25
Standard Deviation:			6.7	0.019	0.34	0.023	0.63	0.66	0.09	0.128	0.049	0.036			6.4
Weighted Mean R-Value*:						0.046									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q101-03-S0020 Byberry Creek Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 112

Tributary Service Population: 1,773

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/27/2011 5:45	10/28/2011 2:30	20.75	0.021	0.34	0.062	0.669	0.905	0.04	0.278	0.114	0.090	10/27/2011 5:45	10/27/2011 19:30	13.75
2	10/29/2011 6:15	10/30/2011 9:15	27	0.168	1.53	0.110	1.094	1.342	0.07	0.653	0.114	0.088	10/29/2011 6:30	10/29/2011 23:30	17
3	11/16/2011 1:45	11/17/2011 11:00	33.25	0.048	0.57	0.083	0.527	0.738	0.06	0.302	0.122	0.076	11/16/2011 2:00	11/17/2011 0:15	22.25
4	11/21/2011 1:30	11/21/2011 14:00	12.5	0.010	0.12	0.082	0.347	0.478	0.02	0.252	0.125	0.070	11/21/2011 1:30	11/21/2011 7:45	6.25
5	11/21/2011 23:30	11/25/2011 5:30	78	0.293	2.24	0.131	2.476	2.727	0.13	0.478	0.127	0.078	11/21/2011 23:45	11/23/2011 15:30	39.75
6	11/28/2011 23:45	11/30/2011 14:15	38.5	0.073	0.64	0.114	0.934	1.199	0.07	0.345	0.132	0.075	11/29/2011 0:15	11/29/2011 21:00	20.75
7	12/6/2011 14:15	12/10/2011 1:45	83.5	0.352	2.53	0.139	3.221	3.469	0.17	0.523	0.135	0.081	12/6/2011 14:15	12/8/2011 1:45	35.5
8	12/21/2011 14:30	12/22/2011 5:30	15	0.007	0.16	0.041	0.404	0.634	0.08	0.249	0.150	0.069	12/21/2011 14:45	12/21/2011 23:00	8.25
9	12/22/2011 21:30	12/23/2011 23:30	26	0.113	1.38	0.082	1.713	1.880	0.15	0.545	0.151	0.081	12/22/2011 21:30	12/23/2011 5:45	8.25
10	12/27/2011 13:30	12/28/2011 6:15	16.75	0.050	0.55	0.091	1.010	1.291	0.10	0.437	0.153	0.070	12/27/2011 13:30	12/27/2011 19:45	6.25
11	1/11/2012 19:45	1/13/2012 19:15	47.5	0.159	1.73	0.092	2.854	3.063	0.22	0.458	0.135	0.080	1/11/2012 20:00	1/13/2012 8:45	36.75
12	1/16/2012 22:45	1/18/2012 4:15	29.5	0.034	0.35	0.097	0.497	0.724	0.03	0.289	0.136	0.069	1/16/2012 23:00	1/17/2012 14:30	15.5
13	1/21/2012 2:15	1/21/2012 19:00	16.75	0.007	0.31	0.022	0.099	0.400	0.02	0.264	0.140	0.094	1/21/2012 2:15	1/21/2012 13:15	11
14	1/27/2012 5:45	1/27/2012 22:30	16.75	0.034	0.35	0.097	0.995	1.239	0.08	0.401	0.153	0.103	1/27/2012 6:00	1/27/2012 11:30	5.5
15	2/11/2012 4:00	2/12/2012 2:15	22.25	0.017	0.20	0.086	0.168	0.455	0.03	0.276	0.126	0.095	2/11/2012 4:15	2/11/2012 22:45	18.5
16	2/16/2012 12:30	2/17/2012 1:30	13	0.010	0.15	0.071	0.237	0.442	0.02	0.261	0.115	0.089	2/16/2012 12:30	2/16/2012 20:30	8
17	2/24/2012 3:15	2/25/2012 2:45	23.5	0.016	0.30	0.055	0.476	0.592	0.06	0.248	0.116	0.081	2/24/2012 3:30	2/24/2012 19:15	15.75
18	2/29/2012 10:15	3/1/2012 21:45	35.5	0.060	0.99	0.061	0.637	0.838	0.07	0.329	0.118	0.087	2/29/2012 10:15	3/1/2012 0:45	14.5
19	3/31/2012 0:45	3/31/2012 8:30	7.75	0.017	0.34	0.051	0.479	0.582	0.06	0.285	0.102	0.027	3/31/2012 0:45	3/31/2012 4:15	3.5
20	4/1/2012 18:30	4/2/2012 5:45	11.25	0.012	0.20	0.060	0.402	0.511	0.04	0.234	0.102	0.057	4/1/2012 18:30	4/2/2012 2:15	7.75
21	4/21/2012 21:30	4/24/2012 0:00	50.5	0.136	2.15	0.063	1.488	1.690	0.12	0.356	0.077	0.084	4/21/2012 21:45	4/23/2012 18:00	44.25
22	5/1/2012 3:15	5/2/2012 0:00	20.75	0.014	0.36	0.039	0.493	0.690	0.19	0.217	0.079	0.090	5/1/2012 3:30	5/1/2012 10:15	6.75
23	5/3/2012 2:30	5/3/2012 9:45	7.25	0.009	0.08	0.120	0.292	0.375	0.03	0.237	0.081	0.068	5/3/2012 3:45	5/3/2012 4:45	1
24	5/9/2012 0:00	5/10/2012 14:15	38.25	0.046	0.51	0.091	0.549	0.702	0.06	0.241	0.078	0.075	5/9/2012 0:00	5/10/2012 4:45	28.75
25	5/14/2012 20:00	5/17/2012 5:15	57.25	0.145	2.20	0.066	3.085	3.163	0.35	0.334	0.074	0.075	5/14/2012 20:15	5/16/2012 4:30	32.25
26	5/21/2012 1:30	5/22/2012 14:00	36.5	0.036	0.58	0.062	0.467	0.566	0.13	0.228	0.080	0.077	5/21/2012 1:30	5/22/2012 9:45	32.25
27	5/27/2012 4:30	5/27/2012 20:00	15.5	0.021	0.47	0.045	0.830	0.943	0.10	0.288	0.080	0.109	5/27/2012 4:30	5/27/2012 7:30	3
28	6/1/2012 20:30	6/2/2012 9:00	12.5	0.025	0.64	0.040	1.609	1.701	0.19	0.277	0.080	0.051	6/1/2012 20:45	6/2/2012 2:00	5.25
29	6/12/2012 9:45	6/13/2012 6:15	20.5	0.037	0.68	0.054	0.815	0.998	0.07	0.272	0.069	0.074	6/12/2012 9:45	6/12/2012 23:30	13.75
30	6/22/2012 18:45	6/23/2012 7:15	12.5	0.017	0.39	0.045	0.570	0.769	0.07	0.225	0.071	0.054	6/22/2012 18:45	6/22/2012 22:45	4
31	7/14/2012 4:15	7/14/2012 12:45	8.5	0.010	0.27	0.035	0.283	0.418	0.04	0.234	0.060	0.095	7/14/2012 4:15	7/14/2012 12:30	8.25
32	7/15/2012 21:30	7/16/2012 5:30	8	0.026	0.87	0.031	2.347	2.499	0.56	0.332	0.064	0.035	7/15/2012 21:45	7/16/2012 0:15	2.5
33	7/20/2012 1:30	7/20/2012 17:15	15.75	0.019	0.59	0.032	0.754	0.923	0.17	0.230	0.071	0.074	7/20/2012 1:30	7/20/2012 9:45	8.25
34	7/26/2012 19:45	7/27/2012 5:30	9.75	0.016	0.40	0.040	0.803	0.996	0.19	0.229	0.060	0.052	7/26/2012 20:00	7/27/2012 0:30	4.5

**Q101-03-S0020 Byberry Creek Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 112

Tributary Service Population: 1,773

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	7/28/2012 13:00	7/29/2012 8:00	19	0.019	0.47	0.040	1.109	1.315	0.13	0.206	0.059	0.074	7/28/2012 13:15	7/28/2012 22:45	9.5
36	8/1/2012 3:45	8/2/2012 6:15	26.5	0.018	0.29	0.061	1.052	1.213	0.11	0.183	0.059	0.075	8/1/2012 4:00	8/1/2012 18:00	14
37	8/4/2012 13:15	8/6/2012 6:45	41.5	0.061	1.29	0.047	2.292	2.476	0.56	0.253	0.063	0.085	8/4/2012 13:45	8/6/2012 2:30	36.75
38	8/10/2012 10:45	8/10/2012 17:45	7	0.011	0.22	0.052	0.748	0.912	0.07	0.274	0.070	0.088	8/10/2012 11:00	8/10/2012 16:15	5.25
39	8/14/2012 10:00	8/15/2012 5:45	19.75	0.024	0.63	0.039	0.635	0.803	0.13	0.235	0.074	0.073	8/14/2012 10:15	8/15/2012 2:00	15.75
40	8/17/2012 22:15	8/18/2012 13:00	14.75	0.022	0.54	0.041	0.583	0.696	0.10	0.249	0.072	0.071	8/17/2012 22:15	8/18/2012 7:30	9.25
41	8/27/2012 10:00	8/28/2012 18:00	32	0.022	0.53	0.042	0.869	1.035	0.13	0.205	0.072	0.083	8/27/2012 10:15	8/28/2012 7:30	21.25
42	9/3/2012 9:45	9/6/2012 6:45	69	0.286	4.49	0.064	3.757	3.914	0.80	0.457	0.078	0.079	9/3/2012 9:45	9/5/2012 14:30	52.75
43	9/8/2012 17:15	9/9/2012 7:15	14	0.011	0.21	0.050	0.335	0.553	0.05	0.214	0.101	0.058	9/8/2012 17:30	9/8/2012 22:15	4.75
44	9/18/2012 3:30	9/19/2012 10:00	30.5	0.039	0.90	0.044	0.854	1.051	0.28	0.254	0.081	0.080	9/18/2012 3:30	9/18/2012 21:00	17.5
45	9/22/2012 19:45	9/23/2012 9:30	13.75	0.020	0.57	0.035	0.840	1.039	0.31	0.238	0.078	0.057	9/22/2012 20:00	9/22/2012 22:15	2.25
46	9/26/2012 23:30	9/27/2012 9:15	9.75	0.006	0.19	0.033	0.388	0.538	0.07	0.197	0.098	0.054	9/26/2012 23:45	9/27/2012 7:30	7.75
47	10/2/2012 11:00	10/2/2012 22:00	11	0.007	0.11	0.068	0.263	0.432	0.02	0.234	0.085	0.101	10/2/2012 11:00	10/2/2012 19:45	8.75
48	10/7/2012 11:00	10/7/2012 22:30	11.5	0.007	0.16	0.046	0.228	0.414	0.02	0.250	0.080	0.125	10/7/2012 11:00	10/7/2012 21:00	10
49	10/9/2012 5:00	10/9/2012 12:00	7	0.004	0.11	0.038	0.212	0.412	0.04	0.223	0.082	0.098	10/9/2012 5:00	10/9/2012 9:30	4.5
50	10/15/2012 13:30	10/16/2012 6:15	16.75	0.013	0.39	0.034	0.781	0.973	0.16	0.207	0.080	0.070	10/15/2012 13:30	10/15/2012 21:45	8.25
51	10/19/2012 9:30	10/19/2012 18:15	8.75	0.032	0.83	0.039	1.872	2.042	0.23	0.433	0.081	0.091	10/19/2012 9:30	10/19/2012 14:15	4.75
52	10/28/2012 15:30	10/28/2012 21:45	6.25	0.007	0.13	0.049	0.215	0.402	0.03	0.266	0.076	0.117	10/28/2012 15:30	10/28/2012 19:15	3.75
53	10/29/2012 6:00	10/30/2012 21:45	39.75	0.169	2.26	0.075	1.953	2.126	0.13	0.476	0.077	0.090	10/29/2012 6:00	10/30/2012 4:00	22
54	11/7/2012 11:15	11/8/2012 13:00	25.75	0.041	0.57	0.071	0.353	0.527	0.03	0.274	0.078	0.081	11/7/2012 11:15	11/8/2012 0:15	13
55	11/13/2012 3:00	11/13/2012 16:45	13.75	0.009	0.18	0.054	0.265	0.452	0.03	0.211	0.082	0.080	11/13/2012 3:00	11/13/2012 12:30	9.5
56	11/27/2012 6:15	11/28/2012 5:30	23.25	0.040	0.64	0.063	0.412	0.566	0.02	0.269	0.065	0.080	11/27/2012 6:30	11/27/2012 16:00	9.5
Average:			24.1	0.052	0.73	0.062	0.958	1.140	0.13	0.297	0.094	0.078			14.3
Maximum Value:			83.5	0.352	4.49	0.139	3.757	3.914	0.80	0.653	0.153	0.125			52.8
Minimum Value:			6.3	0.004	0.08	0.022	0.099	0.375	0.02	0.183	0.059	0.027			1.00
Standard Deviation:			17.5	0.075	0.80	0.027	0.856	0.856	0.15	0.100	0.028	0.018			11.9
Weighted Mean R-Value*:						0.072									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q109-07-S0025 Byberry Creek Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 164

Tributary Service Population: 2,092

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/18/2012 1:00	12/18/2012 14:45	13.75	0.018	0.44	0.040	0.960	1.096	0.20	0.355	0.102	0.119	12/18/2012 1:15	12/18/2012 2:00	0.75
2	12/20/2012 22:00	12/21/2012 22:45	24.75	0.088	1.68	0.053	1.628	1.934	0.17	0.671	0.155	0.138	12/20/2012 22:15	12/21/2012 8:00	9.75
3	12/24/2012 17:00	12/25/2012 6:45	13.75	0.018	0.21	0.088	0.262	0.502	0.02	0.366	0.128	0.099	12/24/2012 17:00	12/24/2012 21:00	4
4	12/26/2012 13:45	12/28/2012 2:15	36.5	0.105	1.27	0.083	1.146	1.486	0.10	0.601	0.159	0.137	12/26/2012 14:00	12/27/2012 9:45	19.75
5	12/29/2012 11:15	12/30/2012 0:30	13.25	0.011	0.22	0.053	0.231	0.609	0.02	0.459	0.193	0.176	12/29/2012 11:15	12/29/2012 16:30	5.25
6	1/11/2013 16:15	1/12/2013 2:45	10.5	0.019	0.47	0.040	0.611	1.063	0.06	0.579	0.259	0.134	1/11/2013 16:15	1/11/2013 21:00	4.75
7	1/14/2013 20:15	1/15/2013 17:15	21	0.027	0.38	0.073	0.482	0.842	0.05	0.522	0.256	0.129	1/14/2013 20:45	1/15/2013 2:45	6
8	1/15/2013 22:30	1/16/2013 14:30	16	0.055	1.01	0.055	0.964	1.211	0.07	0.723	0.244	0.117	1/15/2013 22:30	1/16/2013 12:15	13.75
9	1/28/2013 13:00	1/28/2013 23:15	10.25	0.011	0.19	0.057	0.297	0.630	0.03	0.460	0.184	0.166	1/28/2013 13:15	1/28/2013 17:00	3.75
10	1/30/2013 23:00	1/31/2013 19:00	20	0.046	1.14	0.041	2.100	2.318	0.28	0.587	0.217	0.127	1/30/2013 23:00	1/31/2013 6:00	7
11	2/8/2013 6:45	2/8/2013 16:00	9.25	0.008	0.23	0.035	0.186	0.560	0.02	0.448	0.185	0.174	2/8/2013 7:30	2/8/2013 14:45	7.25
12	2/9/2013 0:15	2/9/2013 4:00	3.75	0.000	0.12	0.002	0.058	0.312	0.04	0.221	0.191	0.037	2/9/2013 0:30	2/9/2013 3:00	2.5
13	2/11/2013 5:15	2/11/2013 17:15	12	0.016	0.32	0.051	0.310	0.704	0.04	0.498	0.193	0.161	2/11/2013 5:30	2/11/2013 9:00	3.5
14	2/13/2013 18:45	2/14/2013 5:00	10.25	0.010	0.14	0.069	0.182	0.532	0.01	0.396	0.198	0.100	2/13/2013 18:45	2/14/2013 0:30	5.75
15	2/19/2013 11:15	2/19/2013 21:30	10.25	0.010	0.21	0.045	0.252	0.605	0.02	0.459	0.191	0.171	2/19/2013 11:30	2/19/2013 18:00	6.5
16	2/23/2013 8:30	2/23/2013 20:45	12.25	0.010	0.12	0.085	0.295	0.719	0.01	0.481	0.195	0.197	2/23/2013 8:45	2/23/2013 19:00	10.25
17	2/26/2013 19:30	2/27/2013 19:15	23.75	0.037	0.68	0.055	0.578	0.900	0.07	0.510	0.210	0.135	2/26/2013 19:30	2/27/2013 11:45	16.25
18	3/8/2013 7:15	3/9/2013 1:15	18	0.017	0.22	0.078	0.240	0.635	0.02	0.470	0.208	0.163	3/8/2013 7:45	3/8/2013 13:15	5.5
19	3/12/2013 3:00	3/12/2013 20:30	17.5	0.028	0.99	0.029	0.714	1.093	0.07	0.542	0.225	0.145	3/12/2013 3:15	3/12/2013 14:45	11.5
20	3/16/2013 10:00	3/16/2013 21:30	11.5	0.004	0.14	0.025	0.169	0.541	0.02	0.415	0.189	0.194	3/16/2013 10:15	3/16/2013 18:00	7.75
21	3/18/2013 17:15	3/19/2013 13:30	20.25	0.033	0.86	0.038	0.390	0.752	0.06	0.504	0.203	0.132	3/18/2013 18:15	3/19/2013 11:30	17.25
22	3/25/2013 7:00	3/26/2013 5:00	22	0.019	0.56	0.035	0.246	0.656	0.04	0.458	0.227	0.138	3/25/2013 7:15	3/25/2013 16:15	9
23	3/31/2013 15:45	3/31/2013 23:15	7.5	0.007	0.20	0.035	0.179	0.568	0.04	0.474	0.207	0.172	3/31/2013 15:45	3/31/2013 22:45	7
24	4/10/2013 20:15	4/11/2013 4:00	7.75	0.012	0.58	0.021	0.738	1.077	0.20	0.443	0.186	0.094	4/10/2013 20:30	4/11/2013 0:00	3.5
25	4/12/2013 8:00	4/12/2013 16:00	8	0.015	0.85	0.018	0.701	1.077	0.11	0.554	0.185	0.174	4/12/2013 8:00	4/12/2013 14:00	6
26	4/12/2013 21:30	4/13/2013 9:45	12.25	0.013	0.26	0.052	0.375	0.705	0.06	0.388	0.191	0.083	4/12/2013 21:45	4/12/2013 23:30	1.75
27	4/19/2013 21:30	4/20/2013 7:15	9.75	0.013	0.47	0.028	0.498	0.810	0.06	0.401	0.201	0.061	4/19/2013 21:30	4/20/2013 3:00	5.5
28	4/29/2013 3:30	4/29/2013 23:15	19.75	0.011	0.37	0.031	0.224	0.553	0.02	0.412	0.199	0.152	4/29/2013 3:30	4/29/2013 23:00	19.5
29	5/8/2013 5:45	5/8/2013 16:15	10.5	0.008	0.29	0.029	0.301	0.659	0.06	0.419	0.171	0.167	5/8/2013 5:45	5/8/2013 14:15	8.5
30	5/9/2013 2:00	5/9/2013 8:15	6.25	0.008	0.47	0.017	0.605	0.888	0.08	0.378	0.172	0.071	5/9/2013 4:00	5/9/2013 6:45	2.75
31	5/10/2013 22:45	5/11/2013 8:45	10	0.012	0.65	0.018	0.555	0.825	0.08	0.363	0.181	0.060	5/10/2013 23:00	5/11/2013 7:15	8.25
32	5/18/2013 22:15	5/19/2013 12:45	14.5	0.012	0.35	0.033	0.203	0.588	0.05	0.388	0.197	0.107	5/18/2013 22:15	5/19/2013 12:30	14.25
33	5/23/2013 15:45	5/23/2013 18:00	2.25	0.003	0.20	0.017	0.584	0.926	0.09	0.498	0.196	0.157	5/23/2013 15:45	5/23/2013 17:45	2
34	5/23/2013 23:45	5/24/2013 3:00	3.25	0.005	0.43	0.012	0.821	1.103	0.31	0.396	0.196	0.048	5/23/2013 23:45	5/24/2013 1:45	2



**Q109-07-S0025 Byberry Creek Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 164

Tributary Service Population: 2,092

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/28/2013 9:15	5/28/2013 23:30	14.25	0.008	0.29	0.026	0.175	0.523	0.03	0.401	0.174	0.170	5/28/2013 9:30	5/28/2013 22:30	13
36	6/3/2013 1:00	6/3/2013 12:45	11.75	0.025	1.48	0.017	2.439	2.804	0.72	0.529	0.196	0.112	6/3/2013 1:15	6/3/2013 9:15	8
37	6/6/2013 19:45	6/8/2013 9:15	37.5	0.090	3.77	0.024	1.701	1.990	0.36	0.521	0.146	0.118	6/6/2013 20:00	6/8/2013 2:15	30.25
38	6/10/2013 7:30	6/10/2013 11:30	4	0.010	0.61	0.016	1.513	1.856	0.36	0.577	0.145	0.191	6/10/2013 7:30	6/10/2013 8:45	1.25
39	6/10/2013 13:45	6/11/2013 9:45	20	0.050	1.25	0.040	2.861	3.195	0.20	0.556	0.166	0.127	6/10/2013 14:00	6/11/2013 1:00	11
40	6/13/2013 9:15	6/13/2013 12:15	3	0.004	0.36	0.011	0.580	0.963	0.19	0.516	0.197	0.186	6/13/2013 9:30	6/13/2013 11:15	1.75
41	6/14/2013 18:00	6/14/2013 20:15	2.25	0.002	0.12	0.017	0.217	0.604	0.08	0.470	0.202	0.183	6/14/2013 18:30	6/14/2013 19:00	0.5
42	6/18/2013 13:15	6/19/2013 3:00	13.75	0.015	0.26	0.060	0.328	0.687	0.02	0.464	0.210	0.136	6/18/2013 13:15	6/18/2013 20:15	7
43	6/25/2013 15:45	6/25/2013 18:45	3	0.004	0.12	0.031	0.692	1.057	0.09	0.500	0.216	0.162	6/25/2013 16:00	6/25/2013 16:15	0.25
44	6/26/2013 20:45	6/27/2013 0:30	3.75	0.002	0.14	0.017	0.320	0.727	0.09	0.433	0.223	0.145	6/26/2013 20:45	6/26/2013 21:30	0.75
45	6/27/2013 18:30	6/27/2013 21:15	2.75	0.008	0.59	0.014	1.211	1.625	0.16	0.711	0.227	0.188	6/27/2013 18:30	6/27/2013 21:15	2.75
46	6/30/2013 13:30	6/30/2013 18:00	4.5	0.005	0.18	0.028	0.292	0.686	0.04	0.501	0.202	0.189	6/30/2013 13:30	6/30/2013 16:00	2.5
47	7/1/2013 8:45	7/1/2013 18:30	9.75	0.008	0.22	0.036	0.243	0.632	0.03	0.460	0.204	0.172	7/1/2013 8:45	7/1/2013 14:45	6
48	7/3/2013 21:15	7/4/2013 1:30	4.25	0.003	0.33	0.010	0.486	0.829	0.19	0.407	0.209	0.122	7/3/2013 21:45	7/3/2013 23:15	1.5
49	7/9/2013 17:00	7/9/2013 22:30	5.5	0.003	0.10	0.029	0.178	0.559	0.05	0.451	0.217	0.179	7/9/2013 17:00	7/9/2013 19:45	2.75
50	7/10/2013 12:30	7/10/2013 15:30	3	0.003	0.25	0.014	0.809	1.196	0.13	0.486	0.212	0.160	7/10/2013 12:45	7/10/2013 13:45	1
51	7/12/2013 15:30	7/13/2013 9:30	18	0.026	0.88	0.029	1.111	1.483	0.16	0.481	0.221	0.110	7/12/2013 15:45	7/12/2013 22:30	6.75
52	7/13/2013 18:15	7/13/2013 23:00	4.75	0.003	0.12	0.023	0.370	0.781	0.05	0.457	0.234	0.165	7/13/2013 18:30	7/13/2013 20:00	1.5
53	7/23/2013 2:00	7/23/2013 6:00	4	0.018	1.12	0.016	2.061	2.303	0.48	0.703	0.230	0.021	7/23/2013 2:00	7/23/2013 3:30	1.5
54	7/23/2013 16:30	7/23/2013 20:00	3.5	0.000	0.13	0.003	0.068	0.479	0.09	0.391	0.232	0.175	7/23/2013 16:45	7/23/2013 18:00	1.25
55	7/28/2013 15:45	7/29/2013 6:00	14.25	0.016	0.37	0.042	0.814	1.189	0.10	0.431	0.205	0.110	7/28/2013 15:45	7/29/2013 2:30	10.75
56	8/1/2013 7:30	8/2/2013 0:15	16.75	0.031	0.92	0.034	1.214	1.573	0.12	0.564	0.197	0.170	8/1/2013 7:30	8/1/2013 15:00	7.5
57	8/8/2013 0:45	8/8/2013 6:45	6	0.015	0.60	0.025	1.971	2.161	0.24	0.479	0.182	0.037	8/8/2013 0:45	8/8/2013 2:15	1.5
58	8/9/2013 15:15	8/9/2013 19:30	4.25	0.003	0.27	0.013	0.894	1.289	0.13	0.469	0.226	0.163	8/9/2013 15:45	8/9/2013 18:00	2.25
59	8/13/2013 5:30	8/14/2013 6:45	25.25	0.064	2.06	0.031	3.186	3.586	0.78	0.615	0.214	0.132	8/13/2013 5:45	8/13/2013 9:45	4
60	8/22/2013 6:30	8/22/2013 18:00	11.5	0.008	0.30	0.026	0.752	1.115	0.14	0.437	0.195	0.171	8/22/2013 6:30	8/22/2013 17:15	10.75
61	8/28/2013 10:30	8/28/2013 22:00	11.5	0.019	0.48	0.039	0.755	1.107	0.08	0.538	0.194	0.172	8/28/2013 10:30	8/28/2013 16:00	5.5
62	9/2/2013 10:45	9/2/2013 18:45	8	0.016	0.71	0.023	2.189	2.616	0.23	0.613	0.205	0.200	9/2/2013 11:00	9/2/2013 13:15	2.25
63	9/13/2013 1:30	9/13/2013 11:45	10.25	0.010	0.33	0.030	0.958	1.161	0.13	0.399	0.190	0.109	9/13/2013 1:45	9/13/2013 3:15	1.5
64	9/21/2013 21:30	9/22/2013 14:30	17	0.037	1.14	0.033	1.799	2.127	0.27	0.533	0.183	0.119	9/21/2013 21:30	9/22/2013 3:00	5.5
Average:			11.9	0.019	0.57	0.034	0.786	1.131	0.13	0.483	0.198	0.138			6.4
Maximum Value:			37.5	0.105	3.77	0.088	3.186	3.586	0.78	0.723	0.259	0.200			30.3
Minimum Value:			2.3	0.000	0.10	0.002	0.058	0.312	0.01	0.221	0.102	0.021			0.25
Standard Deviation:			7.7	0.022	0.59	0.020	0.712	0.700	0.15	0.091	0.027	0.043			5.6
Weighted Mean R-Value*:						0.034									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q114-12-S0010 Byberry Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 68

Tributary Service Population: 2,217

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/27/2012 10:30	1/27/2012 14:00	3.5	0.013	0.10	0.125	0.60	0.83	0.05	0.387	0.119	0.105	1/27/2012 11:00	1/27/2012 11:30	0.5
2	2/8/2012 17:45	2/8/2012 23:00	5.25	0.001	0.14	0.005	0.04	0.31	0.04	0.271	0.123	0.143	2/8/2012 17:45	2/8/2012 21:45	4
3	2/11/2012 0:30	2/11/2012 14:15	13.75	0.032	0.36	0.090	0.29	0.59	0.02	0.328	0.129	0.095	2/11/2012 0:30	2/11/2012 10:15	9.75
4	2/24/2012 3:15	2/24/2012 10:15	7	0.023	0.39	0.058	0.59	0.72	0.13	0.360	0.124	0.093	2/24/2012 3:30	2/24/2012 8:45	5.25
5	2/24/2012 16:45	2/24/2012 21:15	4.5	0.013	0.18	0.074	0.35	0.63	0.05	0.410	0.132	0.148	2/24/2012 17:00	2/24/2012 21:00	4
6	2/29/2012 10:15	2/29/2012 20:00	9.75	0.071	1.23	0.058	0.77	0.99	0.16	0.565	0.124	0.117	2/29/2012 10:30	2/29/2012 16:00	5.5
7	2/29/2012 20:15	3/1/2012 7:15	11	0.039	0.30	0.129	0.65	0.81	0.07	0.350	0.123	0.071	2/29/2012 20:30	3/1/2012 5:15	8.75
8	3/2/2012 20:45	3/3/2012 12:30	15.75	0.053	0.35	0.151	0.50	0.69	0.05	0.366	0.127	0.088	3/2/2012 20:45	3/3/2012 10:00	13.25
9	3/13/2012 3:30	3/13/2012 8:30	5	0.008	0.10	0.077	0.37	0.67	0.02	0.292	0.133	0.089	3/13/2012 4:00	3/13/2012 7:15	3.25
10	3/31/2012 0:45	3/31/2012 9:45	9	0.032	0.36	0.088	0.48	0.58	0.05	0.309	0.103	0.049	3/31/2012 0:45	3/31/2012 9:15	8.5
11	4/2/2012 0:00	4/2/2012 6:00	6	0.017	0.15	0.119	0.46	0.57	0.04	0.263	0.111	0.023	4/2/2012 0:15	4/2/2012 2:45	2.5
12	4/21/2012 21:30	4/22/2012 3:45	6.25	0.016	0.11	0.149	1.34	1.60	0.06	0.296	0.125	0.054	4/21/2012 21:45	4/21/2012 22:15	0.5
13	4/22/2012 9:30	4/23/2012 6:15	20.75	0.190	2.02	0.094	2.07	2.34	0.12	0.647	0.127	0.116	4/22/2012 9:45	4/23/2012 5:00	19.25
14	5/1/2012 4:00	5/1/2012 11:15	7.25	0.029	0.33	0.087	0.58	0.82	0.13	0.400	0.121	0.104	5/1/2012 4:15	5/1/2012 10:15	6
15	5/3/2012 2:15	5/3/2012 10:15	8	0.017	0.12	0.146	0.46	0.57	0.03	0.277	0.102	0.081	5/3/2012 2:15	5/3/2012 4:45	2.5
16	5/4/2012 22:15	5/5/2012 1:00	2.75	0.001	0.17	0.007	0.06	0.25	0.07	0.201	0.108	0.075	5/4/2012 22:15	5/4/2012 23:45	1.5
17	5/9/2012 0:00	5/9/2012 9:30	9.5	0.038	0.33	0.116	0.66	0.86	0.04	0.340	0.098	0.066	5/9/2012 0:15	5/9/2012 8:00	7.75
18	5/9/2012 21:45	5/10/2012 8:45	11	0.037	0.21	0.172	0.37	0.49	0.02	0.320	0.102	0.070	5/9/2012 22:00	5/10/2012 4:45	6.75
19	5/14/2012 20:45	5/15/2012 0:45	4	0.012	0.09	0.130	0.33	0.60	0.02	0.383	0.147	0.103	5/14/2012 20:45	5/15/2012 0:30	3.75
20	5/15/2012 8:30	5/15/2012 14:30	6	0.070	0.71	0.098	1.34	1.60	0.10	0.770	0.149	0.107	5/15/2012 8:45	5/15/2012 13:00	4.25
21	5/16/2012 0:45	5/16/2012 11:00	10.25	0.154	1.38	0.112	4.88	5.03	0.21	0.893	0.154	0.074	5/16/2012 0:45	5/16/2012 5:15	4.5
22	5/21/2012 1:30	5/21/2012 6:30	5	0.021	0.25	0.087	1.06	1.25	0.06	0.374	0.155	0.031	5/21/2012 1:30	5/21/2012 5:15	3.75
23	5/22/2012 0:00	5/22/2012 8:00	8	0.032	0.20	0.161	0.37	0.57	0.03	0.390	0.157	0.056	5/22/2012 0:15	5/22/2012 7:00	6.75
24	5/27/2012 4:45	5/27/2012 8:15	3.5	0.025	0.36	0.068	1.91	2.10	0.14	0.508	0.153	0.043	5/27/2012 5:00	5/27/2012 7:00	2
25	5/30/2012 9:15	5/30/2012 15:30	6.25	0.002	0.44	0.005	0.05	0.28	0.15	0.242	0.132	0.106	5/30/2012 9:45	5/30/2012 13:15	3.5
26	6/1/2012 14:00	6/1/2012 19:45	5.75	0.003	0.40	0.007	0.05	0.29	0.18	0.262	0.117	0.122	6/1/2012 14:15	6/1/2012 19:00	4.75
27	6/1/2012 20:30	6/2/2012 8:15	11.75	0.035	0.93	0.038	0.69	0.82	0.49	0.301	0.112	0.056	6/1/2012 20:45	6/2/2012 3:00	6.25
28	6/3/2012 14:00	6/3/2012 15:30	1.5	0.018	0.29	0.063	1.59	1.86	0.23	0.811	0.114	0.160	6/3/2012 14:15	6/3/2012 14:45	0.5
29	6/12/2012 9:15	6/12/2012 18:45	9.5	0.025	0.33	0.077	0.45	0.72	0.09	0.400	0.170	0.112	6/12/2012 10:30	6/12/2012 17:30	7
30	6/12/2012 19:45	6/13/2012 6:15	10.5	0.029	0.31	0.095	0.70	1.02	0.06	0.360	0.169	0.067	6/12/2012 20:00	6/13/2012 3:15	7.25
31	6/22/2012 18:30	6/23/2012 1:00	6.5	0.039	0.29	0.134	0.89	1.18	0.04	0.543	0.159	0.119	6/22/2012 19:00	6/22/2012 22:30	3.5
32	6/29/2012 5:15	6/29/2012 12:15	7	0.014	0.43	0.033	0.52	0.76	0.12	0.362	0.154	0.118	6/29/2012 5:45	6/29/2012 9:45	4
33	7/14/2012 4:15	7/14/2012 7:00	2.75	0.020	0.13	0.153	0.61	0.78	0.03	0.495	0.157	0.016	7/14/2012 4:15	7/14/2012 5:45	1.5
34	7/15/2012 21:15	7/16/2012 2:00	4.75	0.085	1.06	0.080	4.39	4.68	0.73	1.028	0.162	0.072	7/15/2012 21:45	7/16/2012 0:00	2.25

**Q114-12-S0010 Byberry Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 68

Tributary Service Population: 2,217

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	7/20/2012 1:15	7/20/2012 5:00	3.75	0.028	0.33	0.083	0.97	1.13	0.10	0.491	0.156	0.009	7/20/2012 1:15	7/20/2012 4:30	3.25
36	7/20/2012 5:45	7/20/2012 8:45	3	0.046	0.45	0.103	2.64	2.96	0.23	0.977	0.157	0.140	7/20/2012 5:45	7/20/2012 6:45	1
37	7/20/2012 9:00	7/20/2012 12:30	3.5	0.045	0.14	0.325	2.78	3.05	0.07	0.839	0.158	0.109	7/20/2012 9:00	7/20/2012 10:45	1.75
38	7/26/2012 19:30	7/27/2012 2:30	7	0.058	0.38	0.153	3.79	4.13	0.17	0.644	0.186	0.091	7/26/2012 19:45	7/27/2012 0:30	4.75
39	7/28/2012 12:45	7/28/2012 17:00	4.25	0.078	0.40	0.196	4.38	4.73	0.13	1.148	0.171	0.163	7/28/2012 13:00	7/28/2012 15:30	2.5
40	7/28/2012 21:30	7/28/2012 23:15	1.75	0.003	0.10	0.033	0.20	0.49	0.05	0.366	0.167	0.113	7/28/2012 21:45	7/28/2012 22:45	1
41	8/1/2012 15:45	8/1/2012 19:15	3.5	0.034	0.27	0.126	1.26	1.56	0.10	0.731	0.170	0.131	8/1/2012 16:45	8/1/2012 18:45	2
42	8/4/2012 13:30	8/4/2012 17:30	4	0.037	0.36	0.103	2.68	2.99	0.22	0.723	0.155	0.156	8/4/2012 14:00	8/4/2012 14:15	0.25
43	8/5/2012 18:15	8/6/2012 5:15	11	0.095	0.92	0.103	1.42	1.63	0.15	0.619	0.163	0.075	8/5/2012 18:45	8/6/2012 2:15	7.5
44	8/10/2012 10:30	8/10/2012 15:30	5	0.022	0.25	0.087	0.78	1.06	0.06	0.469	0.175	0.102	8/10/2012 10:30	8/10/2012 12:15	1.75
45	8/14/2012 9:45	8/14/2012 21:30	11.75	0.086	0.76	0.113	2.08	2.34	0.18	0.604	0.160	0.121	8/14/2012 10:15	8/14/2012 17:30	7.25
46	8/17/2012 22:15	8/18/2012 2:30	4.25	0.027	0.29	0.093	1.03	1.31	0.13	0.522	0.184	0.057	8/17/2012 22:30	8/18/2012 0:15	1.75
47	8/18/2012 3:15	8/18/2012 9:15	6	0.030	0.20	0.152	0.76	0.95	0.04	0.461	0.185	0.051	8/18/2012 3:45	8/18/2012 7:30	3.75
48	8/27/2012 10:00	8/27/2012 20:15	10.25	0.075	0.33	0.226	2.42	2.67	0.18	0.593	0.150	0.121	8/27/2012 10:15	8/27/2012 10:45	0.5
49	8/28/2012 5:15	8/28/2012 14:00	8.75	0.021	0.19	0.113	0.62	0.96	0.10	0.391	0.167	0.115	8/28/2012 5:30	8/28/2012 7:15	1.75
50	9/3/2012 11:15	9/3/2012 20:30	9.25	0.099	0.97	0.102	2.89	3.22	0.28	0.791	0.154	0.164	9/3/2012 11:30	9/3/2012 15:45	4.25
51	9/4/2012 3:45	9/4/2012 22:15	18.5	0.409	3.10	0.132	4.26	4.57	0.47	1.299	0.200	0.119	9/4/2012 4:00	9/4/2012 20:15	16.25
52	9/8/2012 17:15	9/9/2012 1:30	8.25	0.021	0.21	0.099	0.44	0.75	0.04	0.385	0.159	0.114	9/8/2012 17:45	9/8/2012 22:00	4.25
53	9/18/2012 3:30	9/18/2012 7:00	3.5	0.013	0.13	0.101	0.40	0.58	0.04	0.392	0.162	0.064	9/18/2012 3:45	9/18/2012 6:00	2.25
54	9/18/2012 17:00	9/19/2012 7:00	14	0.071	0.71	0.101	1.71	2.03	0.18	0.483	0.170	0.087	9/18/2012 17:15	9/18/2012 21:00	3.75
55	9/22/2012 19:15	9/23/2012 1:30	6.25	0.023	0.35	0.065	0.52	0.86	0.14	0.454	0.189	0.104	9/22/2012 20:00	9/22/2012 22:15	2.25
56	10/2/2012 11:00	10/2/2012 19:00	8	0.012	0.13	0.089	0.27	0.53	0.03	0.330	0.152	0.113	10/2/2012 11:15	10/2/2012 17:30	6.25
57	10/7/2012 11:00	10/7/2012 14:00	3	0.007	0.09	0.072	0.23	0.57	0.02	0.442	0.156	0.190	10/7/2012 11:00	10/7/2012 13:00	2
58	10/7/2012 18:45	10/7/2012 22:30	3.75	0.008	0.09	0.094	0.23	0.53	0.03	0.398	0.156	0.141	10/7/2012 19:00	10/7/2012 21:00	2
59	10/15/2012 13:30	10/15/2012 20:30	7	0.020	0.39	0.053	0.64	0.93	0.18	0.411	0.158	0.124	10/15/2012 13:30	10/15/2012 17:45	4.25
60	10/19/2012 9:15	10/19/2012 18:00	8.75	0.078	0.96	0.082	2.75	3.06	0.26	0.712	0.204	0.112	10/19/2012 9:45	10/19/2012 13:45	4
61	10/28/2012 15:15	10/28/2012 20:15	5	0.015	0.12	0.126	0.40	0.72	0.03	0.458	0.175	0.149	10/28/2012 15:45	10/28/2012 18:30	2.75
62	10/29/2012 6:30	10/30/2012 5:15	22.75	0.243	2.02	0.121	1.82	2.10	0.12	0.742	0.170	0.098	10/29/2012 6:30	10/30/2012 2:00	19.5
63	11/7/2012 12:00	11/8/2012 12:15	24.25	0.104	0.56	0.185	0.40	0.71	0.02	0.442	0.155	0.098	11/7/2012 12:30	11/8/2012 2:15	13.75
64	11/13/2012 3:15	11/13/2012 11:30	8.25	0.017	0.15	0.113	0.30	0.60	0.03	0.359	0.173	0.095	11/13/2012 4:15	11/13/2012 11:00	6.75
65	11/27/2012 6:15	11/27/2012 22:00	15.75	0.073	0.64	0.114	0.56	0.83	0.04	0.501	0.170	0.127	11/27/2012 6:30	11/27/2012 15:45	9.25
66	12/7/2012 22:00	12/8/2012 5:30	7.5	0.028	0.30	0.093	0.95	1.17	0.08	0.371	0.168	0.038	12/7/2012 22:30	12/8/2012 4:15	5.75
67	12/9/2012 8:45	12/9/2012 13:15	4.5	0.013	0.14	0.095	0.23	0.59	0.02	0.491	0.174	0.187	12/9/2012 9:30	12/9/2012 12:45	3.25
68	12/9/2012 18:30	12/10/2012 4:45	10.25	0.028	0.20	0.142	0.39	0.71	0.04	0.371	0.173	0.075	12/9/2012 19:30	12/10/2012 3:15	7.75
69	12/18/2012 0:45	12/18/2012 7:30	6.75	0.032	0.38	0.085	1.14	1.32	0.17	0.433	0.171	0.050	12/18/2012 1:30	12/18/2012 2:45	1.25

**Q114-12-S0010 Byberry Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 68

Tributary Service Population: 2,217

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	12/20/2012 21:30	12/21/2012 17:00	19.5	0.163	1.50	0.109	1.95	2.29	0.13	0.631	0.174	0.087	12/20/2012 22:00	12/21/2012 8:15	10.25
71	12/24/2012 18:00	12/25/2012 8:15	14.25	0.032	0.19	0.166	0.27	0.48	0.02	0.264	0.093	0.072	12/24/2012 18:00	12/25/2012 0:15	6.25
72	12/26/2012 14:00	12/27/2012 18:00	28	0.179	1.09	0.164	1.70	1.96	0.09	0.495	0.112	0.101	12/26/2012 14:00	12/27/2012 9:00	19
73	12/29/2012 11:15	12/29/2012 21:00	9.75	0.025	0.22	0.113	0.25	0.53	0.05	0.404	0.129	0.162	12/29/2012 11:30	12/29/2012 16:45	5.25
74	1/11/2013 16:15	1/12/2013 0:15	8	0.044	0.40	0.109	0.68	0.98	0.05	0.521	0.151	0.129	1/11/2013 16:30	1/11/2013 21:30	5
75	1/14/2013 20:30	1/15/2013 5:15	8.75	0.049	0.34	0.143	0.70	0.91	0.03	0.504	0.200	0.058	1/14/2013 21:30	1/15/2013 2:45	5.25
76	1/15/2013 22:00	1/16/2013 15:00	17	0.162	0.96	0.169	1.36	1.58	0.06	0.726	0.221	0.083	1/15/2013 22:15	1/16/2013 10:45	12.5
77	1/28/2013 12:45	1/28/2013 21:15	8.5	0.029	0.18	0.161	0.43	0.70	0.03	0.437	0.160	0.126	1/28/2013 13:00	1/28/2013 17:00	4
78	1/30/2013 22:30	1/31/2013 16:15	17.75	0.124	1.07	0.116	2.45	2.63	0.30	0.567	0.176	0.082	1/30/2013 23:00	1/31/2013 5:45	6.75
Average:			8.6	0.052	0.48	0.108	1.14	1.39	0.11	0.499	0.151	0.098			5.3
Maximum Value:			28.0	0.409	3.10	0.325	4.88	5.03	0.73	1.299	0.221	0.190			19.5
Minimum Value:			1.5	0.001	0.09	0.005	0.04	0.25	0.02	0.201	0.093	0.009			0.25
Standard Deviation:			5.4	0.063	0.51	0.050	1.13	1.14	0.12	0.213	0.027	0.038			4.3
Weighted Mean R-Value*:						0.107									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**T089-04-S0055 Cheltenham Intercepting Sewer**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 98

Tributary Service Population: 1,819

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/7/2011 3:30	12/10/2011 3:15	71.75	0.225	2.52	0.089	1.453	1.830	0.23	0.530	0.205	0.125	12/7/2011 3:30	12/8/2011 1:45	22.25
2	12/21/2011 14:30	12/22/2011 5:30	15	0.009	0.17	0.053	0.536	0.839	0.11	0.308	0.166	0.104	12/21/2011 14:45	12/21/2011 23:00	8.25
3	12/22/2011 21:30	12/23/2011 12:30	15	0.053	1.36	0.039	1.400	1.607	0.14	0.492	0.164	0.103	12/22/2011 21:30	12/23/2011 5:45	8.25
4	12/27/2011 13:15	12/28/2011 5:45	16.5	0.027	0.57	0.047	0.943	1.298	0.07	0.389	0.178	0.108	12/27/2011 13:15	12/27/2011 19:30	6.25
5	1/11/2012 19:30	1/13/2012 23:45	52.25	0.090	1.60	0.056	0.976	1.206	0.14	0.434	0.198	0.126	1/11/2012 19:45	1/13/2012 8:30	36.75
6	1/17/2012 10:15	1/18/2012 1:00	14.75	0.036	0.25	0.144	0.357	0.694	0.04	0.478	0.175	0.149	1/17/2012 10:15	1/17/2012 14:45	4.5
7	1/21/2012 2:15	1/21/2012 21:30	19.25	0.005	0.32	0.017	0.193	0.611	0.03	0.338	0.190	0.131	1/21/2012 2:15	1/21/2012 13:15	11
8	1/23/2012 9:30	1/23/2012 19:45	10.25	0.004	0.30	0.015	0.125	0.493	0.04	0.384	0.194	0.164	1/23/2012 9:30	1/23/2012 18:00	8.5
9	1/27/2012 5:45	1/27/2012 13:30	7.75	0.008	0.39	0.020	0.596	0.971	0.10	0.434	0.208	0.162	1/27/2012 5:45	1/27/2012 11:30	5.75
10	2/24/2012 2:45	2/25/2012 1:15	22.5	0.009	0.31	0.031	0.446	0.644	0.06	0.350	0.194	0.130	2/24/2012 3:00	2/24/2012 19:15	16.25
11	2/29/2012 10:15	3/2/2012 5:45	43.5	0.060	0.97	0.062	1.063	1.402	0.07	0.394	0.184	0.122	2/29/2012 10:15	3/1/2012 0:30	14.25
12	3/2/2012 19:15	3/3/2012 19:15	24	0.020	0.36	0.055	0.327	0.615	0.05	0.364	0.188	0.124	3/2/2012 19:15	3/3/2012 9:45	14.5
13	3/31/2012 0:30	4/1/2012 0:15	23.75	0.043	0.33	0.128	0.331	0.663	0.05	0.395	0.159	0.123	3/31/2012 0:45	3/31/2012 4:00	3.25
14	4/1/2012 18:45	4/2/2012 5:15	10.5	0.011	0.20	0.058	0.352	0.668	0.05	0.298	0.147	0.084	4/1/2012 18:45	4/2/2012 2:30	7.75
Average:			24.8	0.043	0.69	0.058	0.650	0.967	0.08	0.399	0.182	0.125			12.0
Maximum Value:			71.8	0.225	2.52	0.144	1.453	1.830	0.23	0.530	0.208	0.164			36.8
Minimum Value:			7.8	0.004	0.17	0.015	0.125	0.493	0.03	0.298	0.147	0.084			3.25
Standard Deviation:			18.4	0.058	0.69	0.039	0.438	0.426	0.06	0.068	0.018	0.022			8.8
Weighted Mean R-Value*:						0.062									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

THL-B0705 Cheltenham Intercepting Sewer

Pipe Size (In.): 12

Tributary Drainage Area (acres): 200

Tributary Service Population: 1,942

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/18/2012 0:45	12/18/2012 6:00	5.25	0.0020	0.38	0.005	0.320	0.734	0.154	0.434	0.369	0.019	12/18/2012 1:00	12/18/2012 1:45	0.75
2	12/20/2012 21:15	12/22/2012 0:00	26.75	0.0240	1.88	0.013	0.704	1.231	0.172	0.670	0.398	0.152	12/20/2012 21:30	12/21/2012 7:30	10
3	12/26/2012 13:30	12/27/2012 16:30	27	0.0140	1.24	0.011	0.239	0.797	0.099	0.644	0.407	0.169	12/26/2012 13:30	12/27/2012 9:15	19.75
4	12/29/2012 11:00	12/29/2012 20:15	9.25	0.0010	0.23	0.004	0.099	0.697	0.017	0.580	0.406	0.160	12/29/2012 11:00	12/29/2012 17:00	6
5	1/11/2013 16:15	1/11/2013 21:45	5.5	0.0020	0.42	0.005	0.134	0.679	0.066	0.625	0.396	0.178	1/11/2013 16:15	1/11/2013 21:00	4.75
6	1/14/2013 21:15	1/15/2013 5:45	8.5	0.0022	0.38	0.006	0.096	0.617	0.041	0.467	0.398	0.049	1/14/2013 21:30	1/15/2013 2:30	5
7	1/15/2013 21:30	1/17/2013 0:00	26.5	0.0130	1.05	0.012	0.276	0.846	0.068	0.623	0.404	0.155	1/15/2013 21:30	1/16/2013 12:15	14.75
8	1/28/2013 12:45	1/28/2013 18:00	5.25	0.0010	0.21	0.006	0.101	0.774	0.032	0.680	0.411	0.238	1/28/2013 12:45	1/28/2013 16:45	4
9	1/30/2013 23:00	1/31/2013 22:15	23.25	0.0130	1.26	0.011	0.823	1.240	0.238	0.649	0.412	0.161	1/30/2013 23:00	1/31/2013 6:00	7
10	2/8/2013 6:00	2/8/2013 16:30	10.5	0.0020	0.24	0.010	0.122	0.793	0.017	0.660	0.390	0.239	2/8/2013 6:00	2/8/2013 13:45	7.75
11	2/11/2013 4:15	2/12/2013 1:30	21.25	0.0070	0.37	0.019	0.162	0.796	0.037	0.597	0.374	0.179	2/11/2013 4:15	2/11/2013 9:00	4.75
12	2/13/2013 18:30	2/14/2013 2:15	7.75	0.0020	0.17	0.010	0.101	0.622	0.015	0.514	0.375	0.109	2/13/2013 18:30	2/14/2013 0:15	5.75
13	2/19/2013 11:30	2/19/2013 20:45	9.25	0.0026	0.21	0.012	0.081	0.738	0.02	0.619	0.379	0.224	2/19/2013 11:45	2/19/2013 17:45	6
14	2/23/2013 9:45	2/23/2013 20:30	10.75	0.0020	0.11	0.019	0.083	0.656	0.01	0.577	0.388	0.164	2/23/2013 9:45	2/23/2013 19:30	9.75
15	2/26/2013 19:15	2/27/2013 21:00	25.75	0.0090	0.68	0.013	0.229	0.727	0.08	0.586	0.380	0.160	2/26/2013 19:15	2/27/2013 11:45	16.5
16	3/8/2013 7:45	3/8/2013 14:45	7	0.0010	0.19	0.005	0.078	0.713	0.03	0.641	0.378	0.264	3/8/2013 8:00	3/8/2013 13:30	5.5
17	3/12/2013 3:15	3/13/2013 6:45	27.5	0.0150	1.03	0.015	0.243	0.912	0.09	0.614	0.397	0.144	3/12/2013 3:30	3/12/2013 15:00	11.5
18	3/16/2013 10:15	3/16/2013 19:00	8.75	0.0020	0.14	0.016	0.108	0.650	0.02	0.572	0.371	0.167	3/16/2013 10:15	3/16/2013 18:00	7.75
19	3/18/2013 18:00	3/20/2013 0:15	30.25	0.0140	0.90	0.016	0.169	0.776	0.06	0.593	0.375	0.156	3/18/2013 18:00	3/19/2013 11:15	17.25
20	3/25/2013 6:15	3/25/2013 21:30	15.25	0.0030	0.58	0.006	0.161	0.821	0.04	0.659	0.407	0.224	3/25/2013 6:30	3/25/2013 16:15	9.75
21	3/31/2013 15:15	3/31/2013 22:30	7.25	0.0020	0.16	0.014	0.119	0.650	0.02	0.563	0.392	0.133	3/31/2013 15:30	3/31/2013 21:45	6.25
22	4/10/2013 20:15	4/11/2013 2:15	6	0.0030	0.50	0.006	0.231	0.718	0.18	0.517	0.366	0.088	4/10/2013 20:30	4/11/2013 0:00	3.5
23	4/12/2013 8:15	4/13/2013 17:45	33.5	0.0160	1.03	0.015	0.230	0.865	0.10	0.593	0.378	0.154	4/12/2013 8:15	4/12/2013 23:30	15.25
24	4/19/2013 21:30	4/20/2013 10:15	12.75	0.0060	0.53	0.012	0.224	0.669	0.05	0.501	0.369	0.068	4/19/2013 21:30	4/20/2013 3:00	5.5
25	4/29/2013 1:45	4/30/2013 1:15	23.5	0.0040	0.44	0.010	0.145	0.687	0.03	0.525	0.339	0.163	4/29/2013 2:00	4/30/2013 1:00	23
26	5/7/2013 22:00	5/10/2013 1:15	51.25	0.0160	1.29	0.013	0.316	0.794	0.12	0.545	0.349	0.155	5/7/2013 22:15	5/9/2013 13:15	39
27	5/10/2013 22:30	5/11/2013 22:00	23.5	0.0130	0.83	0.016	0.400	0.812	0.13	0.546	0.364	0.109	5/10/2013 22:30	5/11/2013 21:15	22.75
28	5/18/2013 21:45	5/19/2013 4:15	6.5	0.0010	0.20	0.007	0.088	0.539	0.05	0.444	0.376	0.039	5/18/2013 21:45	5/19/2013 3:15	5.5
29	5/23/2013 16:00	5/23/2013 19:45	3.75	0.0011	0.13	0.008	0.196	0.800	0.09	0.625	0.388	0.202	5/23/2013 16:15	5/23/2013 18:45	2.5
30	5/23/2013 23:30	5/24/2013 3:30	4	0.0030	0.57	0.006	0.915	1.368	0.41	0.523	0.377	0.033	5/23/2013 23:45	5/24/2013 2:45	3
31	5/24/2013 10:30	5/24/2013 16:30	6	0.0010	0.14	0.005	0.083	0.700	0.04	0.633	0.364	0.256	5/24/2013 10:30	5/24/2013 15:30	5
32	5/28/2013 10:45	5/28/2013 17:45	7	0.0020	0.26	0.007	0.149	0.766	0.03	0.644	0.360	0.249	5/28/2013 11:00	5/28/2013 16:30	5.5
33	6/3/2013 0:45	6/3/2013 10:45	10	0.0080	1.30	0.006	1.479	2.096	0.55	0.646	0.424	0.115	6/3/2013 0:45	6/3/2013 9:15	8.5
34	6/3/2013 14:30	6/3/2013 20:00	5.5	0.0030	0.40	0.007	0.211	0.865	0.17	0.677	0.426	0.214	6/3/2013 14:45	6/3/2013 17:15	2.5

**THL-B0705 Cheltenham Intercepting Sewer**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 200

Tributary Service Population: 1,942

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/6/2013 19:30	6/9/2013 7:15	59.75	0.0730	3.94	0.019	1.084	1.680	0.26	0.678	0.400	0.118	6/6/2013 19:30	6/8/2013 2:00	30.5
36	6/10/2013 7:15	6/10/2013 11:00	3.75	0.0040	0.64	0.007	0.959	1.652	0.27	0.866	0.462	0.255	6/10/2013 7:15	6/10/2013 8:30	1.25
37	6/10/2013 13:30	6/11/2013 17:30	28	0.0330	1.31	0.025	0.871	1.547	0.25	0.818	0.491	0.172	6/10/2013 13:30	6/11/2013 0:45	11.25
38	6/13/2013 9:30	6/13/2013 13:15	3.75	0.0030	0.46	0.006	0.286	1.109	0.22	0.890	0.527	0.275	6/13/2013 9:30	6/13/2013 10:45	1.25
39	6/18/2013 12:00	6/18/2013 23:00	11	0.0030	0.37	0.009	0.207	0.947	0.08	0.718	0.479	0.201	6/18/2013 12:45	6/18/2013 20:45	8
40	6/23/2013 15:45	6/23/2013 19:00	3.25	0.0010	0.11	0.006	0.085	0.725	0.07	0.658	0.483	0.149	6/23/2013 15:45	6/23/2013 16:15	0.5
41	6/26/2013 20:30	6/27/2013 0:30	4	0.0010	0.29	0.002	0.331	0.948	0.23	0.598	0.476	0.105	6/26/2013 20:45	6/26/2013 23:45	3
42	6/27/2013 18:15	6/27/2013 22:45	4.5	0.0060	1.04	0.006	0.785	1.452	0.30	0.837	0.496	0.160	6/27/2013 18:30	6/27/2013 21:45	3.25
43	6/30/2013 13:00	6/30/2013 15:45	2.75	0.0020	0.18	0.010	0.173	0.821	0.02	0.733	0.476	0.174	6/30/2013 13:15	6/30/2013 15:30	2.25
Average:			14.7	0.008	0.65	0.010	0.323	0.908	0.12	0.623	0.404	0.160			8.9
Maximum Value:			59.8	0.073	3.94	0.025	1.479	2.096	0.55	0.890	0.527	0.275			39.0
Minimum Value:			2.8	0.001	0.11	0.002	0.078	0.539	0.01	0.434	0.339	0.019			0.50
Standard Deviation:			13.0	0.012	0.67	0.005	0.329	0.339	0.12	0.101	0.044	0.063			8.1
Weighted Mean R-Value*:						0.012									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

CV-0145 Cresheim Valley Interceptor

Pipe Size (In.): 27 x 18

Tributary Drainage Area (acres): 882

Tributary Service Population: 9,340

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	3/8/2013 7:45	3/8/2013 20:00	12.25	0.007	0.16	0.043	1.33	3.80	0.04	2.751	1.991	0.439	3/8/2013 8:00	3/8/2013 12:15	4.25
2	3/12/2013 3:00	3/13/2013 12:15	33.25	0.083	1.04	0.079	6.42	8.87	0.06	3.815	2.057	0.335	3/12/2013 3:00	3/12/2013 16:30	13.5
3	3/16/2013 9:15	3/17/2013 8:45	23.5	0.018	0.19	0.091	1.80	4.18	0.02	2.826	2.063	0.333	3/16/2013 9:30	3/16/2013 18:00	8.5
4	3/18/2013 17:45	3/20/2013 4:30	34.75	0.071	0.89	0.080	4.07	6.49	0.06	3.590	2.148	0.274	3/18/2013 17:45	3/19/2013 18:45	25
5	3/25/2013 5:15	3/26/2013 8:30	27.25	0.031	0.63	0.049	1.69	4.45	0.04	3.326	2.352	0.333	3/25/2013 5:15	3/25/2013 20:30	15.25
6	3/31/2013 15:00	4/1/2013 4:30	13.5	0.010	0.15	0.068	1.50	4.18	0.02	3.047	2.399	0.224	3/31/2013 15:00	3/31/2013 23:45	8.75
7	4/10/2013 19:45	4/11/2013 8:45	13	0.020	0.55	0.037	6.20	8.85	0.17	3.412	2.289	0.252	4/10/2013 20:15	4/10/2013 23:45	3.5
8	4/12/2013 7:15	4/12/2013 20:45	13.5	0.028	0.55	0.051	6.11	8.94	0.10	3.866	2.252	0.445	4/12/2013 7:15	4/12/2013 13:45	6.5
9	4/12/2013 21:15	4/13/2013 20:00	22.75	0.022	0.35	0.062	4.24	6.83	0.14	3.098	2.221	0.338	4/12/2013 21:30	4/12/2013 23:15	1.75
10	4/19/2013 21:15	4/20/2013 21:00	23.75	0.039	0.58	0.068	5.02	7.53	0.06	3.562	2.278	0.340	4/19/2013 21:30	4/20/2013 2:45	5.25
11	5/7/2013 14:00	5/10/2013 8:15	66.25	0.091	1.08	0.084	5.71	8.18	0.13	3.224	2.144	0.297	5/7/2013 14:15	5/9/2013 13:00	46.75
12	5/10/2013 22:30	5/12/2013 21:30	47	0.059	1.23	0.048	6.74	8.96	0.12	3.164	2.109	0.332	5/10/2013 22:30	5/12/2013 5:30	31
13	5/18/2013 15:45	5/20/2013 3:15	35.5	0.035	0.37	0.095	1.96	4.51	0.05	2.913	2.046	0.300	5/18/2013 15:45	5/19/2013 17:45	26
14	5/23/2013 16:00	5/24/2013 22:00	30	0.045	0.78	0.057	9.31	11.45	0.19	3.119	1.948	0.324	5/23/2013 16:15	5/24/2013 15:30	23.25
15	5/28/2013 9:00	5/29/2013 12:15	27.25	0.027	0.30	0.089	2.62	5.02	0.03	2.937	2.034	0.339	5/28/2013 9:00	5/28/2013 18:45	9.75
16	6/2/2013 23:45	6/4/2013 0:15	24.5	0.042	0.92	0.046	9.69	12.48	0.23	3.361	2.085	0.306	6/2/2013 23:45	6/3/2013 17:00	17.25
17	6/6/2013 19:15	6/10/2013 2:45	79.5	0.280	3.55	0.079	11.07	13.43	0.21	4.450	2.113	0.317	6/6/2013 19:15	6/8/2013 1:30	30.25
18	6/10/2013 6:45	6/13/2013 0:30	65.75	0.177	1.85	0.096	12.54	15.09	0.38	4.261	2.389	0.334	6/10/2013 6:45	6/11/2013 0:45	18
19	6/13/2013 9:15	6/15/2013 22:15	61	0.084	0.66	0.127	10.04	13.21	0.37	3.754	2.627	0.341	6/13/2013 9:30	6/14/2013 19:30	34
20	6/18/2013 12:30	6/19/2013 7:15	18.75	0.032	0.40	0.081	5.31	8.51	0.07	4.031	2.816	0.239	6/18/2013 12:30	6/18/2013 20:30	8
21	6/25/2013 16:00	6/26/2013 6:45	14.75	0.008	0.18	0.043	1.84	4.64	0.08	3.104	2.609	0.203	6/25/2013 16:15	6/26/2013 0:15	8
22	6/26/2013 20:30	6/27/2013 4:15	7.75	0.014	0.50	0.027	11.76	14.67	0.38	3.680	2.550	0.151	6/26/2013 20:45	6/26/2013 23:45	3
23	6/27/2013 17:30	6/28/2013 4:15	10.75	0.018	0.56	0.032	8.27	11.04	0.26	3.640	2.497	0.197	6/27/2013 17:45	6/27/2013 21:45	4
24	6/30/2013 12:30	7/1/2013 3:00	14.5	0.013	0.27	0.049	3.00	5.72	0.03	3.148	2.354	0.284	6/30/2013 12:30	6/30/2013 23:30	11
25	7/1/2013 7:00	7/1/2013 19:45	12.75	0.012	0.29	0.042	5.37	8.37	0.09	3.318	2.354	0.433	7/1/2013 7:15	7/1/2013 14:15	7
26	7/3/2013 12:00	7/3/2013 21:30	9.5	0.005	0.07	0.067	2.45	5.15	0.04	2.940	2.330	0.331	7/3/2013 12:00	7/3/2013 16:45	4.75
27	7/3/2013 22:45	7/4/2013 5:45	7	0.003	0.03	0.107	1.91	4.49	0.03	2.643	2.331	0.082	7/3/2013 23:00	7/3/2013 23:00	0
28	7/7/2013 20:00	7/8/2013 1:30	5.5	0.005	0.18	0.029	2.46	5.12	0.13	3.051	2.321	0.220	7/7/2013 20:00	7/7/2013 21:00	1
29	7/12/2013 15:45	7/13/2013 10:00	18.25	0.048	0.86	0.056	7.86	10.40	0.13	3.994	2.227	0.271	7/12/2013 15:45	7/13/2013 0:00	8.25
30	7/20/2013 22:00	7/21/2013 2:00	4	0.007	0.21	0.031	6.55	9.16	0.21	3.334	2.271	0.180	7/20/2013 22:15	7/20/2013 22:30	0.25
31	7/22/2013 18:30	7/23/2013 10:00	15.5	0.026	0.85	0.031	11.67	13.98	0.40	3.530	2.286	0.285	7/22/2013 18:30	7/23/2013 3:15	8.75
32	7/28/2013 15:00	7/29/2013 16:45	25.75	0.024	0.24	0.100	2.94	5.64	0.09	3.169	2.326	0.317	7/28/2013 15:00	7/29/2013 2:30	11.5
33	8/1/2013 6:15	8/1/2013 18:30	12.25	0.033	0.67	0.049	5.43	8.04	0.07	4.150	2.205	0.439	8/1/2013 6:30	8/1/2013 15:15	8.75
34	8/8/2013 0:15	8/8/2013 18:00	17.75	0.013	0.22	0.059	4.45	6.85	0.10	3.037	2.301	0.317	8/8/2013 0:30	8/8/2013 1:45	1.25



**CV-0145 Cresheim Valley Interceptor**

Pipe Size (In.): 27 x 18

Tributary Drainage Area (acres): 882

Tributary Service Population: 9,340

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	8/9/2013 16:00	8/9/2013 23:30	7.5	0.004	0.15	0.028	2.80	5.35	0.07	2.880	2.244	0.331	8/9/2013 16:15	8/9/2013 17:45	1.5
36	8/13/2013 5:00	8/15/2013 9:30	52.5	0.088	2.49	0.035	13.64	16.61	0.39	3.484	2.203	0.327	8/13/2013 5:00	8/13/2013 9:30	4.5
37	8/22/2013 12:45	8/22/2013 20:30	7.75	0.008	0.35	0.023	4.92	7.32	0.27	2.930	2.039	0.321	8/22/2013 12:45	8/22/2013 17:00	4.25
38	8/28/2013 9:45	8/30/2013 8:30	46.75	0.067	1.68	0.040	13.98	16.34	0.62	3.144	2.016	0.306	8/28/2013 9:45	8/28/2013 16:15	6.5
39	9/2/2013 9:00	9/2/2013 18:30	9.5	0.030	0.81	0.037	14.37	16.89	0.33	4.293	2.157	0.390	9/2/2013 9:00	9/2/2013 13:15	4.25
40	9/12/2013 18:30	9/13/2013 0:45	6.25	0.005	0.19	0.026	1.91	4.17	0.12	2.627	1.915	0.276	9/12/2013 18:45	9/12/2013 20:00	1.25
41	9/13/2013 1:30	9/13/2013 10:15	8.75	0.014	0.31	0.046	7.93	9.84	0.14	3.119	1.907	0.318	9/13/2013 1:30	9/13/2013 2:45	1.25
42	9/21/2013 20:00	9/22/2013 6:45	10.75	0.031	1.18	0.027	11.79	14.01	0.24	3.683	1.883	0.167	9/21/2013 20:00	9/22/2013 3:30	7.5
Average:			23.8	0.040	0.68	0.057	6.21	8.78	0.16	3.367	2.231	0.300			10.6
Maximum Value:			79.5	0.280	3.55	0.127	14.37	16.89	0.62	4.450	2.816	0.445			46.8
Minimum Value:			4.0	0.003	0.03	0.023	1.33	3.80	0.02	2.627	1.883	0.082			0.00
Standard Deviation:			18.8	0.051	0.68	0.026	3.94	3.93	0.14	0.463	0.205	0.077			10.6
Weighted Mean R-Value*:						0.059									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**W077-02-S0060 Cresheim Valley Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 225

Tributary Service Population: 1,810

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2/5/2010 18:45	2/8/2010 0:00	53.25	0.0520	4.38	0.012	0.499	0.999	0.08	0.587	0.371	0.080	2/5/2010 18:45	2/6/2010 14:00	19.25
2	2/9/2010 19:30	2/11/2010 22:30	51	0.0370	3.93	0.010	0.645	1.108	0.05	0.551	0.366	0.082	2/9/2010 19:45	2/10/2010 23:45	28
3	2/22/2010 19:45	2/25/2010 1:00	53.25	0.0500	2.64	0.019	0.958	1.453	0.05	0.619	0.405	0.081	2/22/2010 20:00	2/23/2010 22:00	26
4	2/25/2010 6:00	2/26/2010 6:00	24	0.0190	0.62	0.031	0.357	0.916	0.01	0.615	0.422	0.080	2/25/2010 6:15	2/26/2010 5:15	23
5	3/12/2010 9:30	3/19/2010 6:45	165.25	0.1070	8.62	0.012	0.860	1.468	0.17	0.737	0.567	0.079	3/12/2010 9:30	3/15/2010 21:00	83.5
6	3/22/2010 7:30	3/24/2010 7:15	47.75	0.0110	2.29	0.005	0.286	1.026	0.16	0.781	0.667	0.080	3/22/2010 7:45	3/23/2010 14:00	30.25
7	3/25/2010 22:45	3/26/2010 7:00	8.25	0.0020	0.31	0.007	0.186	0.845	0.03	0.732	0.658	0.035	3/25/2010 23:30	3/26/2010 5:45	6.25
8	3/28/2010 20:30	4/4/2010 13:00	160.5	0.0990	6.58	0.015	0.721	1.323	0.15	0.759	0.593	0.079	3/28/2010 20:45	3/31/2010 3:00	54.25
9	4/8/2010 22:00	4/11/2010 13:00	63	0.0200	1.01	0.019	0.245	0.890	0.06	0.734	0.612	0.078	4/8/2010 22:15	4/9/2010 6:15	8
10	4/13/2010 10:15	4/13/2010 16:15	6	0.0007	0.16	0.004	0.139	0.823	0.02	0.666	0.586	0.092	4/13/2010 10:15	4/13/2010 14:45	4.5
11	4/16/2010 17:30	4/17/2010 9:45	16.25	0.0050	0.40	0.013	0.247	0.907	0.04	0.682	0.572	0.065	4/16/2010 17:45	4/17/2010 1:15	7.5
12	4/24/2010 23:15	4/28/2010 8:00	80.75	0.0310	2.65	0.012	0.240	0.720	0.07	0.534	0.406	0.076	4/24/2010 23:30	4/27/2010 1:45	50.25
13	6/1/2010 12:00	6/1/2010 20:30	8.5	0.0010	0.81	0.001	0.086	0.416	0.19	0.354	0.250	0.090	6/1/2010 12:00	6/1/2010 17:30	5.5
14	6/3/2010 22:00	6/4/2010 18:00	20	0.0020	0.19	0.008	0.117	0.456	0.03	0.331	0.242	0.078	6/3/2010 22:15	6/3/2010 23:00	0.75
15	6/9/2010 12:30	6/10/2010 20:45	32.25	0.0100	1.18	0.008	0.229	0.518	0.06	0.328	0.203	0.083	6/9/2010 12:30	6/9/2010 21:30	9
16	6/13/2010 13:30	6/13/2010 21:30	8	0.0010	0.48	0.002	0.140	0.443	0.08	0.308	0.199	0.096	6/13/2010 14:15	6/13/2010 18:45	4.5
17	6/24/2010 15:00	6/24/2010 23:45	8.75	0.0020	0.55	0.003	0.258	0.535	0.10	0.317	0.200	0.088	6/24/2010 15:30	6/24/2010 16:15	0.75
18	7/19/2010 18:45	7/21/2010 9:45	39	0.0230	0.84	0.027	0.857	1.174	0.32	0.373	0.213	0.078	7/19/2010 18:45	7/20/2010 14:00	19.25
19	7/21/2010 22:00	7/22/2010 19:15	21.25	0.0130	0.97	0.013	0.772	1.063	0.37	0.389	0.226	0.078	7/21/2010 23:00	7/21/2010 23:45	0.75
20	7/25/2010 15:00	7/28/2010 13:15	70.25	0.0230	2.40	0.010	0.917	1.233	0.60	0.361	0.234	0.080	7/25/2010 15:00	7/25/2010 17:00	2
21	8/11/2010 1:00	8/11/2010 16:15	15.25	0.0050	0.31	0.016	0.308	0.620	0.14	0.416	0.292	0.079	8/11/2010 1:15	8/11/2010 1:45	0.5
22	8/12/2010 8:15	8/12/2010 20:30	12.25	0.0010	0.29	0.002	0.198	0.560	0.02	0.398	0.290	0.100	8/12/2010 8:15	8/12/2010 19:30	11.25
23	8/22/2010 8:00	8/22/2010 17:30	9.5	0.0020	1.50	0.001	0.533	0.939	0.37	0.431	0.290	0.118	8/22/2010 8:00	8/22/2010 17:30	9.5
24	8/23/2010 15:30	8/24/2010 11:45	20.25	0.0090	0.53	0.017	0.603	0.986	0.09	0.422	0.282	0.079	8/23/2010 15:45	8/23/2010 21:45	6
25	9/12/2010 6:45	9/13/2010 4:00	21.25	0.0120	0.56	0.022	0.301	0.659	0.04	0.392	0.227	0.084	9/12/2010 6:45	9/12/2010 9:30	2.75
26	9/16/2010 16:45	9/18/2010 4:00	35.25	0.0120	0.82	0.015	0.382	0.625	0.12	0.344	0.220	0.077	9/16/2010 17:15	9/17/2010 2:15	9
27	9/22/2010 20:45	9/23/2010 0:45	4	0.0020	0.21	0.008	0.138	0.458	0.05	0.354	0.227	0.073	9/22/2010 21:00	9/22/2010 22:45	1.75
28	9/27/2010 8:30	9/27/2010 23:30	15	0.0040	0.21	0.021	0.157	0.524	0.03	0.369	0.233	0.097	9/27/2010 9:00	9/27/2010 18:00	9
29	9/30/2010 4:00	9/30/2010 13:45	9.75	0.0150	2.32	0.007	1.735	1.973	0.37	0.541	0.228	0.100	9/30/2010 4:15	9/30/2010 13:45	9.5
30	9/30/2010 14:45	10/7/2010 0:00	153.25	0.1170	11.46	0.010	2.295	2.530	0.68	0.416	0.228	0.080	9/30/2010 14:45	10/6/2010 19:00	148.25
31	10/12/2010 2:00	10/12/2010 16:15	14.25	0.0030	0.55	0.005	0.193	0.490	0.06	0.366	0.257	0.081	10/12/2010 2:30	10/12/2010 6:00	3.5
32	10/14/2010 11:45	10/16/2010 20:00	56.25	0.0380	1.63	0.023	0.585	0.902	0.07	0.432	0.254	0.083	10/14/2010 11:45	10/14/2010 19:45	8
33	10/18/2010 23:00	10/20/2010 0:00	25	0.0130	1.09	0.012	0.319	0.693	0.06	0.432	0.281	0.079	10/18/2010 23:00	10/19/2010 7:45	8.75
34	10/27/2010 2:15	10/28/2010 6:15	28	0.0010	0.79	0.001	0.341	0.621	0.08	0.345	0.269	0.071	10/27/2010 2:15	10/27/2010 16:15	14

**W077-02-S0060 Cresheim Valley Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 225

Tributary Service Population: 1,810

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
35	11/4/2010 2:30	11/7/2010 21:30	91	0.0590	2.60	0.023	0.646	1.047	0.06	0.402	0.230	0.081	11/4/2010 2:45	11/5/2010 5:30	26.75
36	11/16/2010 19:30	11/17/2010 15:00	19.5	0.0050	0.87	0.006	0.626	0.912	0.18	0.399	0.284	0.079	11/16/2010 19:45	11/17/2010 4:00	8.25
37	11/25/2010 9:30	11/25/2010 19:30	10	0.0090	0.66	0.013	0.372	0.782	0.03	0.546	0.309	0.116	11/25/2010 9:30	11/25/2010 19:00	9.5
38	12/1/2010 0:00	12/5/2010 11:00	107	0.0470	2.88	0.016	1.297	1.634	0.26	0.409	0.270	0.078	12/1/2010 0:00	12/1/2010 13:30	13.5
39	12/11/2010 23:00	12/14/2010 6:15	55.25	0.0230	2.45	0.009	0.328	0.677	0.06	0.422	0.294	0.070	12/11/2010 23:00	12/13/2010 1:30	26.5
40	12/26/2010 13:00	12/27/2010 16:30	27.5	0.0010	2.44	0.001	0.097	0.507	0.05	0.414	0.326	0.082	12/26/2010 13:15	12/27/2010 4:30	15.25
Average:			41.7	0.0222	1.88	0.011	0.505	0.911	0.14	0.475	0.332	0.082			18.1
Maximum Value:			165.3	0.1170	11.46	0.031	2.295	2.530	0.68	0.781	0.667	0.118			148.3
Minimum Value:			4.0	0.0007	0.16	0.001	0.086	0.416	0.01	0.308	0.199	0.035			0.50
Standard Deviation:			42.2	0.0294	2.35	0.008	0.455	0.441	0.15	0.142	0.141	0.013			26.8
Weighted Mean R-Value*:						0.012									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**W086-01-S0060 Cresheim Valley Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 225

Tributary Service Population: 2,546

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2/11/2012 6:00	2/12/2012 11:15	29.25	0.017	0.31	0.055	0.493	1.33	0.06	0.843	0.600	0.158	2/11/2012 6:00	2/11/2012 22:30	16.5
2	2/16/2012 11:30	2/16/2012 22:15	10.75	0.003	0.15	0.020	0.367	1.10	0.02	0.798	0.595	0.161	2/16/2012 11:45	2/16/2012 20:15	8.5
3	2/24/2012 1:45	2/24/2012 11:00	9.25	0.004	0.18	0.023	0.508	1.09	0.04	0.778	0.580	0.134	2/24/2012 2:30	2/24/2012 8:45	6.25
4	2/29/2012 10:30	2/29/2012 22:15	11.75	0.028	0.86	0.032	0.831	1.52	0.06	1.03	0.542	0.156	2/29/2012 10:30	2/29/2012 21:30	11
Average:			15.3	0.0130	0.38	0.033	0.550	1.259	0.04	0.863	0.579	0.152			10.6
Maximum Value:			29.3	0.0280	0.86	0.055	0.831	1.519	0.06	1.034	0.600	0.161			16.5
Minimum Value:			9.3	0.0030	0.15	0.020	0.367	1.089	0.02	0.778	0.542	0.134			6.25
Standard Deviation:			9.4	0.0119	0.33	0.015	0.198	0.206	0.02	0.117	0.026	0.012			4.4
Weighted Mean R-Value*:						0.035									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**IALL-B0355 Island Avenue Low Level Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 214

Tributary Service Population: 1,308

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	7/14/2012 5:00	7/14/2012 16:30	11.5	0.007	0.58	0.013	0.433	0.809	0.08	0.443	0.303	0.054	7/14/2012 5:00	7/14/2012 13:00	8
2	7/15/2012 21:15	7/16/2012 3:15	6	0.003	0.19	0.015	0.230	0.582	0.06	0.392	0.295	0.035	7/15/2012 21:30	7/16/2012 1:30	4
3	7/20/2012 1:15	7/20/2012 12:15	11	0.005	0.41	0.012	0.262	0.623	0.09	0.379	0.285	0.035	7/20/2012 1:15	7/20/2012 8:00	6.75
4	7/26/2012 20:00	7/27/2012 4:30	8.5	0.006	0.53	0.012	0.307	0.641	0.11	0.406	0.273	0.035	7/26/2012 20:00	7/27/2012 0:30	4.5
5	7/28/2012 17:00	7/29/2012 1:30	8.5	0.002	0.27	0.007	0.227	0.564	0.17	0.363	0.280	0.051	7/28/2012 17:30	7/28/2012 22:15	4.75
6	8/1/2012 18:15	8/1/2012 23:30	5.25	0.001	0.31	0.003	0.096	0.437	0.20	0.345	0.275	0.059	8/1/2012 18:30	8/1/2012 18:45	0.25
7	8/5/2012 18:30	8/6/2012 3:15	8.75	0.005	0.66	0.007	0.331	0.664	0.23	0.388	0.272	0.044	8/5/2012 18:30	8/6/2012 0:45	6.25
8	8/10/2012 9:45	8/11/2012 2:00	16.25	0.014	1.33	0.010	0.972	1.296	0.43	0.436	0.277	0.044	8/10/2012 10:00	8/10/2012 16:00	6
9	8/11/2012 17:00	8/11/2012 20:30	3.5	0.001	0.27	0.003	0.107	0.441	0.26	0.359	0.276	0.058	8/11/2012 17:30	8/11/2012 17:45	0.25
10	8/14/2012 9:30	8/14/2012 22:00	12.5	0.008	0.60	0.014	0.620	0.923	0.19	0.403	0.264	0.049	8/14/2012 9:30	8/14/2012 17:30	8
11	8/15/2012 15:45	8/16/2012 4:30	12.75	0.005	0.70	0.007	0.557	0.862	0.36	0.358	0.267	0.039	8/15/2012 16:00	8/15/2012 17:15	1.25
12	8/17/2012 21:00	8/18/2012 23:30	26.5	0.015	1.26	0.012	0.588	0.918	0.28	0.402	0.274	0.047	8/17/2012 21:15	8/18/2012 7:30	10.25
13	8/27/2012 7:45	8/28/2012 0:00	16.25	0.006	0.59	0.009	0.520	0.827	0.20	0.352	0.253	0.052	8/27/2012 8:00	8/27/2012 10:15	2.25
14	8/28/2012 5:15	8/28/2012 13:00	7.75	0.003	0.16	0.018	0.158	0.463	0.03	0.353	0.252	0.051	8/28/2012 5:15	8/28/2012 7:30	2.25
15	9/2/2012 11:30	9/2/2012 19:00	7.5	0.002	0.19	0.013	0.254	0.564	0.07	0.356	0.250	0.062	9/2/2012 11:45	9/2/2012 15:15	3.5
16	9/3/2012 7:30	9/3/2012 23:15	15.75	0.010	0.69	0.015	0.337	0.642	0.18	0.407	0.252	0.065	9/3/2012 7:30	9/3/2012 18:15	10.75
17	9/4/2012 2:30	9/4/2012 7:45	5.25	0.004	0.60	0.007	0.690	0.945	0.21	0.388	0.254	0.024	9/4/2012 2:45	9/4/2012 4:00	1.25
18	9/4/2012 12:45	9/5/2012 20:15	31.5	0.078	2.63	0.030	2.141	2.467	0.51	0.650	0.262	0.043	9/4/2012 12:45	9/5/2012 15:15	26.5
19	9/8/2012 17:00	9/9/2012 1:45	8.75	0.008	0.43	0.018	0.349	0.699	0.15	0.464	0.296	0.050	9/8/2012 17:00	9/8/2012 22:30	5.5
20	9/18/2012 4:00	9/18/2012 9:15	5.25	0.002	0.10	0.020	0.165	0.452	0.04	0.378	0.285	0.042	9/18/2012 4:15	9/18/2012 5:15	1
21	9/18/2012 16:30	9/19/2012 2:30	10	0.010	0.98	0.011	0.694	1.030	0.40	0.471	0.283	0.046	9/18/2012 16:45	9/19/2012 1:45	9
22	9/22/2012 19:00	9/23/2012 1:30	6.5	0.006	0.71	0.008	0.461	0.801	0.27	0.449	0.280	0.049	9/22/2012 19:30	9/22/2012 21:45	2.25
23	9/27/2012 6:15	9/27/2012 11:15	5	0.001	0.12	0.010	0.184	0.507	0.06	0.361	0.269	0.060	9/27/2012 6:30	9/27/2012 7:30	1
24	10/7/2012 18:30	10/8/2012 1:30	7	0.003	0.12	0.023	0.116	0.443	0.02	0.365	0.262	0.053	10/7/2012 18:30	10/7/2012 21:00	2.5
25	10/9/2012 4:30	10/9/2012 12:30	8	0.003	0.12	0.021	0.165	0.459	0.04	0.353	0.261	0.047	10/9/2012 4:30	10/9/2012 9:00	4.5
26	10/15/2012 11:00	10/15/2012 22:15	11.25	0.003	0.11	0.025	0.190	0.501	0.02	0.338	0.256	0.049	10/15/2012 11:00	10/15/2012 21:00	10
27	10/19/2012 9:00	10/19/2012 18:00	9	0.005	0.34	0.014	0.300	0.595	0.08	0.360	0.247	0.042	10/19/2012 9:15	10/19/2012 13:45	4.5
28	10/28/2012 15:00	10/29/2012 1:15	10.25	0.006	0.41	0.016	0.349	0.643	0.05	0.369	0.229	0.056	10/28/2012 15:00	10/28/2012 22:45	7.75
29	10/29/2012 2:30	11/1/2012 6:00	75.5	0.123	3.34	0.037	1.000	1.273	0.13	0.511	0.245	0.041	10/29/2012 2:45	10/30/2012 20:45	42
30	11/7/2012 12:00	11/8/2012 14:00	26	0.014	0.40	0.036	0.241	0.562	0.02	0.383	0.265	0.043	11/7/2012 12:00	11/8/2012 1:15	13.25
31	11/13/2012 3:15	11/14/2012 0:15	21	0.006	0.14	0.043	0.180	0.483	0.03	0.346	0.259	0.046	11/13/2012 3:30	11/13/2012 12:15	8.75
32	11/27/2012 6:00	11/28/2012 6:15	24.25	0.009	0.51	0.018	0.192	0.455	0.02	0.313	0.217	0.042	11/27/2012 6:00	11/27/2012 15:30	9.5
33	12/7/2012 22:45	12/8/2012 14:30	15.75	0.005	0.38	0.014	0.328	0.591	0.11	0.306	0.219	0.041	12/7/2012 23:00	12/8/2012 1:15	2.25
34	12/9/2012 8:30	12/9/2012 21:00	12.5	0.006	0.20	0.028	0.236	0.541	0.03	0.350	0.221	0.068	12/9/2012 8:45	12/9/2012 19:15	10.5

**IAL-B0355 Island Avenue Low Level Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 214

Tributary Service Population: 1,308

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	12/9/2012 21:45	12/10/2012 12:00	14.25	0.004	0.16	0.023	0.141	0.400	0.04	0.296	0.224	0.038	12/9/2012 21:45	12/10/2012 2:00	4.25
36	12/11/2012 4:15	12/11/2012 9:30	5.25	0.001	0.09	0.013	0.146	0.395	0.03	0.309	0.234	0.045	12/11/2012 4:15	12/11/2012 6:15	2
37	12/18/2012 0:30	12/18/2012 21:00	20.5	0.007	0.39	0.019	0.545	0.795	0.15	0.336	0.246	0.041	12/18/2012 0:45	12/18/2012 15:15	14.5
38	12/20/2012 20:45	12/23/2012 1:15	52.5	0.093	1.69	0.055	1.158	1.444	0.13	0.547	0.258	0.044	12/20/2012 20:45	12/21/2012 7:00	10.25
39	12/24/2012 17:00	12/25/2012 9:00	16	0.007	0.15	0.045	0.167	0.510	0.02	0.375	0.285	0.034	12/24/2012 17:00	12/24/2012 20:45	3.75
40	12/26/2012 12:30	12/28/2012 7:00	42.5	0.074	1.23	0.060	1.047	1.409	0.10	0.582	0.301	0.040	12/26/2012 12:45	12/27/2012 6:30	17.75
41	12/29/2012 10:15	12/30/2012 7:15	21	0.013	0.22	0.059	0.313	0.704	0.02	0.462	0.331	0.045	12/29/2012 10:15	12/29/2012 16:45	6.5
42	1/11/2013 16:00	1/12/2013 16:30	24.5	0.013	0.63	0.020	0.495	0.866	0.08	0.432	0.316	0.045	1/11/2013 16:15	1/11/2013 21:00	4.75
43	1/14/2013 21:15	1/15/2013 6:45	9.5	0.008	0.41	0.019	0.342	0.656	0.03	0.442	0.301	0.028	1/14/2013 21:30	1/15/2013 3:00	5.5
44	1/15/2013 22:00	1/17/2013 1:15	27.25	0.014	0.98	0.014	0.350	0.644	0.06	0.402	0.290	0.043	1/15/2013 22:15	1/16/2013 11:00	12.75
45	1/30/2013 17:00	2/1/2013 0:00	31	0.018	1.12	0.016	0.671	0.917	0.19	0.369	0.245	0.045	1/30/2013 17:15	1/31/2013 20:30	27.25
46	2/8/2013 5:30	2/8/2013 16:45	11.25	0.002	0.26	0.007	0.119	0.436	0.02	0.320	0.251	0.047	2/8/2013 5:45	2/8/2013 13:45	8
47	2/11/2013 4:30	2/11/2013 22:15	17.75	0.007	0.44	0.015	0.231	0.541	0.06	0.347	0.248	0.049	2/11/2013 4:30	2/11/2013 8:45	4.25
48	2/13/2013 18:15	2/14/2013 10:45	16.5	0.003	0.24	0.014	0.160	0.478	0.02	0.322	0.253	0.043	2/13/2013 18:30	2/13/2013 23:30	5
49	2/19/2013 11:15	2/19/2013 20:45	9.5	0.002	0.22	0.007	0.068	0.366	0.02	0.318	0.248	0.047	2/19/2013 11:15	2/19/2013 17:45	6.5
50	2/26/2013 18:45	2/27/2013 20:15	25.5	0.008	0.56	0.015	0.305	0.599	0.07	0.333	0.243	0.044	2/26/2013 19:00	2/27/2013 9:15	14.25
51	3/6/2013 5:00	3/6/2013 18:30	13.5	0.001	0.13	0.008	0.092	0.373	0.01	0.305	0.247	0.047	3/6/2013 5:00	3/6/2013 15:15	10.25
52	3/12/2013 2:45	3/13/2013 21:15	42.5	0.021	0.89	0.024	0.309	0.563	0.06	0.331	0.219	0.043	3/12/2013 3:00	3/13/2013 16:45	37.75
53	3/18/2013 17:45	3/19/2013 15:30	21.75	0.009	0.77	0.012	0.223	0.540	0.06	0.361	0.260	0.043	3/18/2013 18:00	3/19/2013 11:00	17
54	3/25/2013 5:45	3/25/2013 21:15	15.5	0.006	0.71	0.009	0.149	0.459	0.05	0.367	0.262	0.051	3/25/2013 5:45	3/25/2013 20:15	14.5
55	3/31/2013 15:00	3/31/2013 22:30	7.5	0.002	0.16	0.010	0.118	0.433	0.03	0.347	0.258	0.061	3/31/2013 15:00	3/31/2013 20:30	5.5
56	4/10/2013 22:30	4/11/2013 6:45	8.25	0.003	0.19	0.014	0.288	0.591	0.08	0.319	0.252	0.023	4/10/2013 22:30	4/11/2013 0:00	1.5
57	4/12/2013 8:15	4/12/2013 19:45	11.5	0.009	0.86	0.010	0.371	0.666	0.15	0.402	0.254	0.046	4/12/2013 8:15	4/12/2013 16:30	8.25
58	4/12/2013 22:00	4/13/2013 16:30	18.5	0.006	0.45	0.013	0.623	0.937	0.31	0.346	0.261	0.043	4/12/2013 22:15	4/12/2013 23:00	0.75
59	4/19/2013 21:30	4/20/2013 8:30	11	0.006	0.63	0.010	0.273	0.586	0.07	0.369	0.268	0.025	4/19/2013 21:30	4/20/2013 3:45	6.25
60	4/29/2013 2:00	4/30/2013 16:00	38	0.014	0.29	0.050	0.230	0.670	0.02	0.455	0.362	0.041	4/29/2013 2:00	4/30/2013 5:00	27
61	5/8/2013 6:30	5/9/2013 0:30	18	0.008	0.36	0.023	0.321	0.722	0.17	0.449	0.333	0.052	5/8/2013 6:30	5/8/2013 12:15	5.75
62	5/9/2013 2:15	5/9/2013 23:00	20.75	0.011	0.54	0.020	0.325	0.679	0.07	0.450	0.335	0.044	5/9/2013 2:15	5/9/2013 5:45	3.5
63	5/10/2013 22:30	5/11/2013 20:45	22.25	0.013	0.60	0.022	0.401	0.770	0.11	0.471	0.342	0.046	5/10/2013 22:30	5/11/2013 20:15	21.75
64	5/11/2013 23:00	5/12/2013 18:30	19.5	0.007	0.15	0.047	0.154	0.515	0.04	0.435	0.341	0.045	5/11/2013 23:00	5/12/2013 5:45	6.75
65	5/18/2013 19:45	5/19/2013 6:00	10.25	0.004	0.21	0.017	0.153	0.547	0.07	0.410	0.333	0.030	5/18/2013 20:00	5/19/2013 4:00	8
66	5/28/2013 10:45	5/29/2013 6:15	19.5	0.004	0.12	0.031	0.115	0.481	0.02	0.387	0.323	0.038	5/28/2013 11:00	5/28/2013 17:00	6
67	6/3/2013 1:00	6/3/2013 12:15	11.25	0.010	0.94	0.010	0.888	1.261	0.34	0.473	0.319	0.036	6/3/2013 1:15	6/3/2013 10:15	9
68	6/3/2013 15:45	6/3/2013 23:30	7.75	0.003	0.51	0.006	0.142	0.495	0.36	0.423	0.317	0.053	6/3/2013 15:45	6/3/2013 16:15	0.5
69	6/7/2013 0:00	6/10/2013 4:30	76.5	0.138	3.86	0.036	1.418	1.793	0.30	0.660	0.365	0.043	6/7/2013 0:00	6/8/2013 1:45	25.75

**IALL-B0355 Island Avenue Low Level Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 214

Tributary Service Population: 1,308

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	6/10/2013 6:45	6/12/2013 21:15	62.5	0.094	2.07	0.045	1.315	1.793	0.53	0.680	0.426	0.045	6/10/2013 6:45	6/11/2013 0:15	17.5
71	6/13/2013 9:30	6/14/2013 20:15	34.75	0.011	0.48	0.024	0.510	1.020	0.20	0.545	0.458	0.043	6/13/2013 9:30	6/14/2013 17:00	31.5
72	6/18/2013 12:00	6/19/2013 23:45	35.75	0.054	1.80	0.030	1.289	1.789	0.37	0.709	0.455	0.045	6/18/2013 12:00	6/18/2013 20:30	8.5
73	6/24/2013 14:15	6/25/2013 18:15	28	0.014	0.72	0.019	0.549	0.998	0.20	0.518	0.409	0.042	6/24/2013 14:15	6/25/2013 17:30	27.25
74	6/27/2013 17:45	6/27/2013 23:15	5.5	0.003	0.70	0.005	0.383	0.823	0.28	0.531	0.388	0.059	6/27/2013 17:45	6/27/2013 20:00	2.25
75	6/28/2013 16:45	6/29/2013 0:45	8	0.003	0.21	0.013	0.226	0.648	0.10	0.482	0.387	0.050	6/28/2013 17:00	6/28/2013 21:15	4.25
76	6/30/2013 12:30	7/1/2013 6:00	17.5	0.007	0.37	0.019	0.351	0.798	0.09	0.471	0.371	0.045	6/30/2013 12:30	6/30/2013 16:30	4
77	7/1/2013 7:00	7/3/2013 11:00	52	0.008	0.38	0.022	0.155	0.558	0.05	0.422	0.356	0.044	7/1/2013 7:15	7/3/2013 7:30	48.25
78	7/12/2013 14:45	7/13/2013 12:00	21.25	0.016	1.12	0.014	0.690	1.099	0.18	0.511	0.366	0.040	7/12/2013 14:45	7/12/2013 22:15	7.5
79	7/20/2013 21:00	7/21/2013 18:00	21	0.009	0.24	0.037	0.291	0.686	0.19	0.447	0.343	0.046	7/20/2013 21:00	7/21/2013 1:15	4.25
80	7/23/2013 0:45	7/25/2013 5:30	52.75	0.078	2.93	0.027	1.882	2.240	0.58	0.600	0.356	0.039	7/23/2013 0:45	7/23/2013 16:30	15.75
81	7/28/2013 15:00	8/6/2013 23:00	224	0.705	5.47	0.129	6.690	7.114	0.57	1.035	0.552	0.044	7/28/2013 15:00	8/6/2013 22:30	223.5
82	8/7/2013 20:30	8/9/2013 1:15	28.75	0.009	0.39	0.024	0.483	1.135	0.19	0.731	0.642	0.044	8/7/2013 20:45	8/8/2013 15:45	19
83	8/13/2013 5:00	8/15/2013 3:45	46.75	0.054	1.82	0.030	2.121	2.750	0.56	0.768	0.565	0.043	8/13/2013 5:00	8/13/2013 9:30	4.5
84	8/22/2013 15:30	8/24/2013 6:15	38.75	0.011	0.91	0.012	0.762	1.284	0.48	0.550	0.474	0.038	8/22/2013 15:30	8/22/2013 16:15	0.75
85	8/28/2013 10:00	8/29/2013 12:30	26.5	0.015	0.80	0.019	0.747	1.244	0.16	0.572	0.451	0.043	8/28/2013 10:15	8/28/2013 19:15	9
86	9/2/2013 8:45	9/5/2013 5:30	68.75	0.058	1.19	0.048	1.879	2.377	0.25	0.597	0.434	0.046	9/2/2013 9:00	9/3/2013 3:15	18.25
87	9/12/2013 18:45	9/13/2013 22:00	27.25	0.006	0.39	0.015	0.319	0.724	0.17	0.475	0.403	0.044	9/12/2013 18:45	9/13/2013 8:30	13.75
88	9/21/2013 19:30	9/23/2013 18:15	46.75	0.020	1.08	0.019	0.620	1.064	0.19	0.489	0.385	0.045	9/21/2013 19:45	9/22/2013 2:45	7
Average:			23.4	0.024	0.73	0.021	0.547	0.899	0.16	0.436	0.308	0.045			12.2
Maximum Value:			224.0	0.705	5.47	0.129	6.690	7.114	0.58	1.035	0.642	0.068			223.5
Minimum Value:			3.5	0.001	0.09	0.003	0.068	0.366	0.01	0.296	0.217	0.023			0.25
Standard Deviation:			27.1	0.078	0.86	0.017	0.799	0.825	0.15	0.122	0.081	0.008			24.7
Weighted Mean R-Value*:						0.033									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**IALL-B0810 Island Avenue Low Level Interceptor**

Pipe Size (In.): 20

Tributary Drainage Area (acres): 211

Tributary Service Population: 3,779

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/17/2010 9:30	1/18/2010 7:00	21.5	0.030	0.87	0.034	0.568	1.058	0.08	0.629	0.323	0.119	1/17/2010 9:30	1/18/2010 2:00	16.5
2	1/25/2010 1:30	1/26/2010 6:45	29.25	0.063	1.46	0.043	1.130	1.605	0.12	0.702	0.318	0.092	1/25/2010 1:30	1/26/2010 5:00	27.5
3	2/5/2010 19:00	2/7/2010 21:00	50	0.020	2.43	0.008	0.258	0.743	0.08	0.483	0.308	0.120	2/5/2010 19:15	2/6/2010 14:45	19.5
4	2/9/2010 19:15	2/11/2010 21:30	50.25	0.019	1.79	0.010	0.279	0.730	0.05	0.483	0.323	0.109	2/9/2010 19:30	2/11/2010 0:00	28.5
5	2/22/2010 19:45	2/24/2010 12:45	41	0.064	1.05	0.061	0.874	1.375	0.05	0.708	0.387	0.106	2/22/2010 20:00	2/23/2010 21:30	25.5
6	3/12/2010 7:15	3/14/2010 10:15	51	0.086	3.30	0.026	0.855	1.452	0.18	0.782	0.437	0.115	3/12/2010 7:45	3/14/2010 10:00	50.25
7	3/14/2010 10:45	3/15/2010 6:45	20	0.022	0.59	0.038	0.297	0.821	0.05	0.711	0.446	0.113	3/14/2010 11:00	3/15/2010 6:30	19.5
8	3/22/2010 9:30	3/23/2010 6:45	21.25	0.020	0.95	0.021	0.307	0.884	0.15	0.700	0.472	0.098	3/22/2010 9:30	3/23/2010 0:00	14.5
9	3/28/2010 21:00	3/30/2010 3:45	30.75	0.063	2.01	0.031	1.083	1.579	0.17	0.866	0.486	0.100	3/28/2010 21:00	3/30/2010 1:45	28.75
10	3/30/2010 10:45	3/31/2010 12:30	25.75	0.036	0.74	0.049	0.559	1.137	0.04	0.775	0.474	0.108	3/30/2010 11:00	3/31/2010 3:15	16.25
11	4/8/2010 23:15	4/9/2010 20:30	21.25	0.021	0.52	0.039	0.353	1.008	0.06	0.715	0.480	0.104	4/8/2010 23:30	4/9/2010 5:45	6.25
12	4/21/2010 16:30	4/21/2010 21:00	4.5	0.002	0.17	0.010	0.207	0.801	0.03	0.626	0.449	0.129	4/21/2010 16:30	4/21/2010 19:30	3
13	4/24/2010 23:15	4/25/2010 10:45	11.5	0.006	0.43	0.014	0.298	0.824	0.04	0.602	0.455	0.078	4/24/2010 23:30	4/25/2010 10:30	11
14	4/25/2010 21:45	4/26/2010 21:15	23.5	0.004	1.15	0.003	0.459	1.022	0.09	0.591	0.463	0.105	4/25/2010 21:45	4/26/2010 20:00	22.25
15	5/3/2010 4:15	5/3/2010 9:45	5.5	0.006	0.95	0.007	0.525	1.205	0.23	0.739	0.475	0.111	5/3/2010 4:15	5/3/2010 8:30	4.25
16	5/11/2010 18:15	5/12/2010 9:30	15.25	0.004	0.52	0.007	0.577	0.976	0.16	0.534	0.399	0.102	5/11/2010 18:30	5/12/2010 4:15	9.75
17	5/14/2010 19:00	5/14/2010 21:45	2.75	0.001	0.09	0.010	0.238	0.770	0.05	0.572	0.382	0.152	5/14/2010 19:15	5/14/2010 21:15	2
18	5/18/2010 0:30	5/18/2010 14:45	14.25	0.010	0.62	0.017	0.351	0.814	0.05	0.546	0.355	0.094	5/18/2010 0:30	5/18/2010 14:00	13.5
19	5/27/2010 20:15	5/28/2010 0:45	4.5	0.003	0.13	0.019	0.270	0.743	0.03	0.546	0.343	0.130	5/27/2010 20:15	5/27/2010 22:45	2.5
20	5/30/2010 2:30	5/30/2010 11:15	8.75	0.003	0.14	0.021	0.298	0.633	0.05	0.456	0.325	0.085	5/30/2010 2:45	5/30/2010 4:00	1.25
21	6/9/2010 12:45	6/9/2010 23:15	10.5	0.007	0.56	0.012	0.419	0.845	0.05	0.538	0.323	0.127	6/9/2010 12:45	6/9/2010 22:15	9.5
22	6/13/2010 14:00	6/13/2010 22:00	8	0.003	0.45	0.008	0.597	1.064	0.12	0.520	0.317	0.147	6/13/2010 14:00	6/13/2010 21:15	7.25
23	6/24/2010 14:30	6/24/2010 17:30	3	0.001	0.82	0.001	0.132	0.508	0.45	0.381	0.276	0.106	6/24/2010 15:30	6/24/2010 17:15	1.75
24	6/28/2010 14:45	6/28/2010 23:30	8.75	0.004	0.41	0.009	0.227	0.608	0.20	0.465	0.281	0.129	6/28/2010 14:45	6/28/2010 16:45	2
25	7/10/2010 8:15	7/10/2010 14:45	6.5	0.002	0.85	0.003	0.316	0.791	0.14	0.514	0.283	0.181	7/10/2010 8:30	7/10/2010 14:30	6
26	7/12/2010 18:45	7/12/2010 22:15	3.5	0.004	0.52	0.008	0.703	1.154	0.31	0.605	0.301	0.148	7/12/2010 18:45	7/12/2010 20:45	2
27	7/13/2010 7:00	7/13/2010 10:45	3.75	0.005	1.73	0.003	0.532	1.049	0.43	0.642	0.312	0.164	7/13/2010 7:15	7/13/2010 9:45	2.5
28	7/14/2010 0:00	7/14/2010 11:30	11.5	0.008	0.94	0.008	0.962	1.292	0.31	0.510	0.331	0.087	7/14/2010 0:00	7/14/2010 5:15	5.25
29	7/14/2010 12:00	7/15/2010 8:15	20.25	0.054	3.37	0.016	1.318	1.767	0.82	0.807	0.346	0.101	7/14/2010 12:00	7/14/2010 16:15	4.25
30	7/17/2010 3:00	7/17/2010 9:15	6.25	0.006	0.19	0.032	0.477	0.870	0.10	0.571	0.390	0.054	7/17/2010 3:15	7/17/2010 4:45	1.5
31	7/19/2010 9:00	7/19/2010 11:30	2.5	0.004	0.34	0.011	0.826	1.381	0.27	0.737	0.408	0.137	7/19/2010 9:00	7/19/2010 9:45	0.75
32	7/19/2010 19:15	7/19/2010 21:15	2	0.005	0.36	0.014	0.905	1.459	0.29	0.850	0.406	0.146	7/19/2010 19:15	7/19/2010 19:45	0.5
33	7/25/2010 15:00	7/25/2010 17:30	2.5	0.003	0.19	0.015	0.589	1.140	0.07	0.689	0.400	0.149	7/25/2010 15:00	7/25/2010 16:45	1.75
34	8/22/2010 11:45	8/23/2010 0:15	12.5	0.025	1.94	0.013	1.908	2.357	0.68	0.727	0.312	0.146	8/22/2010 11:45	8/22/2010 18:45	7



**IALL-B0810 Island Avenue Low Level Interceptor**

Pipe Size (In.): 20

Tributary Drainage Area (acres): 211

Tributary Service Population: 3,779

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	9/12/2010 6:45	9/12/2010 11:30	4.75	0.002	0.21	0.009	0.122	0.550	0.04	0.471	0.271	0.149	9/12/2010 6:45	9/12/2010 11:00	4.25
36	9/16/2010 17:15	9/17/2010 9:15	16	0.005	0.39	0.012	0.356	0.664	0.07	0.407	0.264	0.102	9/16/2010 17:15	9/17/2010 2:00	8.75
37	9/30/2010 3:45	9/30/2010 11:00	7.25	0.008	1.03	0.008	0.845	1.180	0.29	0.519	0.259	0.107	9/30/2010 3:45	9/30/2010 8:30	4.75
38	9/30/2010 19:00	10/1/2010 22:15	27.25	0.053	4.18	0.013	1.302	1.622	0.54	0.655	0.276	0.114	9/30/2010 19:15	10/1/2010 11:45	16.5
39	10/5/2010 6:15	10/5/2010 17:45	11.5	0.005	0.34	0.015	0.274	0.777	0.05	0.524	0.335	0.130	10/5/2010 6:30	10/5/2010 13:45	7.25
40	10/11/2010 21:45	10/12/2010 0:00	2.25	0.002	0.30	0.006	0.493	0.913	0.17	0.520	0.289	0.133	10/11/2010 21:45	10/11/2010 22:30	0.75
41	10/12/2010 3:30	10/12/2010 8:30	5	0.001	0.15	0.010	0.220	0.584	0.03	0.412	0.290	0.085	10/12/2010 3:30	10/12/2010 7:15	3.75
42	10/14/2010 11:30	10/14/2010 20:00	8.5	0.007	0.65	0.011	0.392	0.809	0.05	0.521	0.286	0.119	10/14/2010 11:45	10/14/2010 19:30	7.75
43	10/19/2010 1:15	10/19/2010 11:30	10.25	0.006	0.30	0.019	0.271	0.683	0.02	0.448	0.284	0.088	10/19/2010 1:15	10/19/2010 8:30	7.25
44	10/27/2010 2:15	10/27/2010 13:00	10.75	0.005	0.30	0.018	0.956	1.456	0.05	0.452	0.289	0.097	10/27/2010 2:15	10/27/2010 11:15	9
45	11/4/2010 1:45	11/4/2010 19:15	17.5	0.013	1.26	0.010	0.546	0.969	0.08	0.480	0.282	0.101	11/4/2010 2:00	11/4/2010 18:15	16.25
46	11/16/2010 19:30	11/17/2010 11:00	15.5	0.007	0.35	0.021	0.229	0.724	0.09	0.508	0.341	0.102	11/16/2010 19:30	11/17/2010 3:45	8.25
47	12/1/2010 0:15	12/1/2010 16:30	16.25	0.018	1.33	0.014	0.715	1.220	0.18	0.539	0.294	0.095	12/1/2010 0:30	12/1/2010 13:00	12.5
48	12/11/2010 23:00	12/13/2010 8:15	33.25	0.033	1.02	0.032	0.998	1.423	0.05	0.511	0.274	0.104	12/11/2010 23:00	12/13/2010 1:30	26.5
49	12/26/2010 12:30	12/27/2010 6:15	17.75	0.005	1.15	0.004	0.127	0.541	0.03	0.411	0.268	0.105	12/26/2010 12:45	12/27/2010 4:15	15.5
Average:			15.5	0.016	0.93	0.017	0.562	1.032	0.16	0.586	0.349	0.115			10.7
Maximum Value:			51.0	0.086	4.18	0.061	1.908	2.357	0.82	0.866	0.486	0.181			50.3
Minimum Value:			2.0	0.001	0.09	0.001	0.122	0.508	0.02	0.381	0.259	0.054			0.50
Standard Deviation:			12.9	0.020	0.89	0.013	0.372	0.377	0.17	0.124	0.071	0.024			10.0
Weighted Mean R-Value*:						0.017									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**IAL-0862 Island Avenue Low Level Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 202

Tributary Service Population: 2,201

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	3/2/2002 19:00	3/3/2002 5:45	10.75	0.008	0.90	0.009	0.426	0.611	0.09	0.345	0.150	0.093	3/2/2002 19:30	3/3/2002 4:30	9
2	3/10/2002 1:45	3/10/2002 5:45	4	0.001	0.17	0.007	0.326	0.500	0.16	0.207	0.157	0.010	3/10/2002 2:15	3/10/2002 2:30	0.25
3	3/20/2002 3:00	3/21/2002 3:45	24.75	0.016	0.96	0.017	0.283	0.831	0.04	0.579	0.348	0.146	3/20/2002 3:00	3/20/2002 16:15	13.25
4	3/26/2002 21:15	3/27/2002 5:15	8	0.007	0.57	0.013	0.375	0.917	0.09	0.535	0.347	0.073	3/26/2002 21:30	3/27/2002 4:30	7
5	3/31/2002 18:45	4/1/2002 5:00	10.25	0.004	0.38	0.009	0.181	0.668	0.04	0.477	0.332	0.100	3/31/2002 18:45	4/1/2002 1:45	7
6	4/12/2002 10:15	4/12/2002 17:45	7.5	0.001	0.24	0.006	0.083	0.570	0.03	0.483	0.301	0.174	4/12/2002 11:30	4/12/2002 15:00	3.5
7	4/25/2002 11:30	4/25/2002 17:45	6.25	0.002	0.25	0.009	0.102	0.601	0.03	0.513	0.340	0.168	4/25/2002 11:45	4/25/2002 15:30	3.75
8	4/27/2002 23:45	4/28/2002 12:00	12.25	0.004	1.12	0.004	0.183	0.670	0.07	0.523	0.354	0.123	4/28/2002 0:15	4/28/2002 11:00	10.75
9	5/2/2002 3:00	5/2/2002 12:15	9.25	0.001	0.37	0.003	0.138	0.675	0.08	0.493	0.321	0.158	5/2/2002 3:00	5/2/2002 9:15	6.25
10	6/13/2002 20:45	6/14/2002 18:45	22	0.012	0.76	0.016	0.194	1.17	0.07	0.931	0.713	0.148	6/13/2002 21:00	6/14/2002 15:00	18
11	6/19/2002 16:00	6/19/2002 23:00	7	0.007	0.34	0.021	0.687	1.56	0.20	1.027	0.709	0.191	6/19/2002 17:00	6/19/2002 17:30	0.5
12	6/27/2002 19:15	6/28/2002 2:00	6.75	0.007	0.81	0.009	0.962	1.87	0.46	0.974	0.699	0.139	6/27/2002 20:30	6/27/2002 21:30	1
13	7/19/2002 17:45	7/19/2002 23:30	5.75	0.009	0.62	0.014	0.670	1.51	0.47	1.006	0.625	0.193	7/19/2002 18:45	7/19/2002 19:45	1
14	8/24/2002 6:00	8/24/2002 12:00	6	0.004	0.56	0.007	0.674	1.35	0.32	0.862	0.560	0.216	8/24/2002 7:30	8/24/2002 10:45	3.25
15	8/24/2002 19:15	8/25/2002 1:00	5.75	0.010	0.63	0.015	1.320	2.08	0.43	0.922	0.560	0.152	8/24/2002 20:00	8/24/2002 20:45	0.75
16	8/28/2002 18:45	8/29/2002 19:45	25	0.022	1.11	0.020	1.040	1.72	0.19	0.839	0.570	0.155	8/28/2002 19:00	8/29/2002 8:30	13.5
17	9/1/2002 3:30	9/2/2002 4:45	25.25	0.016	1.25	0.013	0.364	1.14	0.06	0.831	0.594	0.151	9/1/2002 4:15	9/2/2002 4:00	23.75
Average:			11.6	0.008	0.65	0.011	0.471	1.085	0.17	0.679	0.452	0.141			7.2
Maximum Value:			25.3	0.022	1.25	0.021	1.320	2.079	0.47	1.027	0.713	0.216			23.8
Minimum Value:			4.0	0.001	0.17	0.003	0.083	0.500	0.03	0.207	0.150	0.010			0.25
Standard Deviation:			7.6	0.006	0.34	0.005	0.365	0.510	0.16	0.256	0.187	0.050			6.8
Weighted Mean R-Value*:						0.012									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

M-0045 Monoshone Interceptor

Pipe Size (In.): 30

Tributary Drainage Area (acres): 868

Tributary Service Population: 15,682

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/3/2013 0:30	6/3/2013 20:30	20	0.053	1.04	0.052	22.4	25.5	0.44	4.15	2.09	0.570	6/3/2013 0:30	6/3/2013 17:00	16.5
2	6/6/2013 19:30	6/9/2013 11:45	64.25	0.317	3.55	0.089	21.2	24.1	0.23	5.75	2.40	0.568	6/6/2013 19:30	6/8/2013 1:45	30.25
3	6/10/2013 6:45	6/10/2013 11:45	5	0.031	0.66	0.046	28.6	32.3	0.33	6.87	2.64	0.933	6/10/2013 6:45	6/10/2013 8:15	1.5
4	6/13/2013 9:15	6/14/2013 1:30	16.25	0.026	0.53	0.049	17.3	21.0	0.33	4.27	2.69	0.680	6/13/2013 9:30	6/14/2013 0:45	15.25
5	6/18/2013 12:30	6/18/2013 23:00	10.5	0.054	0.55	0.099	14.5	18.1	0.15	6.52	3.02	0.662	6/18/2013 12:45	6/18/2013 20:45	8
6	6/26/2013 20:30	6/27/2013 1:30	5	0.016	0.31	0.051	15.3	19.4	0.27	5.67	3.34	0.636	6/26/2013 20:45	6/26/2013 21:15	0.5
7	6/27/2013 18:00	6/27/2013 23:45	5.75	0.040	0.56	0.072	30.2	34.1	0.20	7.70	3.19	0.715	6/27/2013 18:15	6/27/2013 21:45	3.5
8	6/30/2013 12:45	6/30/2013 19:45	7	0.020	0.22	0.093	3.8	7.5	0.03	5.29	2.96	0.759	6/30/2013 12:45	6/30/2013 15:45	3
9	7/1/2013 6:45	7/1/2013 18:30	11.75	0.017	0.20	0.086	4.4	8.1	0.02	4.57	3.02	0.753	7/1/2013 6:45	7/1/2013 14:30	7.75
10	7/3/2013 22:00	7/4/2013 3:30	5.5	0.005	0.16	0.029	6.5	10.3	0.11	4.05	3.17	0.411	7/3/2013 22:30	7/3/2013 23:00	0.5
11	7/7/2013 19:15	7/8/2013 9:00	13.75	0.008	0.11	0.070	4.6	8.3	0.06	3.78	2.94	0.522	7/7/2013 20:00	7/7/2013 21:00	1
12	7/20/2013 21:45	7/21/2013 1:30	3.75	0.009	0.21	0.042	7.2	10.6	0.13	4.61	2.80	0.553	7/20/2013 22:00	7/20/2013 22:30	0.5
13	7/23/2013 0:45	7/23/2013 6:45	6	0.045	0.99	0.046	20.1	22.9	0.38	6.96	2.70	0.173	7/23/2013 0:45	7/23/2013 3:15	2.5
14	7/28/2013 15:00	7/29/2013 6:45	15.75	0.016	0.26	0.060	2.8	6.2	0.08	3.76	2.69	0.504	7/28/2013 15:00	7/29/2013 2:30	11.5
15	8/1/2013 6:15	8/1/2013 20:15	14	0.072	0.86	0.083	12.2	15.5	0.10	6.29	2.70	0.735	8/1/2013 6:30	8/1/2013 15:15	8.75
16	8/8/2013 0:15	8/8/2013 6:15	6	0.016	0.39	0.041	11.7	14.7	0.24	4.44	2.82	0.179	8/8/2013 0:30	8/8/2013 3:00	2.5
17	8/13/2013 5:00	8/13/2013 13:30	8.5	0.090	2.25	0.040	31.7	35.5	0.60	9.26	2.70	0.730	8/13/2013 5:00	8/13/2013 9:30	4.5
18	8/22/2013 12:15	8/22/2013 16:30	4.25	0.004	0.17	0.026	4.4	7.8	0.09	3.87	2.69	0.621	8/22/2013 13:00	8/22/2013 16:15	3.25
19	9/2/2013 10:15	9/3/2013 0:30	14.25	0.103	0.70	0.147	39.9	43.1	0.18	7.16	2.38	0.782	9/2/2013 10:15	9/2/2013 14:30	4.25
20	9/12/2013 18:45	9/12/2013 23:00	4.25	0.013	0.18	0.077	11.8	15.0	0.13	5.00	2.56	0.741	9/12/2013 18:45	9/12/2013 19:45	1
21	9/13/2013 1:30	9/13/2013 6:00	4.5	0.054	0.49	0.110	35.5	38.1	0.17	9.05	2.55	0.092	9/13/2013 1:30	9/13/2013 3:00	1.5
22	9/21/2013 19:45	9/22/2013 6:45	11	0.072	1.07	0.068	20.6	23.7	0.24	6.39	2.37	0.384	9/21/2013 20:00	9/22/2013 3:45	7.75
Average:			11.7	0.049	0.70	0.067	16.664	20.083	0.20	5.700	2.746	0.577			6.2
Maximum Value:			64.3	0.317	3.55	0.147	39.852	43.104	0.60	9.258	3.335	0.933			30.3
Minimum Value:			3.8	0.004	0.11	0.026	2.756	6.188	0.02	3.758	2.087	0.092			0.50
Standard Deviation:			12.7	0.066	0.80	0.029	11.136	11.033	0.14	1.650	0.300	0.216			7.1
Weighted Mean R-Value*:						0.070									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

W068-05-S0047 Monoshone Interceptor

Pipe Size (In.): 30

Tributary Drainage Area (acres): 520

Tributary Service Population: 8,863

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/6/2011 16:45	12/6/2011 20:45	4	0.002	0.07	0.034	1.96	4.53	0.02	2.82	2.14	0.500	12/6/2011 17:00	12/6/2011 18:45	1.75
2	12/7/2011 3:15	12/8/2011 11:00	31.75	0.126	2.62	0.048	7.39	10.21	0.19	4.06	2.29	0.432	12/7/2011 3:30	12/8/2011 1:30	22
3	12/20/2011 13:30	12/20/2011 22:30	9	0.005	0.10	0.053	0.62	3.12	0.01	2.78	2.12	0.471	12/20/2011 13:30	12/20/2011 17:00	3.5
4	12/21/2011 14:00	12/22/2011 6:00	16	0.009	0.16	0.057	2.96	5.49	0.09	2.62	2.10	0.328	12/21/2011 14:45	12/21/2011 22:45	8
5	12/22/2011 21:30	12/23/2011 19:00	21.5	0.069	1.24	0.056	6.61	8.86	0.12	3.58	2.10	0.396	12/22/2011 21:30	12/23/2011 5:30	8
6	12/27/2011 13:15	12/28/2011 5:15	16	0.035	0.66	0.053	3.75	6.20	0.18	3.11	2.05	0.340	12/27/2011 13:15	12/27/2011 19:30	6.25
7	1/11/2012 20:15	1/12/2012 18:00	21.75	0.089	1.41	0.063	4.82	6.98	0.11	3.74	1.95	0.418	1/11/2012 20:15	1/12/2012 7:15	11
8	1/13/2012 4:30	1/13/2012 9:30	5	0.002	0.07	0.021	1.36	3.59	0.03	2.64	2.02	0.523	1/13/2012 5:00	1/13/2012 8:15	3.25
9	1/16/2012 22:30	1/17/2012 16:45	18.25	0.018	0.33	0.054	2.52	4.39	0.03	2.57	1.85	0.393	1/16/2012 22:30	1/17/2012 14:15	15.75
10	1/21/2012 1:00	1/21/2012 12:45	11.75	0.001	0.33	0.003	0.21	2.74	0.03	2.23	1.85	0.396	1/21/2012 1:45	1/21/2012 9:15	7.5
11	1/23/2012 11:00	1/24/2012 7:30	20.5	0.046	0.32	0.145	2.72	4.94	0.05	2.99	1.86	0.378	1/23/2012 11:00	1/23/2012 16:45	5.75
12	1/26/2012 23:30	1/27/2012 23:45	24.25	0.022	0.56	0.040	3.40	5.86	0.15	2.56	1.84	0.403	1/27/2012 5:45	1/27/2012 11:15	5.5
13	2/11/2012 5:45	2/11/2012 21:00	15.25	0.028	0.18	0.156	1.40	3.90	0.04	2.93	1.72	0.610	2/11/2012 6:00	2/11/2012 20:45	14.75
14	2/16/2012 14:00	2/17/2012 1:15	11.25	0.007	0.14	0.050	1.40	3.43	0.02	2.28	1.64	0.435	2/16/2012 14:00	2/16/2012 20:15	6.25
15	2/24/2012 2:45	2/25/2012 2:45	24	0.011	0.27	0.042	2.67	4.29	0.05	2.20	1.63	0.405	2/24/2012 2:45	2/24/2012 19:15	16.5
16	2/29/2012 9:30	2/29/2012 19:45	10.25	0.037	0.79	0.047	2.89	4.81	0.05	3.12	1.45	0.476	2/29/2012 9:30	2/29/2012 17:00	7.5
17	2/29/2012 20:00	3/1/2012 9:00	13	0.019	0.19	0.098	1.65	3.65	0.04	2.31	1.45	0.374	2/29/2012 20:00	3/1/2012 0:30	4.5
18	3/2/2012 21:30	3/3/2012 13:15	15.75	0.019	0.30	0.061	2.00	3.88	0.05	2.27	1.47	0.405	3/2/2012 21:30	3/3/2012 9:45	12.25
19	3/13/2012 3:00	3/13/2012 9:15	6.25	0.005	0.10	0.048	1.33	3.74	0.02	2.29	1.63	0.407	3/13/2012 3:00	3/13/2012 7:00	4
20	3/31/2012 0:45	3/31/2012 6:45	6	0.016	0.31	0.053	2.74	4.23	0.06	2.42	1.45	0.087	3/31/2012 0:45	3/31/2012 3:45	3
21	4/21/2012 21:00	4/23/2012 12:00	39	0.110	2.34	0.047	5.33	7.44	0.11	2.88	1.47	0.459	4/21/2012 21:15	4/23/2012 7:00	33.75
22	5/1/2012 4:00	5/1/2012 12:30	8.5	0.011	0.20	0.054	2.20	4.27	0.05	2.32	1.40	0.505	5/1/2012 4:15	5/1/2012 10:00	5.75
23	5/3/2012 2:15	5/3/2012 9:00	6.75	0.010	0.17	0.061	2.06	3.55	0.04	2.35	1.49	0.359	5/3/2012 2:15	5/3/2012 5:00	2.75
24	5/4/2012 21:45	5/5/2012 1:30	3.75	0.012	0.26	0.047	3.81	5.84	0.13	2.96	1.57	0.353	5/4/2012 21:45	5/4/2012 23:30	1.75
25	5/9/2012 3:00	5/9/2012 13:30	10.5	0.021	0.33	0.064	3.62	5.28	0.09	2.67	1.55	0.454	5/9/2012 3:00	5/9/2012 7:00	4
26	5/9/2012 22:15	5/10/2012 12:15	14	0.023	0.24	0.094	1.62	3.46	0.02	2.48	1.55	0.389	5/9/2012 22:15	5/10/2012 4:00	5.75
27	5/14/2012 20:00	5/15/2012 18:00	22	0.046	0.85	0.054	6.53	8.59	0.15	2.58	1.47	0.413	5/14/2012 20:00	5/15/2012 15:00	19
28	5/16/2012 0:30	5/16/2012 11:15	10.75	0.053	1.31	0.040	13.66	15.23	0.32	3.49	1.50	0.372	5/16/2012 0:30	5/16/2012 4:15	3.75
29	5/21/2012 0:00	5/21/2012 17:00	17	0.006	0.07	0.085	1.09	2.77	0.02	2.10	1.59	0.393	5/21/2012 1:45	5/21/2012 5:00	3.25
30	5/21/2012 21:00	5/22/2012 8:00	11	0.017	0.24	0.072	1.78	3.85	0.02	2.39	1.55	0.320	5/21/2012 21:00	5/22/2012 7:15	10.25
31	5/23/2012 17:15	5/23/2012 20:15	3	0.001	0.16	0.005	0.72	2.72	0.09	2.10	1.52	0.506	5/23/2012 17:15	5/23/2012 18:15	1
32	5/24/2012 14:15	5/24/2012 17:30	3.25	0.006	0.27	0.023	2.77	4.71	0.21	2.53	1.52	0.410	5/24/2012 14:15	5/24/2012 14:45	0.5
33	5/27/2012 4:45	5/27/2012 11:45	7	0.013	0.36	0.037	5.77	7.48	0.13	2.70	1.58	0.510	5/27/2012 5:00	5/27/2012 7:15	2.25
34	5/29/2012 20:00	5/30/2012 4:15	8.25	0.003	0.40	0.009	1.02	3.09	0.20	1.95	1.52	0.294	5/29/2012 20:00	5/30/2012 3:15	7.25

W068-05-S0047 Monoshone Interceptor

Pipe Size (In.): 30

Tributary Drainage Area (acres): 520

Tributary Service Population: 8,863

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/1/2012 19:30	6/2/2012 5:00	9.5	0.038	1.22	0.031	13.85	15.92	0.50	3.15	1.56	0.285	6/1/2012 19:30	6/2/2012 2:15	6.75
36	6/3/2012 13:30	6/3/2012 22:00	8.5	0.003	0.08	0.043	1.32	3.53	0.03	2.32	1.56	0.629	6/3/2012 14:00	6/3/2012 20:00	6
37	6/4/2012 12:00	6/4/2012 18:30	6.5	0.008	0.23	0.034	2.66	4.64	0.08	2.38	1.56	0.430	6/4/2012 12:15	6/4/2012 17:00	4.75
38	6/4/2012 18:45	6/5/2012 3:30	8.75	0.007	0.10	0.069	2.25	4.36	0.06	2.17	1.57	0.350	6/4/2012 19:00	6/4/2012 21:00	2
39	6/12/2012 9:30	6/13/2012 15:45	30.25	0.064	0.84	0.076	3.54	5.48	0.07	2.55	1.40	0.441	6/12/2012 9:30	6/12/2012 23:15	13.75
40	6/22/2012 17:00	6/23/2012 9:30	16.5	0.032	1.02	0.032	5.79	7.66	0.37	2.35	1.37	0.340	6/22/2012 17:00	6/22/2012 22:15	5.25
41	6/29/2012 5:00	6/29/2012 20:30	15.5	0.011	0.26	0.043	2.53	4.02	0.22	2.00	1.27	0.487	6/29/2012 5:00	6/29/2012 6:15	1.25
42	7/14/2012 3:45	7/14/2012 14:15	10.5	0.028	0.35	0.082	3.25	4.68	0.05	2.42	1.02	0.501	7/14/2012 3:45	7/14/2012 12:45	9
43	7/15/2012 21:30	7/16/2012 15:15	17.75	0.024	0.78	0.030	4.25	5.90	0.40	1.99	1.13	0.418	7/15/2012 21:30	7/15/2012 23:45	2.25
44	7/20/2012 1:00	7/20/2012 21:30	20.5	0.056	1.31	0.043	11.88	13.04	0.61	2.39	1.06	0.411	7/20/2012 1:15	7/20/2012 9:15	8
45	7/26/2012 19:45	7/27/2012 5:45	10	0.017	0.32	0.054	5.17	6.77	0.20	1.85	1.01	0.268	7/26/2012 20:00	7/27/2012 0:15	4.25
46	7/28/2012 15:30	7/29/2012 3:30	12	0.010	0.17	0.058	2.16	3.66	0.07	1.73	1.02	0.435	7/28/2012 15:30	7/28/2012 22:15	6.75
47	8/5/2012 18:30	8/6/2012 8:00	13.5	0.039	0.48	0.081	4.39	5.77	0.08	2.42	1.07	0.390	8/5/2012 18:30	8/6/2012 2:30	8
48	8/10/2012 10:00	8/11/2012 1:45	15.75	0.019	0.55	0.034	4.90	6.61	0.22	1.97	1.15	0.429	8/10/2012 10:15	8/10/2012 12:00	1.75
49	8/11/2012 17:45	8/11/2012 22:00	4.25	0.001	0.25	0.004	0.35	2.07	0.13	1.74	1.10	0.584	8/11/2012 17:45	8/11/2012 22:00	4.25
50	8/17/2012 22:15	8/18/2012 13:15	15	0.041	0.82	0.050	4.67	6.08	0.17	2.38	1.07	0.401	8/17/2012 22:15	8/18/2012 7:00	8.75
51	8/27/2012 8:00	8/27/2012 21:45	13.75	0.021	0.55	0.037	8.40	10.08	0.36	2.18	1.13	0.557	8/27/2012 8:00	8/27/2012 16:45	8.75
52	8/28/2012 5:30	8/28/2012 17:30	12	0.011	0.16	0.068	2.68	4.65	0.04	2.11	1.28	0.524	8/28/2012 5:45	8/28/2012 7:15	1.5
53	9/3/2012 9:30	9/3/2012 23:30	14	0.042	0.71	0.059	6.12	8.05	0.18	2.76	1.11	0.665	9/3/2012 9:30	9/3/2012 19:00	9.5
54	9/4/2012 3:00	9/4/2012 11:30	8.5	0.021	0.20	0.105	4.13	5.26	0.07	2.36	1.12	0.449	9/4/2012 3:15	9/4/2012 11:30	8.25
55	9/4/2012 13:00	9/5/2012 4:30	15.5	0.026	0.43	0.062	9.51	11.08	0.17	2.07	1.14	0.355	9/4/2012 13:15	9/5/2012 0:30	11.25
56	9/8/2012 16:45	9/9/2012 0:00	7.25	0.023	0.29	0.077	3.40	5.13	0.05	2.71	1.14	0.551	9/8/2012 17:00	9/8/2012 22:30	5.5
57	9/18/2012 2:30	9/18/2012 13:15	10.75	0.015	0.21	0.073	3.34	4.48	0.04	2.03	1.13	0.436	9/18/2012 2:45	9/18/2012 12:15	9.5
58	9/18/2012 16:45	9/19/2012 8:00	15.25	0.038	0.78	0.049	5.29	6.88	0.30	2.33	1.13	0.370	9/18/2012 17:00	9/19/2012 1:45	8.75
59	9/22/2012 19:00	9/23/2012 4:30	9.5	0.016	0.31	0.050	6.16	7.86	0.11	1.98	1.08	0.344	9/22/2012 19:15	9/22/2012 22:00	2.75
60	9/26/2012 23:15	9/27/2012 1:45	2.5	0.008	0.14	0.057	3.61	5.02	0.10	2.28	1.08	0.249	9/26/2012 23:30	9/27/2012 0:30	1
61	9/27/2012 6:15	9/27/2012 14:15	8	0.007	0.08	0.091	1.98	3.85	0.04	1.99	1.08	0.611	9/27/2012 6:30	9/27/2012 8:45	2.25
62	9/28/2012 1:15	9/28/2012 9:15	8	0.009	0.12	0.077	3.51	4.68	0.08	1.78	1.07	0.335	9/28/2012 1:15	9/28/2012 9:15	8
63	10/2/2012 10:15	10/3/2012 0:30	14.25	0.018	0.24	0.075	3.45	4.86	0.06	1.87	0.99	0.466	10/2/2012 10:15	10/2/2012 15:30	5.25
64	10/3/2012 7:15	10/3/2012 16:30	9.25	0.009	0.11	0.091	4.23	6.15	0.09	1.88	0.99	0.555	10/3/2012 7:15	10/3/2012 7:45	0.5
65	10/4/2012 16:30	10/5/2012 0:00	7.5	0.006	0.08	0.086	3.32	4.74	0.06	1.76	0.99	0.482	10/4/2012 17:00	10/4/2012 17:30	0.5
66	10/7/2012 10:00	10/7/2012 15:15	5.25	0.006	0.10	0.065	1.67	3.41	0.01	2.16	1.02	0.747	10/7/2012 10:30	10/7/2012 14:30	4
67	10/7/2012 18:00	10/8/2012 1:45	7.75	0.008	0.13	0.058	1.78	3.43	0.04	1.82	1.00	0.489	10/7/2012 18:30	10/7/2012 21:00	2.5
68	10/9/2012 4:30	10/9/2012 9:00	4.5	0.005	0.09	0.057	0.92	2.51	0.02	1.86	0.99	0.517	10/9/2012 4:45	10/9/2012 7:00	2.25
69	10/15/2012 12:15	10/16/2012 2:30	14.25	0.018	0.24	0.075	1.87	3.29	0.05	1.88	1.05	0.408	10/15/2012 12:30	10/15/2012 20:30	8

**W068-05-S0047 Monoshone Interceptor**

Pipe Size (In.): 30

Tributary Drainage Area (acres): 520

Tributary Service Population: 8,863

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	10/19/2012 2:15	10/20/2012 7:30	29.25	0.048	0.68	0.071	8.22	9.81	0.12	1.95	1.04	0.350	10/19/2012 2:15	10/19/2012 23:15	21
71	10/28/2012 15:45	10/28/2012 22:30	6.75	0.013	0.17	0.079	1.58	3.09	0.03	2.16	0.91	0.614	10/28/2012 16:00	10/28/2012 20:30	4.5
72	10/29/2012 5:00	10/31/2012 3:45	46.75	0.229	3.02	0.076	9.02	10.42	0.14	3.09	1.00	0.430	10/29/2012 5:00	10/30/2012 20:00	39
73	11/7/2012 11:45	11/8/2012 5:45	18	0.034	0.40	0.085	1.64	3.11	0.02	2.05	1.07	0.346	11/7/2012 11:45	11/8/2012 1:30	13.75
74	11/13/2012 2:00	11/13/2012 14:00	12	0.019	0.23	0.081	3.37	4.51	0.04	2.08	1.13	0.421	11/13/2012 2:30	11/13/2012 12:00	9.5
75	11/27/2012 6:00	11/28/2012 0:00	18	0.053	0.62	0.085	2.86	4.46	0.02	2.59	1.09	0.526	11/27/2012 6:00	11/27/2012 15:45	9.75
Average:			13.3	0.027	0.48	0.059	3.751	5.575	0.11	2.407	1.394	0.433			7.4
Maximum Value:			46.8	0.229	3.02	0.156	13.845	15.919	0.61	4.056	2.289	0.747			39.0
Minimum Value:			2.5	0.001	0.07	0.003	0.211	2.065	0.01	1.727	0.912	0.087			0.50
Standard Deviation:			8.1	0.034	0.56	0.027	2.821	2.775	0.12	0.481	0.353	0.102			6.8
Weighted Mean R-Value*:						0.055									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**W068-05-S0078 Monoshone Interceptor**

Pipe Size (In.): 30

Tributary Drainage Area (acres): 691

Tributary Service Population: 11,780

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	11/9/2000 19:45	11/11/2000 1:15	29.5	0.035	0.58	0.060	3.43	5.17	0.12	2.71	1.70	0.487	11/9/2000 20:00	11/10/2000 7:45	11.75
2	11/14/2000 8:00	11/15/2000 3:30	19.5	0.022	0.28	0.079	2.64	5.01	0.03	2.73	1.72	0.510	11/14/2000 8:00	11/14/2000 18:45	10.75
3	11/25/2000 23:45	11/27/2000 4:30	28.75	0.090	1.29	0.070	4.55	5.95	0.07	3.16	1.27	0.484	11/25/2000 23:45	11/26/2000 13:15	13.5
4	1/15/2001 0:30	1/16/2001 0:00	23.5	0.021	0.28	0.074	1.45	2.82	0.05	2.20	1.34	0.474	1/15/2001 0:30	1/15/2001 7:00	6.5
5	1/19/2001 3:15	1/21/2001 10:00	54.75	0.098	1.29	0.076	3.02	5.08	0.04	2.70	1.40	0.503	1/19/2001 3:30	1/20/2001 19:45	40.25
6	1/30/2001 6:00	1/31/2001 4:45	22.75	0.033	0.79	0.042	3.03	5.29	0.08	2.72	1.57	0.489	1/30/2001 6:00	1/30/2001 14:00	8
7	2/5/2001 5:00	2/6/2001 5:45	24.75	0.038	0.72	0.052	2.33	4.56	0.04	2.76	1.62	0.457	2/5/2001 5:15	2/5/2001 21:45	16.5
8	2/6/2001 6:45	2/7/2001 7:45	25	0.025	0.53	0.048	1.33	3.42	0.06	2.58	1.64	0.487	2/6/2001 6:45	2/6/2001 13:00	6.25
9	2/16/2001 13:15	2/17/2001 6:00	16.75	0.027	0.50	0.055	2.12	4.35	0.03	2.95	1.83	0.392	2/16/2001 13:15	2/17/2001 0:00	10.75
10	2/25/2001 9:15	2/26/2001 5:00	19.75	0.019	0.22	0.086	1.74	4.29	0.05	2.82	1.81	0.583	2/25/2001 9:45	2/25/2001 20:30	10.75
11	3/4/2001 10:15	3/4/2001 21:30	11.25	0.005	0.11	0.049	1.17	3.67	0.01	2.79	1.80	0.771	3/4/2001 10:15	3/4/2001 14:15	4
12	3/6/2001 12:30	3/6/2001 23:30	11	0.005	0.24	0.020	0.61	2.96	0.02	2.52	1.81	0.513	3/6/2001 13:30	3/6/2001 20:45	7.25
13	3/7/2001 9:30	3/8/2001 0:15	14.75	0.010	0.21	0.049	1.09	3.55	0.03	2.66	1.81	0.547	3/7/2001 9:30	3/7/2001 13:00	3.5
14	3/9/2001 4:00	3/9/2001 7:45	3.75	0.003	0.09	0.038	1.45	3.28	0.02	2.50	1.79	0.317	3/9/2001 4:45	3/9/2001 6:45	2
15	3/12/2001 22:45	3/13/2001 11:45	13	0.028	0.64	0.043	3.12	5.19	0.06	3.18	1.81	0.433	3/12/2001 23:00	3/13/2001 9:45	10.75
16	3/15/2001 18:45	3/16/2001 4:45	10	0.011	0.43	0.026	2.89	5.19	0.11	2.63	1.80	0.343	3/15/2001 18:45	3/15/2001 21:30	2.75
17	3/16/2001 15:00	3/17/2001 10:45	19.75	0.022	0.41	0.053	2.12	4.44	0.11	2.68	1.76	0.434	3/16/2001 15:00	3/17/2001 4:45	13.75
18	3/21/2001 10:15	3/23/2001 8:00	45.75	0.067	0.80	0.083	4.20	6.42	0.07	2.90	1.79	0.455	3/21/2001 10:30	3/22/2001 1:00	14.5
19	4/6/2001 11:00	4/6/2001 20:00	9	0.011	0.14	0.078	2.15	4.66	0.04	2.99	1.92	0.540	4/6/2001 11:00	4/6/2001 16:00	5
20	4/9/2001 20:30	4/10/2001 7:30	11	0.012	0.21	0.060	8.03	10.62	0.15	2.80	1.99	0.312	4/9/2001 20:45	4/9/2001 21:45	1
21	4/11/2001 11:45	4/12/2001 6:45	19	0.020	0.36	0.054	1.70	4.19	0.02	2.83	1.99	0.385	4/11/2001 11:45	4/12/2001 1:30	13.75
22	4/15/2001 20:30	4/16/2001 7:45	11.25	0.017	0.35	0.049	2.00	4.19	0.02	2.92	1.90	0.349	4/15/2001 20:45	4/16/2001 6:15	9.5
Average:			20.2	0.028	0.48	0.056	2.55	4.74	0.06	2.76	1.73	0.467			10.1
Maximum Value:			54.8	0.098	1.29	0.086	8.03	10.62	0.15	3.18	1.99	0.771			40.3
Minimum Value:			3.8	0.003	0.09	0.020	0.61	2.82	0.01	2.20	1.27	0.312			1.00
Standard Deviation:			11.9	0.026	0.34	0.018	1.58	1.61	0.04	0.22	0.19	0.101			8.1
Weighted Mean R-Value*:						0.059									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**P108-17-S0010 Paul's Run Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 79

Tributary Service Population: 675

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	9/30/2010 4:00	10/2/2010 6:45	50.75	0.111	4.63	0.024	1.17	1.202	0.56	0.203	0.028	0.063	9/30/2010 4:15	10/1/2010 12:00	31.75
2	10/3/2010 21:00	10/5/2010 19:00	46	0.037	0.66	0.057	0.15	0.278	0.05	0.140	0.034	0.065	10/3/2010 21:00	10/5/2010 15:15	42.25
3	10/12/2010 2:30	10/12/2010 10:15	7.75	0.012	0.17	0.072	0.22	0.262	0.03	0.153	0.023	0.051	10/12/2010 2:45	10/12/2010 6:15	3.5
4	10/14/2010 12:00	10/15/2010 1:15	13.25	0.024	0.64	0.037	0.26	0.357	0.06	0.187	0.023	0.074	10/14/2010 12:00	10/14/2010 20:15	8.25
5	10/18/2010 23:30	10/19/2010 16:00	16.5	0.022	0.52	0.043	0.21	0.258	0.05	0.153	0.024	0.061	10/18/2010 23:45	10/19/2010 8:00	8.25
6	10/27/2010 2:30	10/28/2010 2:15	23.75	0.015	0.39	0.038	0.24	0.291	0.08	0.135	0.037	0.065	10/27/2010 2:45	10/27/2010 16:15	13.5
7	11/4/2010 2:30	11/5/2010 3:30	25	0.037	1.21	0.031	0.27	0.308	0.06	0.162	0.024	0.062	11/4/2010 2:45	11/5/2010 1:30	22.75
8	11/16/2010 19:45	11/17/2010 10:30	14.75	0.015	0.38	0.039	0.17	0.211	0.13	0.110	0.010	0.049	11/16/2010 20:00	11/17/2010 4:00	8
9	11/25/2010 10:15	11/26/2010 3:45	17.5	0.015	0.31	0.049	0.13	0.253	0.03	0.128	0.014	0.071	11/25/2010 10:15	11/25/2010 19:30	9.25
10	12/1/2010 0:30	12/2/2010 1:30	25	0.040	1.41	0.029	0.38	0.483	0.19	0.150	0.006	0.063	12/1/2010 0:30	12/1/2010 13:30	13
11	12/12/2010 1:15	12/13/2010 13:30	36.25	0.038	1.11	0.034	0.25	0.299	0.08	0.128	0.011	0.064	12/12/2010 1:15	12/13/2010 2:00	24.75
12	1/17/2011 21:15	1/18/2011 23:30	26.25	0.025	0.92	0.028	0.17	0.290	0.06	0.134	0.020	0.064	1/17/2011 21:30	1/18/2011 13:15	15.75
13	2/1/2011 23:15	2/3/2011 4:15	29	0.044	0.79	0.055	0.21	0.286	0.05	0.162	0.029	0.056	2/1/2011 23:15	2/2/2011 9:00	9.75
14	2/5/2011 7:30	2/5/2011 19:15	11.75	0.014	0.27	0.053	0.10	0.228	0.02	0.185	0.023	0.102	2/5/2011 7:30	2/5/2011 19:00	11.5
15	2/21/2011 22:00	2/22/2011 19:15	21.25	0.011	0.36	0.030	0.12	0.249	0.02	0.129	0.038	0.064	2/21/2011 22:15	2/22/2011 4:45	6.5
16	2/24/2011 20:00	2/26/2011 14:00	42	0.037	1.06	0.035	0.28	0.360	0.10	0.152	0.043	0.064	2/24/2011 20:00	2/25/2011 13:30	17.5
17	2/28/2011 2:15	2/28/2011 10:00	7.75	0.008	0.27	0.031	0.13	0.212	0.06	0.155	0.054	0.047	2/28/2011 2:30	2/28/2011 9:15	6.75
18	3/6/2011 6:00	3/7/2011 11:45	29.75	0.049	1.73	0.029	0.45	0.589	0.14	0.217	0.062	0.071	3/6/2011 6:00	3/7/2011 2:00	20
19	3/10/2011 2:00	3/11/2011 7:15	29.25	0.039	1.26	0.031	0.23	0.392	0.06	0.174	0.048	0.057	3/10/2011 2:15	3/11/2011 3:15	25
20	3/16/2011 2:30	3/16/2011 12:45	10.25	0.014	0.64	0.021	0.42	0.517	0.08	0.196	0.066	0.063	3/16/2011 2:45	3/16/2011 7:00	4.25
21	3/21/2011 3:15	3/21/2011 14:45	11.5	0.009	0.45	0.019	0.23	0.384	0.06	0.167	0.055	0.073	3/21/2011 3:30	3/21/2011 10:15	6.75
22	3/23/2011 6:15	3/24/2011 7:45	25.5	0.015	0.48	0.030	0.21	0.345	0.09	0.151	0.055	0.066	3/23/2011 6:30	3/23/2011 21:45	15.25
23	3/31/2011 2:15	3/31/2011 21:30	19.25	0.009	0.19	0.047	0.15	0.292	0.02	0.143	0.048	0.072	3/31/2011 2:15	3/31/2011 19:00	16.75
24	4/1/2011 3:15	4/1/2011 15:15	12	0.016	0.26	0.064	0.18	0.327	0.02	0.196	0.052	0.075	4/1/2011 3:30	4/1/2011 14:00	10.5
25	4/5/2011 6:30	4/5/2011 22:30	16	0.009	0.27	0.034	0.19	0.369	0.10	0.193	0.076	0.087	4/5/2011 6:30	4/5/2011 14:15	7.75
26	4/8/2011 11:15	4/9/2011 4:30	17.25	0.022	0.72	0.030	0.24	0.393	0.03	0.205	0.077	0.065	4/8/2011 11:15	4/8/2011 21:45	10.5
27	4/12/2011 10:45	4/13/2011 22:30	35.75	0.025	0.77	0.033	0.33	0.499	0.07	0.182	0.074	0.072	4/12/2011 11:00	4/13/2011 17:45	30.75
28	4/16/2011 12:30	4/19/2011 17:30	77	0.186	2.69	0.069	2.79	2.918	0.32	0.266	0.074	0.068	4/16/2011 12:30	4/19/2011 16:30	76
29	4/23/2011 1:30	4/23/2011 19:00	17.5	0.031	0.51	0.061	0.62	0.806	0.08	0.233	0.071	0.071	4/23/2011 1:45	4/23/2011 15:00	13.25
30	4/28/2011 12:15	4/29/2011 5:45	17.5	0.012	0.60	0.020	0.62	0.799	0.27	0.181	0.091	0.056	4/28/2011 12:45	4/28/2011 14:15	1.5
31	5/4/2011 5:45	5/4/2011 22:30	16.75	0.014	0.62	0.022	0.15	0.335	0.09	0.222	0.095	0.085	5/4/2011 6:00	5/4/2011 14:45	8.75
32	5/14/2011 15:00	5/15/2011 19:00	28	0.031	0.87	0.036	0.93	1.012	0.17	0.203	0.076	0.070	5/14/2011 15:00	5/15/2011 5:15	14.25
33	5/17/2011 4:45	5/18/2011 1:45	21	0.012	0.43	0.027	0.19	0.334	0.07	0.178	0.077	0.073	5/17/2011 5:00	5/17/2011 22:15	17.25
34	5/18/2011 12:00	5/19/2011 2:30	14.5	0.021	0.88	0.024	1.29	1.466	0.30	0.220	0.078	0.068	5/18/2011 12:00	5/18/2011 19:45	7.75



**P108-17-S0010 Paul's Run Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 79

Tributary Service Population: 675

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/23/2011 1:00	5/23/2011 4:30	3.5	0.004	0.20	0.018	0.25	0.339	0.08	0.140	0.086	0.005	5/23/2011 1:15	5/23/2011 3:15	2
36	6/9/2011 20:15	6/10/2011 2:00	5.75	0.004	0.30	0.015	0.20	0.344	0.15	0.153	0.073	0.043	6/9/2011 20:15	6/9/2011 21:00	0.75
37	6/11/2011 22:45	6/12/2011 7:45	9	0.012	0.54	0.023	0.39	0.474	0.17	0.155	0.063	0.023	6/11/2011 23:00	6/12/2011 1:45	2.75
38	6/14/2011 16:45	6/14/2011 23:15	6.5	0.006	0.06	0.100	0.11	0.250	0.02	0.177	0.061	0.074	6/14/2011 17:00	6/14/2011 19:00	2
39	6/16/2011 22:00	6/17/2011 8:45	10.75	0.022	1.16	0.019	0.60	0.662	0.24	0.198	0.059	0.037	6/16/2011 22:15	6/17/2011 4:30	6.25
40	7/3/2011 5:45	7/3/2011 11:30	5.75	0.006	0.10	0.062	0.27	0.332	0.05	0.176	0.041	0.083	7/3/2011 5:45	7/3/2011 11:00	5.25
41	7/8/2011 14:00	7/9/2011 6:30	16.5	0.019	0.86	0.023	0.46	0.590	0.19	0.149	0.038	0.052	7/8/2011 14:00	7/8/2011 20:45	6.75
42	7/24/2011 14:30	7/24/2011 22:45	8.25	0.012	0.54	0.023	0.45	0.543	0.18	0.169	0.014	0.079	7/24/2011 14:45	7/24/2011 19:45	5
43	7/25/2011 14:15	7/26/2011 4:45	14.5	0.016	0.58	0.027	0.24	0.327	0.14	0.123	0.016	0.054	7/25/2011 14:15	7/25/2011 20:45	6.5
44	7/29/2011 18:30	7/30/2011 14:30	20	0.036	0.43	0.082	1.60	1.698	0.21	0.170	0.015	0.064	7/29/2011 19:00	7/29/2011 20:15	1.25
45	8/3/2011 15:00	8/4/2011 15:15	24.25	0.032	0.99	0.033	0.55	0.631	0.20	0.163	0.029	0.066	8/3/2011 15:00	8/4/2011 8:45	17.75
46	8/7/2011 0:30	8/7/2011 20:30	20	0.018	0.41	0.045	0.48	0.603	0.16	0.140	0.025	0.068	8/7/2011 0:45	8/7/2011 15:30	14.75
47	8/9/2011 12:00	8/10/2011 3:15	15.25	0.028	1.22	0.023	0.96	1.084	0.61	0.184	0.026	0.065	8/9/2011 12:00	8/9/2011 19:45	7.75
48	8/14/2011 1:00	8/18/2011 2:15	97.25	0.403	4.90	0.082	5.35	5.401	0.44	0.303	0.026	0.064	8/14/2011 1:15	8/16/2011 12:15	59
49	8/18/2011 7:00	8/19/2011 11:30	28.5	0.038	0.48	0.081	0.26	0.380	0.11	0.174	0.035	0.071	8/18/2011 7:15	8/19/2011 4:45	21.5
50	8/19/2011 18:00	8/21/2011 6:45	36.75	0.057	1.51	0.038	1.39	1.520	0.77	0.182	0.045	0.058	8/19/2011 18:00	8/19/2011 21:00	3
51	8/21/2011 14:30	8/23/2011 19:15	52.75	0.160	2.53	0.064	4.74	4.878	0.78	0.290	0.067	0.067	8/21/2011 14:45	8/21/2011 22:00	7.25
52	8/25/2011 10:15	8/26/2011 5:00	18.75	0.034	0.63	0.054	0.45	0.652	0.16	0.243	0.088	0.063	8/25/2011 10:30	8/25/2011 21:00	10.5
53	8/27/2011 13:45	9/4/2011 2:15	180.5	0.636	6.93	0.092	4.60	4.771	0.75	0.368	0.120	0.066	8/27/2011 14:00	8/28/2011 14:15	24.25
54	9/5/2011 23:45	9/16/2011 0:00	240.25	0.543	5.34	0.102	3.95	4.101	0.36	0.335	0.153	0.066	9/5/2011 23:45	9/15/2011 15:45	232
55	9/23/2011 9:15	9/25/2011 3:45	42.5	0.102	1.84	0.056	4.36	4.594	0.44	0.317	0.124	0.069	9/23/2011 9:30	9/24/2011 1:15	15.75
56	9/28/2011 1:15	9/29/2011 9:00	31.75	0.065	1.05	0.062	3.95	4.162	0.42	0.274	0.111	0.058	9/28/2011 1:15	9/29/2011 1:30	24.25
Average:			30.4	0.058	1.09	0.043	0.88	0.999	0.18	0.187	0.052	0.064			18.1
Maximum Value:			240.3	0.636	6.93	0.102	5.35	5.401	0.78	0.368	0.153	0.102			232.0
Minimum Value:			3.5	0.004	0.06	0.015	0.10	0.211	0.02	0.110	0.006	0.005			0.75
Standard Deviation:			39.2	0.120	1.35	0.022	1.35	1.365	0.19	0.055	0.032	0.014			32.1
Weighted Mean R-Value*:						0.054									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**P113-04-S0463 Paul's Run Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 80

Tributary Service Population: 1,327

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	11/29/2011 15:00	11/29/2011 21:45	6.75	0.011	0.55	0.019	0.226	0.503	0.07	0.352	0.167	0.106	11/29/2011 15:00	11/29/2011 21:00	6
2	12/6/2011 11:45	12/6/2011 19:45	8	0.007	0.15	0.049	0.131	0.432	0.03	0.332	0.185	0.101	12/6/2011 12:00	12/6/2011 19:00	7
3	12/20/2011 13:15	12/20/2011 18:00	4.75	0.003	0.13	0.021	0.064	0.365	0.01	0.334	0.211	0.095	12/20/2011 13:15	12/20/2011 17:00	3.75
4	12/21/2011 22:30	12/21/2011 23:45	1.25	0.001	0.16	0.006	0.099	0.400	0.15	0.280	0.207	0.084	12/21/2011 22:30	12/21/2011 23:00	0.5
5	12/22/2011 21:45	12/23/2011 9:45	12	0.032	1.36	0.024	0.546	0.753	0.14	0.395	0.194	0.065	12/22/2011 21:45	12/23/2011 5:45	8
6	12/27/2011 13:30	12/28/2011 3:15	13.75	0.031	0.62	0.050	0.543	0.828	0.13	0.363	0.168	0.080	12/27/2011 13:30	12/27/2011 19:30	6
7	1/11/2012 20:00	1/12/2012 14:30	18.5	0.058	1.67	0.035	0.661	0.913	0.14	0.395	0.154	0.079	1/11/2012 20:00	1/12/2012 7:00	11
8	1/16/2012 22:30	1/17/2012 5:45	7.25	0.007	0.09	0.073	0.133	0.280	0.02	0.220	0.138	0.035	1/16/2012 22:45	1/17/2012 2:30	3.75
9	1/17/2012 9:15	1/17/2012 22:15	13	0.014	0.27	0.053	0.243	0.483	0.03	0.302	0.144	0.103	1/17/2012 10:00	1/17/2012 14:30	4.5
10	1/21/2012 2:15	1/21/2012 10:15	8	0.001	0.32	0.002	0.074	0.389	0.03	0.209	0.151	0.054	1/21/2012 2:15	1/21/2012 9:30	7.25
11	1/23/2012 9:30	1/23/2012 22:30	13	0.026	0.29	0.091	0.233	0.503	0.04	0.379	0.172	0.103	1/23/2012 9:30	1/23/2012 17:00	7.5
12	1/27/2012 6:00	1/27/2012 18:45	12.75	0.014	0.44	0.032	0.706	0.981	0.11	0.324	0.164	0.103	1/27/2012 6:00	1/27/2012 11:30	5.5
13	2/11/2012 4:30	2/11/2012 22:00	17.5	0.011	0.23	0.047	0.132	0.422	0.03	0.279	0.144	0.104	2/11/2012 4:30	2/11/2012 20:15	15.75
14	2/16/2012 14:30	2/16/2012 22:30	8	0.007	0.14	0.049	0.144	0.363	0.02	0.268	0.119	0.107	2/16/2012 14:45	2/16/2012 20:30	5.75
15	2/24/2012 3:00	2/24/2012 7:45	4.75	0.007	0.19	0.037	0.286	0.417	0.04	0.250	0.120	0.058	2/24/2012 3:00	2/24/2012 7:45	4.75
16	2/24/2012 17:00	2/24/2012 22:15	5.25	0.004	0.10	0.036	0.114	0.355	0.03	0.273	0.126	0.113	2/24/2012 17:00	2/24/2012 19:15	2.25
17	2/29/2012 10:15	3/1/2012 6:45	20.5	0.036	0.97	0.037	0.408	0.599	0.09	0.278	0.111	0.078	2/29/2012 10:15	3/1/2012 0:45	14.5
18	3/2/2012 20:30	3/3/2012 17:15	20.75	0.024	0.34	0.070	0.244	0.429	0.04	0.262	0.119	0.084	3/2/2012 20:45	3/3/2012 10:00	13.25
19	3/31/2012 0:30	3/31/2012 15:00	14.5	0.024	0.36	0.065	0.354	0.436	0.06	0.241	0.081	0.076	3/31/2012 0:30	3/31/2012 4:00	3.5
20	4/1/2012 18:15	4/2/2012 9:30	15.25	0.014	0.16	0.089	0.231	0.424	0.04	0.206	0.084	0.074	4/1/2012 18:30	4/2/2012 2:30	8
21	4/21/2012 21:15	4/22/2012 1:45	4.5	0.003	0.22	0.016	0.225	0.419	0.20	0.188	0.084	0.066	4/21/2012 21:30	4/21/2012 22:15	0.75
22	4/22/2012 10:00	4/23/2012 19:00	33	0.073	2.05	0.036	0.443	0.640	0.11	0.297	0.088	0.094	4/22/2012 10:15	4/23/2012 17:45	31.5
23	5/1/2012 4:00	5/1/2012 16:30	12.5	0.011	0.30	0.037	0.175	0.348	0.11	0.222	0.086	0.091	5/1/2012 4:15	5/1/2012 10:15	6
24	5/3/2012 2:45	5/3/2012 8:15	5.5	0.005	0.12	0.043	0.135	0.264	0.04	0.199	0.091	0.061	5/3/2012 3:15	5/3/2012 5:00	1.75
25	5/9/2012 0:15	5/9/2012 12:00	11.75	0.013	0.30	0.043	0.257	0.394	0.07	0.205	0.082	0.067	5/9/2012 0:30	5/9/2012 7:15	6.75
26	5/9/2012 22:30	5/10/2012 11:30	13	0.011	0.16	0.066	0.104	0.286	0.02	0.194	0.084	0.068	5/9/2012 22:30	5/10/2012 4:30	6
27	5/14/2012 20:15	5/15/2012 0:00	3.75	0.002	0.12	0.019	0.065	0.264	0.02	0.221	0.090	0.100	5/14/2012 20:15	5/14/2012 23:45	3.5
28	5/15/2012 8:45	5/15/2012 17:15	8.5	0.016	0.83	0.019	0.339	0.543	0.11	0.284	0.093	0.098	5/15/2012 8:45	5/15/2012 13:00	4.25
29	5/16/2012 0:45	5/16/2012 10:45	10	0.039	1.51	0.026	1.031	1.129	0.26	0.360	0.096	0.065	5/16/2012 0:45	5/16/2012 4:45	4
30	5/21/2012 0:45	5/21/2012 7:15	6.5	0.009	0.25	0.035	0.316	0.427	0.07	0.188	0.083	0.038	5/21/2012 1:45	5/21/2012 5:15	3.5
31	5/21/2012 20:15	5/22/2012 8:00	11.75	0.018	0.26	0.068	0.182	0.370	0.04	0.230	0.089	0.064	5/21/2012 21:00	5/22/2012 7:00	10
32	5/24/2012 7:45	5/24/2012 12:00	4.25	0.002	0.09	0.022	0.235	0.455	0.07	0.227	0.094	0.111	5/24/2012 8:00	5/24/2012 8:45	0.75
33	5/27/2012 4:00	5/27/2012 9:30	5.5	0.009	0.41	0.023	0.525	0.636	0.12	0.240	0.099	0.056	5/27/2012 4:15	5/27/2012 7:00	2.75
34	5/29/2012 19:45	5/30/2012 7:00	11.25	0.009	0.24	0.037	0.371	0.584	0.11	0.198	0.096	0.061	5/29/2012 20:15	5/30/2012 3:45	7.5

**P113-04-S0463 Paul's Run Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 80

Tributary Service Population: 1,327

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/1/2012 22:15	6/2/2012 9:30	11.25	0.013	0.38	0.034	0.266	0.417	0.11	0.200	0.093	0.048	6/1/2012 22:15	6/2/2012 2:00	3.75
36	6/3/2012 13:45	6/3/2012 16:00	2.25	0.001	0.36	0.003	0.158	0.381	0.31	0.229	0.093	0.116	6/3/2012 14:00	6/3/2012 14:30	0.5
37	6/4/2012 12:45	6/4/2012 16:30	3.75	0.005	0.19	0.025	0.371	0.557	0.17	0.245	0.093	0.090	6/4/2012 12:45	6/4/2012 15:15	2.5
Average:			10.4	0.015	0.44	0.039	0.291	0.497	0.09	0.267	0.121	0.081			6.3
Maximum Value:			33.0	0.073	2.05	0.091	1.031	1.129	0.31	0.395	0.211	0.116			31.5
Minimum Value:			1.3	0.001	0.09	0.002	0.064	0.264	0.01	0.188	0.081	0.035			0.50
Standard Deviation:			6.3	0.016	0.47	0.022	0.207	0.200	0.07	0.063	0.040	0.022			5.6
Weighted Mean R-Value*:						0.035									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PR-0060 Paul's Run Interceptor

Pipe Size (In.): 30

Tributary Drainage Area (acres): 1,421

Tributary Service Population: 23,030

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/6/2011 16:45	12/6/2011 20:30	3.75	0.002	0.10	0.020	2.07	7.30	0.03	5.68	3.78	1.40	12/6/2011 17:00	12/6/2011 19:00	2
2	12/7/2011 3:30	12/8/2011 16:45	37.25	0.108	2.52	0.043	12.46	17.90	0.21	7.70	3.95	1.08	12/7/2011 3:30	12/8/2011 1:45	22.25
3	12/20/2011 13:30	12/20/2011 22:15	8.75	0.002	0.13	0.019	1.41	6.30	0.01	5.24	3.64	1.35	12/20/2011 13:30	12/20/2011 17:00	3.5
4	12/21/2011 22:30	12/22/2011 5:45	7.25	0.004	0.16	0.026	3.45	8.11	0.15	4.51	3.57	0.44	12/21/2011 22:30	12/21/2011 23:00	0.5
5	12/22/2011 21:45	12/23/2011 21:15	23.5	0.056	1.36	0.041	12.30	15.97	0.14	6.74	3.49	1.07	12/22/2011 21:45	12/23/2011 5:45	8
6	12/27/2011 13:30	12/28/2011 12:30	23	0.023	0.63	0.037	4.43	9.28	0.13	5.61	3.61	1.06	12/27/2011 13:30	12/27/2011 19:30	6
7	1/11/2012 20:00	1/12/2012 21:30	25.5	0.063	1.66	0.038	13.29	17.57	0.14	6.57	3.19	1.10	1/11/2012 20:00	1/12/2012 7:00	11
8	1/17/2012 10:15	1/18/2012 4:00	17.75	0.012	0.27	0.045	3.44	8.04	0.03	4.98	3.26	1.10	1/17/2012 10:15	1/17/2012 14:30	4.25
9	1/21/2012 2:30	1/21/2012 11:15	8.75	0.000	0.32	0.001	0.74	5.41	0.03	3.87	3.18	0.75	1/21/2012 2:45	1/21/2012 9:30	6.75
10	1/23/2012 8:45	1/24/2012 10:00	25.25	0.033	0.29	0.116	5.11	9.05	0.04	5.62	3.30	1.10	1/23/2012 9:30	1/23/2012 17:00	7.5
11	1/27/2012 6:30	1/27/2012 19:00	12.5	0.016	0.42	0.039	6.63	11.52	0.10	5.85	3.31	1.37	1/27/2012 6:30	1/27/2012 11:30	5
12	2/11/2012 4:30	2/12/2012 3:00	22.5	0.015	0.23	0.067	1.53	6.23	0.03	4.65	2.87	1.17	2/11/2012 4:30	2/11/2012 20:15	15.75
13	2/16/2012 14:30	2/17/2012 3:30	13	0.004	0.14	0.031	2.36	6.33	0.02	4.14	2.79	1.05	2/16/2012 14:45	2/16/2012 20:30	5.75
14	2/24/2012 2:45	2/24/2012 13:30	10.75	0.008	0.22	0.036	3.54	6.23	0.04	4.33	2.68	0.99	2/24/2012 2:45	2/24/2012 9:00	6.25
15	2/24/2012 17:00	2/24/2012 21:00	4	0.004	0.10	0.039	2.22	6.41	0.03	4.93	2.66	1.43	2/24/2012 17:00	2/24/2012 19:15	2.25
16	2/29/2012 10:15	3/1/2012 8:30	22.25	0.036	0.97	0.037	5.31	9.22	0.09	5.33	2.80	1.04	2/29/2012 10:15	3/1/2012 0:45	14.5
17	3/2/2012 21:30	3/3/2012 18:15	20.75	0.023	0.33	0.069	3.10	6.96	0.04	5.00	2.90	1.08	3/2/2012 21:30	3/3/2012 10:00	12.5
18	3/31/2012 0:45	3/31/2012 10:15	9.5	0.012	0.36	0.033	4.30	6.94	0.06	4.29	2.61	0.57	3/31/2012 0:45	3/31/2012 4:00	3.25
19	4/21/2012 21:30	4/22/2012 3:30	6	0.004	0.22	0.017	3.35	7.01	0.20	3.68	2.40	0.74	4/21/2012 21:30	4/21/2012 22:15	0.75
20	4/22/2012 10:00	4/23/2012 19:15	33.25	0.073	2.05	0.036	9.40	13.21	0.11	5.67	2.42	1.21	4/22/2012 10:15	4/23/2012 17:45	31.5
21	5/1/2012 4:15	5/1/2012 16:15	12	0.009	0.29	0.031	2.75	6.64	0.10	4.22	2.39	1.15	5/1/2012 4:15	5/1/2012 10:15	6
22	5/3/2012 2:30	5/3/2012 11:30	9	0.006	0.12	0.049	2.12	4.93	0.04	3.86	2.41	0.89	5/3/2012 3:15	5/3/2012 4:45	1.5
23	5/4/2012 21:45	5/5/2012 5:45	8	0.003	0.06	0.045	1.89	5.47	0.02	3.27	2.39	0.56	5/4/2012 21:45	5/4/2012 23:15	1.5
24	5/9/2012 4:00	5/9/2012 13:30	9.5	0.011	0.27	0.042	5.46	8.24	0.07	4.57	2.39	1.11	5/9/2012 4:30	5/9/2012 7:15	2.75
25	5/9/2012 22:15	5/10/2012 10:00	11.75	0.012	0.18	0.067	2.46	4.95	0.02	4.05	2.38	0.78	5/9/2012 22:15	5/10/2012 4:30	6.25
26	5/14/2012 20:15	5/15/2012 1:00	4.75	0.005	0.12	0.039	1.85	5.49	0.02	4.44	2.32	1.21	5/14/2012 20:15	5/15/2012 0:30	4.25
27	5/15/2012 8:45	5/15/2012 17:30	8.75	0.024	0.83	0.029	8.41	12.32	0.11	6.18	2.34	1.36	5/15/2012 8:45	5/15/2012 13:00	4.25
28	5/16/2012 0:30	5/16/2012 18:45	18.25	0.054	1.54	0.035	16.73	19.14	0.26	6.06	2.38	0.99	5/16/2012 0:30	5/16/2012 4:45	4.25
29	5/21/2012 1:45	5/21/2012 13:15	11.5	0.008	0.22	0.036	4.38	7.03	0.07	4.02	2.49	0.91	5/21/2012 2:00	5/21/2012 11:15	9.25
30	5/22/2012 2:00	5/22/2012 13:15	11.25	0.014	0.19	0.075	3.57	6.14	0.02	4.56	2.49	0.93	5/22/2012 2:00	5/22/2012 9:45	7.75
31	5/27/2012 4:45	5/27/2012 13:30	8.75	0.013	0.42	0.031	10.21	12.86	0.14	5.00	2.47	1.20	5/27/2012 5:00	5/27/2012 7:00	2
32	5/29/2012 20:00	5/30/2012 4:45	8.75	0.009	0.24	0.038	3.56	7.52	0.10	4.18	2.46	0.76	5/29/2012 20:15	5/30/2012 3:30	7.25
33	6/1/2012 20:15	6/2/2012 8:00	11.75	0.010	0.38	0.027	4.16	7.26	0.10	3.87	2.43	0.65	6/1/2012 20:15	6/2/2012 2:00	5.75
34	6/3/2012 14:00	6/4/2012 1:30	11.5	0.016	0.41	0.038	7.72	11.76	0.28	4.89	2.41	1.25	6/3/2012 14:00	6/3/2012 23:15	9.25

PR-0060 Paul's Run Interceptor

Pipe Size (In.): 30

Tributary Drainage Area (acres): 1,421

Tributary Service Population: 23,030

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/4/2012 12:45	6/4/2012 20:30	7.75	0.006	0.19	0.029	4.06	7.72	0.17	4.37	2.40	1.31	6/4/2012 12:45	6/4/2012 20:30	7.75
36	6/12/2012 9:45	6/13/2012 14:00	28.25	0.032	0.68	0.047	4.33	8.10	0.06	4.42	2.26	1.13	6/12/2012 9:45	6/12/2012 23:30	13.75
37	6/22/2012 18:30	6/23/2012 5:30	11	0.010	0.19	0.051	4.37	7.94	0.04	3.87	2.22	0.85	6/22/2012 18:45	6/22/2012 22:30	3.75
38	6/29/2012 5:30	6/29/2012 12:45	7.25	0.003	0.10	0.033	1.74	4.65	0.09	3.89	2.17	1.31	6/29/2012 5:45	6/29/2012 7:00	1.25
39	7/5/2012 0:30	7/5/2012 10:30	10	0.007	0.18	0.039	3.70	6.21	0.08	3.47	2.12	0.73	7/5/2012 0:30	7/5/2012 3:45	3.25
40	7/14/2012 4:00	7/14/2012 11:30	7.5	0.007	0.24	0.031	3.89	6.09	0.05	3.90	2.11	0.91	7/14/2012 4:15	7/14/2012 9:15	5
41	7/15/2012 21:15	7/16/2012 5:15	8	0.025	1.07	0.024	15.01	18.38	0.44	5.53	2.14	0.56	7/15/2012 21:30	7/16/2012 0:00	2.5
42	7/20/2012 1:15	7/20/2012 16:45	15.5	0.042	1.35	0.032	14.21	16.54	0.31	5.62	2.17	0.96	7/20/2012 1:15	7/20/2012 10:00	8.75
43	7/26/2012 19:30	7/27/2012 4:45	9.25	0.013	0.46	0.029	5.25	8.92	0.22	4.26	2.19	0.80	7/26/2012 19:45	7/27/2012 0:30	4.75
44	7/28/2012 12:45	7/28/2012 18:30	5.75	0.012	0.49	0.025	7.89	11.49	0.22	5.58	2.14	1.52	7/28/2012 13:00	7/28/2012 15:30	2.5
45	8/1/2012 16:15	8/2/2012 0:00	7.75	0.028	1.32	0.021	15.01	18.36	0.49	6.64	2.07	1.35	8/1/2012 16:30	8/1/2012 17:45	1.25
46	8/4/2012 13:45	8/4/2012 21:00	7.25	0.012	0.60	0.021	10.47	14.19	0.46	5.02	2.06	1.44	8/4/2012 14:00	8/4/2012 14:15	0.25
47	8/5/2012 18:15	8/6/2012 8:30	14.25	0.028	0.82	0.034	5.79	9.33	0.22	4.72	2.11	0.84	8/5/2012 18:45	8/6/2012 2:15	7.5
48	8/10/2012 10:15	8/10/2012 19:15	9	0.012	0.28	0.041	5.28	8.81	0.06	4.65	2.15	1.34	8/10/2012 10:15	8/10/2012 12:15	2
49	8/11/2012 17:15	8/12/2012 3:00	9.75	0.008	0.31	0.026	4.73	8.30	0.12	3.94	2.14	1.05	8/11/2012 17:15	8/11/2012 22:30	5.25
50	8/14/2012 9:45	8/15/2012 0:00	14.25	0.017	0.45	0.038	6.70	10.31	0.09	4.62	2.16	1.35	8/14/2012 10:00	8/14/2012 17:30	7.5
51	8/15/2012 16:15	8/16/2012 1:00	8.75	0.005	0.14	0.038	3.63	7.25	0.07	3.97	2.14	1.28	8/15/2012 16:15	8/15/2012 18:00	1.75
52	8/17/2012 22:00	8/18/2012 12:30	14.5	0.027	0.76	0.036	9.02	12.39	0.13	4.77	2.15	0.90	8/17/2012 22:15	8/18/2012 7:15	9
53	8/27/2012 9:30	8/28/2012 0:15	14.75	0.030	1.12	0.027	14.29	17.90	0.38	5.31	2.09	1.35	8/27/2012 9:30	8/27/2012 17:45	8.25
54	8/28/2012 5:30	8/28/2012 14:45	9.25	0.006	0.15	0.043	3.25	6.88	0.05	4.01	2.10	1.30	8/28/2012 5:45	8/28/2012 7:30	1.75
55	9/2/2012 22:00	9/3/2012 6:00	8	0.005	0.29	0.016	2.32	5.25	0.07	3.07	2.06	0.49	9/2/2012 22:15	9/3/2012 0:30	2.25
56	9/3/2012 10:00	9/3/2012 21:00	11	0.043	1.21	0.035	14.94	18.81	0.25	7.17	2.08	1.59	9/3/2012 10:15	9/3/2012 15:15	5
57	9/4/2012 3:45	9/5/2012 12:30	32.75	0.128	3.00	0.043	18.63	20.74	0.61	6.78	2.11	1.07	9/4/2012 3:45	9/5/2012 12:15	32.5
58	9/18/2012 4:00	9/18/2012 12:15	8.25	0.006	0.23	0.026	3.20	5.27	0.10	3.79	2.06	1.08	9/18/2012 4:15	9/18/2012 10:15	6
59	9/18/2012 17:00	9/19/2012 2:45	9.75	0.021	0.79	0.026	8.75	12.28	0.29	5.05	2.05	1.10	9/18/2012 17:00	9/18/2012 21:00	4
60	9/22/2012 19:45	9/23/2012 4:30	8.75	0.007	0.17	0.038	2.66	6.14	0.06	3.54	2.08	0.79	9/22/2012 20:00	9/22/2012 22:15	2.25
61	9/28/2012 1:00	9/28/2012 14:00	13	0.003	0.16	0.022	2.41	4.76	0.10	3.39	2.24	0.91	9/28/2012 1:15	9/28/2012 8:15	7
62	10/2/2012 11:00	10/2/2012 19:45	8.75	0.004	0.15	0.028	2.04	5.51	0.04	3.96	2.22	1.32	10/2/2012 11:00	10/2/2012 15:45	4.75
63	10/7/2012 10:45	10/8/2012 2:15	15.5	0.005	0.21	0.026	2.06	5.92	0.03	3.79	2.14	1.33	10/7/2012 11:00	10/7/2012 21:00	10
64	10/9/2012 4:45	10/9/2012 9:00	4.25	0.002	0.14	0.018	2.04	5.39	0.04	3.59	2.14	0.94	10/9/2012 5:00	10/9/2012 7:15	2.25
65	10/15/2012 13:15	10/16/2012 0:15	11	0.007	0.19	0.036	2.89	6.37	0.07	3.97	2.10	1.30	10/15/2012 13:15	10/15/2012 20:45	7.5
66	10/19/2012 9:30	10/19/2012 18:00	8.5	0.020	0.92	0.022	11.38	14.95	0.21	5.52	2.07	1.34	10/19/2012 9:30	10/19/2012 14:15	4.75
67	10/28/2012 15:45	10/29/2012 0:00	8.25	0.007	0.14	0.048	2.96	6.36	0.03	4.04	2.01	1.30	10/28/2012 15:45	10/28/2012 19:15	3.5
68	10/29/2012 6:00	10/30/2012 11:00	29	0.088	2.20	0.040	12.43	15.69	0.12	5.95	2.04	1.13	10/29/2012 6:15	10/30/2012 9:30	27.25
69	11/7/2012 11:15	11/8/2012 14:45	27.5	0.027	0.53	0.051	2.55	5.82	0.03	4.00	2.00	1.11	11/7/2012 11:15	11/8/2012 0:00	12.75

**PR-0060 Paul's Run Interceptor**

Pipe Size (In.): 30

Tributary Drainage Area (acres): 1,421

Tributary Service Population: 23,030

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
70	11/13/2012 3:00	11/13/2012 18:45	15.75	0.011	0.23	0.047	1.74	5.41	0.04	3.77	2.05	1.09	11/13/2012 3:00	11/13/2012 12:00	9
71	11/27/2012 6:15	11/27/2012 22:00	15.75	0.026	0.64	0.041	3.94	7.20	0.02	4.83	1.94	1.37	11/27/2012 6:30	11/27/2012 16:00	9.5
Average:			13.2	0.020	0.56	0.037	5.85	9.39	0.12	4.74	2.46	1.08			6.9
Maximum Value:			37.3	0.128	3.00	0.116	18.63	20.74	0.61	7.70	3.95	1.59			32.5
Minimum Value:			3.8	0.000	0.06	0.001	0.74	4.65	0.01	3.07	1.94	0.44			0.25
Standard Deviation:			7.5	0.024	0.61	0.016	4.44	4.40	0.12	1.00	0.50	0.26			6.4
Weighted Mean R-Value*:						0.036									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PR-0150 Paul's Run Interceptor

Pipe Size (In.): 27

Tributary Drainage Area (acres): 1,069

Tributary Service Population: 19,728

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/27/2011 5:45	10/28/2011 3:15	21.5	0.015	0.34	0.045	3.00	6.31	0.05	3.56	2.23	0.856	10/27/2011 5:45	10/27/2011 19:30	13.75
2	10/29/2011 6:15	10/30/2011 23:30	41.25	0.083	1.43	0.058	3.66	7.45	0.07	4.61	2.30	0.914	10/29/2011 6:30	10/29/2011 23:15	16.75
3	11/16/2011 1:00	11/17/2011 7:45	30.75	0.033	0.62	0.052	2.82	6.00	0.08	3.64	2.23	0.671	11/16/2011 1:30	11/17/2011 0:15	22.75
4	11/21/2011 1:15	11/21/2011 12:00	10.75	0.007	0.13	0.053	1.87	4.35	0.02	3.25	2.18	0.624	11/21/2011 1:15	11/21/2011 7:00	5.75
5	11/22/2011 5:30	11/24/2011 6:30	49	0.119	2.35	0.051	8.06	11.36	0.15	4.67	2.22	0.764	11/22/2011 5:45	11/23/2011 15:30	33.75
6	11/29/2011 6:00	11/30/2011 4:15	22.25	0.030	0.72	0.041	4.13	7.48	0.07	4.06	2.32	0.825	11/29/2011 6:15	11/29/2011 21:00	14.75
7	12/6/2011 10:45	12/7/2011 1:45	15	0.006	0.15	0.039	2.73	5.54	0.03	3.48	2.31	0.891	12/6/2011 11:00	12/7/2011 1:45	14.75
8	12/7/2011 3:45	12/8/2011 23:15	43.5	0.130	2.51	0.052	11.58	14.94	0.20	5.17	2.27	0.827	12/7/2011 3:45	12/8/2011 1:45	22
9	12/20/2011 13:00	12/21/2011 0:15	11.25	0.002	0.13	0.014	0.91	3.89	0.01	3.15	2.09	0.941	12/20/2011 13:15	12/20/2011 17:00	3.75
10	12/21/2011 22:30	12/22/2011 6:45	8.25	0.004	0.16	0.027	3.60	6.49	0.15	2.75	2.07	0.335	12/21/2011 22:30	12/21/2011 23:00	0.5
11	12/22/2011 21:30	12/24/2011 2:30	29	0.047	1.36	0.035	8.17	10.38	0.14	3.94	2.06	0.751	12/22/2011 21:30	12/23/2011 5:45	8.25
12	12/27/2011 13:45	12/28/2011 3:45	14	0.029	0.60	0.048	5.16	8.12	0.13	4.24	2.08	0.752	12/27/2011 14:00	12/27/2011 19:30	5.5
13	1/11/2012 20:00	1/13/2012 9:30	37.5	0.093	1.72	0.054	12.34	14.92	0.14	4.45	2.02	0.728	1/11/2012 20:00	1/13/2012 8:45	36.75
14	1/17/2012 10:00	1/17/2012 22:30	12.5	0.013	0.26	0.051	4.21	7.26	0.03	3.80	2.08	0.993	1/17/2012 10:15	1/17/2012 14:30	4.25
15	1/23/2012 10:00	1/24/2012 3:15	17.25	0.048	0.29	0.168	6.60	9.51	0.04	4.83	2.09	0.832	1/23/2012 11:00	1/23/2012 17:00	6
16	1/27/2012 5:30	1/27/2012 20:30	15	0.026	0.44	0.059	9.86	13.07	0.11	4.22	2.08	0.950	1/27/2012 6:00	1/27/2012 11:30	5.5
17	2/11/2012 4:45	2/12/2012 3:30	22.75	0.014	0.22	0.065	2.04	5.51	0.03	3.22	1.94	0.851	2/11/2012 5:15	2/11/2012 20:15	15
18	2/16/2012 14:30	2/17/2012 4:30	14	0.008	0.14	0.055	1.92	4.68	0.02	2.96	1.88	0.706	2/16/2012 14:45	2/16/2012 20:30	5.75
19	2/24/2012 2:45	2/24/2012 14:15	11.5	0.008	0.22	0.039	2.63	4.47	0.04	3.03	1.80	0.738	2/24/2012 2:45	2/24/2012 9:00	6.25
20	2/24/2012 16:45	2/25/2012 0:45	8	0.004	0.10	0.044	1.76	4.64	0.03	3.11	1.79	0.942	2/24/2012 17:00	2/24/2012 19:15	2.25
21	2/29/2012 10:00	3/1/2012 8:30	22.5	0.047	0.97	0.048	5.84	8.38	0.09	3.94	1.75	0.758	2/29/2012 10:15	3/1/2012 0:45	14.5
22	3/2/2012 21:00	3/3/2012 17:45	20.75	0.015	0.34	0.046	2.38	4.83	0.04	3.10	1.80	0.793	3/2/2012 21:15	3/3/2012 10:00	12.75
23	3/31/2012 0:45	3/31/2012 11:00	10.25	0.010	0.36	0.029	3.90	5.40	0.06	2.66	1.46	0.510	3/31/2012 0:45	3/31/2012 4:00	3.25
24	4/1/2012 18:15	4/2/2012 9:45	15.5	0.008	0.16	0.047	2.65	4.21	0.04	2.45	1.43	0.677	4/1/2012 18:30	4/2/2012 2:30	8
25	4/21/2012 21:30	4/22/2012 4:45	7.25	0.004	0.22	0.018	2.54	4.88	0.20	2.21	1.40	0.439	4/21/2012 21:30	4/21/2012 22:15	0.75
26	4/22/2012 10:00	4/23/2012 23:30	37.5	0.089	2.05	0.044	9.51	11.93	0.11	3.94	1.38	0.909	4/22/2012 10:15	4/23/2012 17:45	31.5
27	5/1/2012 4:15	5/1/2012 17:15	13	0.009	0.30	0.028	2.40	5.06	0.11	2.72	1.42	0.845	5/1/2012 4:15	5/1/2012 10:15	6
28	5/3/2012 2:15	5/3/2012 11:45	9.5	0.003	0.15	0.019	1.71	3.27	0.04	2.32	1.46	0.660	5/3/2012 2:15	5/3/2012 5:00	2.75
29	5/9/2012 3:00	5/9/2012 14:15	11.25	0.012	0.29	0.040	5.12	6.87	0.07	2.88	1.43	0.756	5/9/2012 3:15	5/9/2012 7:15	4
30	5/9/2012 22:00	5/10/2012 11:15	13.25	0.009	0.17	0.049	1.34	3.06	0.02	2.50	1.42	0.632	5/9/2012 22:15	5/10/2012 4:30	6.25
31	5/14/2012 20:00	5/15/2012 5:30	9.5	0.006	0.13	0.044	1.27	3.71	0.02	2.35	1.43	0.514	5/14/2012 20:15	5/15/2012 4:15	8
32	5/15/2012 8:45	5/15/2012 19:30	10.75	0.028	0.83	0.034	8.31	10.87	0.11	4.17	1.43	0.987	5/15/2012 8:45	5/15/2012 19:00	10.25
33	5/16/2012 1:00	5/17/2012 5:00	28	0.060	1.49	0.040	13.35	14.85	0.26	3.58	1.42	0.677	5/16/2012 1:15	5/16/2012 4:45	3.5
34	5/21/2012 1:30	5/21/2012 14:30	13	0.009	0.26	0.036	2.75	4.36	0.07	2.61	1.43	0.686	5/21/2012 1:45	5/21/2012 11:15	9.5

PR-0150 Paul's Run Interceptor

Pipe Size (In.): 27

Tributary Drainage Area (acres): 1,069

Tributary Service Population: 19,728

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/21/2012 21:00	5/22/2012 14:45	17.75	0.019	0.26	0.074	2.30	4.12	0.04	2.90	1.45	0.716	5/21/2012 21:00	5/22/2012 9:45	12.75
36	5/27/2012 5:30	5/27/2012 10:00	4.5	0.012	0.35	0.035	9.13	10.81	0.12	4.03	1.55	0.662	5/27/2012 5:45	5/27/2012 7:00	1.25
37	5/29/2012 20:00	5/30/2012 6:00	10	0.009	0.24	0.037	3.34	5.98	0.11	2.64	1.52	0.503	5/29/2012 20:15	5/30/2012 3:45	7.5
38	6/1/2012 21:00	6/2/2012 9:30	12.5	0.010	0.38	0.026	3.42	5.50	0.11	2.58	1.53	0.505	6/1/2012 21:00	6/2/2012 2:00	5
39	6/3/2012 14:00	6/4/2012 0:15	10.25	0.013	0.44	0.029	8.16	10.89	0.31	3.36	1.52	0.999	6/3/2012 14:00	6/3/2012 23:15	9.25
40	6/4/2012 13:15	6/4/2012 22:00	8.75	0.006	0.19	0.033	3.35	5.76	0.17	2.97	1.51	0.973	6/4/2012 13:15	6/4/2012 20:45	7.5
41	6/12/2012 11:15	6/13/2012 12:15	25	0.029	0.63	0.047	4.59	7.19	0.06	3.08	1.48	0.792	6/12/2012 11:45	6/12/2012 23:30	11.75
42	6/22/2012 18:45	6/23/2012 6:15	11.5	0.010	0.19	0.055	4.09	6.70	0.04	2.79	1.61	0.558	6/22/2012 18:45	6/22/2012 22:30	3.75
43	6/29/2012 5:30	6/29/2012 11:00	5.5	0.002	0.11	0.017	0.88	3.37	0.09	2.67	1.69	0.954	6/29/2012 5:45	6/29/2012 7:00	1.25
44	7/5/2012 0:30	7/5/2012 12:45	12.25	0.005	0.19	0.025	2.14	3.97	0.09	2.46	1.56	0.632	7/5/2012 0:30	7/5/2012 3:45	3.25
45	7/14/2012 3:45	7/14/2012 8:45	5	0.006	0.23	0.025	3.19	4.74	0.05	2.50	1.45	0.285	7/14/2012 4:00	7/14/2012 8:30	4.5
46	7/15/2012 21:30	7/16/2012 5:45	8.25	0.028	1.08	0.026	13.58	15.89	0.45	4.12	1.43	0.383	7/15/2012 21:30	7/16/2012 0:00	2.5
47	7/20/2012 1:15	7/20/2012 17:30	16.25	0.045	1.36	0.033	13.32	14.89	0.33	4.06	1.46	0.706	7/20/2012 1:30	7/20/2012 10:00	8.5
48	7/26/2012 19:30	7/27/2012 7:00	11.5	0.015	0.46	0.032	5.46	8.01	0.22	2.84	1.43	0.541	7/26/2012 19:45	7/27/2012 0:30	4.75
49	7/28/2012 12:45	7/28/2012 19:30	6.75	0.012	0.49	0.025	7.86	10.38	0.22	3.79	1.47	1.103	7/28/2012 13:00	7/28/2012 15:30	2.5
50	8/1/2012 16:30	8/2/2012 1:30	9	0.023	1.12	0.021	12.30	14.71	0.41	4.09	1.46	0.891	8/1/2012 16:30	8/1/2012 17:45	1.25
51	8/4/2012 13:30	8/4/2012 16:45	3.25	0.015	0.62	0.024	10.01	12.65	0.45	5.48	1.44	1.112	8/4/2012 13:45	8/4/2012 14:15	0.5
52	8/5/2012 18:30	8/6/2012 10:15	15.75	0.030	0.80	0.037	6.25	8.78	0.21	3.46	1.48	0.685	8/5/2012 18:45	8/6/2012 2:15	7.5
53	8/10/2012 10:30	8/10/2012 19:30	9	0.011	0.28	0.039	4.81	7.31	0.06	3.29	1.54	0.944	8/10/2012 10:30	8/10/2012 12:15	1.75
54	8/11/2012 17:00	8/12/2012 1:15	8.25	0.008	0.30	0.026	4.24	6.85	0.12	3.08	1.54	0.891	8/11/2012 17:15	8/11/2012 22:30	5.25
55	8/14/2012 10:15	8/15/2012 0:30	14.25	0.017	0.44	0.039	6.26	8.82	0.09	3.31	1.54	0.953	8/14/2012 10:15	8/15/2012 0:15	14
56	8/15/2012 16:30	8/16/2012 1:00	8.5	0.006	0.14	0.045	3.04	5.68	0.06	2.99	1.56	0.928	8/15/2012 16:30	8/15/2012 18:00	1.5
57	8/17/2012 22:00	8/18/2012 12:00	14	0.027	0.76	0.035	8.67	11.15	0.13	3.51	1.56	0.632	8/17/2012 22:15	8/18/2012 7:15	9
58	8/27/2012 9:15	8/27/2012 14:00	4.75	0.018	0.75	0.024	11.81	14.45	0.38	5.04	1.51	1.035	8/27/2012 9:30	8/27/2012 13:30	4
59	8/27/2012 17:00	8/28/2012 1:15	8.25	0.007	0.36	0.020	6.19	8.60	0.26	2.99	1.50	0.911	8/27/2012 17:00	8/27/2012 17:45	0.75
60	9/2/2012 22:15	9/3/2012 6:30	8.25	0.005	0.32	0.014	1.98	3.83	0.08	2.09	1.41	0.318	9/2/2012 22:15	9/3/2012 0:30	2.25
61	9/3/2012 10:00	9/3/2012 21:15	11.25	0.044	1.19	0.037	13.71	16.44	0.26	5.29	1.44	1.180	9/3/2012 10:15	9/3/2012 15:15	5
62	9/4/2012 3:45	9/5/2012 2:00	22.25	0.125	2.88	0.044	12.86	15.40	0.58	6.20	1.49	0.828	9/4/2012 3:45	9/5/2012 0:45	21
63	9/8/2012 16:45	9/9/2012 3:45	11	0.009	0.27	0.033	2.27	4.98	0.08	2.96	1.68	0.727	9/8/2012 17:00	9/8/2012 22:30	5.5
64	9/18/2012 4:15	9/18/2012 12:00	7.75	0.007	0.23	0.031	2.80	4.29	0.10	2.83	1.39	0.824	9/18/2012 4:15	9/18/2012 10:15	6
65	9/18/2012 17:00	9/19/2012 4:45	11.75	0.022	0.80	0.028	8.88	11.36	0.30	3.36	1.39	0.665	9/18/2012 17:00	9/18/2012 21:00	4
66	9/28/2012 1:30	9/28/2012 14:30	13	0.007	0.16	0.043	1.88	3.25	0.10	2.34	1.31	0.684	9/28/2012 1:30	9/28/2012 8:15	6.75
67	10/2/2012 11:00	10/2/2012 21:00	10	0.005	0.15	0.032	1.03	3.27	0.04	2.61	1.31	0.967	10/2/2012 11:00	10/2/2012 15:45	4.75
68	10/7/2012 10:45	10/8/2012 5:15	18.5	0.007	0.20	0.036	1.41	3.85	0.02	2.41	1.30	0.832	10/7/2012 11:00	10/7/2012 21:00	10
69	10/9/2012 4:45	10/9/2012 14:30	9.75	0.004	0.14	0.029	1.47	3.69	0.04	2.46	1.30	0.888	10/9/2012 5:00	10/9/2012 7:15	2.25



**PR-0150 Paul's Run Interceptor**

Pipe Size (In.): 27

Tributary Drainage Area (acres): 1,069

Tributary Service Population: 19,728

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	10/15/2012 13:30	10/16/2012 1:00	11.5	0.009	0.18	0.047	1.78	4.12	0.06	2.72	1.30	0.908	10/15/2012 13:30	10/15/2012 20:45	7.25
71	10/19/2012 9:15	10/19/2012 19:00	9.75	0.022	0.93	0.024	9.26	11.61	0.22	3.76	1.25	0.964	10/19/2012 9:30	10/19/2012 14:15	4.75
72	10/28/2012 16:00	10/28/2012 20:30	4.5	0.003	0.11	0.030	1.61	3.98	0.03	2.84	1.30	1.042	10/28/2012 16:15	10/28/2012 18:45	2.5
73	10/29/2012 6:15	10/30/2012 19:00	36.75	0.091	2.19	0.042	9.94	12.14	0.12	3.92	1.36	0.850	10/29/2012 6:30	10/30/2012 11:30	29
74	11/7/2012 11:45	11/8/2012 19:45	32	0.028	0.52	0.054	1.81	4.29	0.03	2.96	1.52	0.820	11/7/2012 11:45	11/8/2012 0:00	12.25
75	11/13/2012 2:30	11/14/2012 8:30	30	0.012	0.23	0.053	1.52	4.23	0.04	2.50	1.51	0.709	11/13/2012 3:00	11/13/2012 12:00	9
76	11/27/2012 6:15	11/28/2012 13:30	31.25	0.028	0.64	0.043	2.89	5.39	0.02	2.92	1.47	0.841	11/27/2012 6:30	11/27/2012 16:00	9.5
Average:			15.8	0.024	0.59	0.040	5.20	7.65	0.12	3.36	1.63	0.777			8.4
Maximum Value:			49.0	0.130	2.88	0.168	13.71	16.44	0.58	6.20	2.32	1.180			36.8
Minimum Value:			3.3	0.002	0.10	0.014	0.88	3.06	0.01	2.09	1.25	0.285			0.50
Standard Deviation:			10.1	0.029	0.62	0.019	3.79	3.85	0.12	0.86	0.31	0.188			7.7
Weighted Mean R-Value*:						0.041									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PR-B0405 Paul's Run Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 441

Tributary Service Population: 9,757

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/18/2012 1:00	12/18/2012 14:00	13	0.016	0.35	0.048	3.18	3.82	0.15	1.22	0.506	0.352	12/18/2012 1:15	12/18/2012 2:00	0.75
2	12/20/2012 21:15	12/22/2012 0:15	27	0.113	1.80	0.063	5.15	6.02	0.17	2.16	0.511	0.450	12/20/2012 21:30	12/21/2012 7:45	10.25
3	12/24/2012 17:00	12/25/2012 6:30	13.5	0.019	0.21	0.093	1.31	2.35	0.02	1.31	0.535	0.369	12/24/2012 17:00	12/24/2012 21:15	4.25
4	12/26/2012 13:30	12/27/2012 22:00	32.5	0.090	1.27	0.071	4.32	5.52	0.10	1.79	0.530	0.466	12/26/2012 13:30	12/27/2012 9:45	20.25
5	12/29/2012 11:00	12/30/2012 1:00	14	0.015	0.22	0.070	1.06	2.17	0.02	1.48	0.507	0.659	12/29/2012 11:00	12/29/2012 17:00	6
6	1/11/2013 13:30	1/12/2013 14:15	24.75	0.037	0.48	0.078	2.45	3.56	0.05	1.34	0.428	0.485	1/11/2013 13:30	1/11/2013 21:00	7.5
7	1/14/2013 20:45	1/15/2013 20:00	23.25	0.036	0.41	0.089	2.08	3.16	0.05	1.33	0.458	0.429	1/14/2013 20:45	1/15/2013 2:45	6
8	1/15/2013 21:45	1/17/2013 2:00	28.25	0.092	1.05	0.088	4.36	4.86	0.07	1.83	0.464	0.430	1/15/2013 21:45	1/16/2013 12:15	14.5
9	1/28/2013 12:45	1/28/2013 22:45	10	0.017	0.20	0.085	1.61	2.64	0.03	1.57	0.554	0.552	1/28/2013 12:45	1/28/2013 17:00	4.25
10	1/30/2013 18:30	1/31/2013 23:30	29	0.069	1.22	0.057	5.87	6.45	0.30	1.71	0.557	0.468	1/30/2013 18:30	1/31/2013 21:30	27
11	2/8/2013 7:15	2/8/2013 17:15	10	0.016	0.23	0.069	1.01	2.15	0.02	1.53	0.553	0.527	2/8/2013 7:30	2/8/2013 14:45	7.25
12	2/8/2013 20:15	2/9/2013 7:15	11	0.004	0.21	0.017	0.59	1.67	0.04	0.94	0.548	0.303	2/8/2013 20:15	2/9/2013 3:00	6.75
13	2/11/2013 4:00	2/12/2013 1:30	21.5	0.037	0.35	0.106	1.80	2.85	0.04	1.50	0.542	0.472	2/11/2013 4:15	2/11/2013 9:00	4.75
14	2/13/2013 18:45	2/14/2013 14:00	19.25	0.022	0.15	0.144	0.87	2.03	0.01	1.29	0.547	0.422	2/13/2013 18:45	2/14/2013 0:30	5.75
15	2/19/2013 11:30	2/20/2013 2:30	15	0.014	0.21	0.069	1.22	2.31	0.02	1.31	0.549	0.486	2/19/2013 11:45	2/19/2013 18:00	6.25
16	2/26/2013 19:15	2/27/2013 22:30	27.25	0.052	0.69	0.075	2.29	3.25	0.08	1.56	0.556	0.461	2/26/2013 19:15	2/27/2013 11:45	16.5
17	3/8/2013 7:30	3/9/2013 2:45	19.25	0.022	0.24	0.091	1.03	2.06	0.02	1.40	0.570	0.513	3/8/2013 7:30	3/8/2013 13:15	5.75
18	3/12/2013 3:15	3/13/2013 9:15	30	0.071	1.01	0.071	2.77	3.82	0.08	1.66	0.575	0.405	3/12/2013 3:30	3/12/2013 14:45	11.25
19	3/18/2013 18:15	3/20/2013 3:00	32.75	0.068	0.87	0.079	2.19	3.31	0.07	1.69	0.647	0.441	3/18/2013 18:30	3/19/2013 18:45	24.25
20	3/25/2013 6:45	3/26/2013 8:45	26	0.052	0.61	0.085	1.74	2.85	0.05	1.65	0.640	0.444	3/25/2013 6:45	3/25/2013 16:15	9.5
21	3/31/2013 15:30	4/1/2013 0:30	9	0.011	0.19	0.057	1.27	2.53	0.03	1.59	0.639	0.606	3/31/2013 15:30	3/31/2013 22:45	7.25
22	4/10/2013 20:30	4/11/2013 14:15	17.75	0.024	0.41	0.059	2.25	3.48	0.18	1.37	0.581	0.402	4/10/2013 20:45	4/11/2013 0:00	3.25
23	4/12/2013 7:15	4/13/2013 16:45	33.5	0.067	1.09	0.062	2.47	3.69	0.10	1.67	0.588	0.513	4/12/2013 7:15	4/12/2013 23:30	16.25
24	4/19/2013 21:45	4/20/2013 7:30	9.75	0.023	0.47	0.050	2.20	3.24	0.06	1.54	0.626	0.248	4/19/2013 21:45	4/20/2013 3:00	5.25
25	4/29/2013 3:30	4/30/2013 0:30	21	0.025	0.40	0.062	1.24	2.31	0.02	1.38	0.570	0.474	4/29/2013 3:30	4/30/2013 0:15	20.75
26	5/8/2013 5:15	5/8/2013 18:00	12.75	0.018	0.30	0.058	1.92	3.14	0.06	1.47	0.602	0.479	5/8/2013 5:15	5/8/2013 14:15	9
27	5/9/2013 4:00	5/10/2013 0:00	20	0.028	0.48	0.058	3.16	4.01	0.08	1.49	0.606	0.488	5/9/2013 4:15	5/9/2013 6:45	2.5
28	5/10/2013 22:45	5/11/2013 20:00	21.25	0.035	0.79	0.044	2.73	3.67	0.10	1.57	0.610	0.497	5/10/2013 23:00	5/11/2013 19:15	20.25
29	5/18/2013 16:00	5/19/2013 17:15	25.25	0.024	0.49	0.049	1.95	2.72	0.05	1.37	0.582	0.522	5/18/2013 16:15	5/19/2013 16:45	24.5
30	5/23/2013 15:45	5/23/2013 22:00	6.25	0.009	0.27	0.032	2.35	3.41	0.11	1.55	0.583	0.578	5/23/2013 15:45	5/23/2013 18:00	2.25
31	5/23/2013 23:45	5/24/2013 4:45	5	0.010	0.42	0.024	2.69	3.59	0.28	1.27	0.583	0.145	5/23/2013 23:45	5/24/2013 1:45	2
32	5/24/2013 10:30	5/25/2013 0:00	13.5	0.009	0.17	0.050	0.87	1.94	0.04	1.31	0.579	0.548	5/24/2013 10:30	5/24/2013 22:15	11.75
33	5/28/2013 10:45	5/29/2013 1:00	14.25	0.017	0.26	0.063	1.51	2.51	0.03	1.42	0.561	0.528	5/28/2013 11:00	5/28/2013 22:30	11.5
34	6/3/2013 1:00	6/4/2013 11:15	34.25	0.064	1.33	0.048	6.94	7.99	0.63	1.41	0.484	0.397	6/3/2013 1:15	6/3/2013 17:15	16

PR-B0405 Paul's Run Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 441

Tributary Service Population: 9,757

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/6/2013 19:45	6/10/2013 1:30	77.75	0.263	3.81	0.069	6.91	7.89	0.34	2.01	0.548	0.490	6/6/2013 20:00	6/8/2013 2:15	30.25
36	6/10/2013 7:15	6/13/2013 3:30	68.25	0.185	1.93	0.096	6.87	8.08	0.40	1.87	0.639	0.449	6/10/2013 7:15	6/11/2013 1:00	17.75
37	6/13/2013 9:15	6/14/2013 18:15	33	0.049	0.50	0.097	3.54	4.76	0.21	1.58	0.703	0.457	6/13/2013 9:30	6/14/2013 5:45	20.25
38	6/18/2013 12:45	6/19/2013 18:00	29.25	0.034	0.28	0.123	1.57	2.82	0.03	1.59	0.817	0.443	6/18/2013 12:45	6/18/2013 20:30	7.75
39	6/25/2013 16:00	6/25/2013 19:30	3.5	0.005	0.07	0.077	3.03	4.29	0.07	1.76	0.811	0.537	6/25/2013 16:15	6/25/2013 16:15	0
40	6/26/2013 20:30	6/27/2013 0:30	4	0.003	0.13	0.026	2.20	3.59	0.08	1.57	0.776	0.560	6/26/2013 20:45	6/26/2013 21:30	0.75
41	6/27/2013 18:30	6/28/2013 0:30	6	0.024	0.91	0.027	4.81	6.22	0.22	2.44	0.748	0.584	6/27/2013 18:30	6/27/2013 22:00	3.5
42	6/30/2013 12:45	6/30/2013 19:00	6.25	0.008	0.21	0.037	1.15	2.45	0.04	1.70	0.683	0.685	6/30/2013 12:45	6/30/2013 16:00	3.25
43	7/1/2013 7:45	7/2/2013 5:30	21.75	0.030	0.34	0.087	2.96	4.20	0.10	1.52	0.683	0.444	7/1/2013 8:00	7/1/2013 15:15	7.25
44	7/3/2013 22:00	7/4/2013 3:00	5	0.010	0.29	0.034	2.70	3.90	0.21	1.55	0.671	0.332	7/3/2013 22:15	7/3/2013 23:15	1
45	7/10/2013 12:45	7/10/2013 17:15	4.5	0.005	0.14	0.038	1.29	2.43	0.09	1.44	0.636	0.475	7/10/2013 12:45	7/10/2013 13:30	0.75
46	7/12/2013 15:45	7/13/2013 2:00	10.25	0.034	0.87	0.039	4.30	5.46	0.15	2.08	0.632	0.518	7/12/2013 15:45	7/12/2013 22:30	6.75
47	7/13/2013 18:00	7/13/2013 23:15	5.25	0.009	0.20	0.044	2.05	3.33	0.11	1.74	0.630	0.637	7/13/2013 18:00	7/13/2013 20:15	2.25
48	7/22/2013 18:45	7/24/2013 19:00	48.25	0.077	1.19	0.065	6.33	6.99	0.44	1.48	0.586	0.436	7/22/2013 19:00	7/23/2013 18:00	23
49	7/28/2013 15:30	7/29/2013 5:00	13.5	0.012	0.35	0.035	1.65	2.89	0.08	1.26	0.576	0.437	7/28/2013 15:30	7/29/2013 2:30	11
50	8/1/2013 6:30	8/2/2013 22:30	40	0.065	0.97	0.068	3.97	5.06	0.11	1.53	0.585	0.481	8/1/2013 6:30	8/1/2013 15:00	8.5
51	8/8/2013 0:15	8/8/2013 21:15	21	0.034	0.56	0.061	4.43	5.13	0.15	1.41	0.533	0.417	8/8/2013 0:30	8/8/2013 16:45	16.25
52	8/9/2013 15:45	8/10/2013 12:45	21	0.028	0.29	0.097	3.41	4.51	0.09	1.34	0.494	0.465	8/9/2013 15:45	8/9/2013 18:00	2.25
53	8/13/2013 5:00	8/14/2013 19:15	38.25	0.117	2.20	0.053	7.85	8.88	0.68	1.82	0.490	0.452	8/13/2013 5:00	8/13/2013 9:45	4.75
54	8/22/2013 6:15	8/22/2013 10:45	4.5	0.018	0.42	0.042	6.67	7.49	0.24	1.97	0.377	0.532	8/22/2013 6:30	8/22/2013 8:00	1.5
55	8/22/2013 12:30	8/22/2013 17:00	4.5	0.007	0.12	0.059	2.33	3.21	0.05	1.31	0.394	0.475	8/22/2013 12:30	8/22/2013 13:45	1.25
56	8/28/2013 9:45	8/29/2013 6:45	21	0.055	0.47	0.119	3.82	4.93	0.07	1.78	0.619	0.417	8/28/2013 9:45	8/28/2013 16:00	6.25
57	9/12/2013 11:00	9/13/2013 1:30	14.5	0.044	0.17	0.264	4.08	5.03	0.09	1.70	0.320	0.514	9/12/2013 11:00	9/12/2013 19:30	8.5
58	9/13/2013 1:45	9/13/2013 6:45	5	0.012	0.28	0.043	3.74	4.09	0.11	1.07	0.314	0.099	9/13/2013 2:00	9/13/2013 3:15	1.25
59	9/21/2013 20:15	9/23/2013 5:00	32.75	0.110	1.26	0.087	7.97	8.80	0.26	1.94	0.513	0.464	9/21/2013 20:15	9/22/2013 3:15	7
Average:			20.5	0.042	0.62	0.069	3.05	4.09	0.13	1.56	0.572	0.464			9.2
Maximum Value:			77.8	0.263	3.81	0.264	7.97	8.88	0.68	2.44	0.817	0.685			30.3
Minimum Value:			3.5	0.003	0.07	0.017	0.59	1.67	0.01	0.94	0.314	0.099			0.00
Standard Deviation:			14.6	0.046	0.64	0.036	1.90	1.84	0.14	0.26	0.099	0.101			7.6
Weighted Mean R-Value*:						0.067									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PR-B0455 Paul's Run Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 391

Tributary Service Population: 9,369

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	8/14/1999 0:15	8/14/1999 12:15	12	0.072	1.92	0.037	6.23	6.70	0.36	2.27	0.405	0.37	8/14/1999 0:30	8/14/1999 8:00	7.5
2	8/14/1999 17:45	8/15/1999 7:15	13.5	0.021	0.54	0.038	2.75	3.75	0.11	1.10	0.405	0.31	8/14/1999 17:45	8/15/1999 4:00	10.25
3	8/20/1999 13:15	8/21/1999 8:45	19.5	0.026	0.64	0.041	2.97	3.72	0.10	1.05	0.352	0.36	8/20/1999 13:15	8/21/1999 2:30	13.25
4	8/25/1999 23:15	8/26/1999 11:30	12.25	0.040	1.17	0.034	4.97	5.34	0.16	1.49	0.308	0.37	8/25/1999 23:15	8/26/1999 9:45	10.5
5	8/26/1999 22:15	8/27/1999 8:00	9.75	0.014	0.44	0.031	1.16	1.77	0.08	0.97	0.319	0.30	8/26/1999 22:15	8/27/1999 2:30	4.25
6	9/7/1999 4:15	9/7/1999 22:45	18.5	0.038	0.68	0.057	4.33	4.98	0.11	1.38	0.321	0.54	9/7/1999 4:15	9/7/1999 15:15	11
7	9/9/1999 13:30	9/10/1999 16:00	26.5	0.042	1.27	0.033	2.43	3.18	0.18	1.18	0.331	0.45	9/9/1999 13:30	9/10/1999 14:15	24.75
8	9/15/1999 15:45	9/18/1999 2:30	58.75	0.342	6.43	0.053	6.65	7.55	0.28	2.34	0.412	0.45	9/15/1999 15:45	9/17/1999 3:30	35.75
9	9/21/1999 1:00	9/22/1999 13:30	36.5	0.059	0.89	0.066	2.34	2.92	0.06	1.37	0.529	0.43	9/21/1999 1:15	9/22/1999 8:00	30.75
10	9/30/1999 2:30	9/30/1999 14:15	11.75	0.021	0.60	0.034	2.70	3.19	0.15	1.32	0.449	0.43	9/30/1999 2:45	9/30/1999 9:15	6.5
11	10/4/1999 7:30	10/4/1999 17:00	9.5	0.012	0.36	0.032	1.62	2.74	0.17	1.25	0.401	0.546	10/4/1999 7:45	10/4/1999 10:30	2.75
12	10/4/1999 18:15	10/5/1999 7:15	13	0.031	0.69	0.045	3.22	3.82	0.08	1.36	0.395	0.378	10/4/1999 18:30	10/5/1999 2:15	7.75
13	10/10/1999 1:15	10/10/1999 21:30	20.25	0.040	0.70	0.057	2.46	3.78	0.05	1.41	0.395	0.512	10/10/1999 1:15	10/10/1999 20:45	19.5
14	10/17/1999 17:15	10/18/1999 6:15	13	0.013	0.18	0.072	1.24	2.23	0.02	1.00	0.398	0.361	10/17/1999 17:15	10/18/1999 5:15	12
15	10/20/1999 3:00	10/20/1999 22:45	19.75	0.038	0.70	0.054	1.75	2.70	0.05	1.36	0.374	0.503	10/20/1999 3:00	10/20/1999 13:45	10.75
16	10/22/1999 19:45	10/23/1999 9:45	14	0.020	0.42	0.047	1.21	2.27	0.05	1.10	0.415	0.329	10/22/1999 20:00	10/23/1999 6:15	10.25
17	11/2/1999 9:15	11/3/1999 1:45	16.5	0.036	0.96	0.037	2.96	3.89	0.13	1.37	0.324	0.503	11/2/1999 9:45	11/2/1999 20:45	11
18	11/25/1999 6:45	11/26/1999 4:15	21.5	0.032	0.31	0.102	1.55	2.41	0.05	1.17	0.326	0.478	11/25/1999 6:45	11/26/1999 3:00	20.25
19	11/26/1999 8:15	11/28/1999 0:00	39.75	0.056	0.83	0.068	1.35	2.25	0.10	1.24	0.381	0.499	11/26/1999 8:15	11/27/1999 6:15	22
20	12/6/1999 3:15	12/7/1999 9:45	30.5	0.054	0.71	0.077	2.27	3.05	0.07	1.23	0.336	0.449	12/6/1999 4:30	12/7/1999 1:15	20.75
21	12/10/1999 12:45	12/10/1999 22:30	9.75	0.015	0.32	0.047	1.71	2.52	0.06	1.30	0.391	0.525	12/10/1999 12:45	12/10/1999 20:00	7.25
22	12/13/1999 12:45	12/15/1999 13:30	48.75	0.112	1.60	0.070	2.46	3.33	0.07	1.43	0.391	0.455	12/13/1999 13:00	12/15/1999 4:00	39
23	12/20/1999 7:45	12/21/1999 14:15	30.5	0.052	0.64	0.082	3.50	4.45	0.08	1.31	0.401	0.480	12/20/1999 8:00	12/20/1999 23:00	15
24	1/4/2000 16:15	1/5/2000 15:45	23.5	0.039	0.84	0.047	2.59	3.69	0.11	1.33	0.453	0.455	1/4/2000 16:15	1/5/2000 1:15	9
25	1/10/2000 10:45	1/11/2000 9:00	22.25	0.030	0.40	0.077	1.87	2.76	0.06	1.18	0.392	0.445	1/10/2000 11:00	1/10/2000 16:15	5.25
26	1/30/2000 21:00	2/1/2000 3:30	30.5	0.053	0.59	0.090	1.66	2.23	0.07	1.23	0.376	0.419	1/30/2000 21:00	1/31/2000 15:15	18.25
27	2/13/2000 21:15	2/15/2000 4:45	31.5	0.063	0.55	0.113	2.34	3.58	0.07	1.40	0.499	0.402	2/13/2000 21:30	2/14/2000 10:00	12.5
28	2/18/2000 13:45	2/20/2000 7:15	41.5	0.117	1.19	0.099	3.05	3.74	0.07	1.80	0.658	0.422	2/18/2000 14:00	2/19/2000 16:45	26.75
29	3/11/2000 12:15	3/12/2000 23:15	35	0.061	0.96	0.064	2.65	3.93	0.15	1.58	0.605	0.534	3/11/2000 13:00	3/12/2000 9:15	20.25
30	3/16/2000 19:15	3/18/2000 1:15	30	0.088	1.39	0.063	3.39	4.05	0.09	1.84	0.649	0.451	3/16/2000 19:15	3/17/2000 15:45	20.5
31	3/21/2000 15:45	3/22/2000 23:00	31.25	0.112	1.66	0.068	2.97	4.28	0.08	2.08	0.686	0.489	3/21/2000 15:45	3/22/2000 6:00	14.25
32	3/27/2000 22:00	3/28/2000 23:15	25.25	0.052	0.67	0.078	3.83	4.71	0.07	1.74	0.753	0.460	3/27/2000 22:15	3/28/2000 22:15	24
33	4/8/2000 21:30	4/10/2000 4:00	30.5	0.047	0.49	0.096	1.42	2.84	0.08	1.55	0.724	0.441	4/8/2000 21:45	4/9/2000 16:00	18.25
34	4/15/2000 8:30	4/16/2000 15:45	31.25	0.034	0.40	0.085	1.19	2.85	0.02	1.57	0.741	0.555	4/15/2000 9:15	4/16/2000 12:15	27

**PR-B0455 Paul's Run Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 391

Tributary Service Population: 9,369

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
35	4/16/2000 17:30	4/18/2000 9:15	39.75	0.072	1.06	0.068	4.82	6.16	0.18	1.62	0.715	0.443	4/16/2000 18:00	4/18/2000 8:30	38.5
36	4/21/2000 10:45	4/22/2000 7:30	20.75	0.033	0.59	0.056	2.32	3.60	0.14	1.53	0.770	0.363	4/21/2000 11:00	4/22/2000 7:00	20
Average:			25.0	0.055	0.94	0.062	2.72	3.64	0.10	1.43	0.466	0.442			16.9
Maximum Value:			58.8	0.342	6.43	0.113	6.65	7.55	0.36	2.34	0.770	0.555			39.0
Minimum Value:			9.5	0.012	0.18	0.031	1.16	1.77	0.02	0.97	0.308	0.298			2.75
Standard Deviation:			11.8	0.056	1.02	0.022	1.34	1.28	0.07	0.32	0.147	0.067			9.5
Weighted Mean R-Value*:						0.059									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PR-B0540 Paul's Run Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 133

Tributary Service Population: 2,221

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	7/17/2001 21:30	7/17/2001 23:30	2	0.002	0.17	0.014	0.325	0.694	0.11	0.448	0.161	0.184	7/17/2001 21:30	7/17/2001 22:00	0.5
2	7/26/2001 9:00	7/26/2001 11:00	2	0.003	0.16	0.016	0.255	0.642	0.11	0.501	0.153	0.235	7/26/2001 9:15	7/26/2001 10:30	1.25
3	7/29/2001 18:30	7/30/2001 0:30	6	0.001	0.18	0.004	0.081	0.405	0.04	0.329	0.134	0.185	7/29/2001 18:30	7/29/2001 23:30	5
4	8/4/2001 15:45	8/4/2001 18:00	2.25	0.012	0.53	0.022	1.632	2.022	0.25	0.845	0.166	0.227	8/4/2001 16:00	8/4/2001 16:30	0.5
5	8/10/2001 15:30	8/10/2001 17:45	2.25	0.003	0.12	0.028	0.411	0.732	0.07	0.481	0.160	0.191	8/10/2001 15:45	8/10/2001 17:30	1.75
6	8/12/2001 10:15	8/12/2001 17:45	7.5	0.033	2.64	0.013	1.520	1.945	0.71	0.796	0.153	0.261	8/12/2001 10:15	8/12/2001 15:45	5.5
7	8/12/2001 18:15	8/12/2001 22:30	4.25	0.006	0.28	0.022	0.528	0.908	0.13	0.492	0.157	0.212	8/12/2001 19:00	8/12/2001 20:30	1.5
8	8/13/2001 21:00	8/13/2001 22:15	1.25	0.000	0.13	0.002	0.071	0.453	0.08	0.395	0.169	0.213	8/13/2001 21:00	8/13/2001 21:30	0.5
9	8/20/2001 1:00	8/20/2001 5:30	4.5	0.007	0.10	0.074	0.474	0.640	0.08	0.299	0.143	0.014	8/20/2001 1:30	8/20/2001 2:15	0.75
10	9/4/2001 18:45	9/4/2001 22:30	3.75	0.004	0.20	0.020	0.264	0.640	0.15	0.454	0.138	0.224	9/4/2001 19:15	9/4/2001 19:30	0.25
11	9/10/2001 16:15	9/10/2001 18:45	2.5	0.003	0.12	0.021	0.281	0.619	0.09	0.439	0.135	0.216	9/10/2001 16:15	9/10/2001 16:30	0.25
12	9/14/2001 6:45	9/14/2001 14:00	7.25	0.015	0.69	0.022	0.545	1.008	0.20	0.561	0.141	0.238	9/14/2001 7:00	9/14/2001 12:00	5
13	9/20/2001 16:30	9/20/2001 19:45	3.25	0.005	0.50	0.011	0.422	0.779	0.28	0.504	0.131	0.226	9/20/2001 16:45	9/20/2001 18:15	1.5
14	9/21/2001 2:30	9/21/2001 6:45	4.25	0.006	0.17	0.037	0.358	0.490	0.05	0.315	0.131	0.054	9/21/2001 2:45	9/21/2001 4:30	1.75
15	9/24/2001 22:15	9/25/2001 4:45	6.5	0.013	0.37	0.035	0.645	0.782	0.14	0.357	0.126	0.059	9/24/2001 22:45	9/25/2001 4:15	5.5
16	9/30/2001 17:00	10/1/2001 0:00	7	0.009	0.18	0.049	0.381	0.709	0.05	0.421	0.112	0.201	9/30/2001 17:15	9/30/2001 23:00	5.75
17	10/1/2001 1:15	10/1/2001 6:45	5.5	0.006	0.12	0.046	0.228	0.428	0.02	0.249	0.115	0.046	10/1/2001 1:30	10/1/2001 6:15	4.75
18	10/14/2001 23:30	10/15/2001 4:30	5	0.010	0.32	0.031	0.500	0.627	0.13	0.298	0.093	0.034	10/14/2001 23:45	10/15/2001 2:30	2.75
19	11/25/2001 17:15	11/25/2001 23:30	6.25	0.017	0.52	0.032	0.925	1.268	0.21	0.556	0.119	0.205	11/25/2001 17:45	11/25/2001 21:30	3.75
20	12/8/2001 12:45	12/9/2001 6:45	18	0.050	0.76	0.066	0.474	0.790	0.03	0.467	0.081	0.146	12/8/2001 13:15	12/9/2001 2:30	13.25
21	12/14/2001 7:00	12/14/2001 14:00	7	0.010	0.21	0.049	0.385	0.687	0.04	0.455	0.093	0.235	12/14/2001 7:30	12/14/2001 11:45	4.25
22	12/17/2001 18:45	12/18/2001 10:15	15.5	0.032	0.50	0.064	0.402	0.689	0.03	0.429	0.098	0.153	12/17/2001 19:15	12/18/2001 8:45	13.5
23	12/23/2001 21:00	12/24/2001 6:15	9.25	0.028	0.67	0.042	0.630	0.736	0.15	0.431	0.089	0.079	12/23/2001 23:00	12/24/2001 5:45	6.75
24	1/6/2002 15:30	1/6/2002 23:30	8	0.032	0.66	0.048	0.722	1.060	0.06	0.666	0.112	0.208	1/6/2002 16:15	1/6/2002 22:30	6.25
25	1/11/2002 5:15	1/11/2002 14:00	8.75	0.022	0.33	0.067	0.452	0.806	0.03	0.550	0.110	0.221	1/11/2002 5:45	1/11/2002 12:15	6.5
26	1/20/2002 11:30	1/20/2002 20:00	8.5	0.005	0.19	0.025	0.147	0.527	0.04	0.402	0.111	0.242	1/20/2002 11:45	1/20/2002 18:30	6.75
27	1/21/2002 12:30	1/21/2002 17:30	5	0.007	0.10	0.066	0.341	0.619	0.01	0.414	0.121	0.178	1/21/2002 12:30	1/21/2002 17:30	5
28	1/24/2002 8:15	1/24/2002 15:45	7.5	0.025	0.79	0.032	0.744	1.066	0.14	0.603	0.107	0.205	1/24/2002 8:30	1/24/2002 12:45	4.25
29	2/10/2002 17:15	2/10/2002 22:30	5.25	0.014	0.20	0.071	0.617	0.946	0.04	0.574	0.124	0.215	2/10/2002 17:45	2/10/2002 21:15	3.5
30	2/10/2002 23:00	2/11/2002 3:00	4	0.006	0.11	0.056	0.480	0.732	0.07	0.315	0.123	0.059	2/10/2002 23:30	2/11/2002 1:00	1.5
31	3/2/2002 19:45	3/3/2002 6:15	10.5	0.037	1.14	0.033	0.733	0.892	0.11	0.512	0.112	0.091	3/2/2002 20:00	3/3/2002 4:45	8.75
32	3/10/2002 1:30	3/10/2002 4:30	3	0.005	0.17	0.028	0.535	0.717	0.10	0.310	0.160	0.013	3/10/2002 2:15	3/10/2002 2:45	0.5
33	3/13/2002 2:30	3/13/2002 14:30	12	0.017	0.13	0.131	0.423	0.785	0.01	0.465	0.170	0.172	3/13/2002 3:00	3/13/2002 14:30	11.5
34	3/17/2002 17:15	3/18/2002 16:15	23	0.054	0.78	0.070	0.465	0.892	0.04	0.513	0.145	0.163	3/17/2002 17:30	3/18/2002 11:15	17.75

PR-B0540 Paul's Run Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 133

Tributary Service Population: 2,221

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	3/20/2002 3:00	3/20/2002 22:30	19.5	0.065	1.17	0.056	0.560	0.944	0.05	0.624	0.145	0.190	3/20/2002 3:30	3/20/2002 19:00	15.5
36	3/25/2002 23:30	3/26/2002 1:30	2	0.003	0.10	0.033	0.250	0.470	0.05	0.366	0.149	0.074	3/26/2002 0:00	3/26/2002 0:30	0.5
37	3/26/2002 20:00	3/27/2002 6:45	10.75	0.029	0.65	0.045	0.679	0.900	0.10	0.487	0.150	0.102	3/26/2002 21:30	3/27/2002 3:00	5.5
38	3/31/2002 3:00	3/31/2002 8:00	5	0.007	0.11	0.062	0.323	0.483	0.02	0.328	0.158	0.053	3/31/2002 4:15	3/31/2002 6:30	2.25
39	3/31/2002 17:45	4/1/2002 4:00	10.25	0.023	0.40	0.057	0.703	1.085	0.07	0.479	0.158	0.130	3/31/2002 19:00	4/1/2002 2:45	7.75
40	4/22/2002 1:30	4/22/2002 6:15	4.75	0.008	0.17	0.049	0.473	0.651	0.08	0.352	0.173	0.028	4/22/2002 2:00	4/22/2002 5:15	3.25
41	4/22/2002 6:45	4/22/2002 9:15	2.5	0.003	0.10	0.025	0.256	0.731	0.04	0.553	0.173	0.293	4/22/2002 7:45	4/22/2002 9:00	1.25
42	4/30/2002 16:45	4/30/2002 20:45	4	0.006	0.20	0.030	0.394	0.832	0.04	0.547	0.187	0.230	4/30/2002 17:00	4/30/2002 19:15	2.25
43	5/2/2002 3:15	5/2/2002 10:30	7.25	0.010	0.28	0.036	0.296	0.806	0.05	0.481	0.189	0.173	5/2/2002 3:45	5/2/2002 9:15	5.5
44	5/2/2002 18:15	5/2/2002 20:00	1.75	0.002	0.15	0.010	0.187	0.628	0.07	0.452	0.190	0.242	5/2/2002 18:30	5/2/2002 18:45	0.25
45	5/9/2002 4:45	5/9/2002 12:00	7.25	0.016	0.49	0.033	0.551	0.974	0.09	0.581	0.170	0.217	5/9/2002 5:00	5/9/2002 10:00	5
46	5/12/2002 18:30	5/12/2002 20:45	2.25	0.007	0.22	0.030	0.909	1.295	0.13	0.655	0.181	0.219	5/12/2002 18:45	5/12/2002 19:15	0.5
47	5/13/2002 5:15	5/13/2002 8:30	3.25	0.007	0.15	0.044	0.423	0.905	0.05	0.586	0.182	0.230	5/13/2002 5:30	5/13/2002 7:00	1.5
48	5/13/2002 16:00	5/13/2002 22:15	6.25	0.013	0.47	0.027	1.335	1.771	0.22	0.583	0.184	0.221	5/13/2002 16:15	5/13/2002 19:00	2.75
49	5/18/2002 0:00	5/18/2002 16:15	16.25	0.067	1.52	0.044	1.043	1.502	0.08	0.736	0.215	0.164	5/18/2002 0:15	5/18/2002 10:15	10
50	5/24/2002 10:30	5/24/2002 12:30	2	0.000	0.13	0.002	0.075	0.525	0.11	0.459	0.235	0.210	5/24/2002 11:15	5/24/2002 11:30	0.25
51	6/6/2002 17:00	6/7/2002 9:30	16.5	0.050	1.24	0.040	1.748	2.212	0.16	0.673	0.255	0.156	6/6/2002 17:15	6/7/2002 4:00	10.75
52	6/11/2002 18:45	6/11/2002 22:45	4	0.008	0.34	0.024	0.699	1.159	0.29	0.616	0.218	0.223	6/11/2002 19:00	6/11/2002 22:00	3
53	6/13/2002 23:00	6/14/2002 6:00	7	0.018	0.27	0.067	0.376	0.624	0.04	0.506	0.237	0.045	6/13/2002 23:30	6/14/2002 5:45	6.25
54	6/14/2002 10:45	6/14/2002 16:30	5.75	0.014	0.39	0.037	0.896	1.323	0.14	0.641	0.241	0.182	6/14/2002 11:15	6/14/2002 14:45	3.5
55	6/19/2002 9:00	6/19/2002 13:30	4.5	0.011	0.35	0.032	1.008	1.468	0.23	0.652	0.223	0.215	6/19/2002 9:15	6/19/2002 10:15	1
56	6/24/2002 16:45	6/24/2002 20:30	3.75	0.017	0.53	0.032	1.793	2.248	0.31	0.854	0.228	0.230	6/24/2002 17:15	6/24/2002 18:00	0.75
57	6/27/2002 20:00	6/27/2002 23:30	3.5	0.017	0.55	0.031	1.768	2.206	0.34	0.832	0.215	0.201	6/27/2002 20:30	6/27/2002 21:45	1.25
58	7/9/2002 21:45	7/10/2002 5:45	8	0.029	0.53	0.054	1.267	1.552	0.11	0.536	0.161	0.066	7/9/2002 21:45	7/10/2002 2:45	5
59	7/19/2002 18:30	7/19/2002 23:30	5	0.021	0.63	0.034	1.283	1.685	0.21	0.750	0.166	0.214	7/19/2002 19:00	7/19/2002 22:30	3.5
60	8/2/2002 21:00	8/3/2002 4:30	7.5	0.029	1.45	0.020	1.705	2.103	0.57	0.619	0.187	0.091	8/2/2002 21:30	8/3/2002 4:00	6.5
61	8/5/2002 11:45	8/5/2002 18:45	7	0.012	0.19	0.065	0.837	1.179	0.16	0.499	0.157	0.189	8/5/2002 12:45	8/5/2002 13:00	0.25
62	8/28/2002 21:45	8/29/2002 12:15	14.5	0.043	0.46	0.095	0.699	1.130	0.04	0.541	0.136	0.145	8/28/2002 22:00	8/29/2002 9:15	11.25
63	9/1/2002 8:00	9/1/2002 18:30	10.5	0.036	0.54	0.068	0.757	1.158	0.05	0.696	0.131	0.265	9/1/2002 8:45	9/1/2002 17:00	8.25
64	9/1/2002 19:15	9/2/2002 7:00	11.75	0.051	0.61	0.083	1.149	1.452	0.06	0.601	0.131	0.096	9/1/2002 19:30	9/2/2002 2:00	6.5
Average:			6.9	0.018	0.45	0.041	0.654	0.996	0.12	0.518	0.155	0.167			4.5
Maximum Value:			23.0	0.067	2.64	0.131	1.793	2.248	0.71	0.854	0.255	0.293			17.8
Minimum Value:			1.3	0.000	0.10	0.002	0.071	0.405	0.01	0.249	0.081	0.013			0.25
Standard Deviation:			4.7	0.016	0.43	0.023	0.444	0.481	0.12	0.140	0.041	0.073			4.0
Weighted Mean R-Value*:						0.039									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**P104-09-S0025 Pennypack Interceptor**

Pipe Size (In.): 10

Tributary Drainage Area (acres): 50

Tributary Service Population: 993

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/17/2011 21:00	1/18/2011 23:30	26.5	0.037	0.92	0.040	0.264	0.394	0.06	0.168	0.079	0.044	1/17/2011 21:00	1/18/2011 13:15	16.25
2	2/5/2011 9:30	2/6/2011 21:15	35.75	0.037	0.23	0.160	0.119	0.242	0.02	0.155	0.087	0.035	2/5/2011 9:30	2/5/2011 23:15	13.75
3	2/25/2011 1:00	2/26/2011 8:30	31.5	0.025	1.01	0.025	0.207	0.302	0.10	0.156	0.096	0.035	2/25/2011 1:15	2/25/2011 13:30	12.25
4	2/28/2011 1:00	3/1/2011 8:45	31.75	0.017	0.30	0.057	0.111	0.252	0.05	0.153	0.097	0.039	2/28/2011 2:30	2/28/2011 21:15	18.75
5	3/6/2011 7:45	3/7/2011 8:00	24.25	0.031	1.60	0.019	0.470	0.609	0.13	0.175	0.098	0.036	3/6/2011 8:00	3/7/2011 2:00	18
6	3/10/2011 8:45	3/11/2011 7:00	22.25	0.039	1.19	0.033	0.262	0.372	0.06	0.192	0.094	0.041	3/10/2011 8:45	3/11/2011 3:15	18.5
7	3/16/2011 2:30	3/16/2011 7:45	5.25	0.016	0.65	0.025	0.257	0.385	0.09	0.214	0.095	0.024	3/16/2011 2:45	3/16/2011 6:45	4
8	3/21/2011 3:30	3/21/2011 17:30	14	0.011	0.46	0.024	0.105	0.250	0.06	0.170	0.100	0.044	3/21/2011 3:30	3/21/2011 10:45	7.25
9	3/23/2011 10:45	3/24/2011 7:15	20.5	0.014	0.47	0.031	0.100	0.245	0.09	0.166	0.104	0.039	3/23/2011 11:00	3/24/2011 2:15	15.25
10	4/8/2011 10:15	4/8/2011 23:15	13	0.015	0.74	0.021	0.106	0.266	0.03	0.190	0.102	0.050	4/8/2011 10:30	4/8/2011 21:45	11.25
11	4/12/2011 10:30	4/13/2011 7:00	20.5	0.022	0.70	0.031	0.210	0.325	0.07	0.173	0.100	0.039	4/12/2011 10:30	4/13/2011 3:00	16.5
12	4/16/2011 12:30	4/17/2011 10:30	22	0.081	2.74	0.030	0.877	1.017	0.32	0.250	0.101	0.030	4/16/2011 12:30	4/17/2011 1:45	13.25
13	4/23/2011 1:45	4/23/2011 10:45	9	0.019	0.50	0.038	0.173	0.322	0.10	0.186	0.097	0.023	4/23/2011 2:00	4/23/2011 10:15	8.25
14	4/27/2011 15:15	4/27/2011 18:45	3.5	0.002	0.17	0.010	0.163	0.300	0.17	0.157	0.094	0.048	4/27/2011 15:30	4/27/2011 15:30	0
15	4/28/2011 12:30	4/28/2011 20:30	8	0.002	0.69	0.003	0.133	0.272	0.32	0.150	0.093	0.049	4/28/2011 12:45	4/28/2011 14:15	1.5
16	5/4/2011 6:00	5/4/2011 18:00	12	0.011	0.64	0.017	0.150	0.295	0.11	0.181	0.100	0.052	5/4/2011 6:00	5/4/2011 14:30	8.5
17	5/15/2011 0:30	5/15/2011 5:15	4.75	0.007	0.65	0.010	0.289	0.396	0.15	0.150	0.099	0.007	5/15/2011 0:30	5/15/2011 4:45	4.25
18	5/17/2011 4:45	5/17/2011 9:45	5	0.008	0.27	0.031	0.233	0.358	0.07	0.193	0.092	0.049	5/17/2011 5:00	5/17/2011 6:45	1.75
19	5/18/2011 12:00	5/18/2011 20:45	8.75	0.023	0.95	0.025	0.655	0.787	0.55	0.221	0.088	0.049	5/18/2011 12:00	5/18/2011 19:45	7.75
20	5/19/2011 15:30	5/19/2011 19:00	3.5	0.005	0.14	0.038	0.213	0.347	0.06	0.184	0.088	0.049	5/19/2011 15:30	5/19/2011 16:45	1.25
21	5/23/2011 1:15	5/23/2011 6:45	5.5	0.005	0.18	0.030	0.125	0.223	0.09	0.140	0.095	0.014	5/23/2011 1:15	5/23/2011 3:15	2
22	6/11/2011 22:45	6/12/2011 8:15	9.5	0.011	0.53	0.020	0.138	0.247	0.15	0.142	0.090	0.016	6/11/2011 23:00	6/12/2011 1:45	2.75
23	6/16/2011 22:15	6/17/2011 6:30	8.25	0.014	1.29	0.011	0.297	0.394	0.28	0.170	0.094	0.023	6/16/2011 22:15	6/17/2011 4:30	6.25
24	7/8/2011 15:00	7/8/2011 20:15	5.25	0.012	0.95	0.012	0.367	0.511	0.20	0.207	0.089	0.050	7/8/2011 15:00	7/8/2011 20:00	5
25	7/24/2011 14:45	7/24/2011 23:30	8.75	0.008	0.59	0.014	0.298	0.429	0.19	0.158	0.091	0.038	7/24/2011 14:45	7/24/2011 19:45	5
26	7/25/2011 15:00	7/25/2011 21:00	6	0.005	0.52	0.009	0.296	0.439	0.18	0.164	0.089	0.051	7/25/2011 15:00	7/25/2011 20:45	5.75
27	7/29/2011 19:00	7/29/2011 21:15	2.25	0.002	0.28	0.007	0.189	0.329	0.19	0.165	0.084	0.056	7/29/2011 19:15	7/29/2011 20:15	1
28	8/1/2011 16:00	8/1/2011 17:45	1.75	0.003	0.24	0.011	0.194	0.319	0.19	0.138	0.082	0.048	8/1/2011 16:15	8/1/2011 17:30	1.25
29	8/3/2011 15:00	8/4/2011 7:15	16.25	0.019	1.00	0.019	0.338	0.468	0.19	0.160	0.085	0.037	8/3/2011 15:00	8/4/2011 6:15	15.25
30	8/7/2011 2:00	8/7/2011 5:45	3.75	0.006	0.16	0.039	0.126	0.230	0.04	0.155	0.099	0.004	8/7/2011 2:00	8/7/2011 5:30	3.5
31	8/7/2011 14:45	8/7/2011 17:30	2.75	0.003	0.19	0.015	0.150	0.289	0.16	0.169	0.100	0.039	8/7/2011 15:00	8/7/2011 15:30	0.5
32	8/9/2011 12:00	8/9/2011 16:15	4.25	0.018	1.37	0.013	0.483	0.627	0.57	0.274	0.098	0.045	8/9/2011 12:00	8/9/2011 14:30	2.5
33	8/14/2011 1:15	8/14/2011 18:45	17.5	0.092	4.85	0.019	1.280	1.398	0.35	0.295	0.095	0.031	8/14/2011 1:15	8/14/2011 16:00	14.75
34	8/15/2011 14:00	8/15/2011 15:45	1.75	0.005	0.31	0.016	0.247	0.386	0.23	0.220	0.098	0.043	8/15/2011 14:00	8/15/2011 15:00	1



P104-09-S0025 Pennypack Interceptor

Pipe Size (In.): 10

Tributary Drainage Area (acres): 50

Tributary Service Population: 993

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	8/15/2011 21:15	8/15/2011 23:30	2.25	0.002	0.45	0.005	0.142	0.298	0.34	0.182	0.099	0.056	8/15/2011 21:30	8/15/2011 22:45	1.25
36	8/18/2011 7:00	8/18/2011 9:30	2.5	0.001	0.19	0.007	0.108	0.282	0.04	0.189	0.107	0.066	8/18/2011 7:15	8/18/2011 9:00	1.75
37	8/18/2011 20:15	8/19/2011 6:30	10.25	0.014	0.33	0.044	0.208	0.319	0.06	0.184	0.111	0.030	8/18/2011 20:15	8/19/2011 4:45	8.5
38	8/19/2011 18:00	8/19/2011 21:30	3.5	0.008	0.84	0.010	0.283	0.452	0.42	0.241	0.116	0.055	8/19/2011 18:00	8/19/2011 21:00	3
39	8/21/2011 14:45	8/21/2011 23:45	9	0.040	2.83	0.014	0.678	0.835	0.87	0.300	0.120	0.038	8/21/2011 14:45	8/21/2011 22:00	7.25
40	8/25/2011 10:30	8/25/2011 21:30	11	0.010	0.76	0.013	0.245	0.410	0.21	0.189	0.110	0.050	8/25/2011 10:30	8/25/2011 20:45	10.25
41	8/27/2011 13:00	8/28/2011 11:45	22.75	0.250	7.20	0.035	2.076	2.224	0.89	0.503	0.118	0.031	8/27/2011 13:15	8/28/2011 11:00	21.75
42	9/5/2011 23:30	9/6/2011 22:00	22.5	0.056	2.71	0.021	0.584	0.814	0.21	0.304	0.181	0.042	9/5/2011 23:45	9/6/2011 22:00	22.25
43	9/7/2011 23:45	9/8/2011 8:30	8.75	0.042	1.62	0.026	0.734	0.916	0.30	0.360	0.179	0.027	9/7/2011 23:45	9/8/2011 6:30	6.75
44	9/11/2011 22:15	9/12/2011 4:30	6.25	0.005	0.39	0.013	0.198	0.397	0.16	0.210	0.168	0.017	9/11/2011 22:30	9/12/2011 1:00	2.5
45	9/23/2011 9:15	9/23/2011 22:15	13	0.056	1.71	0.033	0.958	1.158	0.44	0.339	0.149	0.051	9/23/2011 9:30	9/23/2011 21:00	11.5
46	9/28/2011 1:45	9/28/2011 13:30	11.75	0.019	0.63	0.029	0.425	0.603	0.18	0.218	0.130	0.038	9/28/2011 2:00	9/28/2011 13:00	11
47	9/29/2011 10:00	9/29/2011 20:30	10.5	0.025	0.54	0.047	0.542	0.729	0.26	0.264	0.137	0.050	9/29/2011 10:15	9/29/2011 14:45	4.5
48	9/30/2011 20:45	10/1/2011 2:00	5.25	0.006	0.20	0.029	0.213	0.385	0.04	0.219	0.146	0.039	9/30/2011 20:45	10/1/2011 0:45	4
49	10/1/2011 22:00	10/2/2011 9:45	11.75	0.001	0.25	0.003	0.074	0.235	0.08	0.177	0.153	0.022	10/1/2011 22:15	10/2/2011 5:15	7
50	10/12/2011 19:45	10/12/2011 23:15	3.5	0.002	0.19	0.010	0.065	0.248	0.09	0.200	0.128	0.057	10/12/2011 20:00	10/12/2011 22:15	2.25
51	10/19/2011 4:30	10/20/2011 6:15	25.75	0.040	1.00	0.040	0.210	0.399	0.07	0.222	0.131	0.041	10/19/2011 4:45	10/20/2011 5:15	24.5
52	10/27/2011 5:45	10/27/2011 20:45	15	0.012	0.34	0.035	0.190	0.375	0.06	0.206	0.129	0.052	10/27/2011 5:45	10/27/2011 19:30	13.75
53	10/29/2011 6:15	10/30/2011 16:30	34.25	0.084	1.44	0.058	0.161	0.347	0.10	0.249	0.135	0.034	10/29/2011 6:30	10/29/2011 23:30	17
54	11/16/2011 1:45	11/17/2011 0:30	22.75	0.016	0.64	0.026	0.122	0.276	0.07	0.177	0.110	0.044	11/16/2011 2:00	11/17/2011 0:15	22.25
55	11/21/2011 0:45	11/21/2011 8:15	7.5	0.007	0.13	0.055	0.110	0.229	0.01	0.172	0.118	0.025	11/21/2011 1:00	11/21/2011 7:45	6.75
56	11/22/2011 0:00	11/24/2011 1:00	49	0.114	2.40	0.047	0.577	0.713	0.18	0.247	0.130	0.042	11/22/2011 0:00	11/23/2011 15:30	39.5
57	11/29/2011 6:00	11/30/2011 9:30	27.5	0.032	0.81	0.039	0.207	0.381	0.07	0.209	0.127	0.045	11/29/2011 6:00	11/29/2011 21:00	15
58	12/7/2011 3:45	12/8/2011 8:30	28.75	0.181	2.54	0.071	0.741	0.924	0.25	0.371	0.127	0.042	12/7/2011 3:45	12/8/2011 1:45	22
59	12/22/2011 21:30	12/23/2011 10:00	12.5	0.060	1.37	0.044	0.549	0.683	0.13	0.317	0.128	0.036	12/22/2011 21:30	12/23/2011 5:45	8.25
60	12/27/2011 13:30	12/27/2011 23:30	10	0.026	0.62	0.042	0.237	0.424	0.13	0.266	0.132	0.051	12/27/2011 13:30	12/27/2011 19:30	6
61	1/11/2012 19:45	1/12/2012 9:45	14	0.064	1.62	0.040	0.499	0.676	0.16	0.325	0.140	0.039	1/11/2012 20:00	1/12/2012 7:00	11
62	1/16/2012 22:45	1/17/2012 20:15	21.5	0.014	0.35	0.041	0.126	0.310	0.04	0.197	0.134	0.041	1/16/2012 23:00	1/17/2012 14:45	15.75
63	1/27/2012 6:00	1/27/2012 17:00	11	0.027	0.40	0.067	0.319	0.507	0.11	0.263	0.134	0.052	1/27/2012 6:00	1/27/2012 11:30	5.5
64	2/11/2012 0:30	2/11/2012 16:15	15.75	0.016	0.18	0.093	0.071	0.262	0.03	0.201	0.139	0.029	2/11/2012 4:30	2/11/2012 10:00	5.5
65	2/24/2012 3:15	2/24/2012 23:00	19.75	0.022	0.28	0.078	0.207	0.347	0.06	0.211	0.128	0.047	2/24/2012 3:30	2/24/2012 19:15	15.75
66	2/29/2012 10:30	3/1/2012 3:00	16.5	0.044	0.98	0.045	0.227	0.399	0.08	0.258	0.129	0.044	2/29/2012 10:30	3/1/2012 0:45	14.25
67	3/2/2012 20:30	3/3/2012 4:30	8	0.017	0.27	0.062	0.194	0.349	0.04	0.229	0.133	0.029	3/2/2012 20:45	3/3/2012 2:15	5.5
68	3/31/2012 0:45	3/31/2012 5:15	4.5	0.018	0.33	0.056	0.246	0.379	0.05	0.260	0.129	0.007	3/31/2012 0:45	3/31/2012 4:00	3.25
69	4/21/2012 21:15	4/21/2012 23:30	2.25	0.003	0.15	0.021	0.120	0.287	0.14	0.205	0.130	0.034	4/21/2012 21:30	4/21/2012 22:15	0.75

**P104-09-S0025 Pennypack Interceptor**

Pipe Size (In.): 10

Tributary Drainage Area (acres): 50

Tributary Service Population: 993

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	4/22/2012 9:45	4/23/2012 9:45	24	0.087	2.02	0.043	0.265	0.436	0.12	0.284	0.130	0.037	4/22/2012 9:45	4/23/2012 7:45	22
71	5/1/2012 4:00	5/1/2012 9:45	5.75	0.012	0.28	0.042	0.200	0.379	0.11	0.236	0.130	0.043	5/1/2012 4:15	5/1/2012 9:15	5
72	5/4/2012 22:00	5/5/2012 0:30	2.5	0.005	0.23	0.023	0.274	0.462	0.16	0.245	0.138	0.045	5/4/2012 22:15	5/4/2012 23:15	1
73	5/9/2012 3:00	5/9/2012 9:15	6.25	0.019	0.31	0.060	0.301	0.471	0.06	0.265	0.137	0.036	5/9/2012 3:00	5/9/2012 7:00	4
74	5/9/2012 21:45	5/10/2012 4:45	7	0.016	0.22	0.074	0.164	0.307	0.02	0.232	0.134	0.025	5/9/2012 21:45	5/10/2012 4:15	6.5
75	5/15/2012 8:45	5/16/2012 13:00	28.25	0.078	2.58	0.030	0.523	0.660	0.35	0.267	0.133	0.045	5/15/2012 8:45	5/16/2012 4:45	20
76	5/21/2012 1:30	5/21/2012 7:30	6	0.007	0.26	0.026	0.219	0.386	0.12	0.210	0.155	0.020	5/21/2012 1:30	5/21/2012 5:15	3.75
77	5/27/2012 4:30	5/27/2012 11:00	6.5	0.016	0.62	0.026	0.436	0.618	0.17	0.262	0.154	0.031	5/27/2012 4:30	5/27/2012 7:00	2.5
78	5/29/2012 20:15	5/29/2012 23:30	3.25	0.010	0.21	0.046	0.198	0.405	0.08	0.289	0.144	0.056	5/29/2012 20:15	5/29/2012 22:30	2.25
79	6/1/2012 20:45	6/2/2012 2:45	6	0.017	0.40	0.044	0.339	0.495	0.17	0.260	0.135	0.035	6/1/2012 20:45	6/2/2012 2:00	5.25
80	6/4/2012 13:15	6/4/2012 15:00	1.75	0.006	0.16	0.040	0.350	0.525	0.12	0.279	0.130	0.045	6/4/2012 13:15	6/4/2012 14:00	0.75
81	6/12/2012 9:45	6/13/2012 0:30	14.75	0.058	0.75	0.078	0.340	0.534	0.07	0.315	0.139	0.050	6/12/2012 9:45	6/12/2012 23:30	13.75
82	6/22/2012 18:30	6/22/2012 23:15	4.75	0.016	0.38	0.042	0.177	0.387	0.08	0.306	0.148	0.056	6/22/2012 18:30	6/22/2012 22:30	4
Average:			12.6	0.028	0.88	0.034	0.318	0.471	0.17	0.223	0.117	0.039			8.9
Maximum Value:			49.0	0.250	7.20	0.160	2.076	2.224	0.89	0.503	0.181	0.066			39.5
Minimum Value:			1.8	0.001	0.13	0.003	0.065	0.223	0.01	0.138	0.079	0.004			0.00
Standard Deviation:			9.8	0.039	1.08	0.024	0.293	0.296	0.16	0.064	0.024	0.012			7.5
Weighted Mean R-Value*:						0.032									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**P105-06-S0035 Pennypack Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 184

Tributary Service Population: 3,174

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	7/10/2010 9:00	7/10/2010 20:15	11.25	0.008	0.91	0.009	0.288	0.851	0.12	0.608	0.213	0.308	7/10/2010 9:00	7/10/2010 14:00	5
2	7/12/2010 19:45	7/13/2010 13:45	18	0.015	2.57	0.006	1.518	1.950	0.61	0.474	0.190	0.182	7/12/2010 20:00	7/13/2010 10:45	14.75
3	7/14/2010 0:45	7/14/2010 11:00	10.25	0.003	0.41	0.008	0.307	0.540	0.16	0.376	0.191	0.148	7/14/2010 0:45	7/14/2010 5:30	4.75
4	7/19/2010 6:00	7/20/2010 4:00	22	0.007	0.35	0.019	0.161	0.603	0.10	0.420	0.182	0.203	7/19/2010 9:00	7/19/2010 19:45	10.75
5	7/21/2010 23:00	7/22/2010 5:00	6	0.003	0.43	0.008	0.306	0.643	0.25	0.299	0.179	0.058	7/21/2010 23:00	7/22/2010 0:00	1
6	7/25/2010 14:45	7/25/2010 18:00	3.25	0.003	0.70	0.005	0.575	1.039	0.42	0.576	0.192	0.276	7/25/2010 15:00	7/25/2010 17:00	2
7	8/11/2010 1:15	8/11/2010 4:30	3.25	0.002	0.23	0.008	0.229	0.440	0.09	0.268	0.193	0.013	8/11/2010 1:15	8/11/2010 2:30	1.25
8	8/22/2010 8:30	8/22/2010 21:30	13	0.005	0.64	0.007	0.81	1.282	0.37	0.555	0.201	0.312	8/22/2010 8:45	8/22/2010 18:15	9.5
9	8/23/2010 14:30	8/24/2010 0:30	10	0.007	0.36	0.020	0.24	0.630	0.05	0.513	0.196	0.231	8/23/2010 14:45	8/23/2010 22:15	7.5
10	9/12/2010 7:00	9/12/2010 14:15	7.25	0.002	0.23	0.008	0.131	0.669	0.04	0.542	0.202	0.312	9/12/2010 7:15	9/12/2010 11:00	3.75
11	9/16/2010 17:15	9/17/2010 7:00	13.75	0.006	0.58	0.011	0.293	0.665	0.16	0.395	0.176	0.166	9/16/2010 17:30	9/17/2010 2:15	8.75
12	9/22/2010 20:30	9/23/2010 12:15	15.75	0.006	0.39	0.016	0.315	0.778	0.19	0.388	0.168	0.175	9/22/2010 21:00	9/22/2010 23:00	2
13	9/27/2010 4:45	9/27/2010 20:45	16	0.001	0.27	0.005	0.191	0.643	0.09	0.413	0.176	0.228	9/27/2010 5:00	9/27/2010 18:30	13.5
14	9/30/2010 4:00	10/2/2010 3:15	47.25	0.070	4.65	0.015	1.406	1.632	0.57	0.594	0.225	0.193	9/30/2010 4:15	10/1/2010 12:00	31.75
15	10/4/2010 12:15	10/5/2010 22:00	33.75	0.008	0.53	0.015	0.161	0.657	0.05	0.486	0.253	0.205	10/4/2010 12:30	10/5/2010 15:15	26.75
16	10/12/2010 2:30	10/12/2010 9:30	7	0.002	0.18	0.013	0.284	0.646	0.03	0.433	0.239	0.157	10/12/2010 2:45	10/12/2010 6:15	3.5
17	10/14/2010 12:30	10/14/2010 22:15	9.75	0.009	0.64	0.015	0.278	0.750	0.06	0.583	0.231	0.238	10/14/2010 12:30	10/14/2010 20:15	7.75
18	10/19/2010 0:00	10/20/2010 4:30	28.5	0.014	0.51	0.028	0.236	0.678	0.05	0.423	0.199	0.166	10/19/2010 0:00	10/19/2010 8:00	8
19	10/27/2010 2:30	10/27/2010 23:00	20.5	0.011	0.38	0.029	0.284	0.616	0.09	0.451	0.179	0.208	10/27/2010 2:45	10/27/2010 16:15	13.5
20	11/4/2010 2:15	11/5/2010 4:15	26	0.025	1.21	0.021	0.293	0.780	0.06	0.504	0.213	0.176	11/4/2010 2:30	11/5/2010 1:30	23
21	11/16/2010 19:45	11/17/2010 8:45	13	0.005	0.38	0.013	0.169	0.669	0.13	0.424	0.213	0.167	11/16/2010 20:00	11/17/2010 4:00	8
22	11/25/2010 10:00	11/25/2010 22:00	12	0.002	0.31	0.008	0.24	0.822	0.03	0.561	0.230	0.307	11/25/2010 10:15	11/25/2010 19:30	9.25
23	12/1/2010 0:30	12/2/2010 23:00	46.5	0.043	1.40	0.031	0.462	0.910	0.18	0.534	0.229	0.193	12/1/2010 0:30	12/1/2010 13:30	13
24	12/12/2010 1:45	12/13/2010 3:30	25.75	0.016	1.10	0.015	0.284	0.790	0.08	0.487	0.214	0.199	12/12/2010 2:00	12/13/2010 2:00	24
25	1/11/2011 19:15	1/12/2011 5:45	10.5	0.001	0.35	0.004	0.068	0.583	0.02	0.375	0.222	0.139	1/11/2011 19:15	1/12/2011 2:15	7
26	1/17/2011 21:15	1/18/2011 22:00	24.75	0.019	0.92	0.021	0.27	0.701	0.06	0.505	0.218	0.196	1/17/2011 21:30	1/18/2011 13:15	15.75
27	1/26/2011 5:00	1/27/2011 5:30	24.5	0.004	1.41	0.003	0.182	0.587	0.06	0.410	0.201	0.188	1/26/2011 5:15	1/27/2011 2:45	21.5
28	2/1/2011 22:30	2/2/2011 20:30	22	0.013	0.79	0.017	0.284	0.767	0.05	0.469	0.214	0.185	2/1/2011 22:30	2/2/2011 9:00	10.5
29	2/5/2011 7:00	2/6/2011 0:15	17.25	0.001	0.29	0.005	0.092	0.585	0.02	0.506	0.218	0.278	2/5/2011 7:15	2/5/2011 23:15	16
30	2/24/2011 20:15	2/25/2011 17:30	21.25	0.023	1.06	0.021	0.258	0.806	0.11	0.558	0.252	0.180	2/24/2011 20:15	2/25/2011 13:30	17.25
31	2/28/2011 2:30	2/28/2011 11:45	9.25	0.007	0.24	0.032	0.223	0.785	0.05	0.513	0.245	0.174	2/28/2011 2:45	2/28/2011 11:00	8.25
32	3/6/2011 7:45	3/7/2011 3:15	19.5	0.013	1.67	0.008	0.415	0.907	0.13	0.541	0.209	0.252	3/6/2011 8:00	3/7/2011 2:00	18
33	3/10/2011 2:00	3/11/2011 10:30	32.5	0.020	1.25	0.016	0.177	0.638	0.06	0.451	0.195	0.182	3/10/2011 2:15	3/11/2011 3:15	25
34	3/16/2011 2:00	3/17/2011 0:30	22.5	0.011	0.65	0.017	0.217	0.640	0.08	0.436	0.179	0.200	3/16/2011 2:00	3/16/2011 7:00	5

**P105-06-S0035 Pennypack Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 184

Tributary Service Population: 3,174

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	3/21/2011 3:15	3/22/2011 1:30	22.25	0.015	0.46	0.033	0.189	0.634	0.06	0.492	0.207	0.204	3/21/2011 3:30	3/21/2011 10:15	6.75
36	3/23/2011 10:45	3/24/2011 8:00	21.25	0.014	0.47	0.030	0.196	0.666	0.10	0.471	0.207	0.185	3/23/2011 11:00	3/23/2011 21:45	10.75
37	3/31/2011 2:15	4/1/2011 22:15	44	0.021	0.46	0.047	0.192	0.680	0.02	0.447	0.194	0.195	3/31/2011 2:15	4/1/2011 17:45	39.5
38	4/5/2011 4:45	4/5/2011 15:15	10.5	0.002	0.30	0.008	0.154	0.644	0.11	0.427	0.183	0.218	4/5/2011 6:30	4/5/2011 14:15	7.75
39	4/8/2011 11:15	4/9/2011 2:45	15.5	0.009	0.72	0.012	0.134	0.599	0.03	0.451	0.190	0.195	4/8/2011 11:15	4/8/2011 21:45	10.5
40	4/12/2011 10:45	4/13/2011 8:30	21.75	0.007	0.71	0.011	0.167	0.618	0.07	0.409	0.182	0.187	4/12/2011 11:00	4/13/2011 3:00	16
41	4/16/2011 12:30	4/18/2011 6:30	42	0.035	2.72	0.013	0.559	1.022	0.38	0.498	0.192	0.207	4/16/2011 12:30	4/17/2011 1:45	13.25
42	4/23/2011 1:15	4/23/2011 18:00	16.75	0.004	0.51	0.008	0.133	0.693	0.08	0.440	0.206	0.204	4/23/2011 1:45	4/23/2011 15:00	13.25
43	4/28/2011 12:45	4/28/2011 23:00	10.25	0.004	0.66	0.006	0.341	0.735	0.33	0.474	0.192	0.239	4/28/2011 12:45	4/28/2011 14:15	1.5
44	5/4/2011 5:15	5/4/2011 23:30	18.25	0.007	0.64	0.011	0.103	0.621	0.10	0.476	0.192	0.238	5/4/2011 6:00	5/4/2011 14:45	8.75
45	5/14/2011 15:00	5/16/2011 2:15	35.25	0.020	1.00	0.020	0.396	0.624	0.15	0.469	0.184	0.216	5/14/2011 15:00	5/16/2011 0:45	33.75
46	5/17/2011 4:45	5/18/2011 0:45	20	0.011	0.44	0.024	0.198	0.622	0.07	0.475	0.188	0.225	5/17/2011 5:00	5/17/2011 22:15	17.25
47	5/18/2011 11:45	5/19/2011 1:00	13.25	0.008	0.89	0.009	0.467	0.855	0.32	0.481	0.188	0.221	5/18/2011 12:00	5/18/2011 19:45	7.75
48	5/19/2011 15:45	5/19/2011 23:30	7.75	0.004	0.17	0.021	0.199	0.681	0.08	0.496	0.188	0.253	5/19/2011 15:45	5/19/2011 20:45	5
49	5/23/2011 1:15	5/23/2011 8:15	7	0.004	0.19	0.022	0.168	0.614	0.08	0.378	0.192	0.117	5/23/2011 1:15	5/23/2011 3:15	2
50	6/9/2011 19:45	6/10/2011 1:45	6	0.002	0.33	0.008	0.286	0.741	0.17	0.410	0.163	0.200	6/9/2011 20:15	6/9/2011 21:00	0.75
51	6/11/2011 22:30	6/12/2011 11:15	12.75	0.010	0.54	0.018	0.278	0.601	0.17	0.400	0.164	0.147	6/11/2011 22:45	6/12/2011 1:45	3
Average:			18.6	0.011	0.77	0.015	0.310	0.752	0.14	0.466	0.201	0.201			11.7
Maximum Value:			47.3	0.070	4.65	0.047	1.518	1.950	0.61	0.608	0.253	0.312			39.5
Minimum Value:			3.3	0.001	0.17	0.003	0.068	0.440	0.02	0.268	0.163	0.013			0.75
Standard Deviation:			10.9	0.012	0.77	0.009	0.270	0.256	0.13	0.070	0.021	0.055			8.9
Weighted Mean R-Value*:						0.014									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PP-0215 Pennypack Interceptor

Pipe Size (In.): 63 x 54

Tributary Drainage Area (acres): 10,986

Tributary Service Population: 115,729

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/6/2013 19:30	6/8/2013 23:30	52	0.114	3.88	0.030	52.2	70.4	0.27	33.9	13.6	4.65	6/6/2013 19:30	6/8/2013 2:00	30.5
2	6/10/2013 7:00	6/12/2013 1:00	42	0.066	1.93	0.034	41.2	62.4	0.36	32.2	16.0	5.00	6/10/2013 7:15	6/11/2013 1:00	17.75
3	6/13/2013 9:30	6/13/2013 20:45	11.25	0.007	0.49	0.015	21.6	45.6	0.18	27.7	17.2	5.89	6/13/2013 9:30	6/13/2013 20:15	10.75
4	6/18/2013 12:30	6/19/2013 1:15	12.75	0.012	0.31	0.040	18.2	38.8	0.04	28.0	15.4	5.68	6/18/2013 12:45	6/18/2013 20:45	8
5	6/23/2013 15:30	6/24/2013 0:00	8.5	0.005	0.17	0.028	14.2	34.1	0.09	23.7	14.1	5.75	6/23/2013 15:30	6/23/2013 16:30	1
6	6/25/2013 16:00	6/25/2013 20:30	4.5	0.003	0.09	0.032	14.0	33.5	0.07	24.1	14.4	5.43	6/25/2013 16:15	6/25/2013 16:45	0.5
7	6/26/2013 20:45	6/27/2013 1:15	4.5	0.003	0.22	0.014	15.0	36.0	0.16	25.1	14.7	5.80	6/26/2013 20:45	6/26/2013 21:30	0.75
8	6/27/2013 18:15	6/28/2013 13:15	19	0.017	1.08	0.016	32.3	53.6	0.27	25.6	14.9	4.32	6/27/2013 18:30	6/27/2013 22:00	3.5
9	6/30/2013 12:45	7/1/2013 0:00	11.25	0.007	0.21	0.033	14.2	34.4	0.03	24.4	13.9	6.05	6/30/2013 12:45	6/30/2013 15:45	3
10	7/1/2013 8:45	7/1/2013 23:45	15	0.011	0.32	0.035	15.8	36.2	0.13	25.1	13.8	5.95	7/1/2013 8:45	7/1/2013 15:15	6.5
11	7/3/2013 22:00	7/4/2013 6:45	8.75	0.002	0.14	0.015	9.2	27.9	0.10	18.6	14.2	2.71	7/3/2013 22:15	7/3/2013 23:15	1
12	7/10/2013 12:30	7/10/2013 17:00	4.5	0.001	0.11	0.010	9.5	29.5	0.10	21.5	14.1	5.68	7/10/2013 12:45	7/10/2013 13:30	0.75
13	7/12/2013 16:15	7/13/2013 7:00	14.75	0.021	0.84	0.024	28.2	47.0	0.14	27.3	13.8	3.75	7/12/2013 16:15	7/12/2013 22:45	6.5
14	7/13/2013 16:15	7/14/2013 3:00	10.75	0.011	0.39	0.027	20.9	40.0	0.14	25.5	13.6	4.87	7/13/2013 16:15	7/13/2013 20:00	3.75
15	7/22/2013 15:15	7/24/2013 2:30	35.25	0.034	1.24	0.028	44.6	64.6	0.39	24.8	13.1	4.77	7/22/2013 15:45	7/23/2013 18:00	26.25
16	7/28/2013 12:30	7/29/2013 7:00	18.5	0.024	0.44	0.055	19.0	37.2	0.10	26.2	12.6	4.43	7/28/2013 15:15	7/29/2013 2:30	11.25
17	8/1/2013 7:15	8/2/2013 5:15	22	0.031	0.89	0.035	28.8	47.0	0.10	27.0	12.3	4.84	8/1/2013 7:15	8/1/2013 15:15	8
18	8/8/2013 0:15	8/9/2013 0:15	24	0.007	0.50	0.015	16.8	28.5	0.16	17.8	11.1	4.53	8/8/2013 0:30	8/8/2013 16:45	16.25
19	8/9/2013 15:30	8/9/2013 23:45	8.25	0.003	0.15	0.024	11.5	28.7	0.04	20.0	11.4	5.59	8/9/2013 15:30	8/9/2013 18:00	2.5
20	8/13/2013 5:00	8/14/2013 17:00	36	0.045	2.26	0.020	74.6	91.2	0.66	24.8	11.4	4.58	8/13/2013 5:00	8/13/2013 10:00	5
21	8/22/2013 6:15	8/22/2013 19:15	13	0.004	0.56	0.008	25.3	42.8	0.19	19.3	11.8	5.18	8/22/2013 6:30	8/22/2013 17:15	10.75
22	8/28/2013 11:15	8/29/2013 0:15	13	0.016	0.53	0.031	31.5	48.0	0.09	25.5	10.7	5.88	8/28/2013 11:15	8/28/2013 19:15	8
23	9/2/2013 10:30	9/4/2013 1:00	38.5	0.026	0.86	0.030	38.7	56.6	0.27	20.3	10.4	5.15	9/2/2013 10:30	9/3/2013 3:15	16.75
24	9/12/2013 18:45	9/13/2013 20:15	25.5	0.016	0.52	0.031	26.3	37.2	0.12	19.4	10.3	4.57	9/12/2013 18:45	9/13/2013 3:15	8.5
25	9/21/2013 20:15	9/23/2013 0:00	27.75	0.032	1.20	0.026	34.1	49.2	0.26	22.6	9.8	4.70	9/21/2013 20:15	9/22/2013 2:15	6
Average:			19.3	0.021	0.77	0.026	26.3	44.8	0.18	24.4	13.1	5.03			8.5
Maximum Value:			52.0	0.114	3.88	0.055	74.6	91.2	0.66	33.9	17.2	6.05			30.5
Minimum Value:			4.5	0.001	0.09	0.008	9.2	27.9	0.03	17.8	9.8	2.71			0.50
Standard Deviation:			12.9	0.025	0.85	0.011	15.3	15.1	0.14	4.0	1.9	0.78			7.8
Weighted Mean R-Value*:						0.027									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PP-B0650 Pennypack Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 181

Tributary Service Population: 5,372

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	8/14/1999 0:45	8/15/1999 7:30	30.75	0.146	2.24	0.065	2.86	3.05	0.40	0.992	0.189	0.248	8/14/1999 1:15	8/15/1999 1:45	24.5
2	8/20/1999 10:30	8/21/1999 9:00	22.5	0.048	0.63	0.077	1.35	1.83	0.10	0.709	0.226	0.234	8/20/1999 10:45	8/21/1999 2:15	15.5
3	8/25/1999 23:15	8/27/1999 16:45	41.5	0.118	1.57	0.075	2.51	2.76	0.18	0.798	0.210	0.254	8/25/1999 23:15	8/27/1999 2:30	27.25
4	9/7/1999 4:15	9/8/1999 6:15	26	0.062	0.77	0.080	1.81	2.32	0.26	0.780	0.245	0.257	9/7/1999 4:15	9/7/1999 14:45	10.5
5	9/9/1999 13:00	9/11/1999 4:15	39.25	0.102	1.57	0.065	1.85	2.31	0.23	0.825	0.264	0.256	9/9/1999 13:15	9/10/1999 14:15	25
6	9/15/1999 16:00	9/18/1999 15:45	71.75	0.489	6.44	0.076	3.13	3.66	0.31	1.364	0.284	0.279	9/15/1999 16:15	9/16/1999 22:15	30
7	9/21/1999 1:00	9/22/1999 23:15	46.25	0.090	0.87	0.103	1.43	1.80	0.07	0.789	0.288	0.273	9/21/1999 1:15	9/22/1999 6:45	29.5
8	9/30/1999 2:30	9/30/1999 17:15	14.75	0.035	0.64	0.054	1.98	2.24	0.19	0.794	0.254	0.268	9/30/1999 3:00	9/30/1999 9:15	6.25
9	10/4/1999 7:30	10/5/1999 23:15	39.75	0.093	1.06	0.088	1.28	1.79	0.19	0.823	0.250	0.298	10/4/1999 7:45	10/5/1999 1:45	18
10	10/10/1999 1:15	10/11/1999 7:15	30	0.078	0.67	0.116	0.99	1.84	0.05	0.824	0.251	0.269	10/10/1999 1:15	10/10/1999 13:45	12.5
11	10/17/1999 17:45	10/18/1999 14:15	20.5	0.031	0.19	0.165	0.66	1.27	0.03	0.709	0.265	0.265	10/17/1999 17:45	10/18/1999 4:15	10.5
12	10/20/1999 3:15	10/21/1999 8:15	29	0.072	0.69	0.104	1.28	1.80	0.04	0.821	0.268	0.263	10/20/1999 3:30	10/20/1999 13:45	10.25
13	10/22/1999 20:00	10/24/1999 0:15	28.25	0.050	0.44	0.113	1.13	1.70	0.06	0.794	0.288	0.302	10/22/1999 20:00	10/23/1999 5:30	9.5
14	11/2/1999 9:30	11/4/1999 4:30	43	0.084	1.19	0.070	1.95	2.54	0.30	0.765	0.275	0.261	11/2/1999 9:45	11/2/1999 19:00	9.25
15	11/25/1999 6:00	11/25/1999 18:00	12	0.043	0.31	0.139	1.27	1.93	0.05	1.051	0.297	0.340	11/25/1999 6:45	11/25/1999 12:15	5.5
16	11/26/1999 8:00	11/27/1999 23:30	39.5	0.093	0.82	0.114	1.14	1.75	0.11	0.890	0.301	0.313	11/26/1999 8:15	11/27/1999 5:15	21
17	12/6/1999 4:45	12/7/1999 8:45	28	0.058	0.71	0.082	1.15	1.74	0.10	0.786	0.264	0.279	12/6/1999 6:00	12/7/1999 1:15	19.25
18	12/10/1999 12:45	12/11/1999 1:15	12.5	0.025	0.32	0.077	1.19	1.72	0.07	0.790	0.275	0.288	12/10/1999 12:45	12/10/1999 20:00	7.25
19	12/13/1999 13:45	12/16/1999 0:00	58.25	0.180	1.54	0.117	1.49	2.15	0.08	0.952	0.310	0.278	12/13/1999 14:00	12/15/1999 19:15	53.25
20	12/20/1999 8:00	12/21/1999 4:00	20	0.063	0.67	0.094	1.85	2.58	0.13	0.978	0.342	0.270	12/20/1999 8:00	12/20/1999 21:30	13.5
21	1/4/2000 16:15	1/5/2000 7:00	14.75	0.060	0.82	0.074	1.29	1.96	0.11	0.979	0.275	0.229	1/4/2000 16:15	1/5/2000 1:15	9
22	1/10/2000 11:00	1/10/2000 22:45	11.75	0.033	0.33	0.100	1.05	1.62	0.04	0.921	0.270	0.326	1/10/2000 11:00	1/10/2000 16:00	5
23	1/30/2000 21:00	2/1/2000 8:15	35.25	0.113	0.63	0.179	1.14	1.52	0.09	0.874	0.254	0.245	1/30/2000 21:00	1/31/2000 13:15	16.25
24	2/13/2000 20:00	2/15/2000 16:15	44.25	0.094	0.52	0.181	1.18	1.94	0.06	0.807	0.298	0.260	2/13/2000 20:00	2/14/2000 9:00	13
25	2/18/2000 13:45	2/20/2000 8:00	42.25	0.143	1.10	0.130	1.57	1.90	0.06	0.973	0.314	0.263	2/18/2000 14:00	2/19/2000 12:30	22.5
26	2/27/2000 19:45	2/28/2000 14:15	18.5	0.004	0.14	0.030	0.27	0.86	0.03	0.535	0.259	0.250	2/27/2000 20:15	2/28/2000 9:45	13.5
27	3/11/2000 11:30	3/13/2000 6:30	43	0.065	0.86	0.076	1.53	2.22	0.15	0.767	0.293	0.297	3/11/2000 12:15	3/12/2000 7:45	19.5
28	3/16/2000 19:00	3/18/2000 5:00	34	0.105	1.33	0.079	1.71	2.05	0.08	0.909	0.306	0.242	3/16/2000 19:30	3/17/2000 15:45	20.25
29	3/21/2000 15:45	3/23/2000 4:15	36.5	0.159	1.48	0.108	2.07	2.70	0.07	1.089	0.322	0.256	3/21/2000 16:00	3/22/2000 5:00	13
30	3/27/2000 20:45	3/28/2000 23:30	26.75	0.054	0.65	0.083	1.67	2.03	0.08	0.842	0.333	0.273	3/27/2000 20:45	3/28/2000 22:00	25.25
31	4/3/2000 23:30	4/4/2000 13:15	13.75	0.015	0.17	0.088	1.00	1.52	0.06	0.669	0.315	0.229	4/4/2000 0:30	4/4/2000 10:15	9.75
32	4/8/2000 20:45	4/9/2000 22:00	25.25	0.066	0.44	0.150	0.65	1.47	0.03	0.926	0.313	0.308	4/8/2000 21:00	4/9/2000 16:00	19
33	4/15/2000 11:15	4/17/2000 5:30	42.25	0.074	0.66	0.112	1.89	2.64	0.13	0.823	0.320	0.298	4/15/2000 11:30	4/16/2000 20:30	33
34	4/17/2000 8:00	4/18/2000 16:45	32.75	0.085	0.68	0.125	0.93	1.58	0.03	0.947	0.360	0.283	4/17/2000 8:00	4/18/2000 8:00	24

**PP-B0650 Pennypack Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 181

Tributary Service Population: 5,372

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
35	4/21/2000 8:45	4/23/2000 4:45	44	0.079	0.60	0.132	1.43	2.16	0.19	0.849	0.359	0.280	4/21/2000 11:00	4/22/2000 7:00	20
Average:			32.0	0.089	0.96	0.100	1.48	2.03	0.12	0.861	0.284	0.272			17.8
Maximum Value:			71.8	0.489	6.44	0.181	3.13	3.66	0.40	1.364	0.360	0.340			53.3
Minimum Value:			11.8	0.004	0.14	0.030	0.27	0.86	0.03	0.535	0.189	0.229			5.00
Standard Deviation:			13.6	0.080	1.06	0.034	0.59	0.53	0.09	0.141	0.039	0.026			9.7
Weighted Mean R-Value*:						0.092									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PP-B0790 Pennypack Interceptor (1999)

Pipe Size (In.): 15

Tributary Drainage Area (acres): 187

Tributary Service Population: 4,893

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	8/14/1999 0:45	8/15/1999 7:00	30.25	0.103	2.24	0.046	5.30	5.51	0.40	0.867	0.200	0.253	8/14/1999 1:15	8/15/1999 1:45	24.5
2	8/20/1999 13:00	8/21/1999 8:00	19	0.034	0.62	0.055	1.79	2.27	0.10	0.637	0.211	0.212	8/20/1999 13:15	8/21/1999 2:15	13
3	8/25/1999 22:45	8/27/1999 6:15	31.5	0.079	1.57	0.050	5.01	5.29	0.18	0.751	0.225	0.223	8/25/1999 23:15	8/27/1999 2:30	27.25
4	9/7/1999 3:45	9/7/1999 21:00	17.25	0.043	0.77	0.056	1.62	2.05	0.26	0.791	0.169	0.324	9/7/1999 4:15	9/7/1999 14:45	10.5
5	9/9/1999 13:00	9/10/1999 8:15	19.25	0.073	1.55	0.047	2.36	2.73	0.23	0.894	0.201	0.236	9/9/1999 13:15	9/10/1999 7:15	18
6	9/15/1999 15:45	9/17/1999 18:00	50.25	0.328	6.44	0.051	5.11	5.78	0.31	1.371	0.309	0.271	9/15/1999 16:00	9/16/1999 22:15	30.25
7	9/21/1999 0:45	9/22/1999 15:30	38.75	0.138	0.89	0.156	1.60	2.17	0.07	1.099	0.401	0.265	9/21/1999 1:00	9/22/1999 6:45	29.75
8	9/30/1999 2:30	9/30/1999 13:15	10.75	0.025	0.64	0.039	1.60	2.06	0.19	1.009	0.429	0.305	9/30/1999 3:00	9/30/1999 9:15	6.25
9	10/4/1999 7:30	10/5/1999 7:30	24	0.063	1.06	0.059	1.72	2.64	0.19	0.998	0.412	0.270	10/4/1999 7:45	10/5/1999 1:45	18
10	10/10/1999 1:15	10/10/1999 22:00	20.75	0.066	0.67	0.099	1.44	2.42	0.05	1.082	0.380	0.318	10/10/1999 1:15	10/10/1999 13:45	12.5
11	10/17/1999 17:45	10/18/1999 0:45	7	0.020	0.18	0.112	0.83	1.45	0.03	0.966	0.378	0.249	10/17/1999 17:45	10/17/1999 22:45	5
12	10/20/1999 3:15	10/20/1999 17:00	13.75	0.051	0.69	0.074	1.69	2.44	0.04	1.112	0.362	0.307	10/20/1999 3:30	10/20/1999 13:45	10.25
13	10/22/1999 20:00	10/23/1999 4:15	8.25	0.039	0.43	0.091	1.28	1.95	0.06	1.056	0.346	0.149	10/22/1999 20:00	10/23/1999 2:00	6
14	11/2/1999 9:45	11/2/1999 22:45	13	0.044	1.19	0.037	2.32	3.04	0.30	1.076	0.362	0.312	11/2/1999 9:45	11/2/1999 19:00	9.25
15	11/25/1999 7:00	11/25/1999 16:30	9.5	0.035	0.30	0.116	1.38	2.13	0.05	1.100	0.299	0.367	11/25/1999 7:15	11/25/1999 12:15	5
16	11/26/1999 8:15	11/27/1999 11:30	27.25	0.066	0.82	0.080	1.03	1.46	0.11	0.887	0.298	0.298	11/26/1999 8:15	11/27/1999 5:15	21
17	12/6/1999 4:45	12/7/1999 0:00	19.25	0.044	0.70	0.062	1.28	1.89	0.10	0.955	0.360	0.321	12/6/1999 6:00	12/6/1999 19:45	13.75
18	12/10/1999 12:30	12/10/1999 23:45	11.25	0.018	0.32	0.057	1.27	1.86	0.07	0.828	0.338	0.295	12/10/1999 12:45	12/10/1999 20:00	7.25
19	1/4/2000 16:00	1/5/2000 5:00	13	0.051	0.82	0.063	1.60	2.33	0.11	1.046	0.383	0.191	1/4/2000 16:15	1/5/2000 1:15	9
20	1/10/2000 11:00	1/10/2000 21:45	10.75	0.030	0.33	0.091	1.16	1.83	0.04	1.025	0.387	0.305	1/10/2000 11:00	1/10/2000 16:00	5
21	1/30/2000 20:45	1/31/2000 4:45	8	0.005	0.57	0.008	0.50	0.91	0.09	0.480	0.299	0.112	1/30/2000 21:00	1/31/2000 0:45	3.75
22	2/13/2000 20:00	2/15/2000 0:00	28	0.064	0.52	0.123	1.17	1.98	0.06	0.883	0.344	0.262	2/13/2000 20:00	2/14/2000 9:00	13
23	2/18/2000 13:45	2/20/2000 3:45	38	0.192	1.10	0.174	1.89	2.24	0.06	1.225	0.339	0.275	2/18/2000 14:00	2/19/2000 12:30	22.5
24	3/16/2000 19:15	3/17/2000 17:00	21.75	0.073	1.33	0.055	1.26	1.84	0.08	0.985	0.315	0.263	3/16/2000 19:30	3/17/2000 15:45	20.25
25	3/21/2000 15:45	3/22/2000 17:15	25.5	0.102	1.48	0.069	1.33	1.73	0.07	1.083	0.333	0.268	3/21/2000 16:00	3/22/2000 5:00	13
26	3/27/2000 22:00	3/29/2000 0:00	26	0.066	0.63	0.105	1.92	2.33	0.08	0.975	0.408	0.261	3/27/2000 22:30	3/28/2000 22:00	23.5
27	4/8/2000 19:00	4/9/2000 23:15	28.25	0.096	0.44	0.218	1.07	1.92	0.03	1.043	0.337	0.296	4/8/2000 21:00	4/9/2000 16:00	19
Average:			21.1	0.072	1.05	0.081	1.87	2.45	0.12	0.971	0.327	0.267			14.7
Maximum Value:			50.3	0.328	6.44	0.218	5.30	5.78	0.40	1.371	0.429	0.367			30.3
Minimum Value:			7.0	0.005	0.18	0.008	0.50	0.91	0.03	0.480	0.169	0.112			3.75
Standard Deviation:			10.8	0.065	1.18	0.046	1.25	1.19	0.10	0.178	0.071	0.055			8.1
Weighted Mean R-Value*:						0.069									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.



PP-B0790 Pennypack Interceptor (2013)

Pipe Size (In.): 15

Tributary Drainage Area (acres): 187

Tributary Service Population: 4,893

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	3/16/2013 12:00	3/16/2013 21:15	9.25	0.013	0.12	0.105	0.63	1.37	0.02	0.923	0.438	0.318	3/16/2013 12:00	3/16/2013 18:00	6
2	3/18/2013 15:45	3/19/2013 16:00	24.25	0.063	0.83	0.076	0.98	1.71	0.05	0.985	0.446	0.225	3/18/2013 18:15	3/19/2013 11:15	17
3	3/25/2013 6:45	3/26/2013 3:15	20.5	0.050	0.59	0.084	0.88	1.58	0.04	1.003	0.457	0.252	3/25/2013 6:45	3/25/2013 16:15	9.5
4	3/31/2013 15:30	3/31/2013 22:45	7.25	0.014	0.19	0.072	0.82	1.59	0.04	0.993	0.463	0.299	3/31/2013 15:30	3/31/2013 22:45	7.25
5	4/10/2013 20:30	4/11/2013 10:15	13.75	0.023	0.34	0.069	1.64	2.37	0.17	0.830	0.437	0.184	4/10/2013 20:45	4/11/2013 0:00	3.25
6	4/12/2013 7:15	4/12/2013 20:00	12.75	0.044	0.85	0.052	1.66	2.39	0.11	1.117	0.412	0.287	4/12/2013 7:15	4/12/2013 14:00	6.75
7	4/12/2013 21:30	4/13/2013 8:30	11	0.020	0.32	0.061	1.66	2.35	0.08	0.761	0.416	0.125	4/12/2013 21:45	4/12/2013 23:30	1.75
8	4/19/2013 21:15	4/20/2013 8:00	10.75	0.026	0.48	0.055	1.42	2.09	0.05	0.851	0.432	0.121	4/19/2013 21:30	4/20/2013 3:00	5.5
9	4/29/2013 3:15	4/30/2013 0:00	20.75	0.031	0.40	0.077	0.69	1.44	0.03	0.883	0.454	0.249	4/29/2013 3:30	4/29/2013 23:45	20.25
10	5/8/2013 4:45	5/8/2013 13:15	8.5	0.011	0.24	0.043	1.55	2.29	0.10	0.836	0.427	0.257	5/8/2013 5:30	5/8/2013 13:00	7.5
11	5/9/2013 3:45	5/9/2013 10:30	6.75	0.024	0.48	0.049	1.50	2.11	0.09	1.064	0.428	0.209	5/9/2013 3:45	5/9/2013 6:45	3
12	5/10/2013 22:30	5/11/2013 9:00	10.5	0.030	0.71	0.043	1.50	2.01	0.11	0.885	0.416	0.117	5/10/2013 22:30	5/11/2013 7:15	8.75
13	5/18/2013 21:30	5/19/2013 5:30	8	0.013	0.23	0.055	0.70	1.19	0.05	0.728	0.418	0.116	5/18/2013 21:30	5/19/2013 5:30	8
14	5/23/2013 16:00	5/23/2013 17:45	1.75	0.007	0.20	0.037	1.95	2.61	0.17	1.189	0.417	0.267	5/23/2013 16:15	5/23/2013 16:30	0.25
15	5/23/2013 23:30	5/24/2013 5:15	5.75	0.013	0.36	0.037	2.21	2.81	0.27	0.758	0.416	0.059	5/23/2013 23:45	5/24/2013 1:45	2
16	5/28/2013 9:45	5/28/2013 18:15	8.5	0.015	0.29	0.051	0.58	1.21	0.03	0.853	0.374	0.270	5/28/2013 9:45	5/28/2013 16:30	6.75
17	6/3/2013 0:45	6/3/2013 23:00	22.25	0.037	1.59	0.023	1.43	2.09	0.60	0.826	0.398	0.227	6/3/2013 0:45	6/3/2013 17:15	16.5
18	6/7/2013 0:30	6/8/2013 9:15	32.75	0.207	3.98	0.052	4.72	5.47	0.37	1.461	0.500	0.191	6/7/2013 0:30	6/8/2013 2:00	25.5
19	6/10/2013 7:15	6/10/2013 11:00	3.75	0.027	0.77	0.035	5.06	5.93	0.49	1.718	0.509	0.322	6/10/2013 7:15	6/10/2013 8:30	1.25
20	6/10/2013 13:15	6/11/2013 8:00	18.75	0.075	1.22	0.062	5.16	5.97	0.26	1.193	0.500	0.202	6/10/2013 13:30	6/11/2013 0:45	11.25
21	6/13/2013 9:30	6/13/2013 16:00	6.5	0.015	0.38	0.040	2.20	3.04	0.16	1.090	0.535	0.270	6/13/2013 9:30	6/13/2013 10:45	1.25
22	6/18/2013 12:45	6/18/2013 23:15	10.5	0.025	0.35	0.071	0.93	1.72	0.03	1.106	0.541	0.281	6/18/2013 12:45	6/18/2013 20:45	8
23	6/23/2013 15:30	6/23/2013 19:00	3.5	0.011	0.18	0.059	1.64	2.47	0.08	1.207	0.532	0.301	6/23/2013 15:30	6/23/2013 16:30	1
24	6/25/2013 15:30	6/25/2013 17:45	2.25	0.004	0.18	0.024	1.06	1.82	0.14	1.003	0.503	0.258	6/25/2013 16:00	6/25/2013 16:45	0.75
25	6/26/2013 20:45	6/26/2013 23:45	3	0.004	0.28	0.015	1.41	2.21	0.22	0.936	0.482	0.287	6/26/2013 20:45	6/26/2013 21:15	0.5
26	6/27/2013 18:15	6/27/2013 21:45	3.5	0.025	0.76	0.033	3.11	3.91	0.18	1.660	0.479	0.314	6/27/2013 18:30	6/27/2013 21:30	3
27	6/30/2013 13:00	6/30/2013 16:45	3.75	0.007	0.16	0.042	0.67	1.49	0.03	1.027	0.488	0.324	6/30/2013 13:15	6/30/2013 15:45	2.5
28	7/1/2013 8:15	7/1/2013 18:30	10.25	0.015	0.21	0.072	0.53	1.33	0.03	0.941	0.481	0.279	7/1/2013 8:15	7/1/2013 15:15	7
29	7/10/2013 12:15	7/10/2013 13:45	1.5	0.006	0.14	0.041	1.19	1.90	0.13	1.145	0.428	0.266	7/10/2013 12:45	7/10/2013 13:30	0.75
30	7/12/2013 15:45	7/13/2013 1:00	9.25	0.038	0.88	0.044	1.99	2.63	0.17	1.153	0.378	0.271	7/12/2013 15:45	7/12/2013 22:45	7
31	7/13/2013 16:00	7/13/2013 21:45	5.75	0.022	0.50	0.044	1.84	2.52	0.10	1.143	0.377	0.300	7/13/2013 16:15	7/13/2013 20:00	3.75
32	7/23/2013 1:15	7/23/2013 7:00	5.75	0.017	1.45	0.012	1.46	1.87	0.63	0.822	0.405	0.060	7/23/2013 1:15	7/23/2013 3:30	2.25
33	7/28/2013 15:00	7/29/2013 5:30	14.5	0.033	0.54	0.062	1.49	2.22	0.10	0.917	0.439	0.197	7/28/2013 15:15	7/29/2013 2:30	11.25
34	8/1/2013 6:30	8/1/2013 17:45	11.25	0.050	1.05	0.048	2.19	2.92	0.11	1.293	0.468	0.282	8/1/2013 6:30	8/1/2013 15:00	8.5

PP-B0790 Pennypack Interceptor (2013)

Pipe Size (In.): 15

Tributary Drainage Area (acres): 187

Tributary Service Population: 4,893

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	8/8/2013 0:30	8/8/2013 5:30	5	0.002	0.62	0.003	0.14	0.66	0.38	0.554	0.469	0.035	8/8/2013 0:30	8/8/2013 3:15	2.75
36	8/8/2013 16:00	8/8/2013 17:15	1.25	0.001	0.15	0.007	0.26	0.99	0.11	0.835	0.471	0.260	8/8/2013 16:30	8/8/2013 16:45	0.25
37	8/13/2013 5:00	8/13/2013 13:00	8	0.047	1.91	0.025	2.33	3.13	0.61	1.458	0.482	0.263	8/13/2013 5:00	8/13/2013 10:00	5
38	8/22/2013 12:30	8/22/2013 17:30	5	0.005	0.22	0.023	0.94	1.66	0.09	0.848	0.475	0.254	8/22/2013 12:30	8/22/2013 17:15	4.75
39	8/28/2013 11:15	8/28/2013 20:45	9.5	0.033	0.59	0.056	2.22	2.93	0.15	1.156	0.461	0.275	8/28/2013 11:30	8/28/2013 16:00	4.5
40	9/2/2013 10:15	9/2/2013 17:30	7.25	0.026	1.38	0.019	2.44	3.29	0.58	1.244	0.459	0.346	9/2/2013 10:30	9/2/2013 13:30	3
41	9/12/2013 18:45	9/12/2013 22:30	3.75	0.007	0.15	0.045	1.60	2.38	0.10	1.009	0.472	0.312	9/12/2013 18:45	9/12/2013 19:15	0.5
42	9/13/2013 2:00	9/13/2013 5:30	3.5	0.015	0.38	0.039	2.35	2.82	0.15	0.996	0.468	0.017	9/13/2013 2:00	9/13/2013 3:15	1.25
43	9/21/2013 20:45	9/22/2013 6:30	9.75	0.052	1.20	0.043	3.53	4.28	0.25	1.238	0.470	0.123	9/21/2013 20:45	9/22/2013 2:45	6
Average:			6.3	0.020	0.59	0.038	1.63	2.36	0.20	1.077	0.468	0.242			3.7
Maximum Value:			32.8	0.207	3.98	0.105	5.16	5.97	0.63	1.718	0.541	0.346			25.5
Minimum Value:			1.3	0.001	0.12	0.003	0.14	0.66	0.02	0.554	0.374	0.017			0.25
Standard Deviation:			6.8	0.033	0.68	0.021	1.15	1.19	0.17	0.239	0.041	0.085			5.6
Weighted Mean R-Value*:						0.043									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PP-B0840 Pennypack Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 368

Tributary Service Population: 7,121

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	9/7/1999 4:00	9/7/1999 8:45	4.75	0.006	0.55	0.011	2.67	3.21	0.26	1.03	0.304	0.431	9/7/1999 4:15	9/7/1999 8:15	4
2	9/7/1999 13:45	9/7/1999 16:30	2.75	0.005	0.22	0.025	2.32	3.02	0.13	1.15	0.308	0.402	9/7/1999 14:15	9/7/1999 14:45	0.5
3	9/9/1999 13:30	9/9/1999 16:30	3	0.002	0.54	0.004	1.19	1.88	0.23	0.88	0.326	0.404	9/9/1999 13:30	9/9/1999 15:30	2
4	9/9/1999 22:00	9/10/1999 6:00	8	0.023	0.96	0.024	3.22	3.94	0.22	1.17	0.331	0.176	9/9/1999 22:15	9/10/1999 3:45	5.5
5	9/15/1999 17:00	9/18/1999 21:15	76.25	0.386	6.42	0.060	6.63	7.54	0.31	2.02	0.377	0.439	9/15/1999 17:00	9/16/1999 22:15	29.25
6	9/21/1999 1:00	9/21/1999 7:45	6.75	0.013	0.53	0.024	1.54	2.00	0.07	1.13	0.465	0.221	9/21/1999 1:15	9/21/1999 6:30	5.25
7	9/21/1999 8:30	9/21/1999 15:00	6.5	0.005	0.17	0.029	0.77	1.68	0.02	1.13	0.460	0.495	9/21/1999 9:00	9/21/1999 13:45	4.75
8	9/22/1999 3:00	9/22/1999 10:15	7.25	0.005	0.10	0.054	0.86	2.02	0.02	1.03	0.446	0.405	9/22/1999 3:30	9/22/1999 6:45	3.25
9	9/30/1999 2:45	9/30/1999 7:15	4.5	0.011	0.63	0.017	2.27	2.61	0.19	1.09	0.331	0.227	9/30/1999 3:00	9/30/1999 6:30	3.5
10	10/4/1999 8:00	10/4/1999 10:30	2.5	0.004	0.39	0.011	1.99	2.95	0.19	1.31	0.314	0.617	10/4/1999 8:15	10/4/1999 9:45	1.5
11	10/4/1999 15:15	10/5/1999 18:30	27.25	0.059	0.65	0.091	1.93	2.65	0.07	1.30	0.356	0.430	10/4/1999 18:15	10/5/1999 1:45	7.5
12	10/10/1999 1:15	10/10/1999 16:30	15.25	0.022	0.67	0.032	1.38	2.74	0.05	1.36	0.596	0.425	10/10/1999 1:15	10/10/1999 13:45	12.5
13	10/17/1999 15:45	10/18/1999 1:00	9.25	0.011	0.18	0.058	0.89	1.90	0.03	1.26	0.507	0.485	10/17/1999 17:45	10/17/1999 22:45	5
14	10/20/1999 2:45	10/20/1999 17:00	14.25	0.023	0.69	0.033	1.49	2.44	0.04	1.31	0.507	0.417	10/20/1999 3:30	10/20/1999 13:45	10.25
15	10/22/1999 20:15	10/23/1999 2:15	6	0.012	0.42	0.028	0.93	2.03	0.06	1.33	0.516	0.372	10/22/1999 20:15	10/23/1999 2:00	5.75
16	11/2/1999 8:45	11/3/1999 1:15	16.5	0.031	1.19	0.026	2.99	3.82	0.30	1.35	0.429	0.482	11/2/1999 9:45	11/2/1999 19:00	9.25
17	11/25/1999 7:00	11/25/1999 16:45	9.75	0.017	0.30	0.056	1.05	2.31	0.05	1.55	0.507	0.638	11/25/1999 7:15	11/25/1999 12:15	5
18	11/26/1999 6:45	11/26/1999 13:00	6.25	0.005	0.10	0.049	0.76	2.03	0.04	1.32	0.505	0.634	11/26/1999 8:15	11/26/1999 10:30	2.25
19	11/26/1999 18:15	11/27/1999 10:15	16	0.031	0.72	0.043	1.79	2.63	0.11	1.29	0.504	0.337	11/26/1999 18:45	11/27/1999 5:15	10.5
20	12/6/1999 6:00	12/6/1999 19:45	13.75	0.020	0.70	0.028	1.16	2.05	0.10	1.25	0.376	0.539	12/6/1999 6:00	12/6/1999 19:45	13.75
21	12/10/1999 12:15	12/10/1999 17:00	4.75	0.009	0.31	0.028	1.19	1.94	0.07	1.19	0.366	0.417	12/10/1999 12:45	12/10/1999 15:30	2.75
22	12/13/1999 16:00	12/14/1999 1:45	9.75	0.020	0.72	0.028	1.56	2.50	0.08	1.30	0.352	0.463	12/13/1999 16:15	12/14/1999 1:45	9.5
23	12/14/1999 6:30	12/14/1999 20:45	14.25	0.030	0.72	0.041	1.42	2.27	0.05	1.41	0.363	0.549	12/14/1999 7:15	12/14/1999 18:30	11.25
24	12/20/1999 11:00	12/21/1999 0:30	13.5	0.016	0.65	0.024	1.39	2.31	0.13	1.12	0.357	0.486	12/20/1999 11:30	12/20/1999 21:30	10
25	1/4/2000 16:00	1/5/2000 3:30	11.5	0.018	0.82	0.022	1.37	2.22	0.11	1.06	0.291	0.395	1/4/2000 16:15	1/5/2000 1:15	9
26	1/10/2000 10:30	1/10/2000 18:45	8.25	0.013	0.33	0.040	1.05	1.82	0.04	1.13	0.282	0.475	1/10/2000 11:00	1/10/2000 16:00	5
27	1/30/2000 20:15	1/31/2000 7:00	10.75	0.021	0.57	0.036	0.98	1.41	0.09	0.98	0.266	0.265	1/30/2000 21:00	1/31/2000 0:45	3.75
28	2/13/2000 19:30	2/14/2000 17:00	21.5	0.022	0.52	0.043	1.27	2.13	0.06	0.89	0.250	0.392	2/13/2000 20:00	2/14/2000 9:00	13
29	2/18/2000 13:45	2/18/2000 20:30	6.75	0.012	0.33	0.036	0.87	1.68	0.03	1.19	0.275	0.509	2/18/2000 14:00	2/18/2000 20:15	6.25
30	2/18/2000 21:30	2/19/2000 18:00	20.5	0.040	0.76	0.053	1.46	1.76	0.06	1.18	0.280	0.429	2/18/2000 22:00	2/19/2000 12:30	14.5
31	2/27/2000 23:15	2/28/2000 6:15	7	0.006	0.10	0.058	0.53	0.93	0.03	0.64	0.329	0.124	2/28/2000 0:45	2/28/2000 4:45	4
32	3/11/2000 13:15	3/12/2000 0:15	11	0.020	0.59	0.034	2.32	3.34	0.15	1.36	0.392	0.539	3/11/2000 13:30	3/11/2000 20:00	6.5
33	3/12/2000 0:45	3/12/2000 15:15	14.5	0.019	0.25	0.075	1.01	1.57	0.03	1.11	0.406	0.403	3/12/2000 2:30	3/12/2000 7:45	5.25
34	3/16/2000 19:30	3/17/2000 16:45	21.25	0.054	1.33	0.041	2.85	3.87	0.08	1.52	0.512	0.399	3/16/2000 19:30	3/17/2000 15:45	20.25

PP-B0840 Pennypack Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 368

Tributary Service Population: 7,121

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	3/21/2000 16:00	3/22/2000 10:00	18	0.070	1.47	0.047	2.15	3.27	0.07	1.89	0.561	0.413	3/21/2000 16:15	3/22/2000 5:00	12.75
36	3/27/2000 21:15	3/28/2000 8:00	10.75	0.027	0.63	0.042	2.18	2.90	0.08	1.55	0.670	0.299	3/27/2000 22:00	3/28/2000 5:15	7.25
37	4/3/2000 22:45	4/4/2000 2:30	3.75	0.004	0.11	0.032	1.12	2.04	0.06	1.00	0.593	0.194	4/4/2000 0:30	4/4/2000 1:00	0.5
38	4/8/2000 23:30	4/9/2000 22:30	23	0.037	0.38	0.097	0.99	2.02	0.03	1.36	0.532	0.446	4/9/2000 0:45	4/9/2000 16:00	15.25
39	4/15/2000 6:45	4/15/2000 23:45	17	0.012	0.21	0.056	0.53	1.66	0.02	1.33	0.585	0.583	4/15/2000 9:15	4/15/2000 22:15	13
40	4/16/2000 2:15	4/16/2000 4:45	2.5	0.003	0.10	0.034	0.67	1.27	0.02	0.91	0.584	0.027	4/16/2000 2:15	4/16/2000 4:30	2.25
41	4/16/2000 18:00	4/17/2000 0:15	6.25	0.011	0.28	0.041	2.76	3.92	0.13	1.49	0.575	0.494	4/16/2000 18:00	4/16/2000 20:30	2.5
42	4/17/2000 5:30	4/18/2000 2:00	20.5	0.031	0.66	0.048	1.19	2.39	0.03	1.42	0.571	0.483	4/17/2000 8:00	4/18/2000 1:15	17.25
43	4/21/2000 7:45	4/22/2000 2:00	18.25	0.032	0.58	0.055	2.83	3.93	0.19	1.46	0.571	0.478	4/21/2000 11:00	4/21/2000 23:15	12.25
44	5/10/2000 18:15	5/10/2000 22:00	3.75	0.006	0.36	0.017	1.71	2.90	0.09	1.50	0.528	0.613	5/10/2000 19:00	5/10/2000 21:00	2
45	5/13/2000 20:30	5/14/2000 3:00	6.5	0.012	0.73	0.017	2.32	3.37	0.37	1.28	0.546	0.299	5/13/2000 21:15	5/14/2000 0:00	2.75
46	5/19/2000 8:00	5/19/2000 19:30	11.5	0.016	0.63	0.025	2.57	3.61	0.32	1.37	0.533	0.513	5/19/2000 8:15	5/19/2000 12:45	4.5
47	5/20/2000 5:15	5/20/2000 10:15	5	0.003	0.22	0.015	0.64	1.50	0.13	1.10	0.541	0.404	5/20/2000 7:00	5/20/2000 8:15	1.25
48	5/20/2000 11:15	5/20/2000 14:30	3.25	0.003	0.17	0.017	1.19	2.50	0.06	1.45	0.542	0.712	5/20/2000 11:15	5/20/2000 13:30	2.25
49	5/23/2000 23:15	5/24/2000 9:30	10.25	0.014	0.32	0.045	1.25	1.98	0.06	1.16	0.527	0.300	5/24/2000 0:00	5/24/2000 4:15	4.25
50	5/24/2000 20:15	5/25/2000 2:15	6	0.007	0.27	0.027	1.75	2.85	0.15	1.15	0.515	0.357	5/24/2000 21:15	5/25/2000 2:00	4.75
51	6/6/2000 5:15	6/6/2000 14:15	9	0.013	0.37	0.036	1.26	2.48	0.10	1.28	0.410	0.525	6/6/2000 6:30	6/6/2000 12:45	6.25
Average:			11.9	0.025	0.62	0.037	1.65	2.54	0.11	1.25	0.443	0.423			7.3
Maximum Value:			76.3	0.386	6.42	0.097	6.63	7.54	0.37	2.02	0.670	0.712			29.3
Minimum Value:			2.5	0.002	0.10	0.004	0.53	0.93	0.02	0.64	0.250	0.027			0.50
Standard Deviation:			11.1	0.054	0.88	0.019	1.00	1.03	0.09	0.24	0.112	0.134			5.6
Weighted Mean R-Value*:						0.041									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PP-B1035 Pennypack Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 392

Tributary Service Population: 4,469

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	3/12/2013 3:00	3/13/2013 16:15	37.25	0.0210	1.06	0.020	0.629	1.29	0.09	0.752	0.306	0.305	3/12/2013 3:00	3/12/2013 15:00	12
2	3/16/2013 11:00	3/16/2013 20:00	9	0.0040	0.14	0.028	0.353	1.07	0.02	0.876	0.316	0.452	3/16/2013 11:00	3/16/2013 18:00	7
3	3/18/2013 18:15	3/20/2013 4:00	33.75	0.0170	0.88	0.019	0.398	1.16	0.06	0.737	0.323	0.290	3/18/2013 18:30	3/19/2013 18:45	24.25
4	3/25/2013 6:45	3/26/2013 10:30	27.75	0.0150	0.56	0.027	0.381	1.09	0.04	0.801	0.337	0.327	3/25/2013 6:45	3/25/2013 16:15	9.5
5	3/31/2013 15:30	3/31/2013 23:15	7.75	0.0020	0.16	0.012	0.130	0.90	0.03	0.798	0.357	0.379	3/31/2013 15:30	3/31/2013 22:45	7.25
6	4/10/2013 20:15	4/11/2013 10:00	13.75	0.0040	0.58	0.006	0.464	1.12	0.20	0.628	0.308	0.254	4/10/2013 20:15	4/11/2013 0:00	3.75
7	4/12/2013 7:45	4/12/2013 18:00	10.25	0.0050	0.71	0.007	0.374	1.08	0.09	0.811	0.307	0.384	4/12/2013 8:00	4/12/2013 13:45	5.75
8	4/12/2013 21:45	4/13/2013 18:00	20.25	0.0060	0.27	0.022	0.431	1.05	0.05	0.683	0.310	0.300	4/12/2013 21:45	4/12/2013 23:30	1.75
9	4/19/2013 21:45	4/20/2013 11:00	13.25	0.0060	0.49	0.013	0.342	0.98	0.05	0.657	0.321	0.216	4/19/2013 21:45	4/20/2013 3:00	5.25
10	4/29/2013 3:30	4/29/2013 8:30	5	0.0010	0.14	0.008	0.192	1.02	0.02	0.620	0.324	0.238	4/29/2013 3:30	4/29/2013 7:45	4.25
11	4/29/2013 9:00	4/29/2013 21:30	12.5	0.0030	0.27	0.011	0.222	0.91	0.02	0.771	0.321	0.390	4/29/2013 9:00	4/29/2013 21:00	12
12	5/7/2013 21:45	5/8/2013 5:00	7.25	0.0010	0.14	0.008	0.105	0.71	0.04	0.451	0.277	0.133	5/7/2013 22:00	5/8/2013 4:30	6.5
13	5/8/2013 5:15	5/8/2013 10:45	5.5	0.0010	0.28	0.003	0.265	1.04	0.06	0.694	0.277	0.384	5/8/2013 5:45	5/8/2013 10:00	4.25
14	5/8/2013 17:45	5/8/2013 22:30	4.75	0.0010	0.15	0.005	0.187	0.91	0.06	0.742	0.277	0.425	5/8/2013 17:45	5/8/2013 19:30	1.75
15	5/9/2013 3:30	5/9/2013 11:15	7.75	0.0040	0.58	0.008	0.428	0.98	0.09	0.723	0.278	0.303	5/9/2013 3:30	5/9/2013 6:45	3.25
16	5/10/2013 22:45	5/11/2013 9:15	10.5	0.0060	0.69	0.008	0.378	0.88	0.10	0.578	0.293	0.145	5/10/2013 23:00	5/11/2013 7:15	8.25
17	5/18/2013 21:45	5/19/2013 4:15	6.5	0.0020	0.20	0.008	0.199	0.80	0.05	0.537	0.339	0.138	5/18/2013 21:45	5/19/2013 3:15	5.5
18	5/19/2013 5:45	5/19/2013 23:30	17.75	0.0060	0.12	0.052	0.235	1.11	0.01	0.820	0.338	0.394	5/19/2013 5:45	5/19/2013 18:15	12.5
19	5/23/2013 16:00	5/23/2013 22:15	6.25	0.0010	0.13	0.009	0.266	0.98	0.10	0.799	0.341	0.411	5/23/2013 16:15	5/23/2013 18:45	2.5
20	5/23/2013 23:45	5/24/2013 4:30	4.75	0.0030	0.54	0.006	0.780	1.27	0.39	0.549	0.335	0.062	5/23/2013 23:45	5/24/2013 1:45	2
21	5/24/2013 10:30	5/24/2013 19:00	8.5	0.0020	0.13	0.019	0.202	0.85	0.04	0.757	0.323	0.362	5/24/2013 10:30	5/24/2013 15:30	5
22	5/28/2013 10:45	5/29/2013 4:30	17.75	0.0050	0.25	0.020	0.226	0.94	0.03	0.673	0.311	0.289	5/28/2013 11:00	5/28/2013 21:45	10.75
23	6/3/2013 0:45	6/3/2013 13:45	13	0.0080	1.33	0.006	1.051	1.92	0.50	0.766	0.348	0.262	6/3/2013 0:45	6/3/2013 13:15	12.5
24	6/3/2013 14:30	6/4/2013 10:15	19.75	0.0080	0.34	0.024	0.789	1.45	0.20	0.744	0.346	0.292	6/3/2013 14:45	6/3/2013 17:15	2.5
25	6/6/2013 19:30	6/10/2013 0:00	76.5	0.1170	3.95	0.030	1.393	2.22	0.23	1.192	0.489	0.313	6/6/2013 19:30	6/8/2013 2:00	30.5
26	6/10/2013 7:00	6/12/2013 23:15	64.25	0.0820	1.94	0.042	1.399	2.43	0.30	1.300	0.645	0.330	6/10/2013 7:15	6/11/2013 0:45	17.5
27	6/13/2013 9:15	6/14/2013 5:30	20.25	0.0070	0.54	0.012	0.605	1.73	0.19	1.045	0.676	0.287	6/13/2013 9:30	6/14/2013 5:30	20
28	6/18/2013 12:45	6/19/2013 11:15	22.5	0.0070	0.31	0.023	0.285	1.23	0.04	0.950	0.568	0.301	6/18/2013 12:45	6/18/2013 20:45	8
29	6/23/2013 15:45	6/24/2013 3:45	12	0.0030	0.14	0.025	0.243	1.15	0.07	0.843	0.504	0.268	6/23/2013 15:45	6/23/2013 16:30	0.75
30	6/25/2013 15:45	6/26/2013 1:00	9.25	0.0030	0.17	0.019	0.374	1.24	0.07	0.935	0.499	0.354	6/25/2013 16:00	6/26/2013 0:00	8
31	6/26/2013 20:45	6/27/2013 0:00	3.25	0.0020	0.29	0.006	0.460	1.37	0.23	0.963	0.484	0.344	6/26/2013 20:45	6/26/2013 23:45	3
32	6/27/2013 18:15	6/28/2013 7:30	13.25	0.0080	1.00	0.008	1.128	2.06	0.30	0.869	0.481	0.242	6/27/2013 18:30	6/27/2013 21:45	3.25
33	6/30/2013 12:45	6/30/2013 17:45	5	0.0010	0.20	0.003	0.236	1.17	0.02	0.961	0.487	0.441	6/30/2013 12:45	6/30/2013 15:45	3
34	7/1/2013 8:30	7/2/2013 1:30	17	0.0050	0.47	0.011	0.454	1.41	0.30	0.899	0.469	0.356	7/1/2013 8:45	7/1/2013 15:15	6.5

PP-B1035 Pennypack Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 392

Tributary Service Population: 4,469

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	7/3/2013 22:15	7/4/2013 3:15	5	0.0020	0.23	0.008	0.436	1.14	0.13	0.690	0.443	0.157	7/3/2013 22:15	7/3/2013 23:00	0.75
36	7/9/2013 16:30	7/10/2013 4:30	12	0.0040	0.20	0.021	0.430	1.21	0.16	0.748	0.396	0.261	7/9/2013 16:30	7/9/2013 20:00	3.5
37	7/10/2013 12:30	7/10/2013 23:45	11.25	0.0060	0.27	0.020	0.488	1.23	0.26	0.878	0.386	0.368	7/10/2013 12:30	7/10/2013 13:30	1
38	7/12/2013 15:30	7/13/2013 9:30	18	0.0070	0.86	0.008	0.715	1.49	0.17	0.745	0.395	0.251	7/12/2013 15:30	7/12/2013 23:00	7.5
39	7/13/2013 16:15	7/14/2013 6:30	14.25	0.0030	0.45	0.008	0.669	1.45	0.28	0.671	0.391	0.219	7/13/2013 16:15	7/13/2013 20:00	3.75
40	7/22/2013 18:45	7/23/2013 0:00	5.25	0.0040	0.29	0.015	0.747	1.56	0.13	0.946	0.364	0.383	7/22/2013 19:00	7/22/2013 23:45	4.75
41	7/23/2013 1:15	7/23/2013 22:00	20.75	0.0160	0.81	0.020	1.099	1.47	0.29	0.874	0.363	0.315	7/23/2013 1:15	7/23/2013 18:00	16.75
42	7/28/2013 15:30	7/29/2013 10:00	18.5	0.0040	0.33	0.013	0.287	1.03	0.09	0.678	0.336	0.283	7/28/2013 15:30	7/29/2013 2:30	11
43	8/1/2013 6:30	8/2/2013 5:45	23.25	0.0110	0.90	0.012	0.664	1.32	0.12	0.727	0.300	0.306	8/1/2013 6:30	8/1/2013 15:00	8.5
44	8/8/2013 0:30	8/8/2013 18:45	18.25	0.0050	0.73	0.007	0.679	1.00	0.23	0.647	0.289	0.286	8/8/2013 0:30	8/8/2013 16:45	16.25
45	8/9/2013 17:00	8/9/2013 20:45	3.75	0.0010	0.14	0.007	0.207	0.92	0.11	0.714	0.289	0.423	8/9/2013 17:15	8/9/2013 18:00	0.75
46	8/13/2013 5:15	8/16/2013 6:00	72.75	0.0520	2.24	0.023	2.357	3.13	0.76	0.791	0.305	0.302	8/13/2013 5:15	8/13/2013 9:45	4.5
47	8/22/2013 6:15	8/22/2013 7:15	1	0.0002	0.18	0.001	0.209	0.80	0.12	0.443	0.270	0.386	8/22/2013 6:30	8/22/2013 6:45	0.25
48	8/22/2013 12:30	8/22/2013 18:45	6.25	0.0020	0.36	0.006	0.510	1.12	0.24	0.706	0.270	0.356	8/22/2013 12:30	8/22/2013 17:15	4.75
49	8/28/2013 11:30	8/29/2013 6:15	18.75	0.0060	0.57	0.010	0.654	1.29	0.14	0.619	0.275	0.267	8/28/2013 11:45	8/28/2013 19:15	7.5
50	9/2/2013 10:30	9/5/2013 0:30	62	0.0280	1.28	0.022	1.5	2.29	0.78	0.685	0.243	0.329	9/2/2013 10:30	9/2/2013 13:15	2.75
51	9/12/2013 18:45	9/12/2013 22:30	3.75	0.0010	0.16	0.006	0.262	0.95	0.09	0.722	0.235	0.428	9/12/2013 18:45	9/12/2013 19:15	0.5
52	9/13/2013 1:30	9/13/2013 11:00	9.5	0.0020	0.31	0.007	0.356	0.85	0.12	0.536	0.237	0.244	9/13/2013 1:45	9/13/2013 3:15	1.5
53	9/21/2013 20:15	9/23/2013 23:00	50.75	0.0170	1.25	0.013	0.830	1.37	0.34	0.618	0.224	0.310	9/21/2013 20:15	9/22/2013 4:00	7.75
Average:			17.7	0.0102	0.58	0.014	0.541	1.27	0.16	0.762	0.357	0.307			7.1
Maximum Value:			76.5	0.1170	3.95	0.052	2.357	3.13	0.78	1.300	0.676	0.452			30.5
Minimum Value:			1.0	0.0002	0.12	0.001	0.105	0.71	0.01	0.443	0.224	0.062			0.25
Standard Deviation:			17.5	0.0200	0.65	0.010	0.418	0.46	0.16	0.162	0.099	0.084			6.2
Weighted Mean R-Value*:						0.018									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PP-B1080 Pennypack Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 2,549

Tributary Service Population: 11,596

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2/11/2012 5:15	2/12/2012 8:45	27.5	0.005	0.20	0.024	0.915	3.60	0.03	2.43	1.49	0.658	2/11/2012 5:15	2/11/2012 20:15	15
2	2/16/2012 14:15	2/17/2012 4:00	13.75	0.002	0.15	0.012	0.937	3.03	0.02	2.23	1.57	0.459	2/16/2012 14:15	2/16/2012 20:30	6.25
3	2/24/2012 2:30	2/24/2012 16:00	13.5	0.002	0.21	0.009	1.442	2.94	0.03	2.20	1.42	0.550	2/24/2012 2:45	2/24/2012 9:00	6.25
4	2/24/2012 17:00	2/25/2012 5:00	12	0.001	0.09	0.012	0.975	3.12	0.02	2.01	1.31	0.542	2/24/2012 17:00	2/24/2012 19:15	2.25
5	2/29/2012 9:45	3/1/2012 21:00	35.25	0.014	0.96	0.015	2.191	4.10	0.08	2.63	1.40	0.558	2/29/2012 9:45	3/1/2012 0:45	15
6	3/2/2012 20:15	3/4/2012 1:30	29.25	0.007	0.35	0.020	1.363	3.71	0.04	2.43	1.34	0.698	3/2/2012 20:30	3/3/2012 9:45	13.25
Average:			21.9	0.005	0.33	0.015	1.304	3.42	0.04	2.32	1.42	0.578			9.7
Maximum Value:			35.3	0.014	0.96	0.024	2.191	4.10	0.08	2.63	1.57	0.698			15.0
Minimum Value:			12.0	0.001	0.09	0.009	0.915	2.94	0.02	2.01	1.31	0.459			2.25
Standard Deviation:			10.0	0.005	0.32	0.006	0.491	0.46	0.02	0.22	0.10	0.087			5.4
Weighted Mean R-Value*:						0.016									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PP-B1215 Pennypack Interceptor

Pipe Size (In.): 21

Tributary Drainage Area (acres): 2,225

Tributary Service Population: 9,181

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	11/25/1999 6:30	11/25/1999 19:30	13	0.006	0.31	0.018	2.16	3.05	0.05	1.60	0.484	0.506	11/25/1999 6:45	11/25/1999 12:15	5.5
2	11/26/1999 8:00	11/27/1999 22:15	38.25	0.017	0.80	0.022	2.45	3.11	0.10	1.53	0.330	0.549	11/26/1999 8:15	11/27/1999 6:15	22
3	12/6/1999 4:15	12/7/1999 2:00	21.75	0.012	0.81	0.015	2.58	3.42	0.09	1.65	0.415	0.453	12/6/1999 4:30	12/6/1999 19:30	15
4	12/10/1999 12:45	12/11/1999 0:45	12	0.004	0.33	0.011	2.14	3.25	0.06	1.42	0.338	0.649	12/10/1999 12:45	12/10/1999 16:15	3.5
5	12/20/1999 8:00	12/21/1999 19:30	35.5	0.018	0.70	0.026	2.52	3.56	0.08	1.86	0.661	0.468	12/20/1999 8:00	12/20/1999 23:00	15
6	1/4/2000 4:00	1/4/2000 12:30	8.5	0.003	0.00	0.000	1.98	2.84	0.00	1.52	0.673	0.335	12/30/1899 0:00	12/30/1899 0:00	0
7	1/10/2000 11:00	1/11/2000 0:00	13	0.007	0.45	0.015	2.20	3.54	0.09	1.92	0.619	0.553	1/10/2000 11:00	1/10/2000 16:15	5.25
8	1/30/2000 22:00	1/31/2000 20:15	22.25	0.013	0.53	0.024	2.52	3.62	0.05	1.89	0.602	0.450	1/30/2000 22:15	1/31/2000 15:15	17
9	2/4/2000 11:30	2/5/2000 1:00	13.5	0.002	0.13	0.014	2.09	3.22	0.02	1.41	0.591	0.627	2/4/2000 11:45	2/4/2000 16:15	4.5
10	2/13/2000 20:30	2/15/2000 5:30	33	0.028	0.64	0.043	3.35	4.31	0.12	2.39	0.755	0.422	2/13/2000 20:45	2/14/2000 9:30	12.75
11	2/18/2000 17:15	2/20/2000 23:45	54.5	0.052	1.29	0.040	3.39	4.53	0.07	2.66	0.759	0.519	2/18/2000 17:45	2/19/2000 16:45	23
12	3/11/2000 12:15	3/13/2000 0:15	36	0.021	1.05	0.020	2.94	3.92	0.17	2.02	0.638	0.538	3/11/2000 13:00	3/12/2000 7:45	18.75
13	3/16/2000 19:15	3/19/2000 0:00	52.75	0.038	1.48	0.026	3.22	4.21	0.12	2.28	0.730	0.506	3/16/2000 19:15	3/17/2000 8:45	13.5
14	3/21/2000 15:45	3/24/2000 18:00	74.25	0.071	1.84	0.038	3.44	4.70	0.08	2.88	1.051	0.450	3/21/2000 16:00	3/22/2000 6:00	14
15	3/27/2000 21:15	3/28/2000 13:30	16.25	0.012	0.72	0.017	2.81	4.14	0.07	2.63	1.211	0.357	3/27/2000 21:45	3/28/2000 8:30	10.75
16	4/8/2000 19:30	4/10/2000 1:30	30	0.011	0.60	0.019	2.51	3.54	0.15	1.92	0.868	0.502	4/8/2000 19:45	4/9/2000 14:15	18.5
17	4/15/2000 7:30	4/19/2000 4:30	93	0.052	1.43	0.036	2.82	4.13	0.12	2.14	0.870	0.466	4/15/2000 7:45	4/18/2000 8:30	72.75
18	4/21/2000 10:45	4/22/2000 17:30	30.75	0.021	0.52	0.041	3.00	4.10	0.13	2.33	0.795	0.538	4/21/2000 11:00	4/22/2000 15:15	28.25
19	5/10/2000 18:30	5/11/2000 5:00	10.5	0.004	0.36	0.011	2.39	3.63	0.09	1.64	0.729	0.380	5/10/2000 19:00	5/10/2000 21:00	2
20	5/13/2000 21:15	5/14/2000 3:00	5.75	0.002	0.69	0.003	2.42	3.37	0.37	1.69	0.551	0.582	5/13/2000 21:30	5/14/2000 0:15	2.75
21	5/19/2000 8:15	5/20/2000 1:00	16.75	0.006	0.73	0.008	2.25	3.46	0.34	1.78	0.705	0.582	5/19/2000 8:15	5/19/2000 12:45	4.5
22	5/20/2000 6:45	5/21/2000 2:00	19.25	0.008	0.40	0.020	2.64	3.56	0.11	1.72	0.578	0.558	5/20/2000 6:45	5/20/2000 13:45	7
23	5/23/2000 20:00	5/26/2000 1:45	53.75	0.025	0.78	0.032	2.94	3.87	0.12	1.86	0.761	0.434	5/23/2000 20:15	5/24/2000 22:30	26.25
24	6/6/2000 5:45	6/7/2000 12:15	30.5	0.013	0.56	0.022	2.75	3.47	0.10	1.63	0.618	0.421	6/6/2000 6:00	6/7/2000 4:15	22.25
Average:			30.6	0.019	0.71	0.022	2.65	3.69	0.11	1.93	0.681	0.494			15.2
Maximum Value:			93.0	0.071	1.84	0.043	3.44	4.70	0.37	2.88	1.211	0.649			72.8
Minimum Value:			5.8	0.002	0.00	0.000	1.98	2.84	0.00	1.41	0.330	0.335			0.00
Standard Deviation:			21.8	0.018	0.44	0.012	0.43	0.48	0.08	0.41	0.201	0.081			14.8
Weighted Mean R-Value*:						0.026									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.



PC-0010 Poquessing Creek Interceptor (2009)

Pipe Size (In.): 60

Tributary Drainage Area (acres): 10,349

Tributary Service Population: 74,868

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	8/10/2008 16:15	8/11/2008 0:00	7.75	0.001	0.35	0.002	1.77	11.8	0.07	10.7	4.87	5.15	8/10/2008 16:15	8/10/2008 20:15	4
2	8/30/2008 1:15	8/30/2008 14:00	12.75	0.002	0.30	0.006	4.74	13.4	0.14	9.0	5.55	2.57	8/30/2008 1:15	8/30/2008 3:45	2.5
3	9/5/2008 23:15	9/6/2008 11:00	11.75	0.001	0.17	0.006	2.72	11.2	0.05	7.8	5.44	1.82	9/5/2008 23:15	9/6/2008 1:00	1.75
4	9/6/2008 13:15	9/7/2008 17:45	28.5	0.018	2.14	0.008	21.54	31.9	0.20	13.8	5.44	4.22	9/6/2008 13:15	9/6/2008 22:15	9
5	9/9/2008 10:30	9/10/2008 19:00	32.5	0.010	0.64	0.015	9.25	19.4	0.20	11.0	5.33	3.63	9/9/2008 10:30	9/10/2008 0:15	13.75
6	9/12/2008 14:15	9/13/2008 20:30	30.25	0.012	0.74	0.016	7.87	17.5	0.08	12.0	5.57	3.83	9/12/2008 14:15	9/12/2008 23:30	9.25
7	9/25/2008 20:15	9/28/2008 1:30	53.25	0.010	0.72	0.013	5.03	15.5	0.17	10.7	5.86	3.64	9/25/2008 20:15	9/27/2008 20:45	48.5
8	9/28/2008 5:15	9/30/2008 0:00	42.75	0.020	1.23	0.016	22.54	33.1	0.22	13.1	6.15	3.76	9/28/2008 5:15	9/28/2008 20:30	15.25
9	9/30/2008 22:45	10/2/2008 16:45	42	0.010	0.38	0.026	8.86	19.3	0.11	10.8	5.98	3.22	9/30/2008 23:00	10/2/2008 1:30	26.5
10	10/25/2008 10:15	10/26/2008 22:30	36.25	0.010	0.87	0.011	10.79	21.1	0.33	11.6	5.40	4.43	10/25/2008 10:15	10/25/2008 22:00	11.75
11	10/27/2008 22:00	10/30/2008 0:00	50	0.040	1.74	0.023	22.65	32.1	0.09	14.3	5.52	3.42	10/27/2008 22:15	10/29/2008 18:45	44.5
12	11/5/2008 18:15	11/7/2008 2:15	32	0.006	0.27	0.023	5.59	15.8	0.03	10.6	5.69	3.58	11/5/2008 18:30	11/6/2008 11:00	16.5
13	11/8/2008 10:15	11/8/2008 21:30	11.25	0.002	0.11	0.015	3.61	16.5	0.03	12.8	6.09	5.68	11/8/2008 10:30	11/8/2008 13:15	2.75
14	11/13/2008 10:45	11/14/2008 23:00	36.25	0.014	0.75	0.019	10.67	20.3	0.07	12.0	5.63	3.73	11/13/2008 11:00	11/14/2008 19:30	32.5
15	11/15/2008 3:30	11/17/2008 16:15	60.75	0.029	0.92	0.032	8.79	19.4	0.21	12.7	5.94	3.60	11/15/2008 3:30	11/16/2008 1:30	22
16	11/24/2008 20:00	11/26/2008 3:15	31.25	0.011	0.51	0.022	6.47	15.8	0.04	11.8	5.92	3.49	11/24/2008 20:00	11/25/2008 12:45	16.75
17	11/30/2008 5:15	12/2/2008 17:00	59.75	0.022	0.88	0.025	10.34	21.9	0.04	12.4	6.33	3.51	11/30/2008 5:15	12/1/2008 22:30	41.25
18	12/10/2008 6:00	12/14/2008 3:15	93.25	0.076	3.26	0.023	24.75	31.6	0.13	15.8	6.75	3.53	12/10/2008 6:30	12/12/2008 4:30	46
19	12/16/2008 12:15	12/18/2008 0:00	35.75	0.014	0.66	0.022	9.44	19.0	0.08	14.3	7.88	3.72	12/16/2008 12:30	12/17/2008 13:15	24.75
20	12/19/2008 8:15	12/20/2008 22:15	38	0.040	0.92	0.043	27.96	40.2	0.06	19.5	8.48	3.94	12/19/2008 8:15	12/19/2008 18:00	9.75
21	12/21/2008 4:30	12/22/2008 6:15	25.75	0.010	0.26	0.036	9.89	21.0	0.03	14.6	8.56	3.52	12/21/2008 4:30	12/21/2008 10:30	6
22	12/24/2008 0:30	12/25/2008 15:15	38.75	0.008	0.28	0.030	4.83	18.5	0.03	13.4	8.77	3.19	12/24/2008 0:30	12/25/2008 1:30	25
23	1/6/2009 13:45	1/10/2009 11:15	93.5	0.063	1.68	0.037	17.24	29.2	0.06	15.9	8.13	3.26	1/6/2009 14:00	1/7/2009 23:00	33
24	1/27/2009 22:15	1/30/2009 7:30	57.25	0.030	0.89	0.034	18.63	30.3	0.04	14.4	7.70	3.15	1/27/2009 22:15	1/28/2009 18:45	20.5
25	3/26/2009 16:30	3/27/2009 18:45	26.25	0.004	0.33	0.013	5.85	17.8	0.05	11.5	7.00	3.38	3/26/2009 16:30	3/27/2009 1:00	8.5
26	3/28/2009 2:00	3/28/2009 20:45	18.75	0.003	0.17	0.017	4.47	15.9	0.02	11.7	7.02	3.67	3/28/2009 2:00	3/28/2009 7:30	5.5
27	3/29/2009 2:30	3/30/2009 22:30	44	0.012	0.53	0.022	7.16	19.2	0.23	12.3	6.95	3.58	3/29/2009 2:45	3/29/2009 22:45	20
28	4/1/2009 14:15	4/2/2009 22:30	32.25	0.003	0.20	0.017	3.00	14.2	0.02	11.6	7.29	3.61	4/1/2009 14:15	4/2/2009 0:45	10.5
29	4/3/2009 4:45	4/4/2009 22:00	41.25	0.014	0.72	0.019	9.86	21.7	0.15	13.5	7.60	3.65	4/3/2009 5:00	4/3/2009 19:00	14
30	4/6/2009 6:45	4/7/2009 17:15	34.5	0.010	0.46	0.022	5.33	17.4	0.11	13.0	7.57	3.47	4/6/2009 6:45	4/6/2009 19:30	12.75
31	4/11/2009 6:45	4/12/2009 7:15	24.5	0.009	0.53	0.017	6.24	20.2	0.05	13.8	7.80	3.65	4/11/2009 6:45	4/11/2009 15:00	8.25
32	4/13/2009 23:45	4/16/2009 17:45	66	0.033	1.02	0.032	9.68	20.2	0.03	14.8	8.25	3.25	4/13/2009 23:45	4/15/2009 17:15	41.5
33	4/20/2009 10:30	4/21/2009 20:15	33.75	0.013	0.68	0.019	9.35	22.9	0.08	15.2	9.04	3.66	4/20/2009 10:30	4/21/2009 2:00	15.5
34	4/21/2009 21:15	4/23/2009 15:30	42.25	0.006	0.18	0.035	5.68	18.9	0.03	13.3	9.11	3.26	4/21/2009 21:30	4/22/2009 19:45	22.25

PC-0010 Poquessing Creek Interceptor (2009)

Pipe Size (In.): 60

Tributary Drainage Area (acres): 10,349

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/3/2009 10:30	5/6/2009 18:00	79.5	0.034	1.68	0.020	10.45	23.7	0.07	15.2	8.70	3.65	5/3/2009 10:30	5/6/2009 1:15	62.75
36	5/6/2009 20:30	5/8/2009 21:00	48.5	0.036	1.22	0.029	12.64	25.2	0.14	18.8	10.41	3.40	5/6/2009 20:45	5/7/2009 17:30	20.75
37	5/14/2009 23:15	5/15/2009 23:00	23.75	0.005	0.26	0.020	6.86	19.6	0.16	13.6	8.83	3.32	5/14/2009 23:15	5/15/2009 0:15	1
38	5/24/2009 20:45	5/25/2009 13:45	17	0.002	0.19	0.011	4.03	15.7	0.08	11.0	7.19	3.00	5/24/2009 21:00	5/24/2009 22:00	1
39	5/29/2009 2:45	5/30/2009 5:45	27	0.006	0.46	0.014	7.52	14.8	0.10	11.9	7.28	3.03	5/29/2009 2:45	5/29/2009 19:15	16.5
40	6/3/2009 3:30	6/3/2009 20:30	17	0.003	0.29	0.012	5.37	13.6	0.10	11.3	6.81	3.18	6/3/2009 3:30	6/3/2009 20:30	17
41	6/3/2009 22:45	6/5/2009 0:15	25.5	0.008	0.51	0.015	6.30	16.2	0.06	12.5	7.07	3.44	6/3/2009 23:00	6/4/2009 20:30	21.5
42	6/5/2009 0:45	6/6/2009 19:00	42.25	0.023	0.85	0.028	9.54	21.1	0.03	14.7	7.55	3.39	6/5/2009 0:45	6/5/2009 22:15	21.5
43	6/9/2009 7:30	6/10/2009 2:30	19	0.005	0.20	0.025	5.42	18.3	0.08	13.7	7.88	4.04	6/9/2009 7:30	6/9/2009 8:45	1.25
44	6/11/2009 3:15	6/12/2009 6:45	27.5	0.006	0.48	0.012	6.57	15.0	0.19	12.1	7.72	2.96	6/11/2009 3:30	6/12/2009 1:00	21.5
45	6/13/2009 16:00	6/14/2009 21:45	29.75	0.010	0.63	0.016	11.34	24.6	0.11	14.7	8.30	4.11	6/13/2009 16:15	6/14/2009 2:00	9.75
46	6/15/2009 23:30	6/17/2009 6:00	30.5	0.009	1.01	0.009	9.73	18.9	0.29	14.0	9.01	3.06	6/15/2009 23:45	6/16/2009 5:00	5.25
47	6/17/2009 21:00	6/19/2009 14:45	41.75	0.010	0.54	0.019	8.66	21.6	0.07	14.6	9.69	3.25	6/17/2009 21:00	6/18/2009 20:15	23.25
48	6/20/2009 9:15	6/21/2009 5:15	20	0.004	0.41	0.009	6.15	23.4	0.05	16.0	10.34	4.40	6/20/2009 9:30	6/21/2009 1:30	16
49	6/26/2009 19:30	6/27/2009 11:45	16.25	0.005	0.47	0.011	11.63	26.7	0.34	14.7	10.11	2.63	6/26/2009 19:30	6/26/2009 21:15	1.75
50	7/1/2009 16:45	7/3/2009 6:45	38	0.009	1.08	0.008	8.50	19.2	0.52	13.9	9.13	3.24	7/1/2009 17:00	7/2/2009 16:15	23.25
51	7/11/2009 22:30	7/12/2009 12:00	13.5	0.010	1.14	0.008	21.05	31.4	0.45	15.0	8.08	2.23	7/11/2009 22:30	7/12/2009 3:15	4.75
52	7/16/2009 18:45	7/17/2009 5:15	10.5	0.001	0.20	0.007	3.32	16.3	0.16	12.2	7.99	3.31	7/16/2009 18:45	7/16/2009 19:15	0.5
53	7/17/2009 19:45	7/18/2009 6:15	10.5	0.001	0.42	0.002	3.74	16.6	0.22	11.6	8.11	2.96	7/17/2009 20:00	7/17/2009 21:15	1.25
54	7/21/2009 4:30	7/22/2009 11:00	30.5	0.011	0.88	0.013	12.49	23.7	0.08	13.5	8.05	3.03	7/21/2009 4:30	7/21/2009 16:15	11.75
55	7/23/2009 11:00	7/24/2009 1:45	14.75	0.002	0.23	0.010	3.41	16.2	0.07	13.6	8.19	4.38	7/23/2009 11:00	7/23/2009 16:00	5
56	7/29/2009 12:45	7/30/2009 10:00	21.25	0.005	0.41	0.013	9.00	22.1	0.08	13.5	8.61	3.18	7/29/2009 12:45	7/29/2009 22:45	10
57	7/31/2009 5:45	8/1/2009 12:15	30.5	0.009	1.23	0.008	15.16	28.4	0.25	14.0	8.86	3.06	7/31/2009 5:45	7/31/2009 18:00	12.25
58	8/2/2009 6:30	8/3/2009 17:00	34.5	0.024	1.88	0.013	17.52	33.5	0.59	17.6	9.22	3.74	8/2/2009 6:30	8/2/2009 13:30	7
59	8/9/2009 5:00	8/10/2009 1:30	20.5	0.003	0.37	0.009	6.76	18.8	0.05	14.4	9.19	4.17	8/9/2009 5:00	8/9/2009 19:30	14.5
60	8/13/2009 13:00	8/14/2009 16:00	27	0.009	0.40	0.022	12.63	25.4	0.09	14.3	8.66	3.47	8/13/2009 13:15	8/13/2009 15:30	2.25
61	8/21/2009 15:00	8/25/2009 13:45	94.75	0.052	2.40	0.022	21.24	31.2	0.41	16.4	9.09	3.56	8/21/2009 15:00	8/22/2009 22:15	31.25
62	8/28/2009 4:15	8/29/2009 12:00	31.75	0.005	0.41	0.012	7.02	20.2	0.07	13.4	9.50	2.90	8/28/2009 4:15	8/29/2009 4:00	23.75
63	8/29/2009 21:30	8/30/2009 10:30	13	0.005	0.31	0.016	12.62	25.4	0.09	14.1	9.42	2.11	8/29/2009 21:30	8/30/2009 0:00	2.5
64	9/10/2009 18:00	9/13/2009 14:30	68.5	0.040	1.71	0.024	14.40	26.7	0.10	15.7	8.23	3.48	9/10/2009 18:00	9/13/2009 0:30	54.5
65	9/16/2009 14:30	9/17/2009 12:45	22.25	0.004	0.18	0.024	5.55	18.0	0.03	13.1	8.57	3.27	9/16/2009 15:00	9/17/2009 7:45	16.75
66	9/23/2009 23:45	9/25/2009 3:00	27.25	0.012	0.91	0.013	19.62	28.3	0.20	13.8	7.59	3.32	9/23/2009 23:45	9/24/2009 2:30	2.75
67	9/26/2009 19:45	9/30/2009 5:15	81.5	0.042	1.46	0.029	14.00	23.1	0.15	14.8	7.89	3.47	9/26/2009 20:00	9/28/2009 18:30	46.5
68	10/15/2009 9:45	10/17/2009 1:15	39.5	0.013	0.77	0.017	7.99	19.6	0.04	14.0	8.00	3.74	10/15/2009 9:45	10/16/2009 20:00	34.25
69	10/17/2009 6:00	10/19/2009 6:15	48.25	0.019	0.82	0.024	8.33	22.1	0.05	14.7	8.28	3.74	10/17/2009 6:00	10/18/2009 9:00	27

**PC-0010 Poquessing Creek Interceptor (2009)**

Pipe Size (In.): 60

Tributary Drainage Area (acres): 10,349

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	10/23/2009 22:00	10/25/2009 21:30	47.5	0.029	1.76	0.016	40.56	54.6	0.40	17.0	9.22	3.79	10/23/2009 22:15	10/24/2009 21:30	23.25
71	10/27/2009 4:30	10/31/2009 1:00	92.5	0.070	1.73	0.041	38.73	49.1	0.10	19.1	10.57	3.41	10/27/2009 4:30	10/31/2009 1:00	92.5
72	10/31/2009 3:45	11/2/2009 0:15	44.5	0.011	0.31	0.034	6.14	22.6	0.05	16.8	11.33	3.89	10/31/2009 3:45	11/1/2009 8:15	28.5
73	11/12/2009 2:15	11/12/2009 23:30	21.25	0.004	0.19	0.023	4.09	17.9	0.01	14.3	9.61	3.34	11/12/2009 2:15	11/12/2009 19:15	17
74	11/13/2009 19:45	11/14/2009 16:00	20.25	0.004	0.14	0.025	4.07	17.9	0.02	14.2	9.59	3.47	11/13/2009 20:00	11/14/2009 11:00	15
75	11/19/2009 18:30	11/21/2009 6:30	36	0.013	0.58	0.022	9.81	19.6	0.12	14.4	8.83	3.23	11/19/2009 18:45	11/20/2009 4:30	9.75
76	11/23/2009 16:45	11/24/2009 16:30	23.75	0.004	0.10	0.043	4.25	16.7	0.01	13.0	8.42	3.36	11/23/2009 17:00	11/24/2009 6:15	13.25
77	11/25/2009 10:45	11/26/2009 8:00	21.25	0.006	0.14	0.039	6.00	18.5	0.01	13.8	8.70	3.30	11/25/2009 11:00	11/25/2009 23:30	12.5
78	11/30/2009 10:45	12/1/2009 2:15	15.5	0.005	0.30	0.016	5.59	18.8	0.04	15.1	8.72	4.32	11/30/2009 11:00	11/30/2009 18:45	7.75
79	12/2/2009 15:30	12/4/2009 5:00	37.5	0.035	1.14	0.031	32.61	44.4	0.12	18.7	9.10	3.41	12/2/2009 15:30	12/3/2009 6:15	14.75
80	12/5/2009 10:30	12/6/2009 21:30	35	0.010	0.41	0.026	6.61	21.3	0.02	16.3	9.83	4.42	12/5/2009 10:45	12/5/2009 22:00	11.25
81	12/9/2009 0:45	12/11/2009 22:30	69.75	0.065	2.10	0.031	37.71	53.0	0.15	20.6	11.05	3.31	12/9/2009 0:45	12/9/2009 9:15	8.5
82	12/13/2009 9:00	12/16/2009 0:15	63.25	0.044	1.07	0.041	34.01	51.4	0.09	21.0	12.46	3.81	12/13/2009 9:00	12/13/2009 17:45	8.75
83	12/25/2009 20:00	12/29/2009 22:15	98.25	0.143	2.26	0.064	38.86	54.0	0.13	27.9	14.44	3.62	12/25/2009 20:00	12/27/2009 2:00	30
84	12/31/2009 19:45	1/1/2010 11:30	15.75	0.005	0.17	0.027	6.94	24.9	0.02	19.8	15.37	2.56	12/31/2009 20:00	1/1/2010 1:15	5.25
85	1/17/2010 10:00	1/19/2010 23:30	61.5	0.037	0.86	0.043	27.69	42.6	0.07	17.7	9.83	3.84	1/17/2010 10:15	1/18/2010 2:45	16.5
86	1/25/2010 2:30	1/27/2010 23:30	69	0.064	1.65	0.039	41.29	55.6	0.15	20.1	10.53	3.35	1/25/2010 2:45	1/26/2010 5:15	26.5
Average:			37.7	0.018	0.78	0.021	12.02	24.0	0.12	14.3	8.21	3.49			18.1
Maximum Value:			98.3	0.143	3.26	0.064	41.29	55.6	0.59	27.9	15.37	5.68			92.5
Minimum Value:			7.8	0.001	0.10	0.002	1.77	11.2	0.01	7.8	4.87	1.82			0.50
Standard Deviation:			21.7	0.022	0.63	0.011	9.66	10.2	0.12	2.9	1.88	0.56			15.6
Weighted Mean R-Value*:						0.023									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PC-0010 Poquessing Creek Interceptor (2013)

Pipe Size (In.): 60

Tributary Drainage Area (acres): 10,349

Tributary Service Population: 74,868

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4/1/2012 18:15	4/2/2012 22:00	27.75	0.003	0.19	0.017	3.05	14.1	0.03	11.04	6.69	3.43	4/1/2012 18:30	4/2/2012 2:30	8
2	4/21/2012 21:30	4/25/2012 0:00	74.5	0.027	2.42	0.011	18.29	28.4	0.19	12.60	6.29	3.36	4/21/2012 21:30	4/23/2012 18:15	44.75
3	5/1/2012 3:45	5/2/2012 1:45	22	0.003	0.39	0.007	4.53	13.1	0.12	10.52	6.22	3.38	5/1/2012 4:00	5/1/2012 10:15	6.25
4	5/3/2012 2:15	5/3/2012 23:45	21.5	0.001	0.14	0.007	2.12	12.0	0.05	9.85	6.24	3.25	5/3/2012 2:15	5/3/2012 4:45	2.5
5	5/9/2012 0:45	5/11/2012 6:15	53.5	0.008	0.49	0.016	6.81	13.1	0.06	10.20	6.00	3.03	5/9/2012 0:45	5/10/2012 4:45	28
6	5/14/2012 20:15	5/17/2012 21:00	72.75	0.026	1.71	0.015	24.69	31.1	0.12	12.18	6.07	3.26	5/14/2012 20:30	5/16/2012 5:00	32.5
7	5/21/2012 1:15	5/22/2012 0:30	23.25	0.002	0.24	0.009	2.93	13.0	0.05	10.37	6.41	3.24	5/21/2012 1:30	5/22/2012 0:15	22.75
8	5/22/2012 1:00	5/24/2012 3:15	50.25	0.004	0.19	0.022	3.92	13.1	0.02	10.29	6.40	3.19	5/22/2012 1:15	5/22/2012 23:30	22.25
9	5/24/2012 6:45	5/25/2012 21:45	39	0.004	0.42	0.009	5.07	14.0	0.09	10.58	6.34	3.50	5/24/2012 7:30	5/25/2012 17:30	34
10	5/27/2012 4:15	5/28/2012 6:45	26.5	0.003	0.45	0.007	7.55	14.1	0.10	10.32	6.21	3.13	5/27/2012 4:15	5/27/2012 22:00	17.75
11	5/29/2012 20:00	5/30/2012 19:30	23.5	0.002	0.23	0.011	2.02	12.5	0.06	10.26	6.19	3.23	5/29/2012 20:15	5/30/2012 3:45	7.5
12	6/1/2012 20:30	6/3/2012 6:45	34.25	0.005	0.39	0.014	10.67	18.4	0.12	10.60	6.10	3.23	6/1/2012 20:45	6/2/2012 2:15	5.5
13	6/3/2012 14:15	6/4/2012 10:00	19.75	0.001	0.13	0.011	3.01	14.9	0.02	10.21	6.34	3.31	6/3/2012 14:15	6/4/2012 3:45	13.5
14	6/12/2012 10:00	6/14/2012 5:30	43.5	0.008	0.58	0.014	7.01	17.8	0.05	11.08	6.23	3.38	6/12/2012 10:15	6/12/2012 23:45	13.5
15	6/22/2012 16:30	6/23/2012 18:45	26.25	0.003	0.35	0.009	4.67	15.1	0.11	10.27	5.77	3.54	6/22/2012 16:45	6/22/2012 22:45	6
16	6/29/2012 5:30	6/30/2012 0:00	18.5	0.001	0.14	0.004	1.55	11.4	0.11	9.51	5.56	3.72	6/29/2012 5:45	6/29/2012 7:00	1.25
17	7/4/2012 23:30	7/6/2012 6:00	30.5	0.003	0.29	0.011	6.06	13.8	0.13	8.88	5.16	2.92	7/5/2012 0:00	7/5/2012 3:45	3.75
18	7/14/2012 4:30	7/14/2012 19:00	14.5	0.002	0.20	0.009	3.08	11.9	0.04	9.40	4.86	3.55	7/14/2012 4:30	7/14/2012 9:15	4.75
19	7/15/2012 21:00	7/17/2012 8:30	35.5	0.010	0.95	0.011	19.61	27.8	0.39	10.26	4.98	2.92	7/15/2012 21:30	7/16/2012 14:45	17.25
20	7/20/2012 1:15	7/21/2012 20:30	43.25	0.010	0.97	0.011	8.28	18.2	0.22	10.27	5.06	3.31	7/20/2012 1:30	7/21/2012 7:15	29.75
21	7/26/2012 19:15	7/28/2012 5:00	33.75	0.005	0.42	0.012	6.90	16.4	0.17	9.30	4.85	3.25	7/26/2012 19:45	7/27/2012 0:30	4.75
22	7/28/2012 12:45	7/30/2012 7:30	42.75	0.008	0.72	0.011	7.71	18.6	0.13	9.83	4.83	3.55	7/28/2012 12:45	7/28/2012 22:30	9.75
23	8/1/2012 3:45	8/3/2012 5:15	49.5	0.006	0.30	0.021	8.25	17.5	0.10	9.07	4.94	3.14	8/1/2012 4:00	8/1/2012 18:00	14
24	8/4/2012 13:30	8/5/2012 13:00	23.5	0.004	0.26	0.015	6.69	16.9	0.18	9.49	4.65	3.47	8/4/2012 13:45	8/4/2012 14:45	1
25	8/5/2012 18:00	8/7/2012 14:15	44.25	0.011	0.70	0.016	8.05	17.0	0.15	10.11	4.87	3.22	8/5/2012 18:45	8/6/2012 2:15	7.5
26	8/10/2012 10:00	8/11/2012 10:15	24.25	0.002	0.31	0.007	5.42	15.4	0.08	9.00	5.16	3.13	8/10/2012 10:15	8/10/2012 16:30	6.25
27	8/11/2012 17:15	8/13/2012 4:30	35.25	0.003	0.84	0.004	3.75	12.8	0.20	9.46	5.20	3.51	8/11/2012 17:30	8/12/2012 3:45	10.25
28	8/14/2012 9:45	8/15/2012 13:45	28	0.006	0.51	0.012	10.41	20.4	0.11	10.55	5.33	3.44	8/14/2012 10:00	8/15/2012 2:00	16
29	8/15/2012 15:15	8/16/2012 15:15	24	0.001	0.15	0.005	1.82	11.6	0.04	8.84	5.34	3.25	8/15/2012 16:00	8/15/2012 18:00	2
30	8/17/2012 22:30	8/19/2012 13:00	38.5	0.007	0.73	0.010	5.92	14.2	0.10	9.87	5.22	3.13	8/17/2012 22:30	8/18/2012 7:30	9
31	8/27/2012 9:45	8/29/2012 8:15	46.5	0.009	0.83	0.011	8.54	18.0	0.22	9.83	4.98	3.25	8/27/2012 9:45	8/28/2012 7:30	21.75
32	9/3/2012 9:45	9/7/2012 2:30	88.75	0.061	3.41	0.018	24.98	34.6	0.35	14.79	5.84	3.40	9/3/2012 10:00	9/6/2012 10:45	72.75
33	9/8/2012 16:30	9/10/2012 1:30	33	0.004	0.27	0.013	4.47	15.7	0.08	11.02	6.39	3.75	9/8/2012 16:45	9/8/2012 22:30	5.75
34	9/18/2012 4:00	9/20/2012 4:15	48.25	0.008	0.98	0.008	11.36	21.6	0.25	10.27	5.73	3.21	9/18/2012 4:15	9/18/2012 21:00	16.75

PC-0010 Poquessing Creek Interceptor (2013)

Pipe Size (In.): 60

Tributary Drainage Area (acres): 10,349

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	9/22/2012 19:30	9/24/2012 0:15	28.75	0.003	0.20	0.015	4.68	14.9	0.08	10.00	5.48	3.66	9/22/2012 19:45	9/22/2012 22:30	2.75
36	9/26/2012 23:00	9/28/2012 1:15	26.25	0.001	0.10	0.009	1.75	11.1	0.03	9.01	5.43	3.30	9/26/2012 23:45	9/28/2012 0:00	24.25
37	10/2/2012 10:45	10/3/2012 13:00	26.25	0.002	0.20	0.008	1.98	11.6	0.03	9.03	5.16	3.38	10/2/2012 11:00	10/3/2012 8:00	21
38	10/7/2012 11:00	10/9/2012 0:00	37	0.004	0.19	0.021	3.40	13.4	0.02	9.82	5.11	3.89	10/7/2012 11:00	10/8/2012 22:00	35
39	10/9/2012 5:30	10/10/2012 2:45	21.25	0.001	0.07	0.015	2.43	10.9	0.03	9.14	5.15	3.56	10/9/2012 5:45	10/9/2012 9:30	3.75
40	10/15/2012 13:00	10/16/2012 11:45	22.75	0.003	0.43	0.006	6.70	15.8	0.09	9.20	5.11	3.18	10/15/2012 13:15	10/15/2012 21:15	8
41	10/19/2012 9:00	10/21/2012 8:45	47.75	0.010	0.98	0.010	14.49	24.1	0.24	9.98	4.92	3.36	10/19/2012 9:30	10/19/2012 14:30	5
42	10/28/2012 15:15	10/29/2012 5:00	13.75	0.002	0.14	0.011	3.64	13.4	0.03	9.70	5.18	3.65	10/28/2012 15:30	10/29/2012 4:45	13.25
43	10/29/2012 6:45	10/31/2012 18:30	59.75	0.030	2.03	0.015	22.48	31.5	0.09	12.78	5.39	3.34	10/29/2012 6:45	10/30/2012 9:45	27
44	11/7/2012 11:30	11/9/2012 21:30	58	0.009	0.54	0.017	5.02	15.1	0.03	10.30	5.60	3.43	11/7/2012 11:45	11/8/2012 1:15	13.5
45	11/13/2012 3:15	11/14/2012 0:45	21.5	0.002	0.16	0.011	3.03	12.4	0.02	9.43	5.45	3.34	11/13/2012 3:30	11/13/2012 12:30	9
46	11/27/2012 6:30	11/29/2012 13:15	54.75	0.010	0.63	0.017	7.27	17.0	0.02	10.09	5.29	3.26	11/27/2012 6:30	11/27/2012 16:00	9.5
47	12/7/2012 22:00	12/9/2012 7:30	33.5	0.005	0.28	0.020	5.20	13.1	0.05	9.16	4.75	3.09	12/7/2012 22:15	12/9/2012 7:15	33
48	12/9/2012 8:45	12/13/2012 10:00	97.25	0.015	0.44	0.035	4.49	14.7	0.04	9.64	5.04	3.32	12/9/2012 8:45	12/11/2012 6:45	46
49	12/18/2012 0:00	12/19/2012 2:15	26.25	0.004	0.37	0.011	5.01	12.1	0.13	9.97	5.56	3.23	12/18/2012 1:00	12/18/2012 15:45	14.75
50	12/20/2012 21:00	12/23/2012 0:30	51.5	0.027	1.84	0.015	21.88	29.7	0.14	13.06	5.36	3.47	12/20/2012 21:15	12/21/2012 8:00	10.75
51	12/24/2012 11:45	12/25/2012 6:45	19	0.003	0.20	0.015	2.47	12.2	0.02	9.89	5.38	3.24	12/24/2012 17:00	12/24/2012 21:30	4.5
52	12/26/2012 12:30	12/28/2012 22:30	58	0.028	1.25	0.022	19.61	29.6	0.11	12.68	5.37	3.42	12/26/2012 13:30	12/27/2012 10:00	20.5
53	12/29/2012 10:45	12/30/2012 9:30	22.75	0.003	0.22	0.015	4.10	15.3	0.02	10.16	5.45	3.54	12/29/2012 11:00	12/29/2012 16:30	5.5
54	1/11/2013 13:15	1/13/2013 7:45	42.5	0.006	0.51	0.012	6.23	16.6	0.05	10.11	5.62	3.31	1/11/2013 13:30	1/11/2013 21:00	7.5
55	1/14/2013 20:30	1/15/2013 21:15	24.75	0.004	0.35	0.013	5.14	14.1	0.03	10.64	5.88	3.30	1/14/2013 20:45	1/15/2013 2:45	6
Average:			37.3	0.008	0.59	0.013	7.46	16.9	0.10	10.25	5.53	3.34			15.3
Maximum Value:			97.3	0.061	3.41	0.035	24.98	34.6	0.39	14.79	6.69	3.89			72.8
Minimum Value:			13.8	0.001	0.07	0.004	1.55	10.9	0.02	8.84	4.65	2.92			1.00
Standard Deviation:			17.9	0.010	0.63	0.005	6.12	5.9	0.08	1.15	0.54	0.19			13.6
Weighted Mean R-Value*:						0.013									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PC-0045 Poquessing Creek Interceptor

Pipe Size (In.): 60

Tributary Drainage Area (acres): 10,330

Tributary Service Population: 74,868

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	8/10/2008 11:45	8/11/2008 5:45	18	0.0010	0.38	0.003	3.38	14.3	0.07	10.5	5.58	4.54	8/10/2008 12:15	8/10/2008 20:15	8
2	8/29/2008 13:30	8/30/2008 23:45	34.25	0.0020	0.39	0.006	5.59	13.8	0.14	10.1	5.44	4.17	8/29/2008 14:45	8/30/2008 19:45	29
3	9/6/2008 0:00	9/7/2008 23:15	47.25	0.0220	2.32	0.009	18.73	29.6	0.20	12.7	5.72	3.91	9/6/2008 0:00	9/6/2008 22:15	22.25
4	9/9/2008 10:45	9/9/2008 22:00	11.25	0.0030	0.35	0.009	6.45	17.5	0.12	12.6	5.68	4.96	9/9/2008 11:00	9/9/2008 12:15	1.25
5	9/12/2008 14:30	9/13/2008 16:15	25.75	0.0070	0.66	0.011	6.75	17.4	0.08	11.9	6.13	3.85	9/12/2008 14:45	9/12/2008 23:30	8.75
6	9/25/2008 18:45	9/27/2008 15:00	44.25	0.0060	0.72	0.009	3.97	15.3	0.17	10.7	6.04	3.66	9/25/2008 19:00	9/27/2008 4:30	33.5
7	9/28/2008 5:45	9/29/2008 17:15	35.5	0.0180	1.21	0.015	21.51	33.1	0.22	13.6	6.33	3.91	9/28/2008 6:00	9/28/2008 20:30	14.5
8	9/30/2008 22:30	10/2/2008 0:45	26.25	0.0070	0.39	0.019	8.13	19.1	0.11	12.2	6.42	3.87	9/30/2008 22:45	10/1/2008 19:00	20.25
9	10/25/2008 6:45	10/26/2008 7:30	24.75	0.0070	0.87	0.008	8.90	20.0	0.33	11.5	5.92	3.74	10/25/2008 9:00	10/25/2008 22:00	13
10	10/27/2008 18:15	10/29/2008 23:00	52.75	0.0340	1.77	0.019	18.70	29.6	0.09	14.7	6.51	3.90	10/27/2008 19:15	10/29/2008 18:45	47.5
11	11/5/2008 11:00	11/6/2008 21:30	34.5	0.0040	0.30	0.014	4.06	15.8	0.03	11.6	6.62	4.14	11/5/2008 14:45	11/6/2008 11:00	20.25
12	11/8/2008 8:45	11/9/2008 2:45	18	0.0020	0.14	0.017	4.00	16.9	0.03	12.6	6.79	4.93	11/8/2008 10:30	11/8/2008 23:45	13.25
13	11/13/2008 9:45	11/14/2008 20:45	35	0.0140	0.77	0.018	10.89	22.0	0.07	13.6	6.87	4.11	11/13/2008 10:15	11/14/2008 19:30	33.25
14	11/15/2008 3:45	11/17/2008 14:15	58.5	0.0370	0.91	0.040	11.88	23.5	0.21	15.7	7.77	3.76	11/15/2008 3:45	11/16/2008 1:30	21.75
15	11/24/2008 18:30	11/25/2008 17:00	22.5	0.0060	0.51	0.012	4.96	16.5	0.04	13.3	7.87	3.73	11/24/2008 20:00	11/25/2008 12:45	16.75
16	11/30/2008 5:15	12/2/2008 15:30	58.25	0.0260	0.88	0.030	13.72	26.4	0.04	14.5	7.73	3.81	11/30/2008 5:15	12/1/2008 22:30	41.25
17	12/10/2008 7:15	12/14/2008 16:00	104.75	0.0900	3.26	0.028	27.09	40.4	0.13	18.2	8.56	3.85	12/10/2008 8:00	12/12/2008 4:30	44.5
18	1/6/2009 10:45	1/9/2009 10:45	72	0.0410	1.69	0.024	13.93	29.1	0.06	17.6	10.00	3.76	1/6/2009 13:45	1/7/2009 23:00	33.25
19	1/27/2009 21:15	1/29/2009 11:00	37.75	0.0160	0.89	0.018	11.22	25.6	0.04	15.2	8.94	3.46	1/27/2009 22:00	1/28/2009 18:45	20.75
20	2/3/2009 12:00	2/4/2009 7:45	19.75	0.0060	0.36	0.017	5.38	20.0	0.02	15.4	9.66	3.64	2/3/2009 12:00	2/3/2009 22:15	10.25
21	2/18/2009 11:00	2/19/2009 8:00	21	0.0040	0.22	0.016	3.35	16.3	0.02	13.1	8.27	3.72	2/18/2009 12:45	2/19/2009 2:00	13.25
22	3/1/2009 14:45	3/3/2009 1:15	34.5	0.0030	0.46	0.007	3.28	16.6	0.06	12.8	7.90	4.24	3/1/2009 20:00	3/2/2009 15:45	19.75
23	3/26/2009 15:00	3/27/2009 4:00	13	0.0020	0.33	0.006	3.89	16.9	0.05	12.7	7.59	4.17	3/26/2009 16:30	3/27/2009 1:00	8.5
24	3/28/2009 2:30	3/28/2009 13:30	11	0.0010	0.15	0.008	3.22	15.2	0.02	10.5	7.31	2.47	3/28/2009 2:45	3/28/2009 7:30	4.75
25	3/28/2009 23:30	3/30/2009 4:15	28.75	0.0060	0.54	0.012	6.65	19.6	0.23	12.9	7.66	3.73	3/29/2009 0:30	3/29/2009 22:45	22.25
26	4/1/2009 15:00	4/2/2009 4:15	13.25	0.0030	0.19	0.014	3.39	16.7	0.02	13.4	7.92	4.10	4/1/2009 15:00	4/2/2009 0:45	9.75
27	4/3/2009 2:45	4/3/2009 21:00	18.25	0.0004	0.73	0.001	2.69	15.3	0.15	11.5	7.92	3.50	4/3/2009 3:45	4/3/2009 19:00	15.25
28	4/6/2009 5:45	4/6/2009 21:45	16	0.0004	0.46	0.001	1.61	15.2	0.11	12.7	8.38	4.18	4/6/2009 6:45	4/6/2009 19:30	12.75
29	4/11/2009 5:15	4/11/2009 19:00	13.75	0.0020	0.53	0.003	3.58	16.7	0.05	13.1	8.28	4.06	4/11/2009 6:30	4/11/2009 15:00	8.5
30	4/13/2009 23:30	4/16/2009 16:15	64.75	0.0150	1.02	0.015	9.20	19.5	0.03	14.8	9.56	3.64	4/13/2009 23:45	4/15/2009 17:15	41.5
31	4/20/2009 6:00	4/21/2009 19:00	37	0.0100	0.69	0.015	5.60	20.8	0.08	15.6	9.82	3.88	4/20/2009 10:00	4/21/2009 2:00	16
32	5/3/2009 3:15	5/6/2009 14:30	83.25	0.0260	1.72	0.015	8.23	23.7	0.07	16.5	10.72	3.72	5/3/2009 4:45	5/6/2009 1:15	68.5
33	5/6/2009 18:15	5/9/2009 3:30	57.25	0.0350	1.23	0.028	16.88	31.8	0.14	19.6	11.68	3.82	5/6/2009 20:30	5/7/2009 17:30	21
34	5/14/2009 21:45	5/15/2009 13:00	15.25	0.0030	0.43	0.006	4.56	19.7	0.16	15.1	10.74	3.19	5/14/2009 21:45	5/15/2009 0:15	2.5

**PC-0045 Poquessing Creek Interceptor**

Pipe Size (In.): 60

Tributary Drainage Area (acres): 10,330

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/29/2009 0:45	5/29/2009 17:00	16.25	0.0030	0.38	0.007	6.42	17.3	0.10	13.7	9.38	3.21	5/29/2009 2:45	5/29/2009 6:30	3.75
36	6/3/2009 3:15	6/3/2009 13:30	10.25	0.0010	0.27	0.003	5.40	15.7	0.10	13.0	9.62	2.84	6/3/2009 3:30	6/3/2009 5:15	1.75
37	6/13/2009 12:15	6/14/2009 12:45	24.5	0.0060	0.68	0.008	8.23	24.2	0.11	16.2	10.73	3.98	6/13/2009 12:45	6/14/2009 2:00	13.25
38	6/16/2009 0:00	6/16/2009 22:30	22.5	0.0100	1.00	0.010	10.31	21.7	0.30	17.6	10.93	3.70	6/16/2009 0:00	6/16/2009 5:00	5
39	6/17/2009 19:15	6/19/2009 3:15	32	0.0110	0.54	0.021	11.55	27.6	0.07	17.4	11.12	3.90	6/17/2009 20:45	6/18/2009 20:15	23.5
40	6/20/2009 7:15	6/21/2009 5:45	22.5	0.0060	0.41	0.016	6.39	24.6	0.05	17.3	11.30	4.10	6/20/2009 9:15	6/21/2009 1:30	16.25
41	6/26/2009 17:45	6/27/2009 5:00	11.25	0.0040	0.58	0.007	9.18	25.1	0.34	16.6	10.69	3.74	6/26/2009 19:15	6/26/2009 21:15	2
42	7/1/2009 17:30	7/2/2009 21:15	27.75	0.0080	0.96	0.008	9.02	20.1	0.52	15.5	9.74	3.93	7/1/2009 17:45	7/2/2009 16:15	22.5
Average:			32.7	0.0121	0.77	0.013	8.38	21.1	0.12	14.0	8.28	3.85			19.2
Maximum Value:			104.8	0.0900	3.26	0.040	27.09	40.4	0.52	19.6	11.68	4.96			68.5
Minimum Value:			10.3	0.0004	0.14	0.001	1.61	13.8	0.02	10.1	5.44	2.47			1.25
Standard Deviation:			21.2	0.0164	0.62	0.008	5.62	6.0	0.10	2.3	1.84	0.44			14.3
Weighted Mean R-Value*:						0.016									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PC-1210 Poquessing Creek Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 732

Tributary Service Population: 6,745

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	8/14/1999 0:30	8/15/1999 8:00	31.5	0.037	2.45	0.015	6.34	6.58	0.36	1.14	0.199	0.38	8/14/1999 1:00	8/15/1999 1:15	24.25
2	8/20/1999 11:00	8/21/1999 7:45	20.75	0.007	0.63	0.011	1.76	2.25	0.10	0.71	0.226	0.33	8/20/1999 11:00	8/21/1999 2:15	15.25
3	8/25/1999 23:15	8/27/1999 6:00	30.75	0.015	1.61	0.009	2.56	2.79	0.16	0.77	0.212	0.34	8/25/1999 23:15	8/27/1999 1:00	25.75
4	9/7/1999 4:15	9/8/1999 6:00	25.75	0.013	0.68	0.019	2.29	2.74	0.11	0.81	0.198	0.37	9/7/1999 4:15	9/7/1999 15:15	11
5	9/9/1999 13:15	9/10/1999 20:30	31.25	0.021	1.29	0.017	1.62	2.20	0.18	0.95	0.216	0.41	9/9/1999 13:15	9/10/1999 10:45	21.5
6	9/15/1999 16:30	9/17/1999 21:45	53.25	0.149	6.50	0.023	6.63	7.38	0.28	2.03	0.296	0.41	9/15/1999 16:30	9/16/1999 22:15	29.75
7	9/21/1999 0:45	9/23/1999 0:45	48	0.017	0.96	0.018	1.00	1.81	0.06	0.98	0.411	0.40	9/21/1999 1:00	9/22/1999 7:00	30
8	9/30/1999 2:30	9/30/1999 12:00	9.5	0.006	0.60	0.011	1.40	1.80	0.15	1.07	0.381	0.38	9/30/1999 2:45	9/30/1999 6:45	4
9	10/4/1999 7:45	10/4/1999 15:30	7.75	0.001	0.35	0.002	0.53	1.59	0.17	0.91	0.381	0.490	10/4/1999 8:15	10/4/1999 9:45	1.5
10	10/4/1999 18:00	10/5/1999 9:15	15.25	0.011	0.71	0.015	1.36	1.88	0.08	1.09	0.381	0.380	10/4/1999 18:15	10/5/1999 1:45	7.5
11	10/10/1999 1:30	10/10/1999 21:30	20	0.011	0.73	0.015	1.04	2.29	0.05	1.12	0.385	0.480	10/10/1999 1:30	10/10/1999 14:15	12.75
12	10/17/1999 18:00	10/18/1999 5:30	11.5	0.003	0.19	0.018	0.54	1.42	0.02	0.78	0.320	0.315	10/17/1999 18:00	10/17/1999 22:45	4.75
13	10/20/1999 3:30	10/20/1999 20:15	16.75	0.012	0.71	0.016	0.86	1.93	0.05	1.06	0.297	0.437	10/20/1999 3:30	10/20/1999 13:45	10.25
14	10/22/1999 19:45	10/23/1999 10:30	14.75	0.006	0.43	0.013	0.89	1.58	0.05	0.86	0.342	0.341	10/22/1999 20:00	10/23/1999 2:45	6.75
15	11/2/1999 9:45	11/3/1999 12:00	26.25	0.018	0.99	0.019	1.83	2.72	0.13	1.03	0.295	0.408	11/2/1999 10:00	11/2/1999 20:00	10
16	11/25/1999 6:30	11/25/1999 18:45	12.25	0.011	0.31	0.034	1.16	1.93	0.05	1.22	0.317	0.501	11/25/1999 6:45	11/25/1999 12:15	5.5
17	11/26/1999 8:00	11/27/1999 23:00	39	0.021	0.81	0.026	1.72	2.37	0.10	1.06	0.326	0.473	11/26/1999 8:15	11/27/1999 5:15	21
18	12/6/1999 4:30	12/7/1999 5:30	25	0.018	0.71	0.025	1.05	1.89	0.07	1.05	0.332	0.381	12/6/1999 4:30	12/6/1999 19:45	15.25
19	12/10/1999 12:45	12/10/1999 23:00	10.25	0.004	0.33	0.012	1.00	1.70	0.06	1.00	0.363	0.467	12/10/1999 12:45	12/10/1999 15:30	2.75
20	12/13/1999 13:45	12/15/1999 18:00	52.25	0.044	1.57	0.028	1.38	2.19	0.07	1.18	0.383	0.398	12/13/1999 14:00	12/15/1999 3:30	37.5
21	12/20/1999 7:30	12/21/1999 13:15	29.75	0.017	0.65	0.026	2.23	3.17	0.08	1.13	0.434	0.429	12/20/1999 8:00	12/20/1999 21:30	13.5
22	1/4/2000 16:15	1/5/2000 7:45	15.5	0.013	0.86	0.015	1.07	2.09	0.11	1.17	0.424	0.359	1/4/2000 16:15	1/4/2000 22:45	6.5
23	1/10/2000 11:00	1/11/2000 1:15	14.25	0.009	0.41	0.022	0.82	1.65	0.06	1.16	0.429	0.436	1/10/2000 11:00	1/10/2000 16:15	5.25
24	1/30/2000 21:15	1/31/2000 7:45	10.5	0.008	0.53	0.015	0.86	1.52	0.07	1.05	0.414	0.276	1/30/2000 21:30	1/31/2000 1:15	3.75
25	2/13/2000 23:00	2/15/2000 9:00	34	0.033	0.52	0.064	1.39	2.53	0.07	1.30	0.473	0.365	2/13/2000 23:15	2/14/2000 9:00	9.75
26	2/18/2000 13:45	2/21/2000 4:00	62.25	0.056	1.34	0.042	2.60	3.23	0.07	1.48	0.614	0.438	2/18/2000 14:00	2/19/2000 16:45	26.75
27	3/11/2000 12:15	3/13/2000 1:00	36.75	0.019	1.03	0.019	1.32	2.43	0.15	1.22	0.477	0.493	3/11/2000 13:00	3/12/2000 7:45	18.75
28	3/16/2000 19:00	3/18/2000 2:30	31.5	0.033	1.45	0.023	1.88	2.76	0.09	1.47	0.577	0.399	3/16/2000 19:15	3/17/2000 8:45	13.5
29	3/21/2000 11:15	3/23/2000 9:30	46.25	0.052	1.68	0.031	2.10	3.12	0.08	1.60	0.681	0.394	3/21/2000 11:30	3/22/2000 5:00	17.5
30	3/27/2000 21:30	3/29/2000 1:00	27.5	0.017	0.68	0.025	1.60	2.35	0.07	1.39	0.698	0.396	3/27/2000 21:45	3/28/2000 4:30	6.75
31	4/8/2000 21:30	4/9/2000 22:30	25	0.014	0.50	0.028	0.69	1.90	0.08	1.31	0.579	0.466	4/8/2000 21:45	4/9/2000 14:15	16.5
32	4/15/2000 11:45	4/16/2000 15:00	27.25	0.009	0.39	0.023	0.73	2.15	0.02	1.22	0.576	0.493	4/15/2000 11:45	4/16/2000 10:00	22.25
33	4/16/2000 17:45	4/17/2000 5:00	11.25	0.008	0.38	0.021	1.87	3.08	0.18	1.25	0.590	0.331	4/16/2000 18:00	4/16/2000 20:30	2.5
34	4/21/2000 10:30	4/22/2000 6:30	20	0.012	0.60	0.021	1.58	2.73	0.14	1.32	0.681	0.345	4/21/2000 10:45	4/21/2000 23:15	12.5



**PC-1210 Poquessing Creek Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 732

Tributary Service Population: 6,745

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
Average:			26.3	0.021	0.99	0.021	1.70	2.52	0.11	1.14	0.409	0.403			13.9
Maximum Value:			62.3	0.149	6.50	0.064	6.63	7.38	0.36	2.03	0.698	0.501			37.5
Minimum Value:			7.8	0.001	0.19	0.002	0.53	1.42	0.02	0.71	0.198	0.276			1.50
Standard Deviation:			14.0	0.026	1.09	0.011	1.33	1.24	0.07	0.26	0.143	0.057			9.2
Weighted Mean R-Value*:						0.022									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PC-B1330 Poquessing Creek Interceptor

Pipe Size (In.): 18

Tributary Drainage Area (acres): 478

Tributary Service Population: 9,427

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2/18/2009 13:00	2/19/2009 1:00	12	0.015	0.20	0.075	1.05	2.89	0.02	2.13	0.915	0.835	2/18/2009 13:30	2/18/2009 19:00	5.5
2	3/19/2009 12:00	3/19/2009 19:45	7.75	0.008	0.13	0.065	0.75	2.45	0.03	2.07	0.829	0.912	3/19/2009 12:30	3/19/2009 14:45	2.25
3	3/26/2009 16:00	3/27/2009 4:15	12.25	0.023	0.33	0.069	1.93	3.72	0.05	1.92	0.725	0.631	3/26/2009 16:15	3/27/2009 0:00	7.75
4	3/28/2009 2:30	3/28/2009 13:00	10.5	0.022	0.22	0.101	2.06	2.83	0.04	2.02	0.755	0.627	3/28/2009 2:45	3/28/2009 7:45	5
5	3/29/2009 2:45	3/29/2009 11:15	8.5	0.024	0.25	0.098	3.66	4.44	0.07	2.14	0.752	0.518	3/29/2009 2:45	3/29/2009 9:15	6.5
6	3/29/2009 17:45	3/30/2009 3:45	10	0.021	0.36	0.060	3.32	5.05	0.26	1.97	0.735	0.586	3/29/2009 19:15	3/29/2009 22:45	3.5
7	4/1/2009 15:15	4/2/2009 2:00	10.75	0.017	0.23	0.072	1.69	3.05	0.03	1.98	0.746	0.767	4/1/2009 15:30	4/2/2009 0:45	9.25
8	4/3/2009 5:15	4/4/2009 3:45	22.5	0.044	0.60	0.074	4.07	5.71	0.16	2.16	0.790	0.762	4/3/2009 5:30	4/3/2009 19:00	13.5
9	4/6/2009 7:00	4/7/2009 7:45	24.75	0.037	0.46	0.080	2.63	4.39	0.08	2.03	0.823	0.742	4/6/2009 7:30	4/6/2009 19:30	12
10	4/11/2009 6:15	4/11/2009 19:30	13.25	0.028	0.55	0.052	2.35	4.09	0.05	2.55	0.898	0.993	4/11/2009 6:45	4/11/2009 15:00	8.25
11	4/13/2009 23:45	4/15/2009 0:00	24.25	0.062	0.60	0.104	1.63	3.44	0.03	2.41	0.897	0.722	4/14/2009 0:15	4/14/2009 23:00	22.75
12	4/15/2009 0:45	4/15/2009 9:15	8.5	0.029	0.36	0.081	3.53	4.45	0.09	2.41	0.903	0.465	4/15/2009 0:45	4/15/2009 5:15	4.5
13	4/15/2009 10:00	4/16/2009 8:15	22.25	0.050	0.30	0.167	1.85	3.69	0.03	2.32	0.909	0.712	4/15/2009 10:15	4/15/2009 17:15	7
14	4/20/2009 11:00	4/20/2009 14:15	3.25	0.010	0.22	0.045	2.10	3.94	0.04	2.73	0.951	0.898	4/20/2009 11:15	4/20/2009 13:30	2.25
15	4/20/2009 15:00	4/21/2009 5:15	14.25	0.031	0.50	0.061	2.48	4.41	0.10	2.22	0.955	0.609	4/20/2009 15:00	4/21/2009 2:15	11.25
16	4/21/2009 21:30	4/22/2009 4:15	6.75	0.009	0.18	0.051	1.57	3.39	0.05	1.73	0.965	0.352	4/21/2009 21:45	4/21/2009 23:15	1.5
17	4/29/2009 4:30	4/29/2009 9:30	5	0.006	0.16	0.037	0.80	2.60	0.02	1.90	0.783	0.764	4/29/2009 4:30	4/29/2009 8:30	4
18	5/3/2009 6:45	5/3/2009 23:00	16.25	0.040	0.53	0.076	2.15	4.18	0.04	2.60	0.839	1.000	5/3/2009 6:45	5/3/2009 22:30	15.75
19	5/4/2009 0:45	5/4/2009 15:15	14.5	0.045	0.39	0.115	2.05	3.41	0.04	2.42	0.830	0.640	5/4/2009 1:15	5/4/2009 13:15	12
20	5/4/2009 16:00	5/5/2009 16:30	24.5	0.052	0.55	0.095	2.78	4.48	0.09	2.22	0.837	0.731	5/4/2009 16:30	5/5/2009 15:45	23.25
21	5/5/2009 19:30	5/6/2009 8:00	12.5	0.037	0.30	0.123	2.39	4.07	0.04	2.30	0.844	0.557	5/5/2009 19:45	5/6/2009 0:45	5
22	5/6/2009 20:45	5/7/2009 12:15	15.5	0.062	1.12	0.056	4.87	6.40	0.27	2.71	0.852	0.624	5/6/2009 21:00	5/7/2009 5:30	8.5
23	5/7/2009 14:15	5/7/2009 21:30	7.25	0.007	0.11	0.059	1.25	2.92	0.02	2.07	0.857	0.947	5/7/2009 14:15	5/7/2009 16:15	2
24	5/14/2009 22:00	5/15/2009 6:45	8.75	0.017	0.36	0.046	3.82	5.57	0.18	1.81	0.878	0.353	5/14/2009 23:15	5/15/2009 0:30	1.25
25	5/24/2009 20:45	5/24/2009 23:30	2.75	0.005	0.20	0.023	1.93	3.81	0.18	2.17	0.934	0.761	5/24/2009 21:45	5/24/2009 22:15	0.5
26	5/29/2009 2:45	5/29/2009 10:00	7.25	0.026	0.50	0.051	3.58	4.41	0.14	2.39	0.732	0.599	5/29/2009 3:15	5/29/2009 6:00	2.75
27	6/3/2009 3:45	6/3/2009 8:00	4.25	0.010	0.39	0.025	2.76	3.41	0.17	1.86	0.622	0.570	6/3/2009 4:00	6/3/2009 5:45	1.75
28	6/3/2009 20:30	6/4/2009 13:15	16.75	0.033	0.34	0.098	2.26	3.31	0.05	1.90	0.638	0.646	6/3/2009 20:45	6/4/2009 10:30	13.75
29	6/4/2009 15:00	6/4/2009 22:45	7.75	0.010	0.10	0.099	0.86	2.57	0.01	1.97	0.647	0.943	6/4/2009 15:00	6/4/2009 22:45	7.75
30	6/5/2009 0:45	6/6/2009 11:15	34.5	0.095	0.82	0.116	2.31	3.86	0.03	2.17	0.679	0.637	6/5/2009 1:00	6/5/2009 22:15	21.25
31	6/9/2009 7:30	6/9/2009 12:45	5.25	0.009	0.24	0.039	2.12	3.87	0.07	2.22	0.722	0.965	6/9/2009 8:00	6/9/2009 9:00	1
32	6/11/2009 3:45	6/11/2009 7:45	4	0.013	0.20	0.067	2.72	3.53	0.10	2.27	0.750	0.541	6/11/2009 4:15	6/11/2009 5:15	1
33	6/13/2009 17:15	6/14/2009 5:00	11.75	0.027	0.33	0.082	2.74	4.53	0.06	2.07	0.821	0.548	6/13/2009 17:30	6/14/2009 0:30	7
34	6/16/2009 1:15	6/16/2009 9:45	8.5	0.037	0.60	0.061	4.48	5.33	0.15	2.58	0.769	0.505	6/16/2009 1:30	6/16/2009 5:30	4

PC-B1330 Poquessing Creek Interceptor

Pipe Size (In.): 18

Tributary Drainage Area (acres): 478

Tributary Service Population: 9,427

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/20/2009 9:45	6/21/2009 3:15	17.5	0.032	0.34	0.095	2.48	4.48	0.06	2.18	0.756	0.862	6/20/2009 10:00	6/20/2009 17:00	7
36	6/26/2009 19:15	6/27/2009 0:00	4.75	0.011	0.99	0.011	5.04	6.75	0.70	2.23	0.688	0.852	6/26/2009 19:45	6/26/2009 20:15	0.5
37	7/2/2009 1:45	7/2/2009 6:30	4.75	0.018	0.64	0.028	5.74	6.42	0.37	1.94	0.606	0.208	7/2/2009 2:00	7/2/2009 5:45	3.75
38	7/11/2009 22:30	7/12/2009 6:30	8	0.014	1.41	0.010	2.98	3.98	0.56	1.25	0.501	0.222	7/11/2009 23:00	7/12/2009 3:00	4
39	7/17/2009 19:45	7/18/2009 0:45	5	0.008	0.13	0.058	2.35	3.86	0.06	1.68	0.469	0.765	7/17/2009 20:00	7/17/2009 21:15	1.25
40	7/21/2009 3:45	7/22/2009 6:45	27	0.077	1.15	0.067	4.19	5.74	0.19	2.02	0.456	0.685	7/21/2009 3:45	7/21/2009 16:15	12.5
41	7/23/2009 11:00	7/23/2009 18:30	7.5	0.008	0.14	0.057	1.33	2.75	0.05	1.71	0.490	0.892	7/23/2009 11:30	7/23/2009 17:00	5.5
42	7/29/2009 16:30	7/30/2009 9:15	16.75	0.031	0.70	0.045	4.63	6.16	0.25	1.75	0.512	0.662	7/29/2009 17:00	7/30/2009 9:00	16
43	7/31/2009 6:00	7/31/2009 10:15	4.25	0.005	0.24	0.020	3.04	4.32	0.20	1.78	0.480	0.969	7/31/2009 6:15	7/31/2009 6:30	0.25
44	7/31/2009 16:30	7/31/2009 22:15	5.75	0.022	0.75	0.029	6.00	7.41	0.30	2.58	0.481	0.968	7/31/2009 16:45	7/31/2009 18:00	1.25
45	8/2/2009 7:30	8/2/2009 15:45	8.25	0.056	1.19	0.047	7.41	9.15	0.50	3.65	0.485	1.107	8/2/2009 7:45	8/2/2009 13:45	6
46	8/6/2009 7:15	8/6/2009 13:45	6.5	0.008	0.23	0.034	1.41	2.98	0.08	1.95	0.629	0.956	8/6/2009 7:15	8/6/2009 10:45	3.5
47	8/9/2009 2:00	8/10/2009 10:30	32.5	0.056	0.50	0.112	3.01	4.37	0.09	1.89	0.663	0.695	8/9/2009 2:30	8/9/2009 19:30	17
48	8/13/2009 8:45	8/14/2009 5:30	20.75	0.035	1.01	0.035	5.96	7.45	0.44	1.88	0.664	0.695	8/13/2009 9:00	8/14/2009 5:00	20
49	8/21/2009 22:45	8/23/2009 6:30	31.75	0.008	2.50	0.003	5.72	6.59	0.55	1.27	0.588	0.602	8/21/2009 23:15	8/22/2009 22:30	23.25
50	8/28/2009 15:45	8/28/2009 19:15	3.5	0.008	0.34	0.024	2.42	3.91	0.07	2.25	0.646	0.929	8/28/2009 15:45	8/28/2009 18:45	3
51	8/29/2009 21:45	8/30/2009 14:45	17	0.033	0.59	0.056	3.68	5.10	0.21	1.91	0.680	0.639	8/29/2009 22:00	8/30/2009 0:15	2.25
52	9/10/2009 23:30	9/11/2009 11:30	12	0.126	1.21	0.105	5.78	6.57	0.13	4.54	0.781	0.546	9/11/2009 0:00	9/11/2009 9:00	9
53	9/11/2009 12:00	9/12/2009 20:15	32.25	0.104	0.58	0.180	3.68	5.41	0.06	2.59	0.810	0.785	9/11/2009 12:00	9/12/2009 17:45	29.75
54	9/16/2009 13:00	9/17/2009 10:15	21.25	0.041	0.38	0.107	3.08	4.72	0.11	2.14	0.841	0.704	9/16/2009 14:30	9/16/2009 18:30	4
55	9/24/2009 0:30	9/24/2009 6:15	5.75	0.016	1.22	0.013	5.74	6.69	0.39	1.79	0.779	0.179	9/24/2009 0:45	9/24/2009 2:30	1.75
56	9/26/2009 20:15	9/27/2009 20:45	24.5	0.114	1.13	0.101	4.08	4.81	0.05	2.83	0.652	0.746	9/26/2009 20:15	9/27/2009 17:45	21.5
57	9/28/2009 17:30	9/28/2009 22:30	5	0.020	0.36	0.054	4.64	6.24	0.23	2.80	0.639	0.996	9/28/2009 17:45	9/28/2009 19:45	2
58	10/15/2009 10:15	10/16/2009 8:30	22.25	0.106	0.74	0.143	4.29	5.78	0.05	2.84	0.661	0.712	10/15/2009 10:15	10/16/2009 7:15	21
59	10/17/2009 4:15	10/17/2009 14:45	10.5	0.045	0.43	0.104	4.16	6.02	0.07	2.84	0.729	0.809	10/17/2009 4:30	10/17/2009 11:00	6.5
60	10/17/2009 16:15	10/18/2009 15:30	23.25	0.053	0.36	0.149	3.59	4.47	0.04	2.19	0.747	0.730	10/17/2009 16:15	10/18/2009 10:45	18.5
61	10/23/2009 18:45	10/24/2009 6:45	12	0.030	0.32	0.095	2.69	4.23	0.07	2.02	0.789	0.462	10/23/2009 19:00	10/24/2009 4:45	9.75
62	10/24/2009 10:00	10/25/2009 15:15	29.25	0.083	1.57	0.053	6.19	7.99	0.62	2.53	0.820	0.825	10/24/2009 10:15	10/24/2009 21:45	11.5
63	10/27/2009 4:45	10/29/2009 8:00	51.25	0.197	1.79	0.110	6.29	7.20	0.15	2.81	0.893	0.727	10/27/2009 5:00	10/29/2009 6:00	49
64	10/31/2009 19:00	11/1/2009 3:30	8.5	0.023	0.24	0.095	3.56	5.51	0.14	2.35	0.986	0.554	10/31/2009 19:30	11/1/2009 1:15	5.75
65	11/12/2009 0:45	11/13/2009 5:15	28.5	0.056	0.25	0.222	2.05	3.74	0.01	2.11	0.880	0.622	11/12/2009 0:45	11/12/2009 21:00	20.25
66	11/13/2009 20:45	11/15/2009 6:00	33.25	0.060	0.19	0.319	2.64	4.04	0.02	2.07	0.890	0.627	11/13/2009 20:45	11/14/2009 12:15	15.5
67	11/20/2009 1:15	11/20/2009 21:30	20.25	0.038	0.61	0.062	5.41	6.35	0.15	2.26	0.944	0.743	11/20/2009 1:15	11/20/2009 4:45	3.5
68	11/23/2009 16:30	11/24/2009 10:00	17.5	0.018	0.15	0.121	1.36	3.33	0.02	2.09	1.093	0.674	11/23/2009 16:45	11/24/2009 6:00	13.25
69	11/25/2009 11:45	11/26/2009 1:00	13.25	0.015	0.12	0.128	1.34	3.25	0.01	2.25	1.062	0.832	11/25/2009 12:00	11/25/2009 23:45	11.75

**PC-B1330 Poquessing Creek Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 478

Tributary Service Population: 9,427

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	11/30/2009 11:45	11/30/2009 22:15	10.5	0.039	0.25	0.156	2.40	4.31	0.03	3.11	1.045	0.930	11/30/2009 11:45	11/30/2009 18:45	7
71	12/2/2009 16:15	12/3/2009 21:00	28.75	0.109	1.14	0.096	5.42	6.69	0.10	3.21	1.261	0.773	12/2/2009 16:15	12/3/2009 3:30	11.25
72	12/5/2009 12:00	12/6/2009 14:30	26.5	0.130	0.56	0.232	3.63	6.05	0.02	3.74	1.444	0.785	12/5/2009 12:00	12/6/2009 0:45	12.75
73	12/9/2009 1:15	12/10/2009 3:15	26	0.111	2.07	0.054	5.26	7.59	0.13	3.37	1.381	0.671	12/9/2009 1:15	12/9/2009 10:30	9.25
74	12/13/2009 9:30	12/14/2009 14:00	28.5	0.117	1.16	0.101	4.78	7.11	0.10	3.39	1.294	0.827	12/13/2009 9:45	12/13/2009 18:30	8.75
75	12/25/2009 20:00	12/27/2009 21:00	49	0.226	2.28	0.100	3.38	6.12	0.09	3.71	1.533	0.742	12/25/2009 20:00	12/27/2009 2:15	30.25
76	12/31/2009 20:15	1/1/2010 7:30	11.25	0.024	0.16	0.149	1.68	3.56	0.01	2.63	1.599	0.385	12/31/2009 20:15	1/1/2010 1:15	5
77	1/17/2010 10:15	1/18/2010 6:00	19.75	0.072	0.89	0.081	2.79	5.02	0.07	3.10	1.219	0.763	1/17/2010 10:15	1/18/2010 1:45	15.5
78	1/25/2010 4:30	1/25/2010 19:45	15.25	0.088	1.49	0.059	5.10	7.21	0.12	3.80	1.171	0.866	1/25/2010 4:30	1/25/2010 16:00	11.5
Average:			15.7	0.044	0.61	0.083	3.27	4.82	0.13	2.35	0.825	0.708			9.6
Maximum Value:			51.3	0.226	2.50	0.319	7.41	9.15	0.70	4.54	1.599	1.107			49.0
Minimum Value:			2.8	0.005	0.10	0.003	0.75	2.45	0.01	1.25	0.456	0.179			0.25
Standard Deviation:			10.4	0.043	0.52	0.053	1.55	1.50	0.15	0.59	0.237	0.189			8.5
Weighted Mean R-Value*:						0.073									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PC-B1360 Poquessing Creek Interceptor

Pipe Size (In.): 18

Tributary Drainage Area (acres): 374

Tributary Service Population: 6,435

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	3/16/2013 10:00	3/16/2013 21:30	11.5	0.006	0.13	0.051	0.58	1.42	0.02	1.03	0.483	0.413	3/16/2013 10:15	3/16/2013 18:00	7.75
2	3/18/2013 17:45	3/20/2013 9:00	39.25	0.059	0.77	0.077	1.31	2.02	0.05	1.08	0.475	0.242	3/18/2013 18:15	3/19/2013 11:30	17.25
3	3/25/2013 6:45	3/27/2013 6:00	47.25	0.058	0.61	0.095	1.32	2.07	0.05	0.99	0.443	0.254	3/25/2013 6:45	3/26/2013 22:00	39.25
4	3/31/2013 15:30	4/1/2013 7:15	15.75	0.012	0.22	0.058	1.01	1.85	0.04	0.89	0.472	0.231	3/31/2013 15:30	3/31/2013 22:45	7.25
5	4/10/2013 20:30	4/11/2013 18:15	21.75	0.019	0.41	0.047	2.37	3.14	0.20	0.91	0.457	0.242	4/10/2013 20:45	4/11/2013 0:00	3.25
6	4/12/2013 7:00	4/14/2013 0:30	41.5	0.072	1.24	0.058	2.84	3.62	0.16	1.18	0.463	0.297	4/12/2013 7:15	4/12/2013 23:30	16.25
7	4/19/2013 21:30	4/20/2013 20:00	22.5	0.027	0.43	0.063	1.69	2.34	0.05	1.03	0.461	0.276	4/19/2013 21:30	4/20/2013 3:00	5.5
8	4/29/2013 3:30	4/30/2013 2:45	23.25	0.026	0.35	0.074	1.05	1.87	0.02	0.98	0.443	0.259	4/29/2013 3:30	4/30/2013 1:45	22.25
9	5/8/2013 5:45	5/9/2013 0:45	19	0.024	0.54	0.044	2.61	3.36	0.15	1.03	0.414	0.309	5/8/2013 5:45	5/8/2013 18:45	13
10	5/9/2013 4:00	5/10/2013 4:00	24	0.023	0.39	0.058	2.65	3.27	0.09	0.89	0.414	0.251	5/9/2013 4:15	5/9/2013 6:45	2.5
11	5/10/2013 22:45	5/12/2013 19:00	44.25	0.043	0.66	0.065	1.53	2.08	0.08	0.92	0.412	0.273	5/10/2013 23:00	5/12/2013 5:30	30.5
12	5/18/2013 17:15	5/20/2013 14:45	45.5	0.032	0.35	0.091	1.19	1.66	0.04	0.85	0.410	0.265	5/18/2013 17:15	5/19/2013 18:30	25.25
13	5/23/2013 13:30	5/24/2013 20:00	30.5	0.019	0.51	0.038	2.15	2.72	0.20	0.86	0.434	0.270	5/23/2013 13:30	5/24/2013 15:45	26.25
14	5/28/2013 9:30	5/29/2013 14:45	29.25	0.023	0.31	0.074	1.12	1.78	0.03	0.85	0.395	0.265	5/28/2013 9:30	5/28/2013 22:30	13
15	6/3/2013 1:00	6/4/2013 9:45	32.75	0.036	1.20	0.030	3.47	4.21	0.53	0.90	0.408	0.228	6/3/2013 1:15	6/3/2013 16:15	15
16	6/6/2013 19:45	6/10/2013 5:00	81.25	0.220	3.78	0.058	3.58	4.41	0.36	1.36	0.448	0.260	6/6/2013 20:00	6/8/2013 2:15	30.25
17	6/10/2013 7:15	6/13/2013 7:15	72	0.151	2.16	0.070	3.87	4.63	0.27	1.23	0.469	0.254	6/10/2013 7:15	6/11/2013 1:00	17.75
18	6/13/2013 9:30	6/15/2013 16:00	54.5	0.046	0.50	0.091	2.61	3.42	0.17	0.96	0.483	0.271	6/13/2013 9:30	6/14/2013 19:00	33.5
19	6/18/2013 13:00	6/20/2013 0:00	35	0.030	0.30	0.101	1.19	1.97	0.02	0.98	0.497	0.275	6/18/2013 13:15	6/18/2013 20:30	7.25
20	6/25/2013 16:00	6/25/2013 19:30	3.5	0.003	0.09	0.033	0.87	1.63	0.08	1.00	0.467	0.345	6/25/2013 16:15	6/25/2013 16:30	0.25
21	6/26/2013 20:30	6/27/2013 2:15	5.75	0.004	0.14	0.032	1.31	2.15	0.10	0.86	0.462	0.217	6/26/2013 20:45	6/26/2013 21:30	0.75
22	6/27/2013 18:30	6/28/2013 14:00	19.5	0.023	0.64	0.037	2.99	3.84	0.16	0.99	0.455	0.242	6/27/2013 18:30	6/27/2013 22:00	3.5
23	6/28/2013 17:30	6/29/2013 0:30	7	0.002	0.08	0.030	0.46	1.30	0.02	0.86	0.450	0.328	6/28/2013 18:15	6/28/2013 20:00	1.75
24	6/30/2013 12:00	7/1/2013 5:30	17.5	0.016	0.39	0.041	2.64	3.48	0.12	0.93	0.438	0.269	6/30/2013 12:00	6/30/2013 16:15	4.25
25	7/1/2013 8:45	7/2/2013 8:15	23.5	0.023	0.31	0.073	2.02	2.75	0.08	0.92	0.430	0.253	7/1/2013 8:45	7/1/2013 16:30	7.75
26	7/2/2013 18:15	7/3/2013 2:30	8.25	0.008	0.04	0.192	0.71	1.49	0.01	0.90	0.421	0.254	7/2/2013 18:30	7/2/2013 20:30	2
27	7/3/2013 21:30	7/4/2013 4:45	7.25	0.006	0.16	0.037	1.02	1.78	0.09	0.73	0.412	0.124	7/3/2013 21:30	7/3/2013 22:15	0.75
28	7/9/2013 17:45	7/10/2013 7:30	13.75	0.008	0.27	0.031	1.82	2.57	0.13	0.74	0.387	0.213	7/9/2013 17:45	7/9/2013 19:45	2
29	7/10/2013 12:45	7/11/2013 4:00	15.25	0.010	0.22	0.044	2.06	2.75	0.20	0.79	0.389	0.249	7/10/2013 12:45	7/10/2013 13:45	1
30	7/12/2013 16:00	7/13/2013 14:45	22.75	0.039	0.97	0.040	3.23	3.92	0.24	1.08	0.390	0.272	7/12/2013 16:15	7/12/2013 22:30	6.25
31	7/13/2013 15:30	7/15/2013 3:45	36.25	0.036	0.88	0.041	3.00	3.79	0.53	0.90	0.392	0.270	7/13/2013 15:45	7/13/2013 19:45	4
32	7/19/2013 15:30	7/19/2013 19:00	3.5	0.004	0.15	0.024	1.57	2.26	0.11	0.96	0.396	0.331	7/19/2013 15:30	7/19/2013 16:00	0.5
33	7/21/2013 16:15	7/21/2013 23:00	6.75	0.008	0.30	0.028	2.45	3.22	0.16	1.05	0.402	0.359	7/21/2013 16:15	7/21/2013 17:00	0.75
34	7/22/2013 18:00	7/24/2013 16:45	46.75	0.048	1.85	0.026	3.09	3.51	0.62	0.91	0.414	0.252	7/22/2013 18:00	7/23/2013 18:15	24.25

**PC-B1360 Poquessing Creek Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 374

Tributary Service Population: 6,435

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	7/28/2013 16:00	7/29/2013 5:15	13.25	0.019	0.51	0.038	2.05	2.83	0.10	0.98	0.414	0.223	7/28/2013 16:15	7/29/2013 2:30	10.25
36	8/1/2013 6:30	8/2/2013 17:15	34.75	0.054	0.95	0.057	3.74	4.42	0.14	1.06	0.406	0.272	8/1/2013 6:30	8/1/2013 15:00	8.5
37	8/8/2013 0:15	8/9/2013 11:00	34.75	0.033	0.56	0.060	4.17	4.53	0.31	0.80	0.342	0.229	8/8/2013 0:30	8/8/2013 17:00	16.5
38	8/9/2013 15:30	8/10/2013 8:45	17.25	0.008	0.12	0.063	1.43	2.16	0.08	0.68	0.354	0.212	8/9/2013 15:30	8/9/2013 18:00	2.5
39	8/13/2013 5:00	8/14/2013 5:30	24.5	0.051	2.09	0.025	2.76	3.44	0.78	1.13	0.380	0.248	8/13/2013 5:00	8/13/2013 10:00	5
40	8/22/2013 6:15	8/22/2013 9:15	3	0.005	0.23	0.022	2.11	2.79	0.15	1.08	0.387	0.320	8/22/2013 6:30	8/22/2013 6:45	0.25
41	8/28/2013 9:45	8/28/2013 20:30	10.75	0.027	0.53	0.052	4.01	4.71	0.08	1.32	0.392	0.327	8/28/2013 9:45	8/28/2013 16:00	6.25
42	9/2/2013 10:30	9/3/2013 6:00	19.5	0.021	0.37	0.056	2.00	2.68	0.06	0.87	0.375	0.239	9/2/2013 10:30	9/3/2013 3:30	17
43	9/12/2013 19:00	9/12/2013 23:15	4.25	0.002	0.07	0.035	0.52	1.26	0.06	0.84	0.361	0.354	9/12/2013 19:15	9/12/2013 19:45	0.5
44	9/13/2013 2:00	9/13/2013 6:15	4.25	0.012	0.34	0.035	3.29	3.66	0.12	1.06	0.360	0.053	9/13/2013 2:00	9/13/2013 3:15	1.25
45	9/21/2013 20:30	9/22/2013 7:45	11.25	0.044	1.14	0.038	5.06	5.49	0.24	1.35	0.289	0.142	9/21/2013 20:45	9/22/2013 2:15	5.5
Average:			24.6	0.032	0.63	0.054	2.19	2.89	0.16	0.97	0.419	0.261			10.4
Maximum Value:			81.3	0.220	3.78	0.192	5.06	5.49	0.78	1.36	0.497	0.413			39.3
Minimum Value:			3.0	0.002	0.04	0.022	0.46	1.26	0.01	0.68	0.289	0.053			0.25
Standard Deviation:			17.9	0.039	0.69	0.029	1.11	1.06	0.17	0.15	0.043	0.060			10.4
Weighted Mean R-Value*:						0.051									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PC-B1440 Poquessing Creek Interceptor

Pipe Size (In.): 12

Tributary Drainage Area (acres): 212

Tributary Service Population: 1,894

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/19/2004 0:15	10/20/2004 19:15	43	0.026	0.73	0.036	0.366	0.681	0.08	0.363	0.159	0.120	10/19/2004 1:00	10/20/2004 3:45	26.75
2	10/30/2004 3:15	10/30/2004 8:00	4.75	0.001	0.16	0.006	0.171	0.367	0.03	0.227	0.150	0.049	10/30/2004 3:30	10/30/2004 6:45	3.25
3	11/4/2004 12:00	11/6/2004 5:30	41.5	0.039	1.11	0.035	0.624	0.945	0.10	0.384	0.142	0.113	11/4/2004 12:00	11/4/2004 20:45	8.75
4	11/12/2004 7:45	11/14/2004 8:00	48.25	0.070	1.10	0.064	0.875	1.044	0.03	0.478	0.147	0.132	11/12/2004 8:00	11/13/2004 4:30	20.5
5	11/27/2004 23:00	11/30/2004 2:00	51	0.110	1.52	0.072	2.377	2.833	0.23	0.612	0.182	0.133	11/27/2004 23:15	11/28/2004 11:45	12.5
6	12/1/2004 2:15	12/3/2004 23:45	69.5	0.090	0.77	0.117	0.788	1.132	0.08	0.503	0.201	0.124	12/1/2004 2:15	12/1/2004 11:00	8.75
7	12/7/2004 5:30	12/9/2004 12:45	55.25	0.049	0.55	0.089	0.403	0.715	0.04	0.447	0.196	0.129	12/7/2004 5:45	12/8/2004 1:45	20
8	12/9/2004 15:45	12/12/2004 11:30	67.75	0.139	0.77	0.180	0.877	1.121	0.05	0.614	0.200	0.133	12/9/2004 15:45	12/11/2004 13:45	46
9	12/23/2004 9:45	12/25/2004 11:15	49.5	0.038	0.74	0.052	0.418	0.741	0.18	0.429	0.199	0.123	12/23/2004 9:45	12/23/2004 20:00	10.25
10	1/5/2005 0:30	1/8/2005 5:45	77.25	0.073	0.95	0.077	0.370	0.715	0.05	0.449	0.204	0.114	1/5/2005 0:30	1/8/2005 4:45	76.25
11	1/8/2005 6:45	1/10/2005 5:00	46.25	0.033	0.38	0.088	0.700	1.183	0.07	0.469	0.214	0.155	1/8/2005 6:45	1/8/2005 12:45	6
12	1/11/2005 17:30	1/13/2005 14:15	44.75	0.046	0.43	0.107	0.508	0.822	0.05	0.478	0.214	0.123	1/11/2005 17:45	1/12/2005 10:00	16.25
13	1/13/2005 23:30	1/16/2005 5:15	53.75	0.148	1.75	0.085	2.248	2.633	0.17	0.732	0.229	0.124	1/13/2005 23:45	1/14/2005 12:45	13
14	2/14/2005 10:30	2/18/2005 1:15	86.75	0.125	1.27	0.098	0.811	1.176	0.05	0.547	0.225	0.124	2/14/2005 10:30	2/16/2005 16:30	54
15	2/21/2005 12:30	2/23/2005 11:30	47	0.033	0.47	0.070	0.268	0.687	0.03	0.494	0.275	0.123	2/21/2005 12:30	2/23/2005 1:30	37
16	3/8/2005 5:00	3/10/2005 3:00	46	0.028	0.32	0.089	0.302	0.752	0.03	0.492	0.280	0.127	3/8/2005 5:00	3/8/2005 11:00	6
17	3/23/2005 6:30	3/25/2005 8:15	49.75	0.050	0.88	0.057	0.571	0.968	0.07	0.511	0.246	0.126	3/23/2005 6:30	3/24/2005 10:15	27.75
18	3/27/2005 20:30	3/29/2005 20:45	48.25	0.104	1.47	0.071	2.526	2.886	0.10	0.668	0.248	0.123	3/27/2005 22:15	3/29/2005 8:45	34.5
19	4/1/2005 22:30	4/3/2005 22:15	47.75	0.167	2.95	0.057	2.233	2.700	0.26	0.906	0.271	0.153	4/1/2005 22:30	4/3/2005 21:45	47.25
20	4/7/2005 22:45	4/8/2005 20:15	21.5	0.027	0.74	0.036	0.682	1.168	0.07	0.551	0.265	0.115	4/7/2005 23:00	4/8/2005 8:15	9.25
21	4/30/2005 4:45	5/1/2005 14:15	33.5	0.014	1.21	0.012	0.420	0.720	0.24	0.411	0.191	0.162	4/30/2005 5:00	5/1/2005 8:15	27.25
Average:			49.2	0.067	0.97	0.071	0.883	1.238	0.10	0.513	0.211	0.125			24.3
Maximum Value:			86.8	0.167	2.95	0.180	2.526	2.886	0.26	0.906	0.280	0.162			76.3
Minimum Value:			4.8	0.001	0.16	0.006	0.171	0.367	0.03	0.227	0.142	0.049			3.25
Standard Deviation:			17.5	0.048	0.62	0.038	0.756	0.788	0.07	0.142	0.042	0.022			19.0
Weighted Mean R-Value*:						0.070									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

PC-B1530 Poquessing Creek Interceptor

Pipe Size (In.): 18

Tributary Drainage Area (acres): 224

Tributary Service Population: 219

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/6/2009 21:30	1/9/2009 0:15	50.75	0.119	1.63	0.073	0.976	1.119	0.05	0.429	0.052	0.037	1/6/2009 21:30	1/7/2009 23:00	25.5
2	1/27/2009 23:00	1/29/2009 9:00	34	0.020	0.89	0.022	0.317	0.402	0.04	0.142	0.028	0.031	1/27/2009 23:00	1/28/2009 18:45	19.75
3	2/3/2009 12:00	2/4/2009 0:15	12.25	0.004	0.32	0.012	0.182	0.315	0.02	0.159	0.068	0.047	2/3/2009 12:00	2/3/2009 22:15	10.25
4	2/18/2009 12:45	2/19/2009 8:45	20	0.006	0.22	0.030	0.127	0.215	0.02	0.131	0.054	0.030	2/18/2009 12:45	2/19/2009 2:00	13.25
5	3/1/2009 20:45	3/2/2009 16:30	19.75	0.005	0.47	0.010	0.143	0.286	0.06	0.149	0.074	0.040	3/1/2009 20:45	3/2/2009 15:30	18.75
6	3/26/2009 17:00	3/27/2009 10:45	17.75	0.007	0.31	0.021	0.220	0.313	0.05	0.154	0.076	0.024	3/26/2009 17:00	3/27/2009 1:00	8
7	3/28/2009 2:00	3/29/2009 0:45	22.75	0.010	0.20	0.050	0.250	0.336	0.03	0.151	0.080	0.008	3/28/2009 2:00	3/29/2009 0:30	22.5
8	3/29/2009 2:30	3/29/2009 17:00	14.5	0.006	0.27	0.023	0.206	0.288	0.05	0.148	0.078	0.008	3/29/2009 2:45	3/29/2009 12:30	9.75
9	3/29/2009 19:00	3/30/2009 22:00	27	0.017	0.26	0.066	0.369	0.460	0.24	0.204	0.075	0.037	3/29/2009 19:15	3/29/2009 22:45	3.5
10	4/1/2009 15:00	4/2/2009 12:30	21.5	0.009	0.21	0.044	0.196	0.282	0.02	0.174	0.079	0.034	4/1/2009 15:00	4/2/2009 0:45	9.75
11	4/3/2009 5:15	4/4/2009 13:15	32	0.023	0.56	0.041	0.451	0.616	0.15	0.223	0.089	0.030	4/3/2009 5:15	4/3/2009 19:00	13.75
12	4/6/2009 10:15	4/7/2009 2:30	16.25	0.008	0.33	0.024	0.321	0.503	0.04	0.204	0.088	0.046	4/6/2009 10:15	4/6/2009 19:30	9.25
13	4/11/2009 6:45	4/12/2009 3:45	21	0.013	0.53	0.024	0.220	0.294	0.05	0.163	0.067	0.009	4/11/2009 6:45	4/11/2009 15:00	8.25
14	4/13/2009 23:30	4/16/2009 8:45	57.25	0.040	1.19	0.034	0.355	0.535	0.07	0.232	0.096	0.034	4/13/2009 23:45	4/15/2009 17:15	41.5
15	4/20/2009 10:00	4/21/2009 7:15	21.25	0.014	0.62	0.022	0.283	0.511	0.06	0.283	0.153	0.037	4/20/2009 10:15	4/21/2009 2:00	15.75
16	4/21/2009 21:45	4/22/2009 2:45	5	0.004	0.14	0.025	0.322	0.475	0.05	0.252	0.144	0.007	4/21/2009 21:45	4/21/2009 23:00	1.25
17	4/29/2009 4:00	4/29/2009 12:30	8.5	0.002	0.13	0.018	0.124	0.320	0.02	0.194	0.108	0.047	4/29/2009 4:15	4/29/2009 8:00	3.75
18	5/3/2009 6:00	5/6/2009 15:15	81.25	0.083	1.66	0.050	0.591	0.720	0.06	0.303	0.120	0.034	5/3/2009 6:00	5/6/2009 0:15	66.25
19	5/6/2009 20:30	5/8/2009 17:45	45.25	0.045	1.10	0.041	0.610	0.741	0.20	0.310	0.126	0.039	5/6/2009 20:45	5/7/2009 17:15	20.5
20	5/14/2009 21:45	5/15/2009 18:45	21	0.010	0.41	0.025	0.220	0.358	0.19	0.234	0.125	0.040	5/14/2009 21:45	5/15/2009 0:00	2.25
21	5/24/2009 20:45	5/26/2009 0:00	27.25	0.009	0.20	0.045	0.217	0.337	0.13	0.168	0.110	0.011	5/24/2009 21:30	5/24/2009 22:00	0.5
22	5/29/2009 2:45	5/30/2009 9:15	30.5	0.012	0.47	0.026	0.481	0.597	0.11	0.202	0.114	0.030	5/29/2009 2:45	5/29/2009 18:45	16
23	6/3/2009 3:45	6/3/2009 22:00	18.25	0.008	0.24	0.032	0.244	0.360	0.13	0.214	0.105	0.049	6/3/2009 3:45	6/3/2009 20:30	16.75
24	6/3/2009 22:45	6/6/2009 13:30	62.75	0.061	1.26	0.048	0.485	0.682	0.11	0.278	0.107	0.031	6/3/2009 23:00	6/5/2009 22:00	47
25	6/9/2009 7:45	6/10/2009 15:30	31.75	0.017	0.12	0.141	0.290	0.489	0.04	0.230	0.102	0.049	6/9/2009 8:00	6/9/2009 8:45	0.75
26	6/11/2009 3:15	6/11/2009 20:15	17	0.008	0.24	0.033	0.286	0.473	0.11	0.213	0.096	0.050	6/11/2009 3:30	6/11/2009 11:15	7.75
27	6/13/2009 13:45	6/14/2009 13:15	23.5	0.015	0.51	0.028	0.353	0.457	0.18	0.195	0.097	0.009	6/13/2009 14:00	6/14/2009 0:15	10.25
28	6/16/2009 0:00	6/16/2009 15:15	15.25	0.015	0.77	0.019	0.557	0.652	0.37	0.276	0.095	0.042	6/16/2009 0:00	6/16/2009 5:15	5.25
29	6/18/2009 3:00	6/19/2009 16:30	37.5	0.026	0.58	0.045	0.266	0.396	0.12	0.242	0.098	0.043	6/18/2009 3:00	6/18/2009 17:45	14.75
30	6/20/2009 9:30	6/22/2009 0:00	38.5	0.033	0.45	0.073	0.472	0.585	0.09	0.236	0.102	0.010	6/20/2009 9:30	6/21/2009 23:15	37.75
31	6/26/2009 19:15	6/27/2009 21:00	25.75	0.019	0.79	0.024	0.719	0.847	0.59	0.229	0.115	0.009	6/26/2009 19:15	6/27/2009 19:30	24.25
32	7/2/2009 1:15	7/2/2009 16:30	15.25	0.010	0.77	0.013	0.371	0.498	0.46	0.264	0.123	0.047	7/2/2009 1:15	7/2/2009 16:15	15
33	7/11/2009 22:45	7/12/2009 20:30	21.75	0.015	1.16	0.013	0.377	0.486	0.41	0.208	0.099	0.010	7/11/2009 23:00	7/12/2009 2:45	3.75
34	7/16/2009 18:45	7/16/2009 23:00	4.25	0.001	0.14	0.008	0.107	0.219	0.11	0.144	0.087	0.021	7/16/2009 18:45	7/16/2009 19:15	0.5



PC-B1530 Poquessing Creek Interceptor

Pipe Size (In.): 18

Tributary Drainage Area (acres): 224

Tributary Service Population: 219

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	7/17/2009 19:45	7/18/2009 1:00	5.25	0.001	0.19	0.008	0.088	0.196	0.11	0.139	0.088	0.012	7/17/2009 20:00	7/17/2009 21:15	1.25
36	7/21/2009 4:30	7/22/2009 9:30	29	0.017	0.94	0.018	0.308	0.418	0.10	0.198	0.078	0.037	7/21/2009 4:30	7/21/2009 16:15	11.75
37	7/23/2009 11:15	7/24/2009 1:30	14.25	0.004	0.14	0.026	0.180	0.359	0.05	0.154	0.073	0.046	7/23/2009 11:15	7/23/2009 14:45	3.5
38	7/29/2009 16:30	7/30/2009 14:30	22	0.014	0.63	0.022	0.371	0.483	0.27	0.209	0.081	0.036	7/29/2009 16:30	7/29/2009 22:45	6.25
39	7/31/2009 5:45	7/31/2009 12:30	6.75	0.003	0.10	0.031	0.229	0.377	0.05	0.211	0.089	0.056	7/31/2009 5:45	7/31/2009 6:15	0.5
40	7/31/2009 16:30	8/1/2009 8:15	15.75	0.006	0.64	0.009	0.454	0.595	0.24	0.163	0.096	0.015	7/31/2009 16:30	7/31/2009 17:45	1.25
41	8/2/2009 7:15	8/3/2009 0:00	16.75	0.015	1.23	0.012	0.971	1.081	0.46	0.240	0.099	0.013	8/2/2009 7:15	8/2/2009 16:00	8.75
42	8/9/2009 4:45	8/10/2009 5:45	25	0.007	0.37	0.018	0.215	0.313	0.05	0.137	0.089	0.010	8/9/2009 5:15	8/9/2009 19:30	14.25
43	8/12/2009 15:00	8/12/2009 19:00	4	0.000	0.18	0.002	0.130	0.284	0.11	0.158	0.089	0.056	8/12/2009 15:00	8/12/2009 15:30	0.5
44	8/13/2009 13:30	8/13/2009 19:30	6	0.006	0.45	0.013	0.666	0.835	0.13	0.283	0.090	0.061	8/13/2009 13:45	8/13/2009 15:15	1.5
45	8/18/2009 20:15	8/19/2009 11:15	15	0.004	0.14	0.026	0.174	0.313	0.03	0.150	0.092	0.024	8/18/2009 20:30	8/19/2009 2:15	5.75
46	8/21/2009 15:30	8/22/2009 16:45	25.25	0.034	1.68	0.020	1.102	1.211	0.45	0.312	0.102	0.015	8/21/2009 15:45	8/22/2009 10:30	18.75
47	8/22/2009 17:30	8/23/2009 22:30	29	0.032	0.70	0.046	1.701	1.817	0.20	0.275	0.106	0.011	8/22/2009 17:45	8/22/2009 22:15	4.5
48	8/28/2009 8:00	8/28/2009 13:00	5	0.002	0.10	0.015	0.209	0.380	0.08	0.232	0.112	0.078	8/28/2009 8:00	8/28/2009 8:15	0.25
49	8/28/2009 15:45	8/29/2009 2:00	10.25	0.003	0.37	0.009	0.189	0.360	0.10	0.182	0.113	0.025	8/28/2009 15:45	8/29/2009 0:15	8.5
50	8/29/2009 21:30	8/30/2009 21:45	24.25	0.012	0.36	0.035	0.323	0.447	0.14	0.190	0.107	0.010	8/29/2009 21:30	8/30/2009 0:00	2.5
51	9/10/2009 18:00	9/13/2009 7:45	61.75	0.037	1.72	0.021	0.309	0.450	0.11	0.194	0.087	0.020	9/10/2009 18:00	9/13/2009 0:30	54.5
52	9/16/2009 14:45	9/17/2009 0:15	9.5	0.006	0.23	0.027	0.288	0.431	0.04	0.211	0.081	0.035	9/16/2009 14:45	9/16/2009 18:45	4
53	9/24/2009 0:45	9/24/2009 17:00	16.25	0.008	0.70	0.011	0.415	0.476	0.20	0.176	0.059	0.046	9/24/2009 0:45	9/24/2009 2:15	1.5
54	9/26/2009 19:45	9/28/2009 13:45	42	0.031	1.14	0.027	0.253	0.341	0.06	0.202	0.077	0.020	9/26/2009 20:00	9/27/2009 17:45	21.75
55	9/28/2009 16:45	9/30/2009 1:00	32.25	0.011	0.37	0.029	0.232	0.352	0.20	0.158	0.075	0.035	9/28/2009 17:15	9/28/2009 18:30	1.25
56	10/15/2009 9:45	10/16/2009 14:45	29	0.020	0.78	0.025	0.215	0.356	0.07	0.216	0.071	0.047	10/15/2009 9:45	10/16/2009 13:30	27.75
57	10/17/2009 7:30	10/17/2009 15:15	7.75	0.008	0.37	0.023	0.243	0.330	0.05	0.241	0.078	0.008	10/17/2009 7:30	10/17/2009 14:45	7.25
58	10/17/2009 15:45	10/18/2009 4:30	12.75	0.011	0.20	0.055	0.247	0.338	0.01	0.213	0.079	0.010	10/17/2009 15:45	10/18/2009 2:00	10.25
59	10/18/2009 5:15	10/19/2009 4:00	22.75	0.014	0.15	0.089	0.252	0.337	0.03	0.173	0.077	0.010	10/18/2009 5:15	10/18/2009 8:45	3.5
60	10/23/2009 21:45	10/24/2009 6:30	8.75	0.003	0.33	0.009	0.205	0.308	0.06	0.147	0.095	0.006	10/23/2009 21:45	10/24/2009 4:30	6.75
61	10/24/2009 13:00	10/25/2009 23:30	34.5	0.020	1.11	0.019	0.511	0.621	0.43	0.195	0.099	0.011	10/24/2009 13:15	10/24/2009 21:30	8.25
62	10/27/2009 4:45	10/27/2009 20:00	15.25	0.012	0.45	0.026	0.352	0.469	0.06	0.265	0.100	0.056	10/27/2009 5:00	10/27/2009 14:15	9.25
63	10/27/2009 20:45	10/29/2009 19:00	46.25	0.049	1.18	0.041	0.749	0.851	0.12	0.294	0.102	0.039	10/27/2009 20:45	10/28/2009 14:00	17.25
64	10/31/2009 19:15	11/1/2009 1:30	6.25	0.002	0.17	0.011	0.172	0.299	0.07	0.163	0.108	0.012	10/31/2009 19:15	11/1/2009 0:45	5.5
65	11/11/2009 23:00	11/13/2009 1:00	26	0.007	0.26	0.028	0.144	0.308	0.01	0.149	0.073	0.036	11/11/2009 23:00	11/12/2009 19:15	20.25
66	11/13/2009 19:45	11/14/2009 23:15	27.5	0.008	0.15	0.053	0.132	0.211	0.02	0.127	0.077	0.009	11/13/2009 20:00	11/14/2009 11:00	15
67	11/20/2009 1:45	11/21/2009 1:45	24	0.013	0.53	0.024	0.467	0.534	0.19	0.179	0.067	0.037	11/20/2009 2:00	11/20/2009 4:30	2.5
68	11/25/2009 11:45	11/26/2009 1:00	13.25	0.003	0.13	0.025	0.114	0.227	0.01	0.138	0.059	0.043	11/25/2009 11:45	11/25/2009 23:30	11.75
69	11/30/2009 11:15	12/1/2009 8:15	21	0.005	0.25	0.022	0.242	0.379	0.03	0.117	0.046	0.034	11/30/2009 11:30	11/30/2009 18:45	7.25

**PC-B1530 Poquessing Creek Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 224

Tributary Service Population: 219

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	12/2/2009 15:30	12/4/2009 8:00	40.5	0.021	1.07	0.020	0.296	0.350	0.08	0.160	0.054	0.031	12/2/2009 15:30	12/3/2009 6:15	14.75
71	12/5/2009 10:45	12/7/2009 2:45	40	0.016	0.48	0.034	0.209	0.296	0.03	0.143	0.073	0.010	12/5/2009 11:00	12/5/2009 22:00	11
72	12/9/2009 0:30	12/10/2009 20:30	44	0.061	2.18	0.028	1.487	1.604	0.14	0.329	0.088	0.041	12/9/2009 0:30	12/9/2009 9:15	8.75
73	12/13/2009 8:45	12/14/2009 9:30	24.75	0.031	1.16	0.027	0.718	0.844	0.10	0.307	0.110	0.014	12/13/2009 8:45	12/13/2009 17:45	9
74	12/19/2009 6:00	12/20/2009 16:30	34.5	0.011	1.18	0.009	0.141	0.272	0.03	0.172	0.118	0.009	12/19/2009 6:00	12/20/2009 8:00	26
75	12/25/2009 19:30	12/28/2009 9:15	61.75	0.089	2.25	0.040	1.008	1.131	0.14	0.334	0.115	0.010	12/25/2009 20:00	12/27/2009 2:00	30
76	12/31/2009 20:00	1/2/2010 3:45	31.75	0.011	0.16	0.070	0.104	0.227	0.02	0.177	0.117	0.009	12/31/2009 20:00	1/1/2010 5:45	9.75
Average:			25.1	0.018	0.61	0.030	0.375	0.500	0.12	0.207	0.091	0.029			12.6
Maximum Value:			81.3	0.119	2.25	0.141	1.701	1.817	0.59	0.429	0.153	0.078			66.3
Minimum Value:			4.0	0.000	0.10	0.002	0.088	0.196	0.01	0.117	0.028	0.006			0.25
Standard Deviation:			15.5	0.021	0.51	0.021	0.299	0.300	0.12	0.060	0.022	0.017			12.5
Weighted Mean R-Value*:						0.030									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q107-02-S0025 Poquessing Creek Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 176

Tributary Service Population: 2,954

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/14/2003 21:30	10/15/2003 11:15	13.75	0.075	1.51	0.050	2.764	3.113	0.24	0.967	0.240	0.110	10/14/2003 21:30	10/15/2003 3:45	6.25
2	10/17/2003 18:45	10/18/2003 4:30	9.75	0.017	0.19	0.090	0.592	0.978	0.02	0.563	0.273	0.095	10/17/2003 18:45	10/18/2003 1:00	6.25
3	10/26/2003 20:45	10/28/2003 7:00	34.25	0.162	1.79	0.091	2.596	2.972	0.15	0.897	0.238	0.118	10/26/2003 21:15	10/27/2003 21:15	24
4	10/28/2003 19:45	10/30/2003 1:00	29.25	0.177	1.41	0.126	2.607	2.852	0.06	1.059	0.236	0.135	10/28/2003 20:00	10/29/2003 10:30	14.5
5	11/5/2003 16:45	11/6/2003 7:30	14.75	0.026	0.64	0.041	1.613	2.045	0.25	0.545	0.231	0.114	11/5/2003 17:00	11/6/2003 1:45	8.75
6	11/6/2003 11:30	11/7/2003 3:45	16.25	0.035	0.31	0.112	0.607	1.020	0.03	0.601	0.232	0.129	11/6/2003 12:30	11/6/2003 23:15	10.75
7	11/12/2003 0:45	11/12/2003 12:45	12	0.032	0.31	0.104	0.678	1.151	0.03	0.654	0.236	0.117	11/12/2003 0:45	11/12/2003 8:30	7.75
8	11/19/2003 16:00	11/20/2003 20:00	28	0.159	2.02	0.079	3.183	3.557	0.38	0.967	0.178	0.143	11/19/2003 16:15	11/20/2003 4:45	12.5
9	11/24/2003 20:45	11/25/2003 3:00	6.25	0.011	0.13	0.087	0.433	0.739	0.03	0.437	0.154	0.083	11/24/2003 20:45	11/25/2003 0:15	3.5
10	11/28/2003 8:15	11/29/2003 5:45	21.5	0.056	0.91	0.062	1.695	2.081	0.35	0.621	0.197	0.126	11/28/2003 8:15	11/28/2003 23:45	15.5
11	1/18/2004 8:00	1/19/2004 5:45	21.75	0.049	0.50	0.097	0.955	1.386	0.03	0.574	0.162	0.158	1/18/2004 8:00	1/18/2004 17:45	9.75
12	2/3/2004 9:45	2/3/2004 23:45	14	0.047	0.56	0.084	1.967	2.306	0.05	0.747	0.200	0.167	2/3/2004 9:45	2/3/2004 18:15	8.5
13	2/6/2004 6:00	2/7/2004 9:15	27.25	0.159	1.27	0.125	2.087	2.447	0.06	0.984	0.188	0.133	2/6/2004 6:15	2/7/2004 4:45	22.5
14	3/30/2004 22:45	3/31/2004 9:00	10.25	0.020	0.25	0.081	1.226	1.445	0.06	0.502	0.193	0.087	3/30/2004 23:45	3/31/2004 4:00	4.25
15	4/2/2004 12:15	4/3/2004 12:00	23.75	0.058	0.58	0.100	1.049	1.423	0.02	0.631	0.219	0.135	4/2/2004 12:45	4/3/2004 7:15	18.5
16	4/4/2004 10:45	4/5/2004 0:00	13.25	0.033	0.29	0.112	1.214	1.736	0.06	0.698	0.221	0.200	4/4/2004 11:00	4/4/2004 16:00	5
17	4/12/2004 17:00	4/13/2004 8:00	15	0.056	0.75	0.074	1.783	1.814	0.05	0.532	-0.004	0.117	4/12/2004 17:15	4/13/2004 6:30	13.25
18	4/13/2004 12:15	4/14/2004 6:45	18.5	0.104	1.67	0.063	3.532	3.736	0.46	0.766	0.008	0.119	4/13/2004 12:30	4/13/2004 21:15	8.75
19	4/14/2004 11:00	4/15/2004 16:00	29	0.077	0.51	0.151	1.205	1.384	0.05	0.467	0.024	0.140	4/14/2004 11:30	4/15/2004 5:30	18
20	4/23/2004 19:45	4/24/2004 8:00	12.25	0.026	0.47	0.055	1.507	1.676	0.07	0.311	0.000	0.075	4/23/2004 20:00	4/24/2004 1:45	5.75
21	4/26/2004 0:30	4/27/2004 8:30	32	0.086	1.34	0.064	2.358	2.335	0.11	0.399	-0.026	0.121	4/26/2004 0:45	4/26/2004 23:30	22.75
22	5/3/2004 1:15	5/4/2004 7:45	30.5	0.055	0.85	0.064	0.928	1.286	0.11	0.536	0.210	0.122	5/3/2004 1:30	5/3/2004 23:45	22.25
23	5/5/2004 18:15	5/6/2004 0:00	5.75	0.007	0.23	0.029	1.311	1.715	0.23	0.499	0.210	0.162	5/5/2004 18:30	5/5/2004 18:30	0
24	5/31/2004 9:30	6/1/2004 8:30	23	0.046	0.61	0.075	1.711	2.011	0.06	0.510	0.150	0.134	5/31/2004 9:30	6/1/2004 2:15	16.75
25	6/1/2004 15:15	6/2/2004 2:00	10.75	0.015	0.31	0.049	1.692	1.984	0.20	0.445	0.147	0.138	6/1/2004 15:30	6/1/2004 16:00	0.5
26	6/5/2004 5:45	6/6/2004 10:45	29	0.032	0.41	0.077	0.763	0.977	0.03	0.423	0.147	0.152	6/5/2004 6:00	6/6/2004 7:15	25.25
27	6/14/2004 20:00	6/15/2004 5:30	9.5	0.011	0.14	0.082	0.619	0.777	0.02	0.333	0.124	0.074	6/14/2004 20:15	6/15/2004 1:00	4.75
28	6/17/2004 17:45	6/18/2004 4:30	10.75	0.012	0.11	0.109	0.712	1.024	0.04	0.358	0.130	0.103	6/17/2004 17:45	6/17/2004 21:30	3.75
29	6/22/2004 18:30	6/23/2004 2:15	7.75	0.016	0.18	0.091	2.722	3.041	0.10	0.470	0.112	0.123	6/22/2004 18:45	6/22/2004 19:30	0.75
30	6/29/2004 1:15	6/29/2004 6:45	5.5	0.014	0.26	0.055	1.945	2.052	0.14	0.426	0.095	0.044	6/29/2004 1:45	6/29/2004 2:30	0.75
31	7/5/2004 5:45	7/5/2004 10:00	4.25	0.007	0.31	0.021	0.818	1.148	0.12	0.443	0.084	0.190	7/5/2004 5:45	7/5/2004 7:30	1.75
32	7/7/2004 19:00	7/8/2004 5:15	10.25	0.007	0.15	0.047	0.487	0.783	0.05	0.256	0.093	0.086	7/7/2004 19:15	7/7/2004 20:45	1.5
33	7/12/2004 7:15	7/13/2004 6:00	22.75	0.193	4.78	0.040	3.129	3.403	0.37	1.174	0.080	0.133	7/12/2004 7:30	7/12/2004 20:15	12.75
34	7/14/2004 17:45	7/15/2004 6:30	12.75	0.036	0.87	0.041	2.957	3.238	0.28	0.529	0.115	0.101	7/14/2004 17:45	7/15/2004 3:45	10

**Q107-02-S0025 Poquessing Creek Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 176

Tributary Service Population: 2,954

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	7/18/2004 10:00	7/19/2004 6:15	20.25	0.109	1.75	0.063	2.784	3.288	0.32	0.991	0.227	0.151	7/18/2004 10:15	7/19/2004 0:45	14.5
36	7/23/2004 11:45	7/24/2004 1:30	13.75	0.047	1.07	0.044	2.150	2.591	0.17	0.782	0.254	0.146	7/23/2004 11:45	7/23/2004 18:15	6.5
37	7/27/2004 14:45	7/29/2004 6:45	40	0.140	2.14	0.065	3.636	3.989	0.83	0.734	0.210	0.126	7/27/2004 14:45	7/28/2004 21:30	30.75
38	8/1/2004 7:45	8/2/2004 0:00	16.25	0.082	2.07	0.040	3.424	3.927	0.44	1.066	0.289	0.206	8/1/2004 8:00	8/1/2004 11:00	3
39	8/3/2004 16:30	8/4/2004 0:00	7.5	0.006	0.52	0.012	0.372	0.886	0.28	0.589	0.335	0.164	8/3/2004 16:30	8/3/2004 17:45	1.25
Average:			17.5	0.059	0.88	0.073	1.739	2.059	0.16	0.628	0.164	0.128			10.3
Maximum Value:			40.0	0.193	4.78	0.151	3.636	3.989	0.83	1.174	0.335	0.206			30.8
Minimum Value:			4.3	0.006	0.11	0.012	0.372	0.739	0.02	0.256	-0.026	0.044			0.00
Standard Deviation:			9.1	0.053	0.89	0.031	0.978	0.978	0.17	0.234	0.086	0.034			8.1
Weighted Mean R-Value*:						0.067									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q110-17-S0015 Poquessing Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 59

Tributary Service Population: 709

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/3/2013 6:00	6/3/2013 18:45	12.75	0.046	1.06	0.044	0.475	0.574	0.49	0.235	0.045	0.054	6/3/2013 6:15	6/3/2013 16:15	10
2	6/7/2013 0:30	6/8/2013 11:30	35	0.163	3.74	0.044	1.178	1.277	0.38	0.268	0.053	0.038	6/7/2013 0:30	6/8/2013 2:15	25.75
3	6/10/2013 6:45	6/10/2013 12:15	5.5	0.015	0.60	0.025	0.791	0.913	0.27	0.221	0.063	0.058	6/10/2013 7:15	6/10/2013 9:45	2.5
4	6/10/2013 13:30	6/11/2013 8:15	18.75	0.080	1.65	0.048	1.120	1.234	0.24	0.270	0.070	0.039	6/10/2013 13:30	6/11/2013 0:45	11.25
5	6/13/2013 9:45	6/13/2013 12:00	2.25	0.006	0.31	0.018	0.259	0.394	0.16	0.225	0.079	0.059	6/13/2013 9:45	6/13/2013 10:45	1
6	6/18/2013 12:00	6/19/2013 0:00	12	0.016	0.30	0.053	0.146	0.265	0.02	0.173	0.070	0.054	6/18/2013 12:45	6/18/2013 20:15	7.5
7	6/25/2013 15:45	6/25/2013 17:45	2	0.003	0.12	0.029	0.326	0.446	0.11	0.181	0.073	0.051	6/25/2013 16:15	6/25/2013 16:30	0.25
8	6/26/2013 21:00	6/26/2013 23:15	2.25	0.004	0.14	0.026	0.324	0.461	0.10	0.182	0.073	0.055	6/26/2013 21:00	6/26/2013 21:30	0.5
9	6/27/2013 18:45	6/27/2013 23:30	4.75	0.010	0.61	0.017	0.418	0.554	0.15	0.207	0.071	0.057	6/27/2013 18:45	6/27/2013 22:00	3.25
10	6/30/2013 14:00	6/30/2013 16:15	2.25	0.004	0.23	0.018	0.199	0.320	0.08	0.189	0.062	0.064	6/30/2013 14:00	6/30/2013 16:00	2
11	7/1/2013 12:45	7/1/2013 17:45	5	0.008	0.20	0.039	0.219	0.335	0.09	0.175	0.067	0.051	7/1/2013 12:45	7/1/2013 16:30	3.75
12	7/2/2013 18:00	7/2/2013 23:15	5.25	0.004	0.10	0.039	0.091	0.221	0.06	0.157	0.070	0.059	7/2/2013 18:15	7/2/2013 20:30	2.25
13	7/9/2013 17:45	7/9/2013 20:00	2.25	0.001	0.13	0.007	0.055	0.186	0.07	0.130	0.068	0.060	7/9/2013 17:45	7/9/2013 19:45	2
14	7/10/2013 12:45	7/10/2013 14:15	1.5	0.003	0.18	0.014	0.227	0.346	0.16	0.174	0.064	0.055	7/10/2013 12:45	7/10/2013 13:30	0.75
15	7/12/2013 16:00	7/13/2013 1:45	9.75	0.033	0.92	0.036	0.758	0.862	0.20	0.228	0.055	0.048	7/12/2013 16:15	7/12/2013 22:30	6.25
16	7/13/2013 17:30	7/13/2013 23:15	5.75	0.025	0.88	0.029	1.579	1.688	0.56	0.267	0.057	0.049	7/13/2013 18:00	7/13/2013 19:45	1.75
17	7/19/2013 15:15	7/19/2013 18:00	2.75	0.001	0.10	0.009	0.057	0.159	0.08	0.112	0.050	0.050	7/19/2013 15:30	7/19/2013 16:00	0.5
18	7/21/2013 16:30	7/21/2013 18:15	1.75	0.001	0.12	0.007	0.082	0.196	0.06	0.126	0.049	0.061	7/21/2013 16:30	7/21/2013 17:00	0.5
19	7/22/2013 18:00	7/22/2013 21:00	3	0.001	0.15	0.004	0.029	0.148	0.05	0.124	0.055	0.061	7/22/2013 18:00	7/22/2013 20:30	2.5
20	7/23/2013 1:45	7/23/2013 10:45	9	0.039	1.50	0.026	1.593	1.652	0.68	0.253	0.058	0.031	7/23/2013 2:00	7/23/2013 3:45	1.75
21	7/23/2013 16:45	7/23/2013 19:30	2.75	0.002	0.11	0.014	0.060	0.183	0.06	0.137	0.060	0.058	7/23/2013 17:00	7/23/2013 18:15	1.25
22	7/28/2013 16:30	7/29/2013 6:30	14	0.020	0.58	0.035	0.496	0.618	0.13	0.142	0.057	0.031	7/28/2013 16:30	7/29/2013 2:30	10
23	8/1/2013 7:00	8/1/2013 21:00	14	0.034	0.98	0.035	0.451	0.569	0.14	0.208	0.060	0.056	8/1/2013 7:15	8/1/2013 15:00	7.75
24	8/8/2013 0:45	8/8/2013 5:45	5	0.012	0.48	0.024	0.767	0.831	0.32	0.153	0.061	0.006	8/8/2013 0:45	8/8/2013 3:30	2.75
25	8/13/2013 5:45	8/13/2013 18:30	12.75	0.077	1.92	0.040	1.742	1.852	0.73	0.336	0.054	0.053	8/13/2013 5:45	8/13/2013 10:00	4.25
26	8/22/2013 6:00	8/22/2013 8:15	2.25	0.007	0.25	0.028	0.642	0.725	0.21	0.199	0.044	0.050	8/22/2013 6:15	8/22/2013 6:45	0.5
27	8/22/2013 12:15	8/22/2013 17:45	5.5	0.006	0.14	0.042	0.210	0.319	0.04	0.137	0.046	0.052	8/22/2013 12:45	8/22/2013 17:15	4.5
28	8/28/2013 10:00	8/28/2013 18:45	8.75	0.015	0.49	0.031	0.275	0.381	0.09	0.171	0.052	0.054	8/28/2013 10:15	8/28/2013 16:00	5.75
29	9/2/2013 10:30	9/2/2013 14:30	4	0.010	0.27	0.036	0.287	0.412	0.06	0.211	0.050	0.072	9/2/2013 10:30	9/2/2013 13:30	3
30	9/12/2013 18:45	9/12/2013 20:45	2	0.003	0.17	0.016	0.232	0.335	0.11	0.150	0.041	0.062	9/12/2013 19:00	9/12/2013 19:45	0.75
31	9/13/2013 2:00	9/13/2013 5:45	3.75	0.010	0.36	0.029	0.480	0.523	0.12	0.144	0.040	0.004	9/13/2013 2:00	9/13/2013 2:45	0.75
32	9/21/2013 21:30	9/22/2013 7:45	10.25	0.036	1.13	0.031	0.756	0.811	0.23	0.187	0.039	0.018	9/21/2013 21:30	9/22/2013 2:15	4.75
Average:			7.1	0.022	0.62	0.028	0.510	0.618	0.19	0.190	0.058	0.049			4.1
Maximum Value:			35.0	0.163	3.74	0.053	1.742	1.852	0.73	0.336	0.079	0.072			25.8

**Q110-17-S0015 Poquessing Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 59

Tributary Service Population: 709

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
Minimum Value:			1.5	0.001	0.10	0.004	0.029	0.148	0.02	0.112	0.039	0.004			0.25
Standard Deviation:			6.8	0.033	0.75	0.013	0.474	0.465	0.18	0.052	0.011	0.016			5.0
Weighted Mean R-Value*:						0.035									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q120-02-S0010 Poquessing Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 85

Tributary Service Population: 1,131

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/13/2007 8:30	12/14/2007 4:45	20.25	0.019	0.66	0.029	0.15	0.27	0.06	0.176	0.068	0.056	12/13/2007 8:45	12/13/2007 17:30	8.75
2	12/16/2007 0:30	12/17/2007 5:00	28.5	0.043	1.07	0.040	0.22	0.34	0.07	0.227	0.086	0.059	12/16/2007 0:30	12/16/2007 17:00	16.5
3	12/23/2007 11:00	12/24/2007 4:30	17.5	0.018	0.34	0.053	0.20	0.38	0.05	0.216	0.095	0.065	12/23/2007 11:00	12/23/2007 19:45	8.75
4	12/28/2007 22:00	12/30/2007 3:45	29.75	0.031	0.71	0.044	0.56	0.66	0.13	0.207	0.091	0.059	12/28/2007 22:15	12/29/2007 7:15	9
5	12/30/2007 15:15	1/1/2008 4:45	37.5	0.031	0.42	0.075	0.28	0.38	0.06	0.199	0.096	0.057	12/30/2007 16:30	12/31/2007 3:45	11.25
6	1/10/2008 22:15	1/12/2008 1:30	27.25	0.022	0.47	0.047	0.23	0.36	0.09	0.188	0.088	0.055	1/10/2008 22:15	1/11/2008 13:15	15
7	1/13/2008 19:00	1/14/2008 5:45	10.75	0.008	0.16	0.049	0.09	0.26	0.02	0.164	0.082	0.042	1/13/2008 19:15	1/14/2008 3:30	8.25
8	1/17/2008 14:45	1/19/2008 5:00	38.25	0.041	0.63	0.065	0.36	0.46	0.04	0.194	0.081	0.055	1/17/2008 15:45	1/18/2008 10:00	18.25
9	2/1/2008 7:45	2/4/2008 3:00	67.25	0.132	1.32	0.100	0.54	0.62	0.15	0.253	0.079	0.065	2/1/2008 8:00	2/1/2008 19:00	11
10	2/12/2008 20:15	2/15/2008 15:45	67.5	0.167	1.54	0.108	0.88	1.07	0.09	0.312	0.117	0.058	2/13/2008 0:00	2/15/2008 12:00	60
11	2/25/2008 11:45	2/26/2008 0:45	13	0.003	0.21	0.014	0.04	0.23	0.02	0.182	0.104	0.065	2/25/2008 11:45	2/25/2008 18:15	6.5
12	2/26/2008 9:15	2/27/2008 4:45	19.5	0.011	0.24	0.044	0.23	0.42	0.03	0.190	0.105	0.055	2/26/2008 10:15	2/26/2008 19:00	8.75
13	3/4/2008 21:15	3/6/2008 1:30	28.25	0.031	0.95	0.033	0.47	0.59	0.10	0.225	0.108	0.056	3/4/2008 21:30	3/5/2008 9:45	12.25
14	3/7/2008 15:15	3/10/2008 0:30	57.25	0.116	2.67	0.044	1.75	1.98	0.49	0.308	0.129	0.067	3/7/2008 15:30	3/8/2008 18:45	27.25
15	3/18/2008 21:00	3/21/2008 20:30	71.5	0.042	1.03	0.041	0.40	0.52	0.24	0.213	0.121	0.059	3/18/2008 21:15	3/20/2008 3:15	30
16	4/3/2008 21:15	4/4/2008 20:45	23.5	0.026	0.44	0.059	0.20	0.36	0.03	0.255	0.136	0.059	4/3/2008 21:45	4/4/2008 8:15	10.5
17	4/11/2008 21:45	4/13/2008 0:00	26.25	0.011	0.53	0.021	0.37	0.55	0.12	0.227	0.139	0.065	4/11/2008 21:45	4/12/2008 11:00	13.25
18	4/28/2008 0:45	4/29/2008 22:15	45.5	0.075	0.93	0.080	0.63	0.77	0.19	0.218	0.067	0.061	4/28/2008 1:00	4/28/2008 19:15	18.25
19	5/9/2008 2:45	5/10/2008 2:15	23.5	0.050	1.07	0.047	0.43	0.61	0.10	0.260	0.083	0.060	5/9/2008 2:45	5/9/2008 22:00	19.25
20	5/12/2008 10:30	5/13/2008 0:45	14.25	0.016	0.42	0.038	0.17	0.33	0.02	0.216	0.088	0.066	5/12/2008 10:30	5/12/2008 19:30	9
21	5/16/2008 2:30	5/16/2008 23:00	20.5	0.051	1.07	0.048	1.05	1.25	0.15	0.333	0.132	0.065	5/16/2008 2:45	5/16/2008 21:00	18.25
22	5/18/2008 13:00	5/19/2008 9:45	20.75	0.050	0.38	0.132	0.50	0.74	0.11	0.360	0.164	0.064	5/18/2008 13:15	5/18/2008 15:45	2.5
23	5/20/2008 8:45	5/21/2008 14:15	29.5	0.103	0.60	0.171	1.48	1.71	0.13	0.427	0.173	0.062	5/20/2008 8:45	5/20/2008 17:45	9
24	5/31/2008 10:00	5/31/2008 19:15	9.25	0.003	0.47	0.007	0.71	1.01	0.33	0.302	0.185	0.097	5/31/2008 12:00	5/31/2008 15:45	3.75
Average:			31.1	0.046	0.76	0.058	0.50	0.66	0.12	0.244	0.109	0.061			14.8
Maximum Value:			71.5	0.167	2.67	0.171	1.75	1.98	0.49	0.427	0.185	0.097			60.0
Minimum Value:			9.3	0.003	0.16	0.007	0.04	0.23	0.02	0.164	0.067	0.042			2.50
Standard Deviation:			18.2	0.043	0.55	0.038	0.42	0.45	0.11	0.065	0.033	0.009			11.7
Weighted Mean R-Value*:						0.060									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q120-08-S0010 Poquessing Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 108

Tributary Service Population: 1,069

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	3/31/2008 19:45	4/1/2008 12:00	16.25	0.001	0.11	0.011	0.116	0.494	0.03	0.361	0.269	0.087	3/31/2008 20:15	4/1/2008 10:30	14.25
2	4/3/2008 21:45	4/4/2008 9:30	11.75	0.020	0.47	0.043	0.326	0.665	0.03	0.463	0.269	0.075	4/3/2008 21:45	4/4/2008 6:30	8.75
3	4/11/2008 21:45	4/12/2008 9:00	11.25	0.009	0.44	0.022	0.154	0.442	0.07	0.356	0.246	0.052	4/11/2008 21:45	4/12/2008 1:15	3.5
4	4/27/2008 0:45	4/27/2008 8:45	8	0.011	0.24	0.047	0.227	0.437	0.09	0.325	0.195	0.035	4/27/2008 1:00	4/27/2008 6:45	5.75
5	4/28/2008 1:00	4/28/2008 7:45	6.75	0.004	0.15	0.029	0.159	0.391	0.07	0.305	0.209	0.054	4/28/2008 1:30	4/28/2008 7:45	6.25
6	4/28/2008 13:00	4/28/2008 22:00	9	0.013	0.72	0.018	0.290	0.607	0.22	0.420	0.206	0.114	4/28/2008 13:15	4/28/2008 19:15	6
7	5/9/2008 2:45	5/9/2008 19:00	16.25	0.033	1.28	0.026	0.372	0.616	0.09	0.424	0.184	0.097	5/9/2008 2:45	5/9/2008 18:00	15.25
8	5/12/2008 10:15	5/13/2008 4:30	18.25	0.021	0.59	0.036	0.234	0.532	0.04	0.375	0.204	0.089	5/12/2008 10:15	5/12/2008 18:45	8.5
9	5/16/2008 2:15	5/16/2008 22:00	19.75	0.033	1.33	0.024	0.587	0.885	0.19	0.394	0.179	0.100	5/16/2008 2:15	5/16/2008 22:00	19.75
10	5/18/2008 13:15	5/18/2008 18:15	5	0.009	0.49	0.019	0.341	0.640	0.15	0.422	0.193	0.102	5/18/2008 13:15	5/18/2008 18:15	5
11	5/20/2008 12:15	5/20/2008 20:15	8	0.013	0.60	0.021	0.430	0.723	0.11	0.415	0.195	0.111	5/20/2008 12:30	5/20/2008 17:30	5
12	5/27/2008 19:45	5/28/2008 0:15	4.5	0.006	0.42	0.013	0.388	0.737	0.29	0.406	0.211	0.112	5/27/2008 20:15	5/27/2008 22:30	2.25
13	5/31/2008 11:45	5/31/2008 19:15	7.5	0.011	0.45	0.026	1.027	1.354	0.26	0.412	0.198	0.110	5/31/2008 12:00	5/31/2008 16:00	4
14	5/31/2008 23:00	6/1/2008 5:45	6.75	0.007	0.19	0.040	0.455	0.707	0.12	0.307	0.207	0.025	5/31/2008 23:00	5/31/2008 23:45	0.75
15	6/3/2008 22:15	6/4/2008 8:15	10	0.028	0.95	0.029	0.792	1.007	0.30	0.469	0.211	0.067	6/3/2008 22:15	6/4/2008 5:30	7.25
16	6/4/2008 17:45	6/4/2008 22:45	5	0.011	0.43	0.025	0.886	1.224	0.28	0.471	0.203	0.126	6/4/2008 18:00	6/4/2008 20:00	2
17	6/14/2008 20:45	6/15/2008 0:30	3.75	0.002	0.12	0.015	0.231	0.509	0.03	0.310	0.211	0.066	6/14/2008 20:45	6/14/2008 22:45	2
18	6/18/2008 17:15	6/18/2008 19:30	2.25	0.001	0.15	0.006	0.126	0.438	0.07	0.332	0.184	0.124	6/18/2008 18:00	6/18/2008 19:15	1.25
19	6/23/2008 23:45	6/24/2008 3:00	3.25	0.002	0.13	0.018	0.156	0.420	0.10	0.294	0.214	0.036	6/24/2008 0:00	6/24/2008 0:45	0.75
20	6/27/2008 19:15	6/27/2008 22:00	2.75	0.003	0.18	0.017	0.352	0.687	0.06	0.400	0.196	0.131	6/27/2008 19:30	6/27/2008 20:45	1.25
21	7/4/2008 19:45	7/5/2008 8:15	12.5	0.015	0.24	0.063	0.487	0.680	0.07	0.304	0.175	0.047	7/4/2008 20:00	7/5/2008 5:15	9.25
22	7/9/2008 18:00	7/10/2008 0:45	6.75	0.007	0.13	0.056	0.635	0.934	0.06	0.351	0.164	0.112	7/9/2008 18:00	7/9/2008 19:00	1
23	7/14/2008 2:15	7/14/2008 11:00	8.75	0.007	0.21	0.035	0.282	0.599	0.04	0.308	0.169	0.082	7/14/2008 2:15	7/14/2008 10:00	7.75
24	7/18/2008 16:15	7/18/2008 18:45	2.5	0.003	0.18	0.014	0.230	0.492	0.11	0.332	0.150	0.118	7/18/2008 16:15	7/18/2008 17:00	0.75
25	7/23/2008 1:45	7/23/2008 6:45	5	0.012	0.26	0.047	0.412	0.564	0.11	0.334	0.138	0.036	7/23/2008 2:00	7/23/2008 6:30	4.5
26	7/23/2008 16:45	7/24/2008 8:00	15.25	0.040	1.00	0.041	0.584	0.826	0.24	0.418	0.148	0.086	7/23/2008 17:00	7/24/2008 6:15	13.25
27	7/27/2008 13:30	7/27/2008 16:30	3	0.007	0.41	0.017	0.498	0.755	0.22	0.410	0.156	0.104	7/27/2008 13:45	7/27/2008 15:30	1.75
28	8/5/2008 19:30	8/6/2008 9:15	13.75	0.012	0.13	0.098	0.512	0.810	0.03	0.316	0.170	0.083	8/5/2008 19:30	8/6/2008 7:15	11.75
29	8/10/2008 15:30	8/10/2008 21:30	6	0.018	0.43	0.043	0.499	0.764	0.09	0.470	0.168	0.094	8/10/2008 15:30	8/10/2008 20:00	4.5
30	8/14/2008 21:00	8/15/2008 2:15	5.25	0.006	0.11	0.053	0.255	0.527	0.03	0.310	0.158	0.078	8/14/2008 21:30	8/15/2008 1:30	4
31	8/29/2008 23:45	8/30/2008 8:15	8.5	0.015	0.47	0.033	0.991	1.168	0.27	0.321	0.163	0.034	8/29/2008 23:45	8/30/2008 3:15	3.5
32	9/5/2008 23:30	9/6/2008 3:30	4	0.007	0.15	0.046	0.462	0.709	0.06	0.347	0.200	0.032	9/5/2008 23:45	9/6/2008 1:00	1.25
33	9/6/2008 12:45	9/7/2008 4:00	15.25	0.062	2.06	0.030	1.105	1.412	0.20	0.569	0.211	0.076	9/6/2008 12:45	9/6/2008 22:15	9.5
34	9/9/2008 10:15	9/9/2008 14:45	4.5	0.019	0.60	0.033	1.030	1.368	0.19	0.624	0.233	0.104	9/9/2008 10:30	9/9/2008 12:00	1.5



**Q120-08-S0010 Poquessing Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 108

Tributary Service Population: 1,069

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	9/12/2008 14:00	9/13/2008 0:30	10.5	0.033	0.67	0.050	0.511	0.859	0.08	0.560	0.230	0.111	9/12/2008 14:00	9/12/2008 20:45	6.75
36	9/25/2008 20:30	9/26/2008 4:00	7.5	0.013	0.11	0.113	0.287	0.483	0.02	0.336	0.157	0.065	9/25/2008 20:45	9/26/2008 1:45	5
37	9/26/2008 12:30	9/26/2008 16:30	4	0.006	0.13	0.049	0.620	0.889	0.10	0.372	0.161	0.105	9/26/2008 12:30	9/26/2008 13:15	0.75
38	9/27/2008 1:45	9/27/2008 14:00	12.25	0.019	0.33	0.058	0.698	0.876	0.14	0.340	0.158	0.075	9/27/2008 2:00	9/27/2008 4:30	2.5
39	9/28/2008 6:00	9/28/2008 8:45	2.75	0.006	0.15	0.036	0.543	0.755	0.06	0.343	0.145	0.068	9/28/2008 6:15	9/28/2008 8:30	2.25
40	9/28/2008 16:15	9/29/2008 8:15	16	0.037	0.69	0.053	0.970	1.235	0.23	0.416	0.184	0.073	9/28/2008 16:15	9/28/2008 20:15	4
41	9/30/2008 22:30	10/1/2008 6:00	7.5	0.020	0.47	0.043	1.112	1.469	0.29	0.485	0.260	0.043	9/30/2008 22:45	10/1/2008 0:15	1.5
42	10/25/2008 10:00	10/26/2008 1:30	15.5	0.016	0.83	0.019	0.387	0.715	0.41	0.396	0.228	0.097	10/25/2008 10:45	10/25/2008 22:00	11.25
43	10/27/2008 22:00	10/28/2008 23:30	25.5	0.079	1.72	0.046	0.512	0.861	0.09	0.554	0.242	0.094	10/27/2008 22:15	10/28/2008 17:45	19.5
44	11/5/2008 18:00	11/5/2008 22:00	4	0.008	0.20	0.040	0.329	0.629	0.03	0.423	0.164	0.128	11/5/2008 18:00	11/5/2008 21:00	3
45	11/8/2008 10:30	11/8/2008 18:15	7.75	0.012	0.11	0.113	0.293	0.623	0.03	0.413	0.190	0.117	11/8/2008 10:45	11/8/2008 12:30	1.75
46	11/13/2008 10:15	11/14/2008 19:00	32.75	0.058	0.80	0.073	0.607	0.934	0.07	0.463	0.240	0.099	11/13/2008 10:15	11/14/2008 16:00	29.75
47	11/15/2008 3:15	11/15/2008 14:00	10.75	0.038	0.39	0.098	0.568	0.834	0.05	0.587	0.259	0.086	11/15/2008 3:30	11/15/2008 9:45	6.25
48	11/15/2008 17:15	11/15/2008 20:30	3.25	0.012	0.26	0.046	0.729	1.083	0.21	0.593	0.256	0.100	11/15/2008 17:30	11/15/2008 18:45	1.25
49	11/15/2008 22:00	11/16/2008 5:15	7.25	0.023	0.23	0.100	0.396	0.689	0.04	0.501	0.254	0.032	11/15/2008 22:15	11/16/2008 1:30	3.25
50	11/24/2008 20:45	11/25/2008 8:00	11.25	0.028	0.45	0.062	0.308	0.558	0.04	0.453	0.209	0.072	11/24/2008 20:45	11/25/2008 7:45	11
51	11/30/2008 5:00	12/1/2008 7:15	26.25	0.073	0.81	0.090	0.470	0.762	0.04	0.469	0.196	0.080	11/30/2008 5:00	12/1/2008 2:15	21.25
52	12/10/2008 6:00	12/10/2008 12:00	6	0.002	0.10	0.024	0.104	0.424	0.03	0.347	0.200	0.120	12/10/2008 8:00	12/10/2008 11:00	3
53	12/10/2008 14:45	12/10/2008 19:15	4.5	0.003	0.13	0.022	0.128	0.439	0.06	0.345	0.196	0.108	12/10/2008 14:45	12/10/2008 19:00	4.25
54	12/11/2008 4:15	12/12/2008 6:30	26.25	0.002	2.95	0.001	0.110	0.422	0.16	0.300	0.205	0.090	12/11/2008 4:15	12/12/2008 4:15	24
55	12/16/2008 12:30	12/17/2008 17:45	29.25	0.052	0.63	0.083	0.358	0.624	0.08	0.459	0.238	0.095	12/16/2008 12:45	12/17/2008 13:00	24.25
56	12/19/2008 8:30	12/20/2008 8:30	24	0.063	0.90	0.070	0.453	0.810	0.06	0.522	0.256	0.085	12/19/2008 8:45	12/19/2008 18:00	9.25
57	12/21/2008 4:00	12/21/2008 23:45	19.75	0.042	0.27	0.155	0.358	0.809	0.03	0.547	0.306	0.092	12/21/2008 4:30	12/21/2008 10:30	6
58	12/24/2008 8:30	12/25/2008 7:45	23.25	0.045	0.16	0.293	0.373	0.677	0.03	0.497	0.276	0.084	12/24/2008 8:45	12/25/2008 1:30	16.75
59	1/6/2009 22:00	1/8/2009 12:30	38.5	0.083	1.61	0.052	0.416	0.787	0.05	0.554	0.314	0.089	1/6/2009 22:15	1/7/2009 22:45	24.5
60	1/27/2009 23:15	1/30/2009 0:45	49.5	0.081	0.90	0.090	0.355	0.848	0.04	0.568	0.361	0.093	1/27/2009 23:15	1/28/2009 18:45	19.5
61	2/3/2009 11:30	2/4/2009 3:00	15.5	0.012	0.37	0.032	0.190	0.684	0.03	0.513	0.365	0.095	2/3/2009 11:45	2/3/2009 22:00	10.25
62	2/18/2009 12:45	2/18/2009 20:30	7.75	0.014	0.21	0.067	0.264	0.677	0.02	0.513	0.280	0.112	2/18/2009 12:45	2/18/2009 19:30	6.75
63	3/1/2009 23:00	3/2/2009 14:15	15.25	0.008	0.41	0.021	0.272	0.641	0.06	0.427	0.310	0.078	3/1/2009 23:00	3/2/2009 12:15	13.25
Average:			11.9	0.022	0.52	0.049	0.450	0.750	0.11	0.419	0.213	0.085			7.7
Maximum Value:			49.5	0.083	2.95	0.293	1.112	1.469	0.41	0.624	0.365	0.131			29.8
Minimum Value:			2.3	0.001	0.10	0.001	0.104	0.391	0.02	0.294	0.138	0.025			0.75
Standard Deviation:			9.4	0.022	0.52	0.043	0.258	0.258	0.09	0.089	0.050	0.027			7.1
Weighted Mean R-Value*:						0.041									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q120-10-S0010 Poquessing Creek Interceptor**

Pipe Size (In.): 10

Tributary Drainage Area (acres): 67

Tributary Service Population: 323

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/8/2007 3:15	12/8/2007 7:45	4.5	0.0003	0.11	0.002	0.0080	0.0120	0.01	0.0080	0.0030	0.0030	12/8/2007 3:30	12/8/2007 7:30	4
2	12/9/2007 19:00	12/9/2007 22:00	3	0.0006	0.14	0.004	0.0310	0.0510	0.05	0.0280	0.0050	0.0170	12/9/2007 19:15	12/9/2007 22:00	2.75
3	12/13/2007 8:45	12/13/2007 20:45	12	0.0180	0.66	0.027	0.1890	0.2000	0.06	0.0770	0.0050	0.0090	12/13/2007 8:45	12/13/2007 17:30	8.75
4	12/16/2007 0:45	12/16/2007 17:00	16.25	0.0320	1.07	0.030	0.3090	0.3200	0.07	0.0990	0.0060	0.0080	12/16/2007 0:45	12/16/2007 14:45	14
5	12/23/2007 4:00	12/23/2007 14:15	10.25	0.0010	0.09	0.010	0.0440	0.0680	0.01	0.0210	0.0090	0.0080	12/23/2007 4:15	12/23/2007 13:30	9.25
6	12/23/2007 15:30	12/23/2007 23:15	7.75	0.0170	0.30	0.056	0.3060	0.3340	0.05	0.1150	0.0090	0.0140	12/23/2007 15:30	12/23/2007 19:45	4.25
7	12/26/2007 18:15	12/27/2007 1:00	6.75	0.0020	0.11	0.016	0.0340	0.0540	0.02	0.0280	0.0080	0.0090	12/26/2007 18:45	12/26/2007 23:45	5
8	12/28/2007 22:15	12/29/2007 5:45	7.5	0.0180	0.70	0.026	0.2570	0.2690	0.13	0.1160	0.0090	0.0050	12/28/2007 22:15	12/29/2007 4:30	6.25
9	12/30/2007 16:30	12/30/2007 21:30	5	0.0006	0.13	0.005	0.0300	0.0590	0.02	0.0280	0.0100	0.0150	12/30/2007 16:30	12/30/2007 20:45	4.25
10	12/30/2007 23:15	12/31/2007 6:15	7	0.0120	0.29	0.042	0.3070	0.3190	0.06	0.0880	0.0090	0.0050	12/30/2007 23:45	12/31/2007 3:45	4
11	1/11/2008 0:30	1/11/2008 7:45	7.25	0.0060	0.23	0.026	0.1170	0.1500	0.08	0.0620	0.0200	0.0070	1/11/2008 0:30	1/11/2008 6:15	5.75
12	1/11/2008 12:00	1/11/2008 13:45	1.75	0.0040	0.18	0.023	0.1920	0.2200	0.07	0.1190	0.0220	0.0080	1/11/2008 12:00	1/11/2008 13:30	1.5
13	1/13/2008 19:00	1/13/2008 23:15	4.25	0.0010	0.11	0.013	0.0640	0.1100	0.02	0.0580	0.0300	0.0140	1/13/2008 19:15	1/13/2008 23:00	3.75
14	1/14/2008 14:00	1/14/2008 19:00	5	0.0001	0.13	0.001	0.0210	0.0600	0.02	0.0400	0.0300	0.0080	1/14/2008 14:00	1/14/2008 17:30	3.5
15	1/17/2008 15:00	1/18/2008 11:00	20	0.0150	0.72	0.021	0.1940	0.2200	0.06	0.0610	0.0190	0.0080	1/17/2008 15:00	1/18/2008 1:45	10.75
16	2/1/2008 8:00	2/1/2008 19:45	11.75	0.0280	1.47	0.019	0.2640	0.2900	0.17	0.1260	0.0150	0.0090	2/1/2008 8:00	2/1/2008 19:00	11
17	2/12/2008 17:00	2/14/2008 7:00	38	0.0420	2.28	0.019	0.2130	0.2500	0.09	0.0900	0.0330	0.0080	2/12/2008 17:00	2/14/2008 2:15	33.25
18	2/17/2008 18:30	2/17/2008 21:00	2.5	0.0001	0.12	0.001	0.0320	0.0800	0.03	0.0520	0.0370	0.0160	2/17/2008 19:00	2/17/2008 20:45	1.75
19	2/18/2008 3:00	2/18/2008 8:30	5.5	0.0020	0.16	0.015	0.0810	0.1200	0.05	0.0620	0.0360	0.0080	2/18/2008 3:00	2/18/2008 7:30	4.5
20	2/18/2008 18:00	2/18/2008 19:45	1.75	0.0010	0.11	0.005	0.0530	0.1000	0.04	0.0580	0.0360	0.0090	2/18/2008 18:00	2/18/2008 18:45	0.75
21	2/22/2008 3:15	2/22/2008 10:30	7.25	0.0010	0.27	0.003	0.0520	0.0900	0.02	0.0490	0.0350	0.0090	2/22/2008 3:30	2/22/2008 10:00	6.5
Average:			8.8	0.0096	0.45	0.017	0.1332	0.1608	0.05	0.0660	0.0184	0.0094			6.9
Maximum Value:			38.0	0.0420	2.28	0.056	0.3090	0.3340	0.17	0.1260	0.0370	0.0170			33.3
Minimum Value:			1.8	0.0001	0.09	0.001	0.0080	0.0120	0.01	0.0080	0.0030	0.0030			0.75
Standard Deviation:			8.1	0.0123	0.56	0.014	0.1091	0.1048	0.04	0.0351	0.0123	0.0037			6.9
Weighted Mean R-Value*:						0.021									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q120-11-S0010 Poquessing Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 81

Tributary Service Population: 932

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/13/2007 8:30	12/14/2007 10:30	26	0.267	0.66	0.403	0.980	1.200	0.06	0.739	0.147	0.0550	12/13/2007 8:45	12/13/2007 17:30	8.75
2	12/16/2007 0:00	12/18/2007 5:45	53.75	0.454	1.07	0.423	1.154	1.310	0.07	0.649	0.158	0.0470	12/16/2007 0:30	12/16/2007 17:00	16.5
3	12/23/2007 3:45	12/24/2007 11:30	31.75	0.192	0.40	0.480	0.912	1.180	0.05	0.581	0.214	0.0510	12/23/2007 4:00	12/23/2007 19:45	15.75
4	12/26/2007 18:15	12/27/2007 8:15	14	0.039	0.11	0.350	0.386	0.610	0.02	0.399	0.213	0.0430	12/26/2007 18:45	12/26/2007 23:45	5
5	12/28/2007 21:15	12/30/2007 9:15	36	0.241	0.71	0.340	1.083	1.310	0.13	0.622	0.226	0.0450	12/28/2007 22:15	12/29/2007 7:15	9
6	12/30/2007 16:30	1/1/2008 7:45	39.25	0.235	0.42	0.559	0.950	1.190	0.06	0.600	0.241	0.0460	12/30/2007 16:30	12/31/2007 3:45	11.25
7	1/10/2008 21:45	1/12/2008 7:00	33.25	0.197	0.46	0.432	0.916	1.220	0.09	0.599	0.244	0.0450	1/10/2008 21:45	1/11/2008 13:30	15.75
8	1/13/2008 18:45	1/15/2008 6:15	35.5	0.125	0.29	0.427	0.561	0.830	0.02	0.500	0.269	0.0460	1/13/2008 18:45	1/14/2008 17:30	22.75
9	1/17/2008 15:15	1/19/2008 22:45	55.5	0.380	0.71	0.532	1.026	1.270	0.06	0.645	0.230	0.0550	1/17/2008 15:30	1/18/2008 2:30	11
10	1/29/2008 23:45	1/30/2008 10:45	11	0.005	0.10	0.052	0.094	0.290	0.02	0.187	0.123	0.0400	1/29/2008 23:45	1/30/2008 9:45	10
11	2/1/2008 7:15	2/4/2008 9:45	74.5	0.531	1.53	0.348	1.321	1.540	0.16	0.599	0.171	0.0530	2/1/2008 7:30	2/4/2008 9:00	73.5
12	2/12/2008 17:00	2/15/2008 21:00	76	0.548	2.29	0.239	1.331	1.630	0.10	0.690	0.256	0.0550	2/12/2008 17:00	2/14/2008 2:15	33.25
13	2/17/2008 17:30	2/19/2008 6:00	36.5	0.098	0.40	0.245	0.356	0.720	0.05	0.480	0.293	0.0460	2/17/2008 19:00	2/18/2008 18:45	23.75
14	2/22/2008 3:15	2/23/2008 7:00	27.75	0.029	0.29	0.100	0.214	0.560	0.02	0.397	0.292	0.0490	2/22/2008 3:30	2/22/2008 21:30	18
15	2/26/2008 17:00	2/27/2008 13:00	20	0.057	0.14	0.424	0.400	0.730	0.03	0.467	0.266	0.0520	2/26/2008 17:00	2/26/2008 19:00	2
16	2/29/2008 21:00	3/1/2008 21:45	24.75	0.017	0.16	0.110	0.134	0.460	0.03	0.320	0.232	0.0520	2/29/2008 21:30	3/1/2008 6:30	9
17	3/4/2008 20:45	3/6/2008 1:45	29	0.170	0.99	0.172	0.980	1.260	0.12	0.596	0.239	0.0500	3/4/2008 20:45	3/5/2008 9:30	12.75
18	3/7/2008 14:45	3/10/2008 15:00	72.25	0.383	2.62	0.146	0.846	1.190	0.45	0.596	0.265	0.0520	3/7/2008 14:45	3/8/2008 18:30	27.75
19	3/16/2008 3:45	3/16/2008 11:45	8	0.004	0.12	0.037	0.118	0.470	0.01	0.340	0.263	0.0500	3/16/2008 4:00	3/16/2008 11:15	7.25
20	3/18/2008 23:15	3/21/2008 7:00	55.75	0.261	0.99	0.263	0.725	1.010	0.23	0.524	0.230	0.0490	3/18/2008 23:30	3/20/2008 4:45	29.25
21	3/31/2008 8:45	4/1/2008 11:45	27	0.012	0.10	0.116	0.129	0.410	0.03	0.301	0.223	0.0550	3/31/2008 17:15	4/1/2008 10:30	17.25
22	4/1/2008 21:00	4/2/2008 1:00	4	0.004	0.07	0.054	0.085	0.370	0.03	0.314	0.227	0.0380	4/1/2008 21:30	4/1/2008 22:15	0.75
23	4/3/2008 21:45	4/5/2008 19:00	45.25	0.154	0.48	0.320	0.639	0.940	0.03	0.488	0.256	0.0530	4/3/2008 21:45	4/5/2008 4:15	30.5
24	4/11/2008 20:30	4/12/2008 11:15	14.75	0.083	0.50	0.166	0.662	0.960	0.07	0.603	0.270	0.0420	4/11/2008 21:15	4/12/2008 11:00	13.75
25	4/27/2008 0:45	4/27/2008 12:00	11.25	0.026	0.20	0.133	0.208	0.490	0.07	0.397	0.233	0.0420	4/27/2008 1:00	4/27/2008 6:45	5.75
26	4/28/2008 1:30	4/29/2008 11:15	33.75	0.163	0.91	0.180	0.847	1.170	0.24	0.548	0.243	0.0510	4/28/2008 1:30	4/28/2008 19:15	17.75
27	5/9/2008 1:15	5/10/2008 18:15	41	0.378	1.29	0.293	0.959	1.280	0.09	0.859	0.318	0.0570	5/9/2008 2:15	5/9/2008 17:45	15.5
28	5/12/2008 8:45	5/14/2008 7:00	46.25	0.250	0.60	0.416	0.662	1.190	0.04	0.813	0.477	0.0520	5/12/2008 10:00	5/12/2008 18:45	8.75
29	5/16/2008 1:15	5/17/2008 23:00	45.75	0.167	1.34	0.125	0.635	1.230	0.19	0.768	0.522	0.0550	5/16/2008 2:00	5/17/2008 22:45	44.75
30	5/18/2008 13:00	5/19/2008 19:45	30.75	0.105	0.53	0.199	0.441	1.030	0.15	0.752	0.517	0.0570	5/18/2008 13:15	5/19/2008 15:15	26
31	5/20/2008 11:45	5/21/2008 8:30	20.75	0.092	0.59	0.157	0.555	1.040	0.10	0.678	0.397	0.0480	5/20/2008 12:15	5/20/2008 17:30	5.25
32	5/27/2008 18:30	5/28/2008 4:30	10	0.027	0.43	0.064	0.322	0.580	0.30	0.366	0.193	0.0320	5/27/2008 20:15	5/27/2008 22:30	2.25
33	5/31/2008 10:45	6/1/2008 11:45	25	0.137	0.67	0.206	0.733	1.110	0.24	0.681	0.341	0.0530	5/31/2008 12:00	5/31/2008 23:45	11.75
34	6/3/2008 22:00	6/4/2008 12:00	14	0.076	0.93	0.082	0.806	1.170	0.29	0.684	0.359	0.0430	6/3/2008 22:15	6/4/2008 5:30	7.25



**Q120-11-S0010 Poquessing Creek Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 81

Tributary Service Population: 932

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**Q121-02-S0015 Poquessing Creek Interceptor**

Pipe Size (In.): 10

Tributary Drainage Area (acres): 73

Tributary Service Population: 1,076

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/13/2007 8:30	12/13/2007 20:30	12	0.033	0.66	0.050	0.427	0.580	0.06	0.299	0.0800	0.0910	12/13/2007 8:45	12/13/2007 17:30	8.75
2	12/16/2007 0:30	12/16/2007 15:00	14.5	0.047	1.07	0.044	0.473	0.550	0.07	0.304	0.0790	0.0740	12/16/2007 0:30	12/16/2007 14:45	14.25
3	12/23/2007 14:45	12/23/2007 22:00	7.25	0.017	0.30	0.058	0.266	0.450	0.05	0.290	0.0750	0.1040	12/23/2007 15:30	12/23/2007 19:45	4.25
4	12/26/2007 18:15	12/27/2007 0:15	6	0.001	0.11	0.011	0.069	0.270	0.02	0.184	0.0800	0.0950	12/26/2007 18:45	12/26/2007 23:45	5
5	1/10/2008 22:15	1/11/2008 4:45	6.5	0.008	0.18	0.044	0.127	0.220	0.07	0.156	0.0780	0.0220	1/10/2008 22:15	1/11/2008 4:45	6.5
6	1/11/2008 5:45	1/11/2008 9:45	4	0.003	0.13	0.025	0.182	0.370	0.09	0.214	0.0800	0.0980	1/11/2008 5:45	1/11/2008 6:30	0.75
7	1/11/2008 12:00	1/11/2008 17:15	5.25	0.010	0.15	0.065	0.243	0.390	0.06	0.240	0.0830	0.0730	1/11/2008 12:15	1/11/2008 13:15	1
8	1/13/2008 19:00	1/14/2008 5:00	10	0.008	0.16	0.049	0.146	0.247	0.02	0.175	0.0910	0.0480	1/13/2008 19:15	1/14/2008 3:30	8.25
9	2/1/2008 7:45	2/1/2008 14:45	7	0.032	0.84	0.038	0.445	0.620	0.07	0.377	0.0870	0.0790	2/1/2008 8:00	2/1/2008 13:45	5.75
10	2/1/2008 16:30	2/1/2008 19:30	3	0.015	0.48	0.031	0.609	0.810	0.15	0.423	0.0910	0.1110	2/1/2008 16:45	2/1/2008 19:00	2.25
11	2/12/2008 23:45	2/13/2008 5:30	5.75	0.013	0.51	0.025	0.193	0.260	0.05	0.178	0.0630	0.0130	2/13/2008 0:00	2/13/2008 5:00	5
12	2/13/2008 8:00	2/13/2008 22:00	14	0.008	0.94	0.009	0.099	0.260	0.09	0.174	0.0590	0.0880	2/13/2008 8:00	2/13/2008 21:45	13.75
13	2/18/2008 3:00	2/18/2008 5:45	2.75	0.002	0.12	0.018	0.170	0.270	0.03	0.140	0.0880	0.0170	2/18/2008 3:15	2/18/2008 5:15	2
14	2/18/2008 17:30	2/18/2008 22:45	5.25	0.007	0.11	0.060	0.206	0.410	0.04	0.254	0.0880	0.1090	2/18/2008 18:00	2/18/2008 19:00	1
15	2/23/2008 10:30	2/23/2008 17:45	7.25	0.007	0.10	0.069	0.120	0.340	0.01	0.267	0.1020	0.1220	2/23/2008 11:15	2/23/2008 17:30	6.25
16	2/24/2008 9:30	2/24/2008 21:45	12.25	0.013	0.99	0.013	0.108	0.320	0.85	0.261	0.0940	0.1190	2/24/2008 10:15	2/24/2008 17:30	7.25
17	2/25/2008 11:30	2/25/2008 19:15	7.75	0.003	0.21	0.013	0.096	0.290	0.02	0.191	0.0900	0.0840	2/25/2008 11:45	2/25/2008 18:15	6.5
18	2/26/2008 10:30	2/26/2008 20:30	10	0.010	0.23	0.042	0.135	0.340	0.03	0.222	0.0880	0.0890	2/26/2008 10:45	2/26/2008 19:00	8.25
19	3/4/2008 20:30	3/5/2008 11:00	14.5	0.028	0.98	0.029	0.439	0.540	0.10	0.239	0.0880	0.0590	3/4/2008 21:15	3/5/2008 9:45	12.5
20	3/7/2008 15:00	3/8/2008 0:00	9	0.013	0.54	0.024	0.158	0.360	0.05	0.263	0.1030	0.0930	3/7/2008 15:15	3/7/2008 23:15	8
21	3/8/2008 9:30	3/8/2008 23:00	13.5	0.036	2.09	0.017	0.488	0.720	0.49	0.343	0.1050	0.1140	3/8/2008 9:30	3/8/2008 18:45	9.25
22	3/16/2008 3:45	3/16/2008 9:30	5.75	0.002	0.10	0.018	0.074	0.280	0.02	0.185	0.1210	0.0500	3/16/2008 4:30	3/16/2008 9:00	4.5
23	3/19/2008 1:45	3/19/2008 10:30	8.75	0.004	0.22	0.018	0.116	0.280	0.02	0.200	0.1220	0.0570	3/19/2008 2:00	3/19/2008 9:45	7.75
24	3/19/2008 12:45	3/19/2008 20:45	8	0.010	0.48	0.020	0.151	0.380	0.04	0.272	0.1240	0.0930	3/19/2008 14:00	3/19/2008 20:30	6.5
25	3/20/2008 1:15	3/20/2008 7:00	5.75	0.013	0.27	0.048	0.357	0.490	0.24	0.258	0.1250	0.0300	3/20/2008 2:30	3/20/2008 3:15	0.75
26	4/1/2008 21:00	4/2/2008 2:30	5.5	0.006	0.18	0.035	0.106	0.300	0.12	0.213	0.1150	0.0460	4/1/2008 21:30	4/1/2008 22:15	0.75
27	4/3/2008 21:15	4/4/2008 7:00	9.75	0.014	0.43	0.033	0.206	0.350	0.03	0.224	0.1160	0.0410	4/3/2008 21:45	4/4/2008 6:45	9
28	4/11/2008 21:00	4/12/2008 9:15	12.25	0.036	0.52	0.070	0.375	0.530	0.12	0.299	0.1160	0.0450	4/11/2008 21:45	4/12/2008 1:15	3.5
29	4/27/2008 0:45	4/27/2008 6:30	5.75	0.004	0.20	0.018	0.084	0.187	0.05	0.127	0.0890	0.0100	4/27/2008 1:15	4/27/2008 6:00	4.75
30	4/28/2008 0:30	4/28/2008 5:00	4.5	0.003	0.11	0.027	0.184	0.275	0.05	0.127	0.0900	0.0070	4/28/2008 1:00	4/28/2008 3:45	2.75
31	4/28/2008 13:00	4/28/2008 21:15	8.25	0.016	0.77	0.020	0.364	0.573	0.19	0.272	0.0900	0.0940	4/28/2008 13:15	4/28/2008 19:15	6
32	5/9/2008 2:45	5/9/2008 20:45	18	0.038	1.06	0.036	0.238	0.414	0.10	0.258	0.0790	0.0790	5/9/2008 2:45	5/9/2008 17:00	14.25
33	5/12/2008 10:15	5/12/2008 22:30	12.25	0.022	0.42	0.053	0.226	0.370	0.02	0.252	0.0770	0.0900	5/12/2008 10:30	5/12/2008 19:30	9
34	5/16/2008 6:00	5/16/2008 17:15	11.25	0.032	0.99	0.032	0.543	0.695	0.15	0.282	0.0680	0.0840	5/16/2008 7:15	5/16/2008 15:15	8

**Q121-02-S0015 Poquessing Creek Interceptor**

Pipe Size (In.): 10

Tributary Drainage Area (acres): 73

Tributary Service Population: 1,076

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/18/2008 12:45	5/18/2008 17:00	4.25	0.005	0.38	0.013	0.141	0.353	0.11	0.260	0.0900	0.1170	5/18/2008 13:15	5/18/2008 15:45	2.5
36	5/20/2008 13:45	5/20/2008 22:00	8.25	0.016	0.56	0.029	0.349	0.503	0.13	0.275	0.0860	0.0980	5/20/2008 14:15	5/20/2008 17:45	3.5
37	5/27/2008 19:30	5/27/2008 22:45	3.25	0.005	0.42	0.012	0.249	0.428	0.33	0.240	0.0680	0.1050	5/27/2008 20:30	5/27/2008 22:15	1.75
38	5/31/2008 12:00	5/31/2008 13:45	1.75	0.003	0.46	0.006	0.282	0.482	0.33	0.265	0.0640	0.1310	5/31/2008 12:00	5/31/2008 13:00	1
39	6/3/2008 22:00	6/4/2008 8:00	10	0.016	1.01	0.016	0.485	0.543	0.20	0.174	0.0570	0.0440	6/3/2008 22:30	6/4/2008 7:30	9
40	6/4/2008 17:30	6/4/2008 23:00	5.5	0.008	0.19	0.040	0.487	0.672	0.12	0.230	0.0590	0.1070	6/4/2008 18:15	6/4/2008 19:45	1.5
41	6/27/2008 19:30	6/27/2008 22:00	2.5	0.003	0.10	0.035	0.216	0.426	0.04	0.265	0.0940	0.1120	6/27/2008 19:30	6/27/2008 20:45	1.25
42	7/5/2008 3:00	7/5/2008 7:00	4	0.005	0.37	0.015	0.225	0.314	0.11	0.159	0.0880	0.0110	7/5/2008 3:30	7/5/2008 7:00	3.5
43	7/9/2008 17:30	7/9/2008 20:00	2.5	0.001	0.18	0.007	0.146	0.362	0.10	0.234	0.0910	0.1220	7/9/2008 18:30	7/9/2008 19:00	0.5
44	7/14/2008 4:45	7/14/2008 11:30	6.75	0.006	0.20	0.031	0.113	0.309	0.03	0.203	0.0770	0.0840	7/14/2008 5:00	7/14/2008 9:45	4.75
45	7/23/2008 1:45	7/23/2008 6:15	4.5	0.003	0.24	0.011	0.109	0.192	0.09	0.126	0.0800	0.0200	7/23/2008 2:00	7/23/2008 6:15	4.25
46	7/23/2008 20:00	7/23/2008 22:00	2	0.001	0.28	0.003	0.090	0.273	0.11	0.203	0.0750	0.1080	7/23/2008 20:30	7/23/2008 21:45	1.25
47	7/23/2008 23:15	7/24/2008 7:30	8.25	0.006	0.56	0.011	0.166	0.264	0.17	0.143	0.0740	0.0360	7/23/2008 23:30	7/24/2008 6:15	6.75
48	7/27/2008 13:45	7/27/2008 15:30	1.75	0.001	0.33	0.003	0.081	0.273	0.20	0.172	0.0790	0.1120	7/27/2008 14:00	7/27/2008 15:15	1.25
49	8/6/2008 3:30	8/6/2008 7:30	4	0.002	0.10	0.023	0.079	0.264	0.05	0.151	0.0690	0.0570	8/6/2008 3:30	8/6/2008 7:15	3.75
50	8/10/2008 15:45	8/10/2008 22:00	6.25	0.008	0.34	0.023	0.113	0.295	0.06	0.228	0.0680	0.1040	8/10/2008 15:45	8/10/2008 20:00	4.25
51	8/30/2008 0:45	8/30/2008 6:15	5.5	0.003	0.42	0.007	0.108	0.169	0.24	0.086	0.0530	0.0100	8/30/2008 0:45	8/30/2008 3:45	3
52	9/5/2008 23:15	9/6/2008 2:00	2.75	0.002	0.16	0.014	0.107	0.196	0.05	0.127	0.0610	0.0290	9/5/2008 23:15	9/6/2008 1:00	1.75
53	9/6/2008 12:00	9/7/2008 2:45	14.75	0.068	1.84	0.037	0.740	0.909	0.17	0.365	0.0640	0.0860	9/6/2008 12:45	9/6/2008 22:15	9.5
54	9/9/2008 10:00	9/9/2008 13:00	3	0.007	0.75	0.010	0.280	0.438	0.23	0.269	0.0860	0.0760	9/9/2008 10:45	9/9/2008 12:30	1.75
55	9/12/2008 13:45	9/13/2008 1:00	11.25	0.017	0.76	0.022	0.204	0.387	0.08	0.230	0.0760	0.0850	9/12/2008 14:15	9/12/2008 23:45	9.5
56	9/25/2008 19:45	9/26/2008 4:30	8.75	0.005	0.10	0.050	0.098	0.264	0.02	0.144	0.0710	0.0470	9/25/2008 20:30	9/26/2008 2:00	5.5
57	9/27/2008 2:00	9/27/2008 6:15	4.25	0.005	0.35	0.015	0.193	0.273	0.11	0.135	0.0720	0.0070	9/27/2008 2:00	9/27/2008 4:45	2.75
58	9/28/2008 4:45	9/28/2008 9:30	4.75	0.003	0.22	0.015	0.236	0.350	0.10	0.166	0.0750	0.0600	9/28/2008 5:15	9/28/2008 7:15	2
59	9/28/2008 9:45	9/28/2008 21:30	11.75	0.025	0.84	0.030	0.802	0.981	0.34	0.298	0.0770	0.1200	9/28/2008 10:00	9/28/2008 21:00	11
60	9/30/2008 22:45	10/1/2008 6:15	7.5	0.016	0.42	0.039	0.710	0.837	0.18	0.194	0.0700	0.0240	9/30/2008 23:00	10/1/2008 0:15	1.25
61	10/25/2008 12:00	10/25/2008 22:45	10.75	0.008	0.80	0.010	0.124	0.307	0.26	0.220	0.0760	0.1080	10/25/2008 12:00	10/25/2008 22:00	10
62	10/27/2008 22:15	10/29/2008 1:15	27	0.074	1.83	0.040	0.450	0.611	0.10	0.288	0.0920	0.0670	10/27/2008 22:15	10/28/2008 17:00	18.75
63	11/5/2008 17:45	11/5/2008 22:45	5	0.009	0.13	0.073	0.215	0.441	0.03	0.295	0.1000	0.1100	11/5/2008 18:15	11/5/2008 20:15	2
64	11/8/2008 9:15	11/8/2008 15:00	5.75	0.005	0.13	0.040	0.123	0.378	0.04	0.277	0.1010	0.1350	11/8/2008 11:00	11/8/2008 13:00	2
65	11/13/2008 10:45	11/13/2008 17:15	6.5	0.013	0.73	0.018	0.255	0.404	0.07	0.253	0.0890	0.0740	11/13/2008 11:00	11/13/2008 15:45	4.75
66	11/15/2008 3:30	11/15/2008 8:00	4.5	0.010	0.35	0.030	0.243	0.348	0.06	0.219	0.0910	0.0240	11/15/2008 3:45	11/15/2008 7:30	3.75
67	11/15/2008 16:15	11/15/2008 19:15	3	0.004	0.30	0.013	0.153	0.353	0.24	0.251	0.0910	0.1050	11/15/2008 17:45	11/15/2008 18:45	1
68	11/15/2008 22:15	11/16/2008 1:30	3.25	0.005	0.24	0.019	0.120	0.268	0.04	0.197	0.0920	0.0440	11/15/2008 22:15	11/16/2008 1:00	2.75
69	11/24/2008 20:30	11/25/2008 5:45	9.25	0.008	0.51	0.017	0.126	0.290	0.03	0.145	0.0640	0.0390	11/24/2008 20:45	11/25/2008 4:45	8

**Q121-02-S0015 Poquessing Creek Interceptor**

Pipe Size (In.): 10

Tributary Drainage Area (acres): 73

Tributary Service Population: 1,076

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
70	11/30/2008 5:30	11/30/2008 22:15	16.75	0.013	0.58	0.022	0.129	0.303	0.04	0.210	0.0690	0.1050	11/30/2008 5:45	11/30/2008 21:15	15.5
Average:			7.6	0.013	0.48	0.028	0.242	0.403	0.12	0.227	0.0845	0.0736			5.4
Maximum Value:			27.0	0.074	2.09	0.073	0.802	0.981	0.85	0.423	0.1250	0.1350			18.8
Minimum Value:			1.8	0.001	0.10	0.003	0.069	0.169	0.01	0.086	0.0530	0.0070			0.50
Standard Deviation:			4.5	0.014	0.42	0.017	0.171	0.173	0.13	0.065	0.0167	0.0364			4.1
Weighted Mean R-Value*:						0.027									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.



**P90-02-S0090 Sandy Run Interceptor**

Pipe Size (In.): 27

Tributary Drainage Area (acres): 581

Tributary Service Population: 11,971

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/3/2013 0:30	6/4/2013 8:45	32.25	0.062	1.57	0.039	9.88	11.82	0.54	2.487	1.307	0.462	6/3/2013 0:30	6/3/2013 17:15	16.75
2	6/6/2013 19:30	6/8/2013 10:30	39	0.166	4.11	0.040	11.16	13.11	0.38	3.528	1.411	0.515	6/6/2013 19:30	6/8/2013 2:00	30.5
3	6/10/2013 7:15	6/11/2013 21:30	38.25	0.123	2.00	0.062	9.86	12.04	0.44	3.299	1.487	0.601	6/10/2013 7:15	6/11/2013 0:45	17.5
4	6/13/2013 9:30	6/13/2013 15:00	5.5	0.014	0.40	0.035	4.99	7.25	0.16	3.127	1.550	0.668	6/13/2013 9:30	6/13/2013 10:45	1.25
5	6/18/2013 12:30	6/19/2013 0:00	11.5	0.018	0.39	0.047	1.60	3.90	0.06	2.971	1.663	0.713	6/18/2013 12:30	6/18/2013 20:15	7.75
6	6/23/2013 15:30	6/23/2013 20:30	5	0.010	0.20	0.048	4.41	6.91	0.08	3.226	1.661	0.858	6/23/2013 15:30	6/23/2013 16:15	0.75
7	6/25/2013 16:00	6/25/2013 19:45	3.75	0.006	0.20	0.030	2.39	4.65	0.12	2.934	1.690	0.688	6/25/2013 16:15	6/25/2013 16:45	0.5
8	6/26/2013 20:30	6/27/2013 0:45	4.25	0.008	0.28	0.028	3.67	6.27	0.23	3.08	1.68	0.747	6/26/2013 20:45	6/26/2013 21:15	0.5
9	6/27/2013 18:15	6/28/2013 10:45	16.5	0.029	0.81	0.036	6.30	8.88	0.20	2.83	1.66	0.507	6/27/2013 18:30	6/27/2013 21:45	3.25
10	6/30/2013 12:45	6/30/2013 19:30	6.75	0.007	0.16	0.044	1.28	3.83	0.03	2.93	1.64	0.905	6/30/2013 12:45	6/30/2013 15:45	3
11	7/1/2013 8:15	7/1/2013 20:00	11.75	0.011	0.21	0.051	1.16	3.43	0.04	2.66	1.64	0.679	7/1/2013 8:15	7/1/2013 14:45	6.5
12	7/12/2013 15:30	7/13/2013 0:00	8.5	0.037	0.92	0.040	10.11	12.26	0.17	3.87	1.54	0.748	7/12/2013 15:30	7/12/2013 22:45	7.25
13	7/13/2013 15:45	7/13/2013 22:15	6.5	0.019	0.61	0.031	5.06	7.46	0.12	3.47	1.55	0.871	7/13/2013 15:45	7/13/2013 20:00	4.25
14	7/22/2013 18:45	7/23/2013 6:15	11.5	0.051	1.58	0.032	11.38	12.86	0.61	3.52	1.43	0.448	7/22/2013 18:45	7/23/2013 3:30	8.75
15	7/28/2013 15:00	7/29/2013 7:30	16.5	0.030	0.54	0.055	2.42	4.67	0.09	2.65	1.43	0.543	7/28/2013 15:15	7/29/2013 2:30	11.25
16	8/1/2013 6:30	8/1/2013 19:30	13	0.046	1.07	0.043	7.50	9.64	0.12	3.47	1.50	0.645	8/1/2013 6:30	8/1/2013 15:00	8.5
17	8/8/2013 0:15	8/8/2013 5:30	5.25	0.015	0.59	0.025	9.06	10.57	0.40	2.48	1.36	0.117	8/8/2013 0:30	8/8/2013 3:15	2.75
18	8/13/2013 4:45	8/13/2013 14:15	9.5	0.054	1.85	0.029	12.25	14.25	0.59	3.89	1.26	0.541	8/13/2013 5:00	8/13/2013 10:00	5
19	8/22/2013 6:00	8/22/2013 17:00	11	0.014	0.58	0.025	5.63	7.11	0.25	2.16	1.07	0.605	8/22/2013 6:00	8/22/2013 16:45	10.75
20	8/28/2013 11:30	8/28/2013 18:00	6.5	0.020	0.60	0.033	5.29	7.10	0.15	2.90	1.18	0.616	8/28/2013 11:45	8/28/2013 16:00	4.25
21	9/2/2013 10:15	9/2/2013 17:00	6.75	0.033	1.29	0.026	11.73	13.80	0.51	3.80	1.37	0.631	9/2/2013 10:15	9/2/2013 14:45	4.5
22	9/21/2013 20:15	9/22/2013 7:00	10.75	0.046	1.25	0.036	9.62	11.64	0.30	3.15	1.18	0.396	9/21/2013 20:15	9/22/2013 2:45	6.5
Average:			12.7	0.037	0.96	0.038	6.7	8.8	0.25	3.1	1.47	0.61			7.4
Maximum Value:			39.0	0.166	4.11	0.062	12.3	14.3	0.61	3.9	1.69	0.91			30.5
Minimum Value:			3.8	0.006	0.16	0.025	1.2	3.4	0.03	2.16	1.07	0.12			0.50
Standard Deviation:			10.4	0.039	0.90	0.010	3.7	3.6	0.19	0.47	0.18	0.18			7.0
Weighted Mean R-Value*:						0.039									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

P90-02-S0590 Sandy Run Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 635

Tributary Service Population: 9,971

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/11/2012 4:30	12/11/2012 12:00	7.5	0.009	0.17	0.053	2.48	3.45	0.03	1.67	0.838	0.354	12/11/2012 4:30	12/11/2012 6:45	2.25
2	12/16/2012 22:00	12/17/2012 4:00	6	0.005	0.13	0.038	1.18	2.35	0.02	1.34	0.815	0.199	12/16/2012 22:15	12/17/2012 2:45	4.5
3	12/18/2012 1:00	12/18/2012 12:45	11.75	0.017	0.71	0.025	6.76	7.69	0.17	1.69	0.820	0.272	12/18/2012 1:15	12/18/2012 2:00	0.75
4	12/18/2012 15:00	12/18/2012 20:30	5.5	0.004	0.14	0.030	1.44	2.63	0.04	1.59	0.822	0.457	12/18/2012 15:00	12/18/2012 15:30	0.5
5	12/20/2012 21:15	12/22/2012 4:30	31.25	0.118	3.53	0.034	8.36	9.48	0.15	2.71	0.831	0.321	12/20/2012 21:30	12/21/2012 7:30	10
6	12/24/2012 17:00	12/25/2012 6:00	13	0.019	0.41	0.046	1.27	2.57	0.02	1.72	0.839	0.289	12/24/2012 17:00	12/24/2012 21:00	4
7	12/26/2012 13:00	12/28/2012 5:45	40.75	0.104	2.54	0.041	7.34	8.75	0.09	2.26	0.865	0.338	12/26/2012 13:15	12/27/2012 9:15	20
8	12/29/2012 10:30	12/30/2012 4:15	17.75	0.017	0.45	0.039	1.56	2.97	0.02	1.72	0.894	0.435	12/29/2012 10:30	12/29/2012 17:00	6.5
9	1/11/2013 13:15	1/12/2013 2:00	12.75	0.025	0.86	0.029	3.80	5.31	0.08	2.18	0.977	0.403	1/11/2013 13:15	1/11/2013 21:00	7.75
10	1/14/2013 21:00	1/15/2013 7:30	10.5	0.029	0.73	0.040	2.98	4.20	0.04	2.29	0.959	0.218	1/14/2013 21:00	1/15/2013 2:30	5.5
11	1/15/2013 21:30	1/17/2013 1:30	28	0.089	2.06	0.043	5.76	6.73	0.07	2.60	0.947	0.349	1/15/2013 21:30	1/16/2013 11:15	13.75
12	1/28/2013 12:45	1/28/2013 22:30	9.75	0.018	0.37	0.049	2.22	3.55	0.03	2.14	0.931	0.460	1/28/2013 12:45	1/28/2013 19:45	7
13	1/30/2013 18:30	2/1/2013 0:00	29.5	0.079	2.48	0.032	8.53	9.48	0.25	2.42	0.950	0.375	1/30/2013 18:30	1/31/2013 6:00	11.5
14	2/8/2013 6:00	2/9/2013 8:00	26	0.024	0.78	0.030	1.52	2.97	0.02	1.70	0.993	0.333	2/8/2013 6:00	2/9/2013 3:15	21.25
15	2/11/2013 4:15	2/12/2013 3:00	22.75	0.039	0.73	0.054	3.35	4.85	0.04	2.08	1.003	0.367	2/11/2013 4:15	2/11/2013 9:00	4.75
16	2/13/2013 18:30	2/14/2013 12:30	18	0.018	0.34	0.053	1.23	2.78	0.02	1.75	1.016	0.331	2/13/2013 18:30	2/14/2013 0:30	6
17	2/19/2013 11:30	2/20/2013 0:00	12.5	0.020	0.40	0.049	1.89	3.35	0.02	2.11	1.028	0.447	2/19/2013 11:45	2/19/2013 18:00	6.25
18	2/23/2013 3:15	2/23/2013 22:00	18.75	0.011	0.28	0.037	0.95	2.64	0.01	1.68	1.029	0.424	2/23/2013 3:30	2/23/2013 19:30	16
19	2/26/2013 19:15	2/27/2013 21:30	26.25	0.042	1.34	0.031	3.78	5.10	0.08	2.04	1.017	0.369	2/26/2013 19:15	2/27/2013 11:45	16.5
20	3/6/2013 9:00	3/7/2013 2:15	17.25	0.009	0.28	0.032	1.61	3.00	0.01	1.60	0.988	0.411	3/6/2013 9:00	3/6/2013 23:30	14.5
21	3/8/2013 7:45	3/8/2013 21:00	13.25	0.020	0.33	0.061	1.33	2.74	0.02	2.07	0.995	0.460	3/8/2013 8:00	3/8/2013 13:15	5.25
22	3/12/2013 3:00	3/13/2013 5:45	26.75	0.070	1.97	0.035	4.23	5.65	0.08	2.40	1.009	0.315	3/12/2013 3:00	3/12/2013 15:30	12.5
23	3/16/2013 9:30	3/16/2013 22:30	13	0.012	0.29	0.042	2.15	3.68	0.02	1.98	1.030	0.560	3/16/2013 9:30	3/16/2013 18:00	8.5
24	3/18/2013 18:00	3/20/2013 9:45	39.75	0.073	1.71	0.043	3.34	4.81	0.06	2.11	1.027	0.336	3/18/2013 18:15	3/19/2013 11:15	17
25	3/25/2013 6:00	3/26/2013 7:00	25	0.055	1.16	0.047	2.42	3.93	0.04	2.30	1.061	0.346	3/25/2013 6:00	3/25/2013 16:15	10.25
26	3/31/2013 15:15	4/1/2013 0:45	9.5	0.011	0.34	0.033	1.79	3.41	0.03	2.05	1.108	0.465	3/31/2013 15:30	3/31/2013 21:45	6.25
27	4/10/2013 20:30	4/11/2013 4:00	7.5	0.020	0.74	0.027	5.13	6.56	0.20	2.33	1.011	0.260	4/10/2013 20:45	4/11/2013 0:00	3.25
28	4/12/2013 7:00	4/12/2013 21:00	14	0.035	1.61	0.022	4.48	5.96	0.10	2.50	1.016	0.458	4/12/2013 7:15	4/12/2013 13:45	6.5
29	4/12/2013 21:45	4/13/2013 10:30	12.75	0.020	0.70	0.028	4.13	5.56	0.09	1.89	1.021	0.234	4/12/2013 21:45	4/12/2013 23:30	1.75
30	4/19/2013 21:15	4/20/2013 7:15	10	0.024	1.01	0.023	3.68	5.03	0.05	2.16	1.025	0.180	4/19/2013 21:30	4/20/2013 3:00	5.5
31	4/29/2013 1:45	4/30/2013 0:45	23	0.033	0.86	0.038	3.31	4.56	0.03	1.90	0.958	0.359	4/29/2013 2:00	4/30/2013 0:15	22.25
32	5/7/2013 22:00	5/8/2013 3:45	5.75	0.005	0.22	0.025	2.22	3.54	0.04	1.58	0.994	0.205	5/7/2013 22:15	5/8/2013 3:15	5
33	5/8/2013 5:45	5/8/2013 13:45	8	0.012	0.82	0.015	2.65	4.08	0.17	2.03	0.993	0.422	5/8/2013 5:45	5/8/2013 13:30	7.75
34	5/8/2013 17:45	5/8/2013 23:30	5.75	0.009	0.38	0.023	2.23	3.74	0.06	2.09	0.991	0.487	5/8/2013 17:45	5/8/2013 19:30	1.75

**P90-02-S0590 Sandy Run Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 635

Tributary Service Population: 9,971

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/9/2013 3:45	5/9/2013 10:30	6.75	0.024	1.08	0.022	3.86	5.08	0.09	2.68	0.989	0.292	5/9/2013 3:45	5/9/2013 6:45	3
36	5/10/2013 22:30	5/11/2013 16:15	17.75	0.034	1.38	0.025	4.41	5.60	0.10	2.13	0.994	0.345	5/10/2013 22:30	5/11/2013 15:45	17.25
37	5/18/2013 20:15	5/19/2013 5:30	9.25	0.014	0.45	0.031	1.88	3.24	0.04	1.83	0.992	0.235	5/18/2013 20:15	5/19/2013 5:30	9.25
38	5/23/2013 16:00	5/24/2013 9:15	17.25	0.029	1.23	0.024	7.61	8.84	0.30	1.99	0.977	0.319	5/23/2013 16:15	5/24/2013 1:45	9.5
39	5/24/2013 10:30	5/24/2013 18:45	8.25	0.007	0.20	0.037	1.26	2.70	0.02	1.76	0.975	0.432	5/24/2013 10:30	5/24/2013 15:30	5
40	5/28/2013 9:30	5/28/2013 19:45	10.25	0.017	0.57	0.030	2.18	3.55	0.03	2.06	0.947	0.447	5/28/2013 9:30	5/28/2013 16:30	7
41	6/3/2013 0:15	6/3/2013 12:15	12	0.042	2.46	0.017	8.87	10.36	0.54	2.64	0.974	0.261	6/3/2013 0:30	6/3/2013 9:15	8.75
42	6/3/2013 15:30	6/4/2013 5:45	14.25	0.024	0.76	0.032	7.77	9.12	0.23	1.96	0.977	0.302	6/3/2013 15:30	6/3/2013 17:15	1.75
43	6/6/2013 19:30	6/9/2013 1:45	54.25	0.268	8.21	0.033	8.29	9.67	0.34	3.40	0.989	0.371	6/6/2013 19:30	6/8/2013 2:00	30.5
44	6/10/2013 7:15	6/12/2013 13:45	54.5	0.129	4.04	0.032	6.21	7.71	0.35	2.32	0.979	0.366	6/10/2013 7:15	6/11/2013 0:45	17.5
45	6/13/2013 9:30	6/14/2013 11:15	25.75	0.023	1.06	0.021	5.24	6.67	0.17	1.69	0.968	0.360	6/13/2013 9:30	6/14/2013 5:45	20.25
46	6/18/2013 12:30	6/19/2013 0:00	11.5	0.022	0.85	0.027	2.02	3.43	0.10	2.21	0.973	0.446	6/18/2013 12:30	6/18/2013 20:45	8.25
47	6/23/2013 15:30	6/23/2013 20:30	5	0.006	0.33	0.018	2.44	3.93	0.06	1.95	0.974	0.516	6/23/2013 15:30	6/23/2013 16:15	0.75
48	6/25/2013 16:00	6/25/2013 20:45	4.75	0.004	0.34	0.013	2.67	4.04	0.10	1.82	0.986	0.476	6/25/2013 16:15	6/25/2013 16:45	0.5
49	6/26/2013 20:30	6/27/2013 2:15	5.75	0.010	0.56	0.017	5.46	6.96	0.24	1.99	0.986	0.332	6/26/2013 20:45	6/26/2013 21:15	0.5
50	6/27/2013 18:15	6/28/2013 11:15	17	0.030	1.90	0.016	6.28	7.80	0.27	2.03	0.986	0.323	6/27/2013 18:30	6/27/2013 21:45	3.25
51	6/30/2013 13:45	6/30/2013 19:00	5.25	0.009	0.22	0.040	2.08	3.68	0.03	2.18	0.990	0.542	6/30/2013 14:00	6/30/2013 15:45	1.75
52	7/1/2013 7:45	7/1/2013 19:45	12	0.016	0.59	0.027	3.00	4.47	0.12	1.98	0.989	0.454	7/1/2013 8:00	7/1/2013 14:45	6.75
53	7/3/2013 21:45	7/4/2013 4:00	6.25	0.005	0.21	0.025	2.12	3.45	0.04	1.55	0.999	0.209	7/3/2013 21:45	7/3/2013 23:00	1.25
54	7/10/2013 12:30	7/10/2013 17:15	4.75	0.003	0.29	0.011	2.13	3.54	0.14	1.66	0.975	0.412	7/10/2013 12:30	7/10/2013 13:30	1
55	7/12/2013 15:30	7/13/2013 7:15	15.75	0.039	1.85	0.021	6.56	7.97	0.18	2.25	0.947	0.283	7/12/2013 15:30	7/12/2013 22:45	7.25
56	7/13/2013 16:00	7/14/2013 1:15	9.25	0.023	1.33	0.017	5.16	6.61	0.14	2.37	0.941	0.444	7/13/2013 16:15	7/13/2013 20:00	3.75
57	7/22/2013 18:45	7/23/2013 21:45	27	0.047	2.95	0.016	6.97	7.96	0.49	2.07	0.983	0.373	7/22/2013 18:45	7/23/2013 18:00	23.25
58	7/28/2013 15:15	7/29/2013 6:15	15	0.019	0.80	0.024	1.77	3.21	0.06	1.78	0.939	0.318	7/28/2013 15:30	7/29/2013 2:30	11
59	8/1/2013 6:30	8/2/2013 8:30	26	0.051	1.03	0.050	5.82	7.19	0.12	2.10	0.937	0.358	8/1/2013 6:30	8/1/2013 15:15	8.75
60	8/8/2013 0:15	8/8/2013 6:45	6.5	0.018	0.62	0.030	7.56	8.54	0.41	2.13	0.923	0.092	8/8/2013 0:30	8/8/2013 3:15	2.75
61	8/13/2013 5:00	8/14/2013 10:45	29.75	0.057	1.88	0.031	7.51	8.86	0.64	2.04	0.892	0.353	8/13/2013 5:00	8/13/2013 10:00	5
62	8/28/2013 11:30	8/28/2013 19:45	8.25	0.024	0.62	0.039	5.82	7.09	0.11	2.45	0.829	0.443	8/28/2013 11:45	8/28/2013 19:15	7.5
63	9/2/2013 10:15	9/3/2013 5:00	18.75	0.041	1.40	0.030	6.37	7.70	0.61	2.13	0.877	0.350	9/2/2013 10:15	9/2/2013 14:45	4.5
64	9/12/2013 18:45	9/13/2013 7:15	12.5	0.023	0.57	0.040	6.51	7.34	0.15	1.84	0.826	0.268	9/12/2013 18:45	9/13/2013 3:15	8.5
Average:			16.4	0.034	1.10	0.032	4.0	5.4	0.13	2.06	0.961	0.359			8.3
Maximum Value:			54.5	0.268	8.21	0.061	8.9	10.4	0.64	3.40	1.108	0.560			30.5
Minimum Value:			4.8	0.003	0.13	0.011	1.0	2.4	0.01	1.34	0.815	0.092			0.50
Standard Deviation:			11.1	0.040	1.23	0.011	2.3	2.3	0.15	0.34	0.065	0.093			6.6
Weighted Mean R-Value*:						0.030									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

P90-02-S0715 Sandy Run Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 388

Tributary Service Population: 5,559

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	11/29/2011 14:15	11/30/2011 13:45	23.5	0.047	0.73	0.065	2.44	3.47	0.10	1.44	0.679	0.260	11/29/2011 14:15	11/29/2011 21:00	6.75
2	12/6/2011 14:15	12/7/2011 0:15	10	0.010	0.12	0.081	1.01	2.08	0.03	1.27	0.710	0.322	12/6/2011 14:15	12/6/2011 18:45	4.5
3	12/7/2011 3:30	12/9/2011 21:00	65.5	0.199	2.52	0.079	5.56	6.69	0.22	1.77	0.739	0.267	12/7/2011 3:30	12/8/2011 1:45	22.25
4	12/20/2011 13:00	12/21/2011 9:45	20.75	0.011	0.11	0.096	0.69	1.75	0.01	1.10	0.722	0.251	12/20/2011 13:15	12/20/2011 17:00	3.75
5	12/21/2011 14:45	12/22/2011 15:15	24.5	0.015	0.17	0.091	1.39	2.36	0.11	1.13	0.720	0.261	12/21/2011 14:45	12/21/2011 23:00	8.25
6	12/22/2011 21:45	12/24/2011 3:00	29.25	0.084	1.35	0.062	4.64	5.41	0.14	1.69	0.726	0.238	12/22/2011 21:45	12/23/2011 5:45	8
7	12/27/2011 13:15	12/28/2011 8:00	18.75	0.041	0.59	0.069	2.22	3.26	0.07	1.48	0.696	0.240	12/27/2011 13:15	12/27/2011 19:30	6.25
8	1/11/2012 19:45	1/13/2012 1:30	29.75	0.088	1.55	0.057	4.71	5.61	0.14	1.71	0.703	0.262	1/11/2012 20:00	1/12/2012 23:00	27
9	1/16/2012 22:45	1/18/2012 7:30	32.75	0.030	0.33	0.090	1.41	2.41	0.04	1.13	0.671	0.224	1/16/2012 23:00	1/17/2012 14:30	15.5
10	1/23/2012 9:30	1/24/2012 11:15	25.75	0.056	0.30	0.187	2.10	3.10	0.04	1.52	0.708	0.266	1/23/2012 9:30	1/23/2012 17:00	7.5
11	1/26/2012 19:00	1/28/2012 5:30	34.5	0.033	0.43	0.078	4.51	5.55	0.11	1.20	0.720	0.233	1/26/2012 19:15	1/27/2012 11:30	16.25
12	2/11/2012 4:30	2/12/2012 4:45	24.25	0.020	0.19	0.109	0.69	1.87	0.04	1.16	0.683	0.272	2/11/2012 4:30	2/11/2012 22:45	18.25
13	2/16/2012 11:30	2/17/2012 1:15	13.75	0.009	0.16	0.055	0.76	1.70	0.02	1.11	0.645	0.305	2/16/2012 11:45	2/16/2012 20:15	8.5
14	2/24/2012 2:45	2/25/2012 1:30	22.75	0.019	0.31	0.060	1.60	2.29	0.06	1.15	0.683	0.263	2/24/2012 2:45	2/24/2012 19:15	16.5
15	2/29/2012 10:15	3/1/2012 8:45	22.5	0.053	0.97	0.054	2.34	3.26	0.08	1.49	0.641	0.256	2/29/2012 10:15	3/1/2012 0:30	14.25
16	3/2/2012 20:30	3/3/2012 16:00	19.5	0.022	0.34	0.064	1.06	2.24	0.05	1.22	0.680	0.260	3/2/2012 21:15	3/3/2012 9:45	12.5
17	3/13/2012 3:45	3/13/2012 13:15	9.5	0.004	0.09	0.045	0.93	1.98	0.02	1.01	0.646	0.263	3/13/2012 4:00	3/13/2012 7:15	3.25
18	3/31/2012 0:45	3/31/2012 23:15	22.5	0.018	0.33	0.053	1.45	2.03	0.05	1.05	0.567	0.283	3/31/2012 0:45	3/31/2012 4:00	3.25
19	4/1/2012 18:30	4/2/2012 23:15	28.75	0.018	0.19	0.095	1.48	2.05	0.05	0.98	0.544	0.276	4/1/2012 18:30	4/2/2012 2:30	8
20	4/21/2012 21:15	4/22/2012 1:15	4	0.002	0.17	0.014	0.79	1.55	0.13	0.83	0.456	0.228	4/21/2012 21:30	4/21/2012 22:15	0.75
21	4/22/2012 8:45	4/24/2012 0:00	39.25	0.115	2.07	0.056	4.57	5.41	0.12	1.51	0.460	0.314	4/22/2012 8:45	4/23/2012 18:00	33.25
22	5/1/2012 4:00	5/1/2012 13:45	9.75	0.011	0.25	0.046	1.38	2.19	0.09	1.06	0.505	0.271	5/1/2012 4:15	5/1/2012 10:15	6
23	5/3/2012 2:15	5/3/2012 10:15	8	0.007	0.11	0.060	0.94	1.46	0.03	0.90	0.505	0.196	5/3/2012 2:15	5/3/2012 4:45	2.5
24	5/4/2012 21:45	5/5/2012 4:30	6.75	0.008	0.28	0.029	1.25	2.04	0.15	0.93	0.504	0.133	5/4/2012 21:45	5/4/2012 23:45	2
25	5/9/2012 0:00	5/9/2012 14:00	14	0.021	0.36	0.059	2.42	2.91	0.07	1.01	0.421	0.213	5/9/2012 0:00	5/9/2012 7:00	7
26	5/9/2012 21:30	5/10/2012 12:15	14.75	0.020	0.20	0.100	0.92	1.38	0.02	0.96	0.407	0.215	5/9/2012 21:45	5/10/2012 4:15	6.5
27	5/15/2012 8:45	5/17/2012 0:45	40	0.119	2.82	0.042	7.64	8.09	0.46	1.47	0.438	0.283	5/15/2012 8:45	5/16/2012 4:30	19.75
28	5/21/2012 1:30	5/21/2012 11:45	10.25	0.010	0.23	0.044	1.59	2.07	0.09	0.89	0.444	0.204	5/21/2012 1:45	5/21/2012 5:15	3.5
29	5/21/2012 21:00	5/22/2012 12:00	15	0.021	0.26	0.081	0.97	1.62	0.03	1.00	0.440	0.219	5/21/2012 21:00	5/22/2012 9:45	12.75
30	5/24/2012 7:45	5/25/2012 0:00	16.25	0.014	0.26	0.054	2.98	3.69	0.16	0.97	0.422	0.331	5/24/2012 8:00	5/24/2012 20:30	12.5
31	5/27/2012 4:15	5/27/2012 13:15	9	0.029	0.68	0.043	6.82	7.29	0.23	1.50	0.409	0.288	5/27/2012 4:15	5/27/2012 7:00	2.75
32	5/29/2012 20:00	5/30/2012 5:00	9	0.019	0.37	0.051	4.15	4.97	0.23	1.11	0.429	0.170	5/29/2012 20:15	5/30/2012 3:30	7.25
33	6/1/2012 20:15	6/2/2012 8:00	11.75	0.013	0.25	0.053	1.90	2.55	0.05	0.90	0.474	0.145	6/1/2012 20:15	6/2/2012 2:00	5.75
34	6/12/2012 9:45	6/13/2012 16:00	30.25	0.047	0.73	0.064	2.98	3.77	0.06	1.08	0.417	0.271	6/12/2012 9:45	6/12/2012 23:15	13.5

**P90-02-S0715 Sandy Run Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 388

Tributary Service Population: 5,559

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/22/2012 18:30	6/23/2012 17:15	22.75	0.025	0.55	0.045	2.46	3.23	0.19	0.94	0.393	0.276	6/22/2012 18:30	6/22/2012 22:30	4
36	6/29/2012 5:30	6/29/2012 14:00	8.5	0.005	0.10	0.047	1.29	1.77	0.09	0.83	0.380	0.310	6/29/2012 5:45	6/29/2012 6:15	0.5
37	7/14/2012 4:00	7/14/2012 15:15	11.25	0.012	0.24	0.050	1.10	1.48	0.04	0.92	0.355	0.301	7/14/2012 4:15	7/14/2012 12:45	8.5
38	7/15/2012 21:30	7/16/2012 6:45	9.25	0.036	0.98	0.037	6.91	7.57	0.44	1.42	0.336	0.132	7/15/2012 21:30	7/16/2012 0:00	2.5
39	7/20/2012 1:15	7/20/2012 16:15	15	0.050	1.13	0.045	6.52	7.06	0.46	1.42	0.357	0.225	7/20/2012 1:15	7/20/2012 10:15	9
40	7/26/2012 19:30	7/27/2012 6:00	10.5	0.017	0.38	0.045	2.52	3.29	0.16	0.94	0.372	0.173	7/26/2012 19:45	7/27/2012 0:45	5
41	7/28/2012 13:00	7/28/2012 21:45	8.75	0.008	0.35	0.022	1.44	2.22	0.25	0.97	0.375	0.383	7/28/2012 13:15	7/28/2012 16:45	3.5
42	8/1/2012 16:30	8/2/2012 0:00	7.5	0.020	1.29	0.016	6.79	7.49	0.55	1.36	0.366	0.338	8/1/2012 16:30	8/1/2012 17:45	1.25
43	8/4/2012 13:15	8/4/2012 19:45	6.5	0.014	0.48	0.028	5.65	6.45	0.36	1.27	0.369	0.390	8/4/2012 13:30	8/4/2012 14:00	0.5
44	8/5/2012 18:15	8/6/2012 7:00	12.75	0.038	0.86	0.044	3.21	3.94	0.29	1.28	0.346	0.198	8/5/2012 18:45	8/6/2012 2:15	7.5
45	8/10/2012 10:00	8/10/2012 17:45	7.75	0.013	0.33	0.041	2.45	3.15	0.08	1.09	0.366	0.303	8/10/2012 10:15	8/10/2012 12:15	2
46	8/11/2012 17:15	8/11/2012 21:45	4.5	0.007	0.29	0.025	2.39	3.12	0.20	1.11	0.372	0.361	8/11/2012 17:15	8/11/2012 21:30	4.25
47	8/14/2012 10:00	8/15/2012 6:30	20.5	0.028	0.59	0.048	3.85	4.51	0.12	0.92	0.330	0.243	8/14/2012 10:15	8/15/2012 2:00	15.75
48	8/17/2012 22:00	8/18/2012 12:15	14.25	0.037	0.74	0.050	4.90	5.52	0.15	1.18	0.338	0.206	8/17/2012 22:15	8/18/2012 7:15	9
49	8/27/2012 9:15	8/28/2012 0:00	14.75	0.022	0.89	0.024	5.18	5.84	0.34	1.03	0.337	0.325	8/27/2012 9:30	8/27/2012 17:30	8
50	8/28/2012 5:15	8/28/2012 13:15	8	0.008	0.15	0.055	1.59	2.34	0.04	0.90	0.337	0.309	8/28/2012 5:30	8/28/2012 7:15	1.75
51	9/3/2012 9:30	9/3/2012 21:00	11.5	0.059	1.49	0.039	6.75	7.40	0.26	1.93	0.334	0.334	9/3/2012 9:30	9/3/2012 14:45	5.25
52	9/4/2012 1:45	9/6/2012 1:00	47.25	0.181	3.68	0.049	9.72	10.37	0.74	1.60	0.374	0.262	9/4/2012 2:00	9/5/2012 14:15	36.25
53	9/8/2012 16:45	9/9/2012 1:45	9	0.020	0.24	0.082	2.02	2.79	0.04	1.23	0.402	0.289	9/8/2012 17:00	9/8/2012 22:30	5.5
54	9/18/2012 2:30	9/19/2012 4:45	26.25	0.049	0.98	0.050	4.27	5.05	0.21	1.11	0.406	0.237	9/18/2012 2:45	9/19/2012 2:00	23.25
55	9/22/2012 19:30	9/23/2012 4:45	9.25	0.020	0.31	0.065	3.41	4.17	0.15	1.13	0.402	0.182	9/22/2012 19:30	9/22/2012 22:15	2.75
56	9/26/2012 23:30	9/27/2012 13:00	13.5	0.011	0.17	0.066	1.54	2.09	0.07	0.77	0.353	0.207	9/26/2012 23:45	9/27/2012 9:00	9.25
57	9/28/2012 1:15	9/28/2012 14:30	13.25	0.010	0.16	0.062	2.51	2.88	0.10	0.74	0.341	0.219	9/28/2012 1:15	9/28/2012 12:45	11.5
58	10/2/2012 10:30	10/2/2012 22:30	12	0.011	0.13	0.080	1.07	1.74	0.03	0.93	0.375	0.335	10/2/2012 10:30	10/2/2012 13:45	3.25
59	10/7/2012 10:45	10/8/2012 5:15	18.5	0.018	0.21	0.087	1.46	2.20	0.03	0.91	0.367	0.293	10/7/2012 11:00	10/7/2012 21:00	10
60	10/9/2012 4:45	10/9/2012 12:30	7.75	0.006	0.13	0.045	1.18	1.74	0.03	0.84	0.364	0.291	10/9/2012 5:00	10/9/2012 7:00	2
61	10/15/2012 11:15	10/16/2012 0:00	12.75	0.017	0.25	0.068	1.98	2.69	0.12	1.00	0.346	0.324	10/15/2012 11:15	10/15/2012 21:00	9.75
62	10/19/2012 9:30	10/19/2012 20:30	11	0.036	0.81	0.045	5.74	6.38	0.20	1.45	0.314	0.321	10/19/2012 9:30	10/19/2012 14:15	4.75
63	10/28/2012 15:45	10/28/2012 21:45	6	0.010	0.13	0.078	1.18	1.91	0.03	1.14	0.345	0.378	10/28/2012 15:45	10/28/2012 19:45	4
64	10/29/2012 4:30	10/30/2012 6:30	26	0.138	2.33	0.059	5.83	6.49	0.16	1.92	0.348	0.246	10/29/2012 4:45	10/30/2012 4:30	23.75
65	11/7/2012 11:15	11/8/2012 18:45	31.5	0.045	0.52	0.086	1.22	1.93	0.03	1.02	0.393	0.274	11/7/2012 11:15	11/8/2012 0:45	13.5
66	11/13/2012 2:45	11/14/2012 5:00	26.25	0.021	0.24	0.090	1.18	1.66	0.06	0.82	0.375	0.237	11/13/2012 2:45	11/13/2012 12:00	9.25
67	11/27/2012 6:15	11/28/2012 11:30	29.25	0.044	0.63	0.071	1.41	2.11	0.02	1.02	0.366	0.276	11/27/2012 6:30	11/27/2012 16:00	9.5
Average:			18.1	0.034	0.62	0.060	2.9	3.6	0.14	1.16	0.471	0.264			18.1
Maximum Value:			65.5	0.199	3.68	0.187	9.7	10.4	0.74	1.93	0.739	0.390			65.5

**P90-02-S0715 Sandy Run Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 388

Tributary Service Population: 5,559

<-----EVENT AVERAGE----->																
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)	
Minimum Value:			4.0	0.002	0.09	0.014	0.7	1.4	0.01	0.74	0.314	0.132			4.00	
Standard Deviation:			11.3	0.039	0.70	0.026	2.1	2.1	0.14	0.28	0.140	0.057			11.3	
Weighted Mean R-Value*:						0.055										

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**P90-02-S0865 Sandy Run Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 148

Tributary Service Population: 1,537

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/11/2012 4:15	12/11/2012 10:00	5.75	0.008	0.09	0.088	0.57	0.78	0.03	0.390	0.191	0.071	12/11/2012 4:30	12/11/2012 6:45	2.25
2	12/18/2012 0:45	12/18/2012 5:30	4.75	0.010	0.38	0.026	0.76	0.98	0.15	0.401	0.202	0.009	12/18/2012 1:00	12/18/2012 2:00	1
3	12/18/2012 15:00	12/18/2012 18:45	3.75	0.005	0.09	0.058	0.48	0.78	0.05	0.431	0.199	0.110	12/18/2012 15:00	12/18/2012 15:30	0.5
4	12/20/2012 21:15	12/21/2012 16:15	19	0.068	1.85	0.037	1.59	1.86	0.15	0.621	0.208	0.073	12/20/2012 21:30	12/21/2012 7:30	10
5	12/24/2012 17:30	12/25/2012 8:15	14.75	0.020	0.19	0.104	0.33	0.59	0.02	0.383	0.202	0.054	12/24/2012 17:45	12/24/2012 21:00	3.25
6	12/26/2012 13:30	12/27/2012 11:00	21.5	0.058	1.25	0.046	0.87	1.20	0.10	0.544	0.208	0.079	12/26/2012 13:30	12/27/2012 9:15	19.75
7	12/29/2012 11:15	12/29/2012 21:00	9.75	0.010	0.22	0.046	0.29	0.62	0.02	0.432	0.217	0.117	12/29/2012 11:15	12/29/2012 17:00	5.75
8	1/11/2013 16:30	1/12/2013 0:45	8.25	0.017	0.42	0.040	0.44	0.78	0.07	0.505	0.219	0.095	1/11/2013 16:30	1/11/2013 21:00	4.5
9	1/14/2013 21:15	1/15/2013 7:15	10	0.025	0.34	0.073	0.59	0.87	0.04	0.498	0.224	0.039	1/14/2013 21:30	1/15/2013 2:30	5
10	1/15/2013 21:45	1/16/2013 14:30	16.75	0.063	1.04	0.061	0.91	1.14	0.07	0.656	0.227	0.070	1/15/2013 21:45	1/16/2013 12:15	14.5
11	1/28/2013 12:30	1/28/2013 18:30	6	0.012	0.21	0.059	0.41	0.73	0.03	0.522	0.221	0.113	1/28/2013 12:45	1/28/2013 16:45	4
12	1/30/2013 22:45	1/31/2013 9:00	10.25	0.050	1.24	0.040	2.38	2.61	0.25	0.721	0.222	0.043	1/30/2013 23:00	1/31/2013 6:00	7
13	2/8/2013 5:45	2/8/2013 17:30	11.75	0.016	0.24	0.067	0.31	0.67	0.02	0.462	0.227	0.106	2/8/2013 6:00	2/8/2013 13:45	7.75
14	2/8/2013 20:45	2/9/2013 5:30	8.75	0.002	0.15	0.013	0.07	0.38	0.02	0.291	0.231	0.039	2/8/2013 20:45	2/9/2013 3:15	6.5
15	2/11/2013 4:45	2/11/2013 14:45	10	0.019	0.34	0.056	0.52	0.86	0.04	0.505	0.229	0.096	2/11/2013 5:00	2/11/2013 9:00	4
16	2/13/2013 18:45	2/14/2013 6:30	11.75	0.013	0.16	0.079	0.26	0.59	0.01	0.389	0.233	0.052	2/13/2013 18:45	2/14/2013 0:30	5.75
17	2/19/2013 11:30	2/19/2013 22:15	10.75	0.017	0.20	0.083	0.40	0.75	0.02	0.493	0.233	0.112	2/19/2013 11:45	2/19/2013 17:45	6
18	2/23/2013 9:15	2/23/2013 20:45	11.5	0.006	0.11	0.051	0.25	0.63	0.01	0.400	0.233	0.120	2/23/2013 9:30	2/23/2013 19:30	10
19	2/26/2013 19:00	2/27/2013 9:00	14	0.032	0.67	0.048	0.63	0.92	0.08	0.504	0.227	0.060	2/26/2013 19:15	2/27/2013 8:45	13.5
20	3/6/2013 9:00	3/6/2013 19:45	10.75	0.006	0.10	0.061	0.33	0.67	0.01	0.395	0.225	0.116	3/6/2013 9:00	3/6/2013 19:45	10.75
21	3/8/2013 8:00	3/8/2013 19:30	11.5	0.021	0.18	0.114	0.29	0.62	0.03	0.511	0.227	0.113	3/8/2013 8:00	3/8/2013 13:30	5.5
22	3/12/2013 3:15	3/12/2013 20:15	17	0.058	1.02	0.058	0.78	1.14	0.09	0.669	0.247	0.094	3/12/2013 3:30	3/12/2013 14:45	11.25
23	3/16/2013 11:00	3/16/2013 21:00	10	0.010	0.13	0.076	0.36	0.71	0.02	0.454	0.242	0.119	3/16/2013 11:15	3/16/2013 18:00	6.75
24	3/18/2013 18:00	3/19/2013 15:15	21.25	0.050	0.89	0.056	0.61	0.93	0.06	0.554	0.250	0.079	3/18/2013 18:00	3/19/2013 11:15	17.25
25	3/25/2013 6:00	3/26/2013 6:15	24.25	0.042	0.59	0.071	0.39	0.78	0.04	0.511	0.265	0.081	3/25/2013 6:00	3/25/2013 16:15	10.25
26	3/31/2013 15:30	4/1/2013 0:15	8.75	0.010	0.17	0.060	0.40	0.77	0.03	0.465	0.268	0.090	3/31/2013 15:30	3/31/2013 22:45	7.25
27	4/10/2013 20:30	4/11/2013 7:45	11.25	0.018	0.35	0.052	0.88	1.21	0.18	0.449	0.251	0.047	4/10/2013 20:45	4/11/2013 0:00	3.25
28	4/12/2013 7:45	4/12/2013 19:15	11.5	0.023	0.78	0.029	0.71	1.07	0.11	0.550	0.251	0.114	4/12/2013 8:00	4/12/2013 13:45	5.75
29	4/12/2013 21:45	4/13/2013 8:00	10.25	0.012	0.29	0.042	0.59	0.92	0.06	0.399	0.258	0.029	4/12/2013 21:45	4/12/2013 23:30	1.75
30	4/19/2013 21:15	4/20/2013 12:30	15.25	0.020	0.53	0.038	0.59	0.90	0.05	0.436	0.252	0.060	4/19/2013 21:30	4/20/2013 3:00	5.5
31	4/29/2013 2:45	4/30/2013 7:15	28.5	0.028	0.43	0.064	0.43	0.83	0.03	0.432	0.265	0.074	4/29/2013 3:15	4/30/2013 3:45	24.5
32	5/7/2013 22:15	5/8/2013 3:00	4.75	0.006	0.12	0.054	0.54	0.85	0.04	0.413	0.257	0.036	5/7/2013 22:15	5/7/2013 23:45	1.5
33	5/8/2013 6:00	5/8/2013 14:00	8	0.011	0.35	0.032	0.57	0.95	0.10	0.497	0.260	0.107	5/8/2013 6:00	5/8/2013 13:30	7.5
34	5/8/2013 17:45	5/9/2013 0:00	6.25	0.007	0.16	0.043	0.35	0.74	0.04	0.465	0.264	0.099	5/8/2013 17:45	5/8/2013 19:30	1.75

P90-02-S0865 Sandy Run Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 148

Tributary Service Population: 1,537

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/9/2013 1:30	5/9/2013 10:15	8.75	0.020	0.59	0.034	0.82	1.13	0.09	0.531	0.266	0.053	5/9/2013 1:30	5/9/2013 6:45	5.25
36	5/10/2013 22:45	5/11/2013 10:15	11.5	0.031	0.62	0.050	0.84	1.15	0.08	0.565	0.271	0.039	5/10/2013 23:00	5/11/2013 7:15	8.25
37	5/18/2013 21:30	5/19/2013 22:45	25.25	0.030	0.31	0.099	0.43	0.71	0.04	0.458	0.266	0.078	5/18/2013 21:45	5/19/2013 16:45	19
38	5/23/2013 15:45	5/24/2013 7:45	16	0.029	0.71	0.042	1.55	1.85	0.38	0.498	0.257	0.067	5/23/2013 16:00	5/24/2013 1:45	9.75
39	5/24/2013 10:30	5/24/2013 18:45	8.25	0.010	0.12	0.087	0.34	0.72	0.03	0.490	0.257	0.115	5/24/2013 10:30	5/24/2013 15:30	5
40	5/28/2013 10:45	5/28/2013 21:15	10.5	0.016	0.26	0.063	0.41	0.77	0.03	0.503	0.242	0.116	5/28/2013 11:00	5/28/2013 16:30	5.5
41	6/3/2013 0:45	6/3/2013 20:45	20	0.069	1.67	0.042	2.36	2.71	0.58	0.648	0.235	0.083	6/3/2013 0:45	6/3/2013 17:15	16.5
42	6/6/2013 19:30	6/6/2013 23:45	4.25	0.003	0.12	0.023	0.23	0.59	0.02	0.382	0.233	0.088	6/6/2013 19:30	6/6/2013 23:15	3.75
43	6/7/2013 1:15	6/8/2013 13:30	36.25	0.225	3.89	0.058	2.46	2.81	0.29	0.922	0.251	0.077	6/7/2013 1:15	6/8/2013 2:00	24.75
44	6/10/2013 7:15	6/10/2013 11:45	4.5	0.025	0.69	0.037	2.33	2.71	0.32	0.899	0.271	0.115	6/10/2013 7:15	6/10/2013 8:30	1.25
45	6/10/2013 13:30	6/11/2013 11:00	21.5	0.092	1.36	0.068	2.58	2.98	0.27	0.783	0.297	0.079	6/10/2013 13:30	6/11/2013 0:45	11.25
46	6/13/2013 9:15	6/13/2013 16:45	7.5	0.015	0.44	0.034	1.14	1.59	0.20	0.629	0.330	0.114	6/13/2013 9:30	6/13/2013 10:45	1.25
47	6/18/2013 12:45	6/18/2013 23:00	10.25	0.027	0.38	0.071	0.63	1.06	0.09	0.675	0.314	0.110	6/18/2013 12:45	6/18/2013 20:45	8
48	6/23/2013 15:45	6/23/2013 18:00	2.25	0.004	0.11	0.034	0.66	1.05	0.06	0.547	0.293	0.107	6/23/2013 15:45	6/23/2013 16:15	0.5
49	6/25/2013 16:00	6/25/2013 18:15	2.25	0.005	0.14	0.041	1.04	1.45	0.09	0.626	0.300	0.114	6/25/2013 16:15	6/25/2013 16:45	0.5
50	6/26/2013 20:45	6/26/2013 23:45	3	0.010	0.30	0.033	1.84	2.26	0.25	0.695	0.317	0.084	6/26/2013 20:45	6/26/2013 23:30	2.75
51	6/27/2013 18:30	6/28/2013 0:45	6.25	0.036	1.04	0.034	2.33	2.77	0.32	0.937	0.319	0.089	6/27/2013 18:30	6/27/2013 21:45	3.25
52	6/30/2013 13:00	6/30/2013 17:45	4.75	0.010	0.17	0.060	0.60	1.04	0.03	0.625	0.305	0.121	6/30/2013 13:15	6/30/2013 15:45	2.5
53	7/1/2013 8:30	7/1/2013 18:15	9.75	0.025	0.38	0.065	1.81	2.22	0.23	0.658	0.305	0.114	7/1/2013 8:45	7/1/2013 15:15	6.5
54	7/3/2013 21:00	7/4/2013 9:30	12.5	0.012	0.19	0.064	1.02	1.35	0.10	0.410	0.276	0.041	7/3/2013 21:45	7/3/2013 23:00	1.25
55	7/9/2013 16:30	7/9/2013 19:45	3.25	0.007	0.24	0.029	0.78	1.16	0.17	0.573	0.270	0.117	7/9/2013 16:30	7/9/2013 19:45	3.25
56	7/10/2013 12:30	7/10/2013 15:30	3	0.006	0.31	0.019	0.70	1.08	0.30	0.555	0.267	0.112	7/10/2013 12:30	7/10/2013 13:30	1
57	7/12/2013 16:15	7/13/2013 7:45	15.5	0.046	0.92	0.050	1.34	1.71	0.18	0.601	0.261	0.059	7/12/2013 16:15	7/12/2013 23:00	6.75
58	7/13/2013 16:00	7/14/2013 1:00	9	0.018	0.58	0.031	1.48	1.85	0.18	0.540	0.268	0.084	7/13/2013 16:15	7/13/2013 20:00	3.75
59	7/22/2013 18:45	7/22/2013 23:15	4.5	0.008	0.22	0.035	0.73	1.12	0.10	0.532	0.273	0.103	7/22/2013 18:45	7/22/2013 20:45	2
60	7/23/2013 1:30	7/23/2013 8:00	6.5	0.027	1.04	0.026	2.44	2.71	0.38	0.696	0.275	0.032	7/23/2013 1:30	7/23/2013 3:30	2
61	7/28/2013 15:15	7/29/2013 9:15	18	0.025	0.32	0.077	0.65	1.02	0.05	0.471	0.273	0.067	7/28/2013 15:30	7/29/2013 2:15	10.75
62	8/1/2013 6:30	8/1/2013 21:45	15.25	0.052	0.97	0.053	1.12	1.51	0.13	0.709	0.275	0.112	8/1/2013 6:30	8/1/2013 15:00	8.5
63	8/8/2013 0:30	8/8/2013 6:15	5.75	0.023	0.70	0.033	2.25	2.51	0.37	0.639	0.253	0.013	8/8/2013 0:30	8/8/2013 2:00	1.5
64	8/13/2013 5:30	8/13/2013 20:45	15.25	0.073	1.95	0.037	2.65	3.00	0.70	0.809	0.249	0.108	8/13/2013 5:45	8/13/2013 9:45	4
65	8/22/2013 6:15	8/22/2013 9:15	3	0.005	0.11	0.050	1.05	1.37	0.11	0.509	0.257	0.097	8/22/2013 6:30	8/22/2013 6:30	0
66	8/22/2013 13:00	8/22/2013 18:00	5	0.010	0.27	0.036	1.17	1.54	0.13	0.543	0.256	0.111	8/22/2013 13:15	8/22/2013 17:15	4
67	8/28/2013 11:15	8/28/2013 20:15	9	0.033	0.60	0.055	1.90	2.25	0.14	0.705	0.247	0.115	8/28/2013 11:30	8/28/2013 19:15	7.75
68	9/2/2013 10:45	9/2/2013 16:15	5.5	0.049	1.34	0.036	2.51	2.91	0.97	1.196	0.249	0.134	9/2/2013 11:00	9/2/2013 14:45	3.75
69	9/12/2013 19:00	9/12/2013 22:30	3.5	0.008	0.06	0.125	1.34	1.70	0.06	0.560	0.246	0.109	9/12/2013 19:15	9/12/2013 19:15	0



**P90-02-S0865 Sandy Run Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 148

Tributary Service Population: 1,537

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	9/13/2013 2:00	9/13/2013 7:45	5.75	0.016	0.37	0.044	1.38	1.63	0.15	0.533	0.244	0.030	9/13/2013 2:00	9/13/2013 3:15	1.25
71	9/21/2013 20:30	9/22/2013 7:30	11	0.042	1.22	0.035	2.41	2.73	0.35	0.637	0.240	0.034	9/21/2013 20:45	9/22/2013 4:00	7.25
Average:			10.9	0.027	0.56	0.053	1.00	1.35	0.14	0.56	0.253	0.084			6.4
Maximum Value:			36.3	0.225	3.89	0.125	2.65	3.00	0.97	1.20	0.330	0.134			24.8
Minimum Value:			2.3	0.002	0.06	0.013	0.07	0.38	0.01	0.29	0.191	0.009			0.00
Standard Deviation:			6.7	0.031	0.60	0.022	0.74	0.74	0.17	0.15	0.030	0.031			5.5
Weighted Mean R-Value*:						0.048									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

T088-01-S0050 Tacony High Level Interceptor

Pipe Size (In.): 24

Tributary Drainage Area (acres): 497

Tributary Service Population: 12,452

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/27/2011 5:30	10/28/2011 12:30	31	0.020	0.33	0.061	1.75	3.82	0.05	2.18	1.57	0.403	10/27/2011 5:45	10/27/2011 19:30	13.75
2	10/29/2011 6:15	10/30/2011 7:15	25	0.085	1.17	0.072	1.94	3.97	0.07	3.06	1.56	0.411	10/29/2011 6:30	10/29/2011 23:15	16.75
3	11/16/2011 1:30	11/17/2011 13:00	35.5	0.050	0.59	0.084	1.85	3.68	0.07	2.24	1.43	0.363	11/16/2011 1:30	11/17/2011 0:15	22.75
4	11/20/2011 22:15	11/21/2011 9:15	11	0.010	0.15	0.071	1.50	3.01	0.02	2.06	1.47	0.293	11/20/2011 22:15	11/21/2011 7:30	9.25
5	11/21/2011 23:00	11/27/2011 5:00	126	0.185	2.32	0.080	2.55	4.22	0.18	2.41	1.56	0.382	11/21/2011 23:15	11/23/2011 15:15	40
6	11/29/2011 0:00	12/1/2011 0:45	48.75	0.046	0.79	0.059	1.76	3.90	0.06	2.32	1.64	0.375	11/29/2011 0:15	11/29/2011 20:45	20.5
7	12/6/2011 13:30	12/14/2011 2:30	181	0.226	2.69	0.084	1.88	4.00	0.14	2.47	1.68	0.390	12/6/2011 14:00	12/8/2011 1:30	35.5
8	12/20/2011 12:45	12/20/2011 23:00	10.25	0.006	0.11	0.049	0.68	2.67	0.01	2.24	1.62	0.443	12/20/2011 12:45	12/20/2011 17:00	4.25
9	12/21/2011 14:45	12/22/2011 1:30	10.75	0.009	0.18	0.049	1.41	3.44	0.10	2.29	1.62	0.416	12/21/2011 14:45	12/21/2011 23:00	8.25
10	12/22/2011 21:15	12/25/2011 4:00	54.75	0.062	1.27	0.049	2.76	4.50	0.14	2.40	1.65	0.381	12/22/2011 21:30	12/23/2011 5:30	8
11	12/27/2011 13:15	12/28/2011 6:15	17	0.034	0.63	0.055	1.88	3.95	0.15	2.64	1.68	0.318	12/27/2011 13:15	12/27/2011 19:30	6.25
12	1/11/2012 19:30	1/14/2012 11:00	63.5	0.089	1.55	0.058	2.71	4.70	0.12	2.38	1.56	0.367	1/11/2012 19:30	1/13/2012 8:30	37
13	1/16/2012 22:30	1/18/2012 5:00	30.5	0.030	0.34	0.087	2.03	4.04	0.03	2.22	1.58	0.330	1/16/2012 22:30	1/17/2012 14:30	16
14	1/21/2012 2:15	1/22/2012 2:45	24.5	0.006	0.32	0.017	0.34	2.50	0.03	2.05	1.57	0.413	1/21/2012 2:15	1/21/2012 9:15	7
15	1/23/2012 3:00	1/24/2012 23:30	44.5	0.090	0.33	0.276	4.05	6.09	0.05	2.64	1.60	0.392	1/23/2012 9:30	1/23/2012 16:45	7.25
16	1/27/2012 5:45	1/27/2012 20:30	14.75	0.036	0.53	0.067	3.49	5.61	0.17	2.88	1.64	0.458	1/27/2012 5:45	1/27/2012 11:30	5.75
17	2/11/2012 5:15	2/12/2012 1:45	20.5	0.043	0.28	0.155	2.22	4.42	0.05	2.65	1.49	0.485	2/11/2012 5:15	2/11/2012 22:45	17.5
18	2/16/2012 10:15	2/17/2012 2:30	16.25	0.018	0.16	0.112	2.12	3.95	0.02	2.22	1.47	0.395	2/16/2012 10:30	2/16/2012 20:15	9.75
19	2/24/2012 2:30	2/24/2012 21:15	18.75	0.032	0.29	0.113	3.96	5.41	0.05	2.39	1.45	0.388	2/24/2012 2:45	2/24/2012 19:15	16.5
20	2/29/2012 10:00	3/2/2012 4:45	42.75	0.102	0.96	0.106	4.39	6.29	0.07	2.60	1.47	0.365	2/29/2012 10:15	3/1/2012 0:30	14.25
21	3/2/2012 20:15	3/3/2012 21:45	25.5	0.048	0.34	0.140	3.31	5.16	0.05	2.53	1.50	0.435	3/2/2012 20:15	3/3/2012 9:45	13.5
22	3/13/2012 3:00	3/13/2012 17:00	14	0.013	0.09	0.140	3.09	5.20	0.02	2.06	1.40	0.372	3/13/2012 3:00	3/13/2012 7:15	4.25
23	3/24/2012 18:00	3/25/2012 2:45	8.75	0.006	0.06	0.104	2.43	4.37	0.02	2.02	1.42	0.382	3/24/2012 18:00	3/24/2012 21:30	3.5
24	3/31/2012 0:45	3/31/2012 17:00	16.25	0.028	0.31	0.089	4.02	5.42	0.05	2.34	1.38	0.401	3/31/2012 0:45	3/31/2012 3:45	3
25	4/1/2012 18:00	4/2/2012 10:30	16.5	0.025	0.18	0.136	3.76	5.16	0.04	2.20	1.36	0.369	4/1/2012 18:15	4/2/2012 2:15	8
26	4/21/2012 21:00	4/22/2012 0:30	3.5	0.009	0.05	0.196	3.08	4.79	0.03	2.46	1.26	0.412	4/21/2012 21:30	4/21/2012 22:00	0.5
27	4/22/2012 8:15	4/24/2012 0:30	40.25	0.178	2.19	0.081	4.64	6.44	0.12	3.14	1.26	0.455	4/22/2012 8:15	4/23/2012 17:30	33.25
28	5/1/2012 3:45	5/1/2012 14:15	10.5	0.024	0.23	0.103	3.59	5.21	0.07	2.35	1.24	0.401	5/1/2012 4:00	5/1/2012 10:00	6
29	5/3/2012 2:15	5/3/2012 11:30	9.25	0.015	0.11	0.135	3.27	4.52	0.03	2.08	1.24	0.340	5/3/2012 2:15	5/3/2012 4:45	2.5
30	5/4/2012 21:30	5/5/2012 20:15	22.75	0.026	0.38	0.069	4.53	6.26	0.19	2.03	1.24	0.422	5/4/2012 21:45	5/4/2012 23:45	2
31	5/8/2012 16:15	5/10/2012 20:15	52	0.051	0.54	0.094	3.87	5.38	0.07	1.96	1.26	0.383	5/8/2012 16:15	5/10/2012 4:00	35.75
32	5/14/2012 20:00	5/17/2012 12:15	64.25	0.134	2.96	0.045	8.02	9.39	0.45	2.35	1.30	0.373	5/14/2012 20:00	5/16/2012 4:15	32.25
33	5/21/2012 1:45	5/21/2012 12:30	10.75	0.006	0.15	0.043	2.39	3.78	0.05	1.88	1.35	0.336	5/21/2012 2:00	5/21/2012 5:15	3.25
34	5/21/2012 21:15	5/22/2012 14:00	16.75	0.018	0.21	0.089	1.68	3.28	0.02	2.05	1.35	0.352	5/21/2012 21:30	5/22/2012 9:45	12.25

**T088-01-S0050 Tacony High Level Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 497

Tributary Service Population: 12,452

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/23/2012 17:15	5/24/2012 17:45	24.5	0.014	0.60	0.024	3.77	5.47	0.23	1.91	1.34	0.378	5/23/2012 17:30	5/24/2012 14:45	21.25
36	5/27/2012 4:15	5/27/2012 17:00	12.75	0.017	0.55	0.031	4.27	5.75	0.17	2.25	1.33	0.488	5/27/2012 4:15	5/27/2012 7:00	2.75
37	5/29/2012 20:00	5/30/2012 8:30	12.5	0.024	0.53	0.046	4.28	6.14	0.28	2.27	1.33	0.327	5/29/2012 20:00	5/30/2012 3:15	7.25
38	6/1/2012 20:15	6/2/2012 8:30	12.25	0.034	0.53	0.064	4.97	6.69	0.11	2.48	1.35	0.254	6/1/2012 20:15	6/2/2012 2:15	6
39	6/4/2012 13:00	6/5/2012 0:45	11.75	0.015	0.15	0.104	3.24	5.08	0.04	2.20	1.37	0.429	6/4/2012 13:15	6/4/2012 20:45	7.5
40	6/12/2012 9:30	6/13/2012 8:15	22.75	0.064	0.77	0.083	4.08	5.79	0.06	2.60	1.33	0.368	6/12/2012 9:30	6/12/2012 23:00	13.5
41	6/22/2012 17:00	6/23/2012 1:45	8.75	0.034	1.05	0.033	4.43	6.27	0.37	2.97	1.32	0.419	6/22/2012 17:00	6/22/2012 22:30	5.5
42	6/29/2012 5:00	6/29/2012 7:15	2.25	0.011	0.25	0.043	5.15	6.55	0.15	3.01	1.28	0.333	6/29/2012 5:00	6/29/2012 6:15	1.25
43	7/14/2012 3:45	7/14/2012 10:00	6.25	0.017	0.26	0.064	2.43	3.69	0.04	2.33	1.21	0.292	7/14/2012 3:45	7/14/2012 9:00	5.25
44	7/15/2012 21:30	7/16/2012 5:45	8.25	0.023	0.93	0.025	4.00	5.57	0.55	2.27	1.19	0.195	7/15/2012 21:30	7/15/2012 23:45	2.25
45	7/20/2012 1:00	7/20/2012 19:15	18.25	0.043	1.21	0.035	4.31	5.62	0.61	2.28	1.19	0.349	7/20/2012 1:15	7/20/2012 9:30	8.25
46	7/26/2012 19:30	7/27/2012 4:45	9.25	0.014	0.29	0.048	2.59	4.36	0.12	2.00	1.23	0.286	7/26/2012 19:45	7/27/2012 0:45	5
47	7/28/2012 14:45	7/29/2012 1:45	11	0.003	0.17	0.015	0.96	2.66	0.03	1.78	1.25	0.455	7/28/2012 14:45	7/28/2012 22:15	7.5
48	8/5/2012 18:30	8/6/2012 5:30	11	0.032	0.65	0.050	2.99	4.35	0.13	2.44	1.22	0.288	8/5/2012 18:30	8/6/2012 2:30	8
49	8/10/2012 10:00	8/10/2012 17:15	7.25	0.020	0.47	0.042	4.38	6.04	0.17	2.49	1.24	0.397	8/10/2012 10:15	8/10/2012 12:00	1.75
50	8/11/2012 17:30	8/11/2012 22:15	4.75	0.012	0.75	0.016	2.71	4.50	0.25	2.54	1.25	0.526	8/11/2012 17:45	8/11/2012 22:00	4.25
51	8/14/2012 9:45	8/15/2012 4:45	19	0.025	0.82	0.031	3.24	4.97	0.26	2.05	1.27	0.352	8/14/2012 10:00	8/15/2012 1:45	15.75
52	8/17/2012 22:00	8/18/2012 13:00	15	0.034	0.68	0.051	3.11	4.76	0.19	2.38	1.29	0.356	8/17/2012 22:15	8/18/2012 7:00	8.75
53	8/27/2012 8:00	8/27/2012 18:15	10.25	0.018	0.54	0.033	3.17	4.87	0.19	2.22	1.23	0.440	8/27/2012 8:00	8/27/2012 17:15	9.25
54	8/28/2012 5:30	8/28/2012 9:00	3.5	0.009	0.15	0.057	2.29	4.22	0.03	2.50	1.22	0.525	8/28/2012 5:45	8/28/2012 7:15	1.5
55	9/3/2012 9:30	9/3/2012 20:15	10.75	0.042	0.95	0.044	3.84	5.46	0.32	2.90	1.22	0.429	9/3/2012 9:30	9/3/2012 14:30	5
56	9/4/2012 3:15	9/5/2012 6:15	27	0.039	1.04	0.037	4.06	5.30	0.29	2.03	1.23	0.342	9/4/2012 3:30	9/5/2012 0:30	21
57	9/8/2012 16:45	9/9/2012 7:45	15	0.021	0.28	0.075	2.76	4.55	0.04	2.00	1.25	0.299	9/8/2012 17:00	9/8/2012 22:30	5.5
58	9/18/2012 2:15	9/19/2012 0:00	21.75	0.050	1.03	0.049	4.28	5.99	0.27	2.38	1.25	0.396	9/18/2012 2:15	9/18/2012 20:45	18.5
59	9/22/2012 19:15	9/23/2012 4:15	9	0.012	0.27	0.044	3.23	4.98	0.11	1.94	1.22	0.302	9/22/2012 19:15	9/22/2012 22:00	2.75
60	9/26/2012 23:30	9/27/2012 10:00	10.5	0.012	0.19	0.061	2.80	4.38	0.09	1.87	1.23	0.292	9/26/2012 23:45	9/27/2012 8:45	9
61	9/28/2012 1:15	9/28/2012 4:15	3	0.006	0.13	0.047	3.04	4.37	0.11	1.86	1.23	0.041	9/28/2012 1:15	9/28/2012 1:45	0.5
62	10/2/2012 10:15	10/2/2012 18:30	8.25	0.010	0.21	0.048	2.62	4.27	0.06	2.04	1.26	0.405	10/2/2012 10:15	10/2/2012 15:30	5.25
63	10/3/2012 7:30	10/3/2012 10:00	2.5	0.005	0.07	0.070	2.18	4.15	0.05	2.40	1.26	0.605	10/3/2012 7:30	10/3/2012 7:45	0.25
64	10/7/2012 10:30	10/8/2012 5:45	19.25	0.014	0.22	0.065	1.51	3.29	0.03	1.88	1.22	0.421	10/7/2012 10:30	10/7/2012 21:00	10.5
65	10/9/2012 4:45	10/9/2012 9:15	4.5	0.005	0.09	0.051	1.18	3.05	0.03	1.98	1.22	0.450	10/9/2012 5:00	10/9/2012 7:00	2
66	10/15/2012 11:00	10/16/2012 2:45	15.75	0.012	0.20	0.064	2.00	3.52	0.02	1.81	1.17	0.386	10/15/2012 11:00	10/15/2012 20:30	9.5
67	10/19/2012 5:30	10/19/2012 15:30	10	0.023	0.54	0.043	4.17	5.84	0.14	2.40	1.21	0.456	10/19/2012 5:45	10/19/2012 14:00	8.25
68	10/29/2012 4:45	10/31/2012 12:30	55.75	0.197	2.69	0.073	5.19	7.00	0.15	2.74	1.21	0.387	10/29/2012 5:00	10/30/2012 20:00	39
69	11/7/2012 11:30	11/8/2012 7:45	20.25	0.028	0.44	0.065	1.97	3.61	0.02	2.04	1.24	0.350	11/7/2012 11:45	11/8/2012 1:15	13.5

**T088-01-S0050 Tacony High Level Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 497

Tributary Service Population: 12,452

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	11/13/2012 2:30	11/14/2012 6:45	28.25	0.023	0.25	0.090	3.32	4.56	0.03	1.79	1.19	0.336	11/13/2012 2:45	11/13/2012 12:00	9.25
71	11/27/2012 6:00	11/27/2012 23:30	17.5	0.073	0.63	0.115	3.71	5.26	0.02	2.91	1.10	0.473	11/27/2012 6:00	11/27/2012 15:45	9.75
Average:			23.2	0.039	0.61	0.072	3.09	4.81	0.12	2.31	1.35	0.381			11.1
Maximum Value:			181.0	0.226	2.96	0.276	8.02	9.39	0.61	3.14	1.68	0.605			40.0
Minimum Value:			2.3	0.003	0.05	0.015	0.34	2.50	0.01	1.78	1.10	0.041			0.25
Standard Deviation:			27.1	0.046	0.64	0.043	1.26	1.18	0.12	0.32	0.15	0.078			10.0
Weighted Mean R-Value*:						0.064									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**T088-01-S0155 Tacony High Level Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 380

Tributary Service Population: 9,816

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	8/14/1999 0:00	8/15/1999 7:45	31.75	0.047	1.90	0.025	3.87	4.68	0.68	1.62	0.76	0.382	8/14/1999 0:00	8/15/1999 1:15	25.25
2	8/20/1999 9:00	8/21/1999 7:30	22.5	0.024	0.74	0.033	3.37	4.40	0.19	1.40	0.73	0.327	8/20/1999 9:15	8/21/1999 1:45	16.5
3	8/25/1999 22:15	8/27/1999 21:15	47	0.068	2.61	0.026	3.55	4.36	0.24	1.66	0.81	0.385	8/25/1999 22:15	8/27/1999 0:45	26.5
4	9/7/1999 2:15	9/8/1999 5:15	27	0.029	1.23	0.024	3.79	4.72	0.22	1.50	0.81	0.350	9/7/1999 2:15	9/7/1999 14:45	12.5
5	9/9/1999 14:45	9/10/1999 22:00	31.25	0.024	1.48	0.016	2.46	3.86	0.23	1.50	0.85	0.408	9/9/1999 14:45	9/10/1999 10:45	20
6	9/15/1999 16:00	9/20/1999 6:15	110.25	0.235	6.93	0.034	3.69	4.97	0.28	2.16	1.05	0.417	9/15/1999 16:30	9/16/1999 22:30	30
7	9/21/1999 1:15	9/22/1999 12:00	34.75	0.032	0.96	0.033	2.14	3.30	0.06	1.81	1.14	0.377	9/21/1999 1:30	9/22/1999 6:45	29.25
8	9/30/1999 2:00	10/1/1999 0:00	22	0.019	0.73	0.026	2.77	3.81	0.19	1.66	0.97	0.412	9/30/1999 2:15	9/30/1999 7:00	4.75
9	10/4/1999 8:00	10/5/1999 10:45	26.75	0.024	0.87	0.028	2.40	3.48	0.09	1.64	0.94	0.405	10/4/1999 8:15	10/5/1999 1:30	17.25
10	10/10/1999 1:30	10/11/1999 5:45	28.25	0.022	0.69	0.032	1.29	3.09	0.04	1.62	0.96	0.407	10/10/1999 1:30	10/10/1999 19:30	18
11	10/17/1999 18:00	10/18/1999 5:00	11	0.003	0.15	0.018	0.46	2.02	0.02	1.37	0.95	0.334	10/17/1999 18:15	10/18/1999 4:15	10
12	10/20/1999 3:15	10/21/1999 5:45	26.5	0.021	0.73	0.029	1.09	2.78	0.05	1.57	0.95	0.360	10/20/1999 3:30	10/20/1999 13:30	10
13	10/22/1999 20:00	10/23/1999 15:15	19.25	0.013	0.37	0.036	1.52	2.61	0.06	1.65	0.99	0.438	10/22/1999 20:00	10/23/1999 5:30	9.5
14	11/2/1999 10:30	11/3/1999 10:15	23.75	0.019	0.74	0.026	1.83	3.26	0.07	1.54	0.89	0.393	11/2/1999 10:30	11/2/1999 19:00	8.5
15	11/25/1999 7:15	11/25/1999 17:30	10.25	0.019	0.24	0.077	1.87	3.21	0.04	1.92	0.90	0.447	11/25/1999 7:15	11/25/1999 12:15	5
16	11/26/1999 19:00	11/27/1999 7:00	12	0.018	0.82	0.022	2.39	3.70	0.08	1.66	0.92	0.279	11/26/1999 20:15	11/27/1999 5:15	9
17	12/6/1999 5:30	12/7/1999 8:30	27	0.023	0.58	0.040	2.09	3.55	0.07	1.56	0.86	0.424	12/6/1999 5:45	12/6/1999 15:15	9.5
18	12/10/1999 12:45	12/10/1999 17:45	5	0.007	0.31	0.022	1.57	2.82	0.05	1.68	0.91	0.353	12/10/1999 12:45	12/10/1999 15:30	2.75
19	12/13/1999 13:30	12/15/1999 12:15	46.75	0.061	1.48	0.041	1.90	3.32	0.08	1.72	0.91	0.393	12/13/1999 13:45	12/15/1999 3:15	37.5
20	12/20/1999 7:30	12/21/1999 3:15	19.75	0.017	0.45	0.038	1.44	2.86	0.06	1.68	0.99	0.410	12/20/1999 7:45	12/20/1999 22:30	14.75
21	1/4/2000 16:30	1/5/2000 5:30	13	0.023	0.98	0.023	2.28	3.80	0.21	1.89	1.01	0.331	1/4/2000 16:30	1/4/2000 22:15	5.75
22	1/10/2000 11:00	1/11/2000 10:15	23.25	0.014	0.49	0.028	1.19	2.57	0.07	1.57	0.99	0.392	1/10/2000 11:00	1/10/2000 15:45	4.75
23	1/30/2000 22:45	1/31/2000 6:45	8	0.014	0.28	0.051	1.34	2.93	0.07	1.94	1.18	0.203	1/30/2000 23:00	1/31/2000 1:45	2.75
24	2/13/2000 21:00	2/15/2000 10:15	37.25	0.035	0.70	0.050	2.17	4.40	0.15	2.02	1.33	0.382	2/13/2000 21:00	2/14/2000 9:15	12.25
25	2/18/2000 16:45	2/20/2000 7:45	39	0.031	1.28	0.025	1.89	3.24	0.08	1.97	1.30	0.404	2/18/2000 17:00	2/19/2000 16:45	23.75
26	3/11/2000 12:00	3/12/2000 12:45	24.75	0.025	0.98	0.026	2.47	4.16	0.14	1.83	1.02	0.476	3/11/2000 12:00	3/12/2000 7:45	19.75
27	3/16/2000 19:30	3/17/2000 15:00	19.5	0.041	1.53	0.027	2.56	3.60	0.14	2.02	0.97	0.378	3/16/2000 19:30	3/17/2000 8:30	13
28	3/21/2000 3:00	3/24/2000 20:30	89.5	0.106	2.53	0.042	2.30	3.90	0.10	1.86	1.08	0.395	3/21/2000 3:00	3/22/2000 5:45	26.75
29	3/27/2000 20:00	3/29/2000 1:30	29.5	0.028	0.96	0.029	2.18	3.41	0.07	1.89	1.18	0.400	3/27/2000 20:00	3/28/2000 22:00	26
30	4/8/2000 21:15	4/9/2000 22:00	24.75	0.022	0.45	0.050	0.92	2.66	0.04	1.82	1.05	0.478	4/8/2000 21:30	4/9/2000 13:45	16.25
31	4/15/2000 13:00	4/16/2000 13:15	24.25	0.007	0.35	0.021	0.69	2.29	0.02	1.57	1.01	0.471	4/15/2000 13:15	4/16/2000 10:00	20.75
32	4/16/2000 18:15	4/17/2000 1:15	7	0.005	0.39	0.013	1.98	3.57	0.26	1.71	1.00	0.483	4/16/2000 18:30	4/16/2000 19:45	1.25
33	4/17/2000 7:45	4/18/2000 6:15	22.5	0.021	0.65	0.033	0.93	2.37	0.04	1.68	1.01	0.369	4/17/2000 8:15	4/18/2000 5:45	21.5
34	4/21/2000 10:45	4/22/2000 4:45	18	0.016	0.53	0.030	2.12	3.61	0.24	1.70	1.08	0.342	4/21/2000 11:00	4/21/2000 23:00	12

**T088-01-S0155 Tacony High Level Interceptor**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 380

Tributary Service Population: 9,816

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/10/2000 18:30	5/11/2000 2:30	8	0.007	0.47	0.014	1.41	2.90	0.22	1.58	0.91	0.408	5/10/2000 18:45	5/10/2000 20:45	2
36	5/19/2000 8:00	5/19/2000 19:30	11.5	0.019	0.67	0.028	2.79	4.03	0.30	1.81	0.87	0.418	5/19/2000 8:00	5/19/2000 13:15	5.25
37	5/20/2000 6:30	5/20/2000 20:15	13.75	0.007	0.25	0.030	0.80	2.23	0.05	1.68	0.88	0.623	5/20/2000 6:30	5/20/2000 15:00	8.5
38	5/23/2000 23:45	5/24/2000 8:00	8.25	0.008	0.31	0.026	0.85	2.33	0.06	1.40	0.82	0.273	5/23/2000 23:45	5/24/2000 7:00	7.25
39	5/24/2000 21:00	5/25/2000 1:15	4.25	0.003	0.26	0.013	2.17	3.59	0.25	1.47	0.82	0.415	5/24/2000 21:15	5/24/2000 21:30	0.25
40	6/6/2000 5:45	6/7/2000 3:30	21.75	0.014	0.46	0.030	1.13	2.82	0.08	1.42	0.80	0.423	6/6/2000 5:45	6/6/2000 21:45	16
Average:			25.8	0.029	0.96	0.030	1.99	3.38	0.13	1.69	0.96	0.394			14.1
Maximum Value:			110.3	0.235	6.93	0.077	3.87	4.97	0.68	2.16	1.33	0.623			37.5
Minimum Value:			4.3	0.003	0.15	0.013	0.46	2.02	0.02	1.37	0.73	0.203			0.25
Standard Deviation:			20.4	0.039	1.13	0.012	0.88	0.74	0.12	0.19	0.13	0.067			9.2
Weighted Mean R-Value*:						0.030									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**T088-01-S0220 Tacony High Level Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 62

Tributary Service Population: 3,044

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/11/2012 4:45	12/11/2012 8:15	3.5	0.030	0.08	0.358	1.43	1.80	0.03	0.749	0.346	0.078	12/11/2012 5:00	12/11/2012 6:45	1.75
2	12/16/2012 21:15	12/17/2012 2:30	5.25	0.022	0.08	0.277	0.66	1.12	0.02	0.589	0.376	0.053	12/16/2012 21:45	12/17/2012 2:30	4.75
3	12/18/2012 0:45	12/18/2012 4:15	3.5	0.044	0.34	0.131	2.11	2.51	0.12	0.872	0.387	0.012	12/18/2012 0:45	12/18/2012 1:45	1
4	12/18/2012 14:30	12/18/2012 18:00	3.5	0.031	0.12	0.258	2.23	2.66	0.06	0.760	0.360	0.067	12/18/2012 14:45	12/18/2012 15:30	0.75
5	12/20/2012 21:00	12/21/2012 19:15	22.25	0.456	2.06	0.222	2.28	2.66	0.21	1.267	0.381	0.068	12/20/2012 21:00	12/21/2012 7:00	10
6	12/24/2012 17:00	12/25/2012 5:30	12.5	0.075	0.20	0.384	0.60	1.05	0.02	0.684	0.392	0.054	12/24/2012 17:00	12/24/2012 21:15	4.25
7	12/26/2012 13:30	12/27/2012 10:30	21	0.325	1.14	0.286	1.97	2.47	0.10	1.087	0.403	0.066	12/26/2012 13:30	12/27/2012 9:15	19.75
8	12/29/2012 11:15	12/29/2012 23:15	12	0.020	0.23	0.086	0.14	0.66	0.02	0.588	0.412	0.110	12/29/2012 11:15	12/29/2012 16:45	5.5
9	1/11/2013 16:30	1/11/2013 23:15	6.75	0.121	0.38	0.316	1.93	2.38	0.05	1.140	0.358	0.083	1/11/2013 16:30	1/11/2013 21:00	4.5
10	1/14/2013 20:45	1/15/2013 6:00	9.25	0.134	0.39	0.339	1.84	2.30	0.05	0.975	0.367	0.040	1/14/2013 20:45	1/15/2013 2:30	5.75
11	1/15/2013 21:30	1/16/2013 17:30	20	0.318	1.04	0.305	1.96	2.33	0.06	1.067	0.369	0.063	1/15/2013 21:30	1/16/2013 12:15	14.75
12	1/28/2013 12:15	1/28/2013 19:15	7	0.062	0.18	0.353	1.05	1.48	0.02	0.791	0.371	0.074	1/28/2013 12:45	1/28/2013 17:00	4.25
13	1/30/2013 17:00	1/31/2013 11:00	18	0.278	1.27	0.220	2.25	2.63	0.24	1.049	0.369	0.066	1/30/2013 18:00	1/31/2013 5:45	11.75
14	2/8/2013 6:00	2/8/2013 16:15	10.25	0.066	0.25	0.267	0.75	1.23	0.02	0.731	0.390	0.086	2/8/2013 6:00	2/8/2013 13:45	7.75
15	2/11/2013 4:15	2/11/2013 17:00	12.75	0.124	0.37	0.336	1.72	2.20	0.04	0.834	0.372	0.076	2/11/2013 4:15	2/11/2013 8:45	4.5
16	2/13/2013 18:45	2/14/2013 7:30	12.75	0.059	0.20	0.292	0.39	0.85	0.02	0.607	0.368	0.056	2/13/2013 18:45	2/14/2013 0:15	5.5
17	2/19/2013 11:30	2/19/2013 20:00	8.5	0.052	0.19	0.268	0.99	1.44	0.02	0.700	0.382	0.077	2/19/2013 11:45	2/19/2013 17:45	6
18	2/23/2013 1:45	2/23/2013 20:30	18.75	0.037	0.14	0.269	0.32	0.83	0.01	0.535	0.372	0.084	2/23/2013 2:00	2/23/2013 19:30	17.5
19	2/26/2013 19:15	2/27/2013 12:00	16.75	0.188	0.68	0.276	1.85	2.28	0.08	0.880	0.369	0.065	2/26/2013 19:15	2/27/2013 11:15	16
20	3/6/2013 8:00	3/7/2013 1:00	17	0.038	0.12	0.331	0.98	1.42	0.01	0.535	0.367	0.079	3/6/2013 9:00	3/6/2013 22:15	13.25
21	3/8/2013 7:15	3/8/2013 21:15	14	0.082	0.12	0.670	0.64	1.09	0.03	0.688	0.369	0.086	3/8/2013 8:00	3/8/2013 13:00	5
22	3/12/2013 3:15	3/12/2013 16:45	13.5	0.331	1.04	0.319	2.17	2.63	0.07	1.425	0.382	0.072	3/12/2013 3:30	3/12/2013 16:30	13
23	3/16/2013 9:30	3/17/2013 0:45	15.25	0.050	0.18	0.276	0.81	1.28	0.02	0.601	0.365	0.106	3/16/2013 9:30	3/16/2013 18:00	8.5
24	3/18/2013 17:45	3/19/2013 6:00	12.25	0.241	0.82	0.294	1.70	2.19	0.05	1.229	0.401	0.051	3/18/2013 17:45	3/19/2013 3:30	9.75
25	3/25/2013 6:00	3/26/2013 7:30	25.5	0.219	0.60	0.363	1.00	1.46	0.04	0.806	0.393	0.070	3/25/2013 6:00	3/25/2013 20:15	14.25
26	3/31/2013 15:30	3/31/2013 23:00	7.5	0.044	0.14	0.315	0.91	1.42	0.02	0.736	0.412	0.095	3/31/2013 15:30	3/31/2013 21:45	6.25
27	4/10/2013 20:00	4/11/2013 4:00	8	0.087	0.53	0.164	2.07	2.51	0.23	0.832	0.358	0.049	4/10/2013 20:15	4/10/2013 23:45	3.5
28	4/12/2013 6:45	4/12/2013 16:30	9.75	0.162	0.60	0.270	2.01	2.46	0.11	1.095	0.353	0.086	4/12/2013 7:00	4/12/2013 13:45	6.75
29	4/12/2013 21:15	4/13/2013 9:30	12.25	0.090	0.32	0.281	2.08	2.53	0.09	0.699	0.358	0.049	4/12/2013 21:30	4/12/2013 23:15	1.75
30	4/19/2013 21:15	4/20/2013 7:30	10.25	0.167	0.58	0.291	1.87	2.31	0.06	1.042	0.362	0.037	4/19/2013 21:30	4/20/2013 2:45	5.25
31	4/29/2013 2:45	4/29/2013 15:15	12.5	0.131	0.41	0.322	1.40	1.85	0.03	0.849	0.366	0.068	4/29/2013 3:15	4/29/2013 14:30	11.25
32	5/7/2013 22:00	5/8/2013 2:30	4.5	0.026	0.10	0.257	0.98	1.38	0.03	0.610	0.344	0.045	5/7/2013 22:15	5/7/2013 23:30	1.25
33	5/8/2013 5:45	5/8/2013 14:00	8.25	0.112	0.65	0.171	2.50	2.89	0.20	0.952	0.333	0.086	5/8/2013 5:45	5/8/2013 13:15	7.5
34	5/9/2013 1:15	5/9/2013 12:30	11.25	0.149	0.53	0.282	2.16	2.53	0.08	0.909	0.326	0.060	5/9/2013 1:30	5/9/2013 6:45	5.25

**T088-01-S0220 Tacony High Level Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 62

Tributary Service Population: 3,044

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/10/2013 22:30	5/11/2013 12:00	13.5	0.171	1.09	0.157	1.84	2.23	0.14	0.942	0.379	0.061	5/10/2013 22:30	5/11/2013 7:00	8.5
36	5/18/2013 15:45	5/19/2013 18:15	26.5	0.154	0.36	0.431	1.30	1.74	0.04	0.723	0.407	0.083	5/18/2013 16:00	5/19/2013 16:45	24.75
37	5/23/2013 15:00	5/24/2013 7:15	16.25	0.080	0.67	0.120	1.61	2.03	0.27	0.635	0.382	0.058	5/23/2013 15:00	5/24/2013 1:30	10.5
38	5/24/2013 9:15	5/24/2013 19:30	10.25	0.059	0.19	0.312	1.22	1.66	0.04	0.676	0.371	0.078	5/24/2013 10:15	5/24/2013 15:30	5.25
39	5/28/2013 9:30	5/28/2013 16:30	7	0.083	0.29	0.286	1.01	1.45	0.03	0.904	0.367	0.077	5/28/2013 9:30	5/28/2013 16:15	6.75
40	6/3/2013 0:30	6/3/2013 13:00	12.5	0.098	1.05	0.094	1.96	2.48	0.30	0.779	0.407	0.060	6/3/2013 0:30	6/3/2013 8:15	7.75
41	6/3/2013 14:30	6/3/2013 19:30	5	0.027	0.24	0.113	1.98	2.47	0.18	0.702	0.415	0.079	6/3/2013 15:30	6/3/2013 17:15	1.75
42	6/6/2013 19:30	6/8/2013 18:00	46.5	0.819	3.40	0.241	1.96	2.43	0.26	1.233	0.452	0.074	6/6/2013 19:30	6/8/2013 2:00	30.5
43	6/10/2013 7:00	6/11/2013 18:45	35.75	0.294	1.74	0.169	1.93	2.51	0.35	0.908	0.505	0.074	6/10/2013 7:15	6/11/2013 0:45	17.5
44	6/13/2013 9:15	6/13/2013 14:30	5.25	0.047	0.48	0.098	1.67	2.26	0.31	0.926	0.500	0.082	6/13/2013 9:30	6/13/2013 10:45	1.25
45	6/13/2013 18:00	6/14/2013 7:15	13.25	0.014	0.11	0.127	0.24	0.78	0.02	0.587	0.491	0.056	6/13/2013 18:15	6/14/2013 5:45	11.5
46	6/18/2013 12:45	6/18/2013 23:30	10.75	0.086	0.32	0.271	1.62	2.16	0.04	0.859	0.465	0.079	6/18/2013 12:45	6/18/2013 20:45	8
47	6/25/2013 16:00	6/25/2013 18:15	2.25	0.018	0.13	0.141	1.30	1.80	0.07	0.797	0.437	0.074	6/25/2013 16:15	6/25/2013 16:30	0.25
48	6/27/2013 18:00	6/28/2013 2:00	8	0.093	1.21	0.077	1.49	2.03	0.43	0.978	0.455	0.069	6/27/2013 18:15	6/27/2013 21:45	3.5
49	6/30/2013 13:00	6/30/2013 17:15	4.25	0.052	0.17	0.302	1.16	1.68	0.03	0.999	0.417	0.111	6/30/2013 13:15	6/30/2013 15:45	2.5
50	7/1/2013 7:15	7/1/2013 18:15	11	0.062	0.16	0.402	0.96	1.45	0.02	0.719	0.411	0.083	7/1/2013 7:15	7/1/2013 14:30	7.25
51	7/3/2013 22:30	7/4/2013 1:00	2.5	0.022	0.12	0.177	1.56	2.06	0.11	0.803	0.423	0.058	7/3/2013 22:30	7/3/2013 23:00	0.5
52	7/9/2013 16:30	7/9/2013 18:15	1.75	0.002	0.12	0.016	0.12	0.60	0.07	0.515	0.402	0.076	7/9/2013 16:30	7/9/2013 16:45	0.25
53	7/12/2013 15:45	7/13/2013 1:45	10	0.199	0.85	0.233	1.89	2.36	0.14	1.256	0.399	0.073	7/12/2013 15:45	7/12/2013 23:00	7.25
54	7/20/2013 21:45	7/20/2013 23:30	1.75	0.014	0.11	0.127	1.04	1.53	0.08	0.760	0.403	0.082	7/20/2013 22:00	7/20/2013 22:30	0.5
55	7/22/2013 18:30	7/22/2013 22:45	4.25	0.048	0.47	0.102	2.07	2.57	0.20	0.929	0.411	0.089	7/22/2013 18:30	7/22/2013 20:30	2
56	7/23/2013 1:15	7/23/2013 6:00	4.75	0.053	0.88	0.061	1.81	2.22	0.36	0.852	0.409	0.013	7/23/2013 1:15	7/23/2013 3:15	2
57	7/28/2013 14:45	7/28/2013 18:30	3.75	0.026	0.19	0.142	1.81	2.31	0.12	0.764	0.397	0.102	7/28/2013 15:00	7/28/2013 17:00	2
58	7/28/2013 19:30	7/28/2013 23:30	4	0.033	0.15	0.227	2.20	2.69	0.12	0.803	0.397	0.090	7/28/2013 19:30	7/28/2013 21:15	1.75
59	8/1/2013 6:30	8/1/2013 19:30	13	0.190	0.75	0.255	1.88	2.37	0.09	1.071	0.407	0.085	8/1/2013 6:30	8/1/2013 15:15	8.75
60	8/8/2013 0:45	8/8/2013 3:30	2.75	0.054	0.31	0.172	1.90	2.31	0.14	1.128	0.393	0.011	8/8/2013 0:45	8/8/2013 1:45	1
61	8/13/2013 5:30	8/13/2013 16:30	11	0.166	2.40	0.069	2.06	2.57	0.86	1.103	0.423	0.083	8/13/2013 5:45	8/13/2013 9:30	3.75
62	8/22/2013 13:00	8/22/2013 17:15	4.25	0.024	0.28	0.088	1.81	2.31	0.25	0.704	0.417	0.070	8/22/2013 13:15	8/22/2013 17:00	3.75
63	8/28/2013 10:30	8/28/2013 17:45	7.25	0.104	1.13	0.092	1.87	2.32	0.44	1.017	0.382	0.075	8/28/2013 10:30	8/28/2013 15:45	5.25
64	9/2/2013 9:15	9/2/2013 22:15	13	0.115	0.80	0.144	1.75	2.24	0.26	0.831	0.364	0.116	9/2/2013 10:30	9/2/2013 13:15	2.75
65	9/12/2013 18:45	9/12/2013 23:15	4.5	0.036	0.23	0.156	2.07	2.53	0.19	0.764	0.368	0.087	9/12/2013 18:45	9/12/2013 20:00	1.25
66	9/13/2013 2:15	9/13/2013 5:45	3.5	0.048	0.15	0.328	2.25	2.62	0.12	0.888	0.366	0.009	9/13/2013 2:15	9/13/2013 3:15	1
67	9/21/2013 20:00	9/22/2013 5:45	9.75	0.188	1.02	0.184	2.12	2.52	0.22	1.182	0.376	0.046	9/21/2013 20:00	9/22/2013 4:00	8
Average:			11.0	0.117	0.56	0.235	1.54	2.00	0.13	0.860	0.392	0.070			6.8
Maximum Value:			46.5	0.819	3.40	0.670	2.50	2.89	0.86	1.425	0.505	0.116			30.5



**T088-01-S0220 Tacony High Level Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 62

Tributary Service Population: 3,044

<-----EVENT AVERAGE----->																
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)	
Minimum Value:			1.8	0.002	0.08	0.016	0.12	0.60	0.01	0.515	0.326	0.009			0.25	
Standard Deviation:			7.9	0.127	0.60	0.111	0.60	0.59	0.14	0.204	0.036	0.022			6.0	
Weighted Mean R-Value*:						0.209										

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**THL-B0375 Tacony High Level Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 186

Tributary Service Population: 4,704

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	11/16/2010 19:45	11/17/2010 7:00	11.25	0.018	0.46	0.040	1.47	1.95	0.11	0.789	0.473	0.123	11/16/2010 20:00	11/17/2010 4:00	8
2	11/25/2010 9:45	11/26/2010 0:15	14.5	0.022	0.31	0.069	0.45	1.20	0.03	0.884	0.489	0.218	11/25/2010 9:45	11/25/2010 19:15	9.5
3	12/1/2010 0:15	12/1/2010 19:00	18.75	0.083	1.36	0.061	5.79	6.47	0.16	1.143	0.484	0.133	12/1/2010 0:30	12/1/2010 13:15	12.75
4	12/11/2010 22:30	12/14/2010 2:15	51.75	0.077	1.11	0.069	3.09	3.74	0.09	0.880	0.549	0.151	12/11/2010 22:30	12/13/2010 1:45	27.25
5	12/26/2010 12:30	12/31/2010 3:30	111	0.061	1.21	0.051	0.26	0.95	0.04	0.752	0.536	0.149	12/26/2010 12:45	12/27/2010 4:15	15.5
6	1/11/2011 19:00	1/12/2011 22:45	27.75	0.019	0.55	0.035	0.27	0.96	0.04	0.755	0.516	0.156	1/11/2011 19:15	1/12/2011 2:15	7
7	1/17/2011 21:00	1/20/2011 0:30	51.5	0.069	0.96	0.072	1.42	2.09	0.06	0.831	0.520	0.149	1/17/2011 21:00	1/19/2011 4:00	31
8	1/21/2011 1:00	1/22/2011 2:30	25.5	0.019	0.18	0.108	0.21	0.87	0.02	0.732	0.506	0.137	1/21/2011 1:15	1/21/2011 5:00	3.75
9	1/26/2011 5:15	1/30/2011 0:15	91	0.072	1.72	0.042	0.45	1.01	0.10	0.818	0.565	0.157	1/26/2011 5:15	1/29/2011 15:45	82.5
10	2/1/2011 22:30	2/4/2011 0:00	49.5	0.060	0.82	0.073	0.93	1.69	0.05	0.861	0.569	0.147	2/1/2011 22:30	2/2/2011 9:00	10.5
11	2/5/2011 7:00	2/6/2011 4:00	21	0.015	0.29	0.051	0.47	1.29	0.02	0.837	0.572	0.180	2/5/2011 7:15	2/5/2011 20:15	13
12	2/21/2011 21:15	2/22/2011 20:30	23.25	0.004	0.44	0.009	0.15	0.83	0.03	0.721	0.556	0.145	2/21/2011 21:30	2/22/2011 5:00	7.5
13	2/24/2011 21:30	2/26/2011 7:45	34.25	0.057	1.05	0.055	5.05	5.76	0.10	0.886	0.559	0.126	2/24/2011 21:30	2/25/2011 13:30	16
14	2/28/2011 2:15	2/28/2011 6:30	4.25	0.005	0.23	0.020	0.57	1.15	0.07	0.739	0.555	0.062	2/28/2011 2:30	2/28/2011 5:00	2.5
15	3/6/2011 7:00	3/7/2011 6:30	23.5	0.030	1.78	0.017	1.21	2.01	0.13	0.911	0.587	0.173	3/6/2011 7:15	3/7/2011 1:45	18.5
16	3/10/2011 1:00	3/11/2011 18:45	41.75	0.076	1.47	0.052	1.06	1.74	0.07	0.929	0.569	0.141	3/10/2011 1:15	3/11/2011 3:15	26
17	3/16/2011 2:00	3/16/2011 20:00	18	0.017	0.60	0.028	0.58	1.20	0.08	0.828	0.574	0.144	3/16/2011 2:00	3/16/2011 7:00	5
18	3/21/2011 3:00	3/22/2011 2:30	23.5	0.029	0.44	0.066	0.76	1.53	0.06	0.882	0.585	0.148	3/21/2011 3:00	3/21/2011 10:00	7
19	3/23/2011 6:15	3/24/2011 5:15	23	0.025	0.46	0.055	0.59	1.37	0.09	0.855	0.577	0.147	3/23/2011 6:30	3/24/2011 2:00	19.5
20	4/1/2011 2:45	4/1/2011 15:45	13	0.016	0.25	0.063	0.75	1.65	0.02	0.905	0.619	0.141	4/1/2011 3:00	4/1/2011 12:15	9.25
21	4/5/2011 6:30	4/5/2011 14:45	8.25	0.012	0.27	0.045	0.79	1.54	0.09	0.950	0.591	0.182	4/5/2011 6:30	4/5/2011 14:15	7.75
22	4/8/2011 10:30	4/10/2011 0:00	37.5	0.056	0.76	0.073	0.94	1.71	0.03	0.953	0.610	0.164	4/8/2011 10:30	4/8/2011 21:45	11.25
23	4/12/2011 10:30	4/14/2011 1:00	38.5	0.074	0.80	0.093	1.16	1.93	0.07	0.996	0.611	0.152	4/12/2011 10:30	4/13/2011 18:00	31.5
24	4/16/2011 13:00	4/18/2011 0:15	35.25	0.241	2.66	0.090	9.34	10.17	0.42	1.623	0.625	0.177	4/16/2011 13:15	4/17/2011 1:45	12.5
25	4/23/2011 1:30	4/24/2011 6:15	28.75	0.038	0.65	0.059	1.05	1.98	0.12	0.964	0.667	0.139	4/23/2011 1:30	4/24/2011 1:15	23.75
26	4/28/2011 12:30	4/28/2011 21:30	9	0.007	0.45	0.017	1.00	1.76	0.27	0.889	0.624	0.167	4/28/2011 12:30	4/28/2011 14:15	1.75
27	5/4/2011 6:00	5/5/2011 10:45	28.75	0.060	0.49	0.121	1.15	1.96	0.05	1.023	0.616	0.158	5/4/2011 6:00	5/4/2011 14:30	8.5
28	5/15/2011 0:30	5/15/2011 6:00	5.5	0.007	0.40	0.017	1.33	2.01	0.20	0.808	0.637	0.027	5/15/2011 0:30	5/15/2011 4:45	4.25
29	5/15/2011 23:00	5/16/2011 1:00	2	0.003	0.14	0.024	0.84	1.61	0.11	0.917	0.621	0.116	5/15/2011 23:15	5/16/2011 0:30	1.25
30	5/16/2011 19:45	5/18/2011 0:15	28.5	0.008	0.51	0.015	0.73	1.51	0.10	0.787	0.601	0.154	5/16/2011 20:00	5/17/2011 22:00	26
31	5/18/2011 12:15	5/19/2011 0:45	12.5	0.007	0.29	0.024	0.72	1.44	0.13	0.813	0.582	0.163	5/18/2011 13:00	5/18/2011 19:45	6.75
32	5/19/2011 15:15	5/20/2011 0:00	8.75	0.006	0.23	0.025	0.41	1.12	0.08	0.826	0.572	0.179	5/19/2011 15:30	5/19/2011 20:30	5
33	5/23/2011 1:00	5/23/2011 8:30	7.5	0.004	0.17	0.024	0.58	1.14	0.06	0.716	0.543	0.108	5/23/2011 1:15	5/23/2011 3:00	1.75
34	6/9/2011 20:15	6/10/2011 1:00	4.75	0.003	0.22	0.015	0.93	1.59	0.12	0.688	0.435	0.172	6/9/2011 20:15	6/9/2011 20:45	0.5

**THL-B0375 Tacony High Level Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 186

Tributary Service Population: 4,704

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/11/2011 22:45	6/12/2011 3:45	5	0.011	0.48	0.023	0.88	1.39	0.13	0.756	0.432	0.070	6/11/2011 23:00	6/12/2011 1:45	2.75
36	6/14/2011 16:30	6/15/2011 2:00	9.5	0.005	0.13	0.041	0.39	1.00	0.04	0.638	0.414	0.161	6/14/2011 16:30	6/14/2011 19:15	2.75
37	6/16/2011 22:00	6/17/2011 18:15	20.25	0.047	1.49	0.032	3.46	3.89	0.30	0.820	0.407	0.134	6/16/2011 22:15	6/17/2011 17:15	19
38	7/8/2011 14:00	7/8/2011 20:30	6.5	0.035	1.50	0.024	5.48	6.01	0.39	1.203	0.411	0.160	7/8/2011 14:00	7/8/2011 20:30	6.5
39	7/24/2011 18:30	7/24/2011 20:45	2.25	0.002	0.13	0.014	0.27	0.89	0.11	0.644	0.412	0.209	7/24/2011 19:15	7/24/2011 19:45	0.5
40	7/25/2011 14:00	7/25/2011 22:30	8.5	0.032	0.89	0.036	5.71	6.32	0.36	1.019	0.399	0.177	7/25/2011 14:00	7/25/2011 20:45	6.75
41	7/29/2011 1:30	7/29/2011 5:30	4	0.003	0.12	0.023	0.36	0.75	0.10	0.467	0.364	0.024	7/29/2011 1:30	7/29/2011 5:30	4
42	7/29/2011 19:00	7/30/2011 4:00	9	0.006	0.16	0.040	1.12	1.69	0.12	0.587	0.375	0.127	7/29/2011 19:15	7/29/2011 20:15	1
43	8/1/2011 16:00	8/2/2011 4:15	12.25	0.012	0.53	0.023	3.15	3.70	0.23	0.645	0.393	0.132	8/1/2011 16:15	8/1/2011 18:45	2.5
44	8/3/2011 15:00	8/4/2011 6:30	15.5	0.034	1.01	0.034	2.62	3.17	0.31	0.786	0.398	0.129	8/3/2011 15:00	8/4/2011 6:15	15.25
45	8/7/2011 1:30	8/8/2011 0:30	23	0.010	0.28	0.038	0.47	0.89	0.07	0.629	0.408	0.168	8/7/2011 1:30	8/7/2011 15:15	13.75
46	8/9/2011 12:00	8/10/2011 2:45	14.75	0.040	1.22	0.033	4.74	5.27	0.44	0.869	0.397	0.146	8/9/2011 12:00	8/9/2011 19:30	7.5
47	8/14/2011 1:30	8/16/2011 21:45	68.25	0.212	4.64	0.046	5.50	5.97	0.46	0.924	0.395	0.153	8/14/2011 1:30	8/16/2011 12:15	58.75
48	8/18/2011 7:15	8/20/2011 10:30	51.25	0.074	1.50	0.049	3.80	4.43	0.33	0.743	0.423	0.146	8/18/2011 7:15	8/19/2011 21:00	37.75
49	8/21/2011 14:15	8/23/2011 5:30	39.25	0.119	2.76	0.043	6.33	6.99	0.80	0.939	0.428	0.145	8/21/2011 14:45	8/21/2011 22:00	7.25
50	8/25/2011 10:30	8/26/2011 5:15	18.75	0.018	0.68	0.027	1.55	2.13	0.17	0.668	0.421	0.130	8/25/2011 10:30	8/25/2011 20:45	10.25
51	8/27/2011 11:30	8/31/2011 5:45	90.25	0.347	6.61	0.053	5.03	5.66	0.43	1.095	0.476	0.154	8/27/2011 11:45	8/28/2011 14:15	26.5
52	9/5/2011 23:30	9/10/2011 21:45	118.25	0.228	5.98	0.038	5.39	5.99	0.74	0.974	0.591	0.149	9/5/2011 23:45	9/8/2011 14:45	63
53	9/11/2011 22:30	9/12/2011 4:30	6	0.015	0.74	0.021	3.33	4.09	0.46	0.977	0.616	0.065	9/11/2011 22:30	9/12/2011 0:45	2.25
54	9/15/2011 11:15	9/15/2011 18:15	7	0.003	0.20	0.013	0.45	1.17	0.13	0.757	0.569	0.145	9/15/2011 11:45	9/15/2011 15:30	3.75
55	9/23/2011 9:15	9/24/2011 9:00	23.75	0.072	2.31	0.031	5.31	6.02	0.34	0.997	0.506	0.130	9/23/2011 9:30	9/24/2011 1:00	15.5
56	9/27/2011 23:30	9/28/2011 6:15	6.75	0.017	0.46	0.037	3.03	3.51	0.17	0.832	0.475	0.060	9/27/2011 23:45	9/28/2011 3:45	4
57	9/29/2011 9:30	9/29/2011 14:30	5	0.011	0.32	0.036	3.74	4.38	0.22	0.884	0.470	0.153	9/29/2011 9:45	9/29/2011 14:30	4.75
58	9/30/2011 21:00	10/1/2011 6:30	9.5	0.004	0.26	0.015	0.32	0.94	0.04	0.600	0.467	0.084	9/30/2011 21:00	10/1/2011 4:45	7.75
59	10/1/2011 21:15	10/2/2011 4:30	7.25	0.002	0.18	0.013	0.33	0.99	0.04	0.590	0.464	0.089	10/1/2011 21:45	10/2/2011 3:00	5.25
60	10/12/2011 19:45	10/13/2011 1:30	5.75	0.004	0.24	0.015	0.65	1.31	0.13	0.687	0.448	0.164	10/12/2011 20:00	10/12/2011 22:15	2.25
61	10/14/2011 2:15	10/14/2011 19:00	16.75	0.005	0.19	0.027	0.68	1.24	0.08	0.620	0.442	0.141	10/14/2011 2:15	10/14/2011 17:30	15.25
62	10/19/2011 4:45	10/20/2011 7:15	26.5	0.034	0.95	0.036	0.70	1.33	0.10	0.721	0.419	0.149	10/19/2011 5:00	10/20/2011 5:15	24.25
63	10/27/2011 5:30	10/27/2011 21:15	15.75	0.010	0.36	0.027	0.53	1.13	0.06	0.673	0.420	0.178	10/27/2011 5:45	10/27/2011 19:30	13.75
64	10/29/2011 3:45	10/30/2011 7:00	27.25	0.047	1.30	0.036	0.51	1.16	0.08	0.776	0.422	0.147	10/29/2011 3:45	10/29/2011 23:15	19.5
65	11/16/2011 1:30	11/17/2011 3:15	25.75	0.023	0.65	0.036	0.58	1.11	0.07	0.619	0.373	0.136	11/16/2011 1:30	11/17/2011 0:15	22.75
66	11/20/2011 22:30	11/21/2011 10:30	12	0.006	0.13	0.045	0.32	0.71	0.02	0.566	0.381	0.125	11/20/2011 22:30	11/21/2011 8:00	9.5
67	11/21/2011 22:15	11/24/2011 16:00	65.75	0.098	2.35	0.042	2.27	2.67	0.23	0.722	0.395	0.147	11/21/2011 22:30	11/23/2011 15:15	40.75
68	11/29/2011 6:00	11/30/2011 6:15	24.25	0.023	0.71	0.033	0.73	1.34	0.06	0.677	0.415	0.148	11/29/2011 6:00	11/29/2011 21:00	15
69	12/6/2011 14:00	12/8/2011 16:15	50.25	0.108	2.56	0.042	2.78	3.41	0.19	0.831	0.425	0.145	12/6/2011 14:15	12/8/2011 1:45	35.5

**THL-B0375 Tacony High Level Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 186

Tributary Service Population: 4,704

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	12/21/2011 14:15	12/22/2011 5:15	15	0.003	0.15	0.020	0.41	1.03	0.08	0.605	0.456	0.125	12/21/2011 14:45	12/21/2011 23:00	8.25
71	12/22/2011 21:30	12/23/2011 6:30	9	0.050	1.33	0.038	2.41	2.91	0.13	1.202	0.448	0.096	12/22/2011 21:30	12/23/2011 5:30	8
72	12/27/2011 13:15	12/27/2011 20:30	7.25	0.020	0.58	0.034	0.86	1.49	0.11	0.906	0.428	0.160	12/27/2011 13:15	12/27/2011 19:30	6.25
73	1/11/2012 19:45	1/12/2012 16:45	21	0.048	1.44	0.033	2.22	2.83	0.12	0.856	0.440	0.142	1/11/2012 20:00	1/12/2012 7:00	11
74	1/16/2012 22:30	1/17/2012 23:45	25.25	0.014	0.35	0.041	0.45	1.05	0.04	0.651	0.436	0.148	1/16/2012 22:30	1/17/2012 14:30	16
75	1/21/2012 2:15	1/21/2012 22:30	20.25	0.001	0.33	0.004	0.08	0.78	0.03	0.644	0.462	0.174	1/21/2012 2:15	1/21/2012 13:15	11
76	1/23/2012 9:30	1/23/2012 20:30	11	0.021	0.30	0.072	0.57	1.16	0.05	0.860	0.470	0.160	1/23/2012 9:30	1/23/2012 17:00	7.5
77	1/27/2012 5:30	1/27/2012 13:00	7.5	0.008	0.42	0.020	0.55	1.19	0.08	0.784	0.466	0.190	1/27/2012 5:45	1/27/2012 11:30	5.75
78	2/11/2012 6:00	2/12/2012 3:45	21.75	0.008	0.25	0.033	0.30	1.01	0.04	0.665	0.442	0.177	2/11/2012 6:00	2/11/2012 22:45	16.75
79	2/16/2012 14:15	2/16/2012 23:15	9	0.007	0.13	0.058	0.34	0.89	0.02	0.693	0.417	0.178	2/16/2012 14:30	2/16/2012 20:15	5.75
80	2/24/2012 2:45	2/24/2012 20:30	17.75	0.008	0.30	0.026	0.63	1.06	0.06	0.638	0.434	0.150	2/24/2012 2:45	2/24/2012 19:15	16.5
81	2/29/2012 9:45	3/1/2012 7:15	21.5	0.030	0.99	0.030	0.77	1.35	0.06	0.740	0.433	0.139	2/29/2012 9:45	3/1/2012 0:30	14.75
82	3/2/2012 21:15	3/3/2012 10:30	13.25	0.008	0.33	0.025	0.37	1.00	0.05	0.633	0.440	0.118	3/2/2012 21:30	3/3/2012 9:45	12.25
83	3/13/2012 3:00	3/13/2012 9:00	6	0.004	0.10	0.036	0.32	1.00	0.02	0.620	0.409	0.140	3/13/2012 3:15	3/13/2012 7:00	3.75
84	3/31/2012 0:45	3/31/2012 8:45	8	0.008	0.33	0.025	0.55	0.94	0.06	0.577	0.395	0.064	3/31/2012 0:45	3/31/2012 4:00	3.25
85	4/1/2012 18:30	4/2/2012 4:30	10	0.006	0.18	0.032	0.36	0.78	0.04	0.582	0.396	0.120	4/1/2012 18:30	4/2/2012 2:15	7.75
86	4/22/2012 8:15	4/23/2012 7:30	23.25	0.058	2.13	0.027	1.46	2.05	0.13	0.856	0.380	0.180	4/22/2012 8:15	4/23/2012 6:15	22
87	5/1/2012 3:45	5/1/2012 19:30	15.75	0.009	0.31	0.031	0.75	1.41	0.12	0.616	0.388	0.157	5/1/2012 3:45	5/1/2012 10:00	6.25
88	5/4/2012 22:00	5/5/2012 2:45	4.75	0.003	0.22	0.015	0.45	1.05	0.15	0.574	0.392	0.103	5/4/2012 22:15	5/4/2012 23:45	1.5
89	5/9/2012 3:00	5/9/2012 16:45	13.75	0.011	0.37	0.029	0.72	1.19	0.08	0.606	0.369	0.143	5/9/2012 3:00	5/9/2012 7:00	4
90	5/9/2012 22:15	5/10/2012 10:15	12	0.011	0.19	0.057	0.36	0.77	0.02	0.598	0.367	0.126	5/9/2012 22:15	5/10/2012 4:00	5.75
91	5/15/2012 9:15	5/16/2012 23:30	38.25	0.082	2.59	0.032	5.37	5.75	0.35	0.775	0.362	0.155	5/15/2012 9:30	5/16/2012 4:30	19
92	5/21/2012 1:45	5/21/2012 7:15	5.5	0.003	0.15	0.018	0.54	0.94	0.06	0.524	0.380	0.087	5/21/2012 2:00	5/21/2012 5:15	3.25
93	5/21/2012 21:00	5/22/2012 8:15	11.25	0.010	0.25	0.039	0.29	0.85	0.05	0.620	0.390	0.127	5/21/2012 21:00	5/22/2012 8:00	11
94	5/27/2012 4:30	5/27/2012 13:15	8.75	0.008	0.28	0.028	1.07	1.55	0.07	0.709	0.424	0.179	5/27/2012 4:30	5/27/2012 7:00	2.5
95	5/29/2012 20:00	5/30/2012 4:30	8.5	0.009	0.46	0.019	0.83	1.48	0.26	0.645	0.415	0.110	5/29/2012 20:00	5/30/2012 3:15	7.25
96	6/1/2012 20:00	6/2/2012 4:45	8.75	0.009	0.33	0.029	0.64	1.24	0.07	0.644	0.407	0.109	6/1/2012 20:00	6/2/2012 1:45	5.75
Average:			22.5	0.036	0.86	0.038	1.59	2.21	0.14	0.788	0.477	0.140			13.0
Maximum Value:			118.3	0.347	6.61	0.121	9.34	10.17	0.80	1.623	0.667	0.218			82.5
Minimum Value:			2.0	0.001	0.10	0.004	0.08	0.71	0.02	0.467	0.362	0.024			0.50
Standard Deviation:			22.0	0.055	1.11	0.021	1.84	1.84	0.15	0.174	0.084	0.034			13.4
Weighted Mean R-Value*:						0.042									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**P083-03-S0050 Upper Delaware Low Level Interceptor (2012)**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 270

Tributary Service Population: 4,775

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/12/2011 20:00	10/13/2011 6:45	10.75	0.015	0.17	0.089	1.65	2.52	0.09	0.913	0.503	0.170	10/12/2011 20:00	10/12/2011 21:45	1.75
2	10/19/2011 4:45	10/20/2011 16:15	35.5	0.073	0.98	0.074	2.13	2.98	0.07	1.100	0.485	0.256	10/19/2011 5:00	10/20/2011 3:15	22.25
3	10/27/2011 5:45	10/28/2011 13:15	31.5	0.026	0.35	0.073	1.20	2.01	0.04	0.856	0.453	0.260	10/27/2011 5:45	10/27/2011 19:30	13.75
4	10/29/2011 6:15	10/30/2011 15:15	33	0.135	1.53	0.088	2.58	3.47	0.07	1.474	0.473	0.287	10/29/2011 6:30	10/29/2011 23:30	17
5	11/16/2011 1:45	11/17/2011 14:15	36.5	0.051	0.58	0.089	1.52	2.28	0.06	0.927	0.445	0.236	11/16/2011 2:00	11/17/2011 12:30	34.5
6	11/20/2011 22:30	11/21/2011 12:00	13.5	0.012	0.13	0.093	0.99	1.48	0.02	0.815	0.470	0.193	11/20/2011 22:30	11/21/2011 7:45	9.25
7	11/21/2011 23:00	11/23/2011 23:45	48.75	0.153	2.18	0.070	2.49	3.17	0.12	1.282	0.488	0.245	11/21/2011 23:00	11/23/2011 15:30	40.5
8	11/29/2011 0:15	11/30/2011 18:45	42.5	0.053	0.61	0.087	1.53	2.34	0.07	0.943	0.488	0.238	11/29/2011 0:30	11/29/2011 21:00	20.5
9	12/6/2011 14:15	12/6/2011 21:15	7	0.009	0.12	0.078	0.91	1.71	0.03	1.019	0.474	0.322	12/6/2011 14:15	12/6/2011 18:15	4
10	12/7/2011 3:45	12/8/2011 21:45	42	0.151	2.33	0.065	3.05	3.89	0.12	1.375	0.485	0.262	12/7/2011 3:45	12/8/2011 1:45	22
11	12/21/2011 14:45	12/22/2011 3:30	12.75	0.010	0.19	0.052	1.74	2.51	0.10	0.879	0.503	0.244	12/21/2011 14:45	12/21/2011 23:00	8.25
12	12/22/2011 21:30	12/23/2011 21:45	24.25	0.070	1.45	0.048	3.34	3.89	0.15	1.256	0.508	0.246	12/22/2011 21:30	12/23/2011 5:45	8.25
13	12/27/2011 13:30	12/28/2011 17:15	27.75	0.050	0.55	0.090	2.70	3.57	0.09	1.069	0.505	0.252	12/27/2011 13:30	12/27/2011 19:45	6.25
14	1/11/2012 19:45	1/12/2012 22:00	26.25	0.086	1.64	0.053	3.05	3.72	0.22	1.325	0.495	0.258	1/11/2012 20:00	1/12/2012 7:00	11
15	1/17/2012 10:15	1/18/2012 9:00	22.75	0.021	0.26	0.080	1.21	2.02	0.03	0.897	0.495	0.245	1/17/2012 10:15	1/17/2012 14:30	4.25
16	1/21/2012 2:15	1/21/2012 16:30	14.25	0.006	0.30	0.021	0.25	1.17	0.02	0.833	0.505	0.253	1/21/2012 2:15	1/21/2012 13:15	11
17	1/23/2012 9:15	1/24/2012 6:45	21.5	0.049	0.27	0.180	1.23	2.03	0.05	1.133	0.494	0.239	1/23/2012 9:30	1/23/2012 18:00	8.5
18	1/27/2012 6:00	1/28/2012 8:45	26.75	0.029	0.33	0.087	1.75	2.57	0.06	0.937	0.517	0.234	1/27/2012 6:00	1/27/2012 11:30	5.5
19	2/11/2012 3:45	2/11/2012 13:00	9.25	0.011	0.19	0.057	0.42	1.35	0.03	0.942	0.502	0.237	2/11/2012 4:00	2/11/2012 10:00	6
20	2/16/2012 14:15	2/17/2012 0:15	10	0.007	0.13	0.050	0.71	1.48	0.02	0.911	0.490	0.308	2/16/2012 14:15	2/16/2012 20:30	6.25
21	2/24/2012 3:00	2/25/2012 14:00	35	0.019	0.33	0.058	1.01	1.50	0.06	0.827	0.488	0.244	2/24/2012 3:00	2/25/2012 11:00	32
22	2/29/2012 10:15	3/1/2012 15:15	29	0.061	0.98	0.062	2.17	2.93	0.06	1.096	0.473	0.256	2/29/2012 10:15	3/1/2012 0:45	14.5
23	3/2/2012 20:30	3/3/2012 12:15	15.75	0.029	0.34	0.083	1.26	1.81	0.04	1.010	0.488	0.208	3/2/2012 20:45	3/3/2012 9:45	13
24	3/31/2012 0:45	3/31/2012 7:30	6.75	0.018	0.35	0.052	1.28	1.77	0.05	0.992	0.482	0.051	3/31/2012 0:45	3/31/2012 4:00	3.25
25	4/1/2012 19:00	4/2/2012 6:30	11.5	0.012	0.19	0.062	1.12	1.63	0.05	0.830	0.468	0.185	4/1/2012 19:15	4/2/2012 2:15	7
26	4/22/2012 10:00	4/24/2012 0:15	38.25	0.107	2.06	0.052	3.06	3.87	0.13	1.215	0.433	0.293	4/22/2012 10:15	4/23/2012 18:15	32
27	5/1/2012 4:15	5/1/2012 11:45	7.5	0.010	0.33	0.031	1.48	2.25	0.20	0.931	0.450	0.250	5/1/2012 4:15	5/1/2012 10:15	6
28	5/4/2012 22:15	5/5/2012 3:45	5.5	0.009	0.15	0.063	1.33	2.06	0.07	0.856	0.441	0.136	5/4/2012 22:15	5/4/2012 23:15	1
29	5/9/2012 2:15	5/9/2012 10:45	8.5	0.017	0.27	0.065	1.17	1.83	0.05	0.965	0.425	0.189	5/9/2012 2:15	5/9/2012 7:45	5.5
30	5/9/2012 21:45	5/10/2012 10:15	12.5	0.022	0.22	0.098	0.67	1.10	0.02	0.904	0.418	0.185	5/9/2012 21:45	5/10/2012 4:45	7
31	5/15/2012 8:30	5/15/2012 23:15	14.75	0.035	0.70	0.051	2.59	3.31	0.09	1.130	0.402	0.315	5/15/2012 8:45	5/15/2012 18:45	10
32	5/16/2012 0:45	5/17/2012 0:00	23.25	0.061	1.20	0.051	6.13	6.56	0.27	1.111	0.404	0.250	5/16/2012 0:45	5/16/2012 4:30	3.75
33	5/21/2012 1:15	5/21/2012 14:15	13	0.015	0.30	0.050	1.07	1.52	0.11	0.819	0.412	0.209	5/21/2012 1:30	5/21/2012 11:15	9.75
34	5/22/2012 0:15	5/22/2012 11:15	11	0.017	0.19	0.087	0.77	1.19	0.02	0.847	0.411	0.176	5/22/2012 0:30	5/22/2012 9:45	9.25

**P083-03-S0050 Upper Delaware Low Level Interceptor (2012)**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 270

Tributary Service Population: 4,775

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	5/27/2012 4:30	5/28/2012 4:45	24.25	0.026	0.48	0.055	1.96	2.43	0.10	0.848	0.398	0.261	5/27/2012 4:30	5/27/2012 7:30	3
36	6/1/2012 20:30	6/2/2012 9:45	13.25	0.029	0.60	0.049	4.95	5.43	0.17	0.957	0.409	0.168	6/1/2012 20:45	6/2/2012 2:45	6
37	6/12/2012 9:45	6/13/2012 16:30	30.75	0.050	0.64	0.078	2.11	2.81	0.07	0.876	0.334	0.258	6/12/2012 9:45	6/12/2012 23:30	13.75
38	6/22/2012 18:45	6/23/2012 19:15	24.5	0.032	0.59	0.054	2.80	3.55	0.17	0.883	0.388	0.268	6/22/2012 18:45	6/22/2012 22:45	4
39	7/14/2012 4:15	7/14/2012 19:00	14.75	0.016	0.30	0.054	0.86	1.42	0.05	0.865	0.371	0.302	7/14/2012 4:15	7/14/2012 13:15	9
40	7/15/2012 21:45	7/17/2012 0:00	26.25	0.038	0.82	0.047	6.18	6.89	0.52	0.884	0.381	0.250	7/15/2012 21:45	7/16/2012 0:15	2.5
41	7/20/2012 1:15	7/20/2012 16:45	15.5	0.024	0.55	0.043	2.65	3.32	0.16	0.877	0.394	0.217	7/20/2012 1:30	7/20/2012 9:45	8.25
42	7/26/2012 19:45	7/27/2012 17:45	22	0.027	0.37	0.072	1.77	2.48	0.16	0.797	0.346	0.237	7/26/2012 20:00	7/27/2012 0:30	4.5
43	7/28/2012 13:00	7/29/2012 10:45	21.75	0.028	0.45	0.063	1.58	2.26	0.16	0.835	0.357	0.251	7/28/2012 13:15	7/28/2012 22:45	9.5
44	8/1/2012 17:00	8/1/2012 22:30	5.5	0.012	0.14	0.087	2.52	3.18	0.11	1.057	0.345	0.349	8/1/2012 17:00	8/1/2012 18:00	1
45	8/4/2012 13:30	8/5/2012 8:00	18.5	0.028	0.66	0.042	7.93	8.68	0.43	0.835	0.345	0.229	8/4/2012 13:45	8/4/2012 14:15	0.5
46	8/5/2012 18:45	8/6/2012 22:30	27.75	0.045	0.53	0.085	1.73	2.27	0.07	0.885	0.339	0.263	8/5/2012 18:45	8/6/2012 2:45	8
47	8/10/2012 10:45	8/10/2012 17:45	7	0.012	0.27	0.046	1.97	2.62	0.07	0.931	0.341	0.290	8/10/2012 11:00	8/10/2012 16:30	5.5
48	8/14/2012 10:00	8/15/2012 15:00	29	0.034	0.63	0.054	1.83	2.51	0.10	0.820	0.358	0.257	8/14/2012 10:15	8/15/2012 2:00	15.75
49	8/17/2012 22:15	8/18/2012 18:30	20.25	0.029	0.55	0.052	1.60	2.23	0.12	0.837	0.339	0.250	8/17/2012 22:15	8/18/2012 7:30	9.25
50	8/27/2012 9:45	8/28/2012 3:00	17.25	0.019	0.23	0.084	2.08	2.71	0.10	0.779	0.316	0.268	8/27/2012 10:00	8/27/2012 17:15	7.25
51	8/28/2012 5:15	8/29/2012 4:15	23	0.024	0.18	0.135	0.98	1.64	0.04	0.749	0.312	0.254	8/28/2012 5:30	8/28/2012 7:45	2.25
52	9/3/2012 9:30	9/4/2012 1:15	15.75	0.051	1.04	0.049	3.92	4.59	0.26	1.223	0.368	0.294	9/3/2012 9:45	9/3/2012 16:15	6.5
53	9/4/2012 3:45	9/6/2012 4:15	48.5	0.137	3.00	0.046	10.09	10.46	0.38	1.123	0.386	0.243	9/4/2012 3:45	9/5/2012 14:45	35
54	9/8/2012 17:30	9/9/2012 13:00	19.5	0.014	0.22	0.064	0.92	1.70	0.06	0.784	0.416	0.241	9/8/2012 17:45	9/8/2012 22:15	4.5
55	9/18/2012 2:45	9/19/2012 14:45	36	0.044	0.84	0.053	1.80	2.52	0.19	0.822	0.367	0.242	9/18/2012 2:45	9/19/2012 2:00	23.25
56	9/22/2012 19:45	9/23/2012 15:00	19.25	0.028	0.74	0.038	3.54	4.31	0.38	0.903	0.408	0.244	9/22/2012 20:00	9/22/2012 22:15	2.25
57	9/26/2012 23:45	9/27/2012 11:15	11.5	0.012	0.21	0.057	1.12	1.67	0.08	0.767	0.411	0.177	9/26/2012 23:45	9/27/2012 7:30	7.75
Average:			21.4	0.039	0.63	0.067	2.22	2.90	0.12	0.961	0.428	0.241			10.6
Maximum Value:			48.8	0.153	3.00	0.180	10.09	10.46	0.52	1.474	0.517	0.349			40.5
Minimum Value:			5.5	0.006	0.12	0.021	0.25	1.10	0.02	0.749	0.312	0.051			0.50
Standard Deviation:			11.1	0.036	0.61	0.025	1.79	1.77	0.11	0.165	0.061	0.048			9.3
Weighted Mean R-Value*:						0.061									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**P083-03-S0050 Upper Delaware Low Level Interceptor (2013)**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 270

Tributary Service Population: 4,775

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/2/2012 10:45	10/2/2012 22:00	11.25	0.010	0.12	0.083	0.79	1.50	0.03	0.871	0.411	0.309	10/2/2012 11:00	10/2/2012 19:45	8.75
2	10/7/2012 11:00	10/8/2012 3:15	16.25	0.011	0.15	0.071	0.48	1.28	0.02	0.848	0.430	0.305	10/7/2012 11:00	10/7/2012 21:00	10
3	10/15/2012 11:30	10/16/2012 0:15	12.75	0.016	0.37	0.044	3.23	3.92	0.15	0.892	0.372	0.298	10/15/2012 11:45	10/15/2012 21:45	10
4	10/19/2012 9:30	10/19/2012 18:00	8.5	0.034	0.81	0.042	3.88	4.57	0.23	1.346	0.384	0.287	10/19/2012 9:30	10/19/2012 14:15	4.75
5	10/28/2012 15:30	10/28/2012 22:15	6.75	0.008	0.13	0.058	0.63	1.40	0.03	0.960	0.400	0.365	10/28/2012 15:30	10/28/2012 19:15	3.75
6	10/29/2012 4:30	10/31/2012 0:15	43.75	0.135	2.30	0.059	3.12	3.82	0.13	1.205	0.407	0.256	10/29/2012 4:30	10/30/2012 9:15	28.75
7	11/7/2012 11:45	11/8/2012 10:30	22.75	0.046	0.58	0.080	1.14	1.83	0.03	0.959	0.373	0.236	11/7/2012 11:45	11/8/2012 0:15	12.5
8	11/13/2012 3:00	11/13/2012 13:45	10.75	0.011	0.17	0.064	0.78	1.45	0.03	0.783	0.390	0.221	11/13/2012 3:00	11/13/2012 12:30	9.5
9	11/27/2012 6:15	11/28/2012 5:00	22.75	0.041	0.64	0.064	1.08	1.78	0.02	0.972	0.416	0.244	11/27/2012 6:30	11/27/2012 16:00	9.5
10	12/7/2012 22:00	12/8/2012 7:30	9.5	0.022	0.34	0.064	2.12	2.66	0.08	0.889	0.388	0.103	12/7/2012 22:15	12/8/2012 1:30	3.25
11	12/9/2012 6:45	12/9/2012 16:45	10	0.013	0.19	0.071	1.06	1.87	0.02	0.969	0.385	0.358	12/9/2012 6:45	12/9/2012 12:30	5.75
12	12/9/2012 19:00	12/10/2012 16:30	21.5	0.024	0.20	0.121	0.67	1.38	0.05	0.812	0.383	0.231	12/9/2012 19:15	12/10/2012 2:30	7.25
13	12/18/2012 1:00	12/18/2012 8:15	7.25	0.012	0.30	0.040	1.61	2.09	0.13	0.816	0.414	0.122	12/18/2012 1:15	12/18/2012 2:15	1
14	12/20/2012 21:15	12/21/2012 21:15	24	0.076	1.46	0.052	2.45	3.16	0.11	1.225	0.436	0.239	12/20/2012 21:30	12/21/2012 8:00	10.5
15	12/24/2012 16:45	12/25/2012 4:45	12	0.010	0.19	0.055	0.49	1.29	0.02	0.808	0.450	0.210	12/24/2012 17:00	12/24/2012 21:00	4
16	12/26/2012 13:15	12/27/2012 19:00	29.75	0.072	1.40	0.052	2.58	3.41	0.12	1.142	0.469	0.249	12/26/2012 13:15	12/27/2012 9:30	20.25
17	12/29/2012 10:30	12/29/2012 18:45	8.25	0.013	0.23	0.055	0.91	1.80	0.02	1.149	0.492	0.397	12/29/2012 10:30	12/29/2012 17:00	6.5
18	1/11/2013 16:15	1/12/2013 1:00	8.75	0.022	0.45	0.049	1.54	2.37	0.06	1.185	0.462	0.294	1/11/2013 16:15	1/11/2013 21:15	5
19	1/14/2013 21:30	1/15/2013 6:30	9	0.024	0.33	0.074	1.20	1.69	0.03	1.048	0.456	0.128	1/14/2013 21:30	1/15/2013 2:45	5.25
20	1/15/2013 21:30	1/17/2013 6:45	33.25	0.072	1.01	0.072	1.91	2.38	0.06	1.040	0.452	0.208	1/15/2013 21:30	1/16/2013 12:00	14.5
21	1/28/2013 12:30	1/28/2013 22:00	9.5	0.011	0.15	0.073	0.78	1.48	0.02	0.948	0.437	0.312	1/28/2013 12:45	1/28/2013 17:00	4.25
22	1/30/2013 21:45	1/31/2013 18:45	21	0.080	1.02	0.078	3.97	4.41	0.19	1.322	0.437	0.222	1/30/2013 21:45	1/31/2013 6:00	8.25
23	2/19/2013 11:30	2/19/2013 21:45	10.25	0.011	0.19	0.057	0.47	1.17	0.02	0.935	0.443	0.310	2/19/2013 11:45	2/19/2013 18:00	6.25
24	2/26/2013 19:15	2/27/2013 23:15	28	0.041	0.68	0.060	1.33	1.98	0.07	0.943	0.436	0.253	2/26/2013 19:15	2/27/2013 11:45	16.5
25	3/8/2013 9:00	3/8/2013 18:30	9.5	0.009	0.16	0.057	0.41	1.13	0.03	0.884	0.434	0.289	3/8/2013 9:00	3/8/2013 13:15	4.25
26	3/12/2013 3:15	3/12/2013 19:45	16.5	0.044	0.95	0.046	1.79	2.47	0.07	1.127	0.415	0.253	3/12/2013 3:30	3/12/2013 16:00	12.5
27	3/16/2013 12:00	3/16/2013 22:45	10.75	0.007	0.13	0.056	0.46	1.23	0.03	0.894	0.407	0.376	3/16/2013 12:00	3/16/2013 18:00	6
28	3/18/2013 18:15	3/20/2013 3:30	33.25	0.050	0.78	0.064	0.95	1.65	0.05	0.907	0.412	0.233	3/18/2013 18:30	3/19/2013 11:30	17
29	3/25/2013 6:30	3/26/2013 7:45	25.25	0.033	0.59	0.056	0.85	1.55	0.04	0.875	0.407	0.243	3/25/2013 6:30	3/25/2013 16:15	9.75
30	3/31/2013 15:30	4/1/2013 0:00	8.5	0.009	0.20	0.044	0.69	1.46	0.04	0.926	0.410	0.342	3/31/2013 15:30	3/31/2013 21:30	6
31	4/10/2013 20:30	4/11/2013 3:00	6.5	0.011	0.37	0.030	1.39	2.09	0.16	0.869	0.386	0.191	4/10/2013 20:45	4/11/2013 0:00	3.25
32	4/12/2013 7:15	4/12/2013 19:45	12.5	0.032	0.92	0.035	1.48	2.15	0.10	1.120	0.375	0.301	4/12/2013 7:15	4/12/2013 14:00	6.75
33	4/12/2013 21:45	4/13/2013 15:00	17.25	0.019	0.56	0.034	1.57	2.27	0.22	0.802	0.381	0.228	4/12/2013 21:45	4/12/2013 23:30	1.75
34	4/19/2013 21:30	4/20/2013 7:15	9.75	0.021	0.46	0.045	0.93	1.55	0.04	0.886	0.409	0.114	4/19/2013 21:30	4/20/2013 3:45	6.25

**P083-03-S0050 Upper Delaware Low Level Interceptor (2013)**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 270

Tributary Service Population: 4,775

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	4/29/2013 3:15	4/30/2013 6:30	27.25	0.021	0.36	0.060	0.48	1.17	0.02	0.738	0.384	0.217	4/29/2013 3:30	4/30/2013 1:45	22.25
36	5/7/2013 22:15	5/8/2013 22:30	24.25	0.012	0.21	0.057	0.50	1.20	0.04	0.735	0.409	0.240	5/7/2013 22:15	5/8/2013 18:15	20
37	5/9/2013 4:00	5/9/2013 10:15	6.25	0.015	0.52	0.029	1.48	2.00	0.09	1.038	0.410	0.216	5/9/2013 4:15	5/9/2013 6:30	2.25
38	5/10/2013 22:45	5/11/2013 19:00	20.25	0.021	0.49	0.044	0.88	1.40	0.18	0.849	0.415	0.251	5/10/2013 23:00	5/11/2013 19:00	20
39	5/18/2013 16:15	5/19/2013 12:00	19.75	0.018	0.38	0.049	0.77	1.48	0.07	0.830	0.427	0.240	5/18/2013 16:15	5/19/2013 11:45	19.5
40	5/23/2013 15:45	5/23/2013 21:45	6	0.006	0.14	0.040	0.85	1.54	0.08	0.914	0.425	0.331	5/23/2013 15:45	5/23/2013 16:30	0.75
41	5/23/2013 23:30	5/24/2013 5:15	5.75	0.006	0.17	0.034	0.81	1.40	0.10	0.653	0.424	0.059	5/23/2013 23:45	5/24/2013 3:15	3.5
42	5/28/2013 9:30	5/28/2013 23:00	13.5	0.013	0.26	0.052	0.72	1.40	0.04	0.890	0.413	0.307	5/28/2013 9:30	5/28/2013 22:00	12.5
43	6/3/2013 0:45	6/4/2013 2:45	26	0.049	1.24	0.040	2.97	3.72	0.24	0.964	0.412	0.222	6/3/2013 0:45	6/3/2013 17:30	16.75
44	6/6/2013 19:30	6/9/2013 3:30	56	0.150	3.73	0.040	5.12	5.81	0.39	1.151	0.437	0.246	6/6/2013 19:30	6/8/2013 2:15	30.75
45	6/10/2013 7:15	6/11/2013 14:30	31.25	0.096	2.28	0.042	4.62	5.37	0.35	1.270	0.482	0.252	6/10/2013 7:15	6/11/2013 0:45	17.5
46	6/13/2013 9:15	6/13/2013 23:30	14.25	0.012	0.35	0.035	1.27	2.05	0.15	0.939	0.486	0.303	6/13/2013 9:30	6/13/2013 23:30	14
47	6/14/2013 18:30	6/15/2013 0:30	6	0.004	0.14	0.026	0.95	1.78	0.09	0.889	0.481	0.304	6/14/2013 18:30	6/14/2013 19:00	0.5
48	6/18/2013 12:45	6/18/2013 23:45	11	0.015	0.31	0.046	0.81	1.52	0.04	0.996	0.463	0.304	6/18/2013 12:45	6/18/2013 20:30	7.75
49	6/25/2013 16:00	6/25/2013 19:45	3.75	0.007	0.24	0.031	1.70	2.41	0.15	1.086	0.437	0.322	6/25/2013 16:15	6/25/2013 16:45	0.5
50	6/26/2013 20:45	6/27/2013 2:00	5.25	0.005	0.23	0.022	1.14	1.93	0.13	0.819	0.437	0.215	6/26/2013 20:45	6/26/2013 21:30	0.75
51	6/27/2013 18:30	6/28/2013 2:30	8	0.015	0.43	0.035	1.68	2.47	0.12	0.999	0.437	0.242	6/27/2013 18:30	6/27/2013 20:45	2.25
52	6/30/2013 13:00	6/30/2013 18:15	5.25	0.004	0.14	0.032	0.61	1.45	0.03	0.962	0.437	0.384	6/30/2013 13:15	6/30/2013 15:45	2.5
53	7/1/2013 8:30	7/1/2013 20:45	12.25	0.018	0.31	0.056	1.57	2.29	0.06	0.986	0.437	0.302	7/1/2013 8:45	7/1/2013 15:15	6.5
54	7/12/2013 15:45	7/13/2013 5:15	13.5	0.023	0.84	0.028	1.84	2.59	0.18	0.938	0.429	0.211	7/12/2013 15:45	7/12/2013 22:30	6.75
55	7/13/2013 15:30	7/14/2013 3:00	11.5	0.025	0.59	0.042	4.11	4.91	0.28	1.065	0.420	0.274	7/13/2013 15:30	7/13/2013 19:30	4
56	7/23/2013 1:00	7/24/2013 0:45	23.75	0.037	1.71	0.022	7.12	7.55	0.64	0.933	0.425	0.238	7/23/2013 1:15	7/23/2013 16:15	15
57	7/28/2013 16:00	7/29/2013 6:00	14	0.049	1.08	0.046	2.96	3.77	0.16	1.252	0.424	0.218	7/28/2013 16:15	7/29/2013 2:30	10.25
58	8/1/2013 6:30	8/2/2013 7:45	25.25	0.051	1.12	0.046	3.5	4.2	0.19	1.0	0.4	0.24	8/1/2013 6:30	8/1/2013 17:00	10.5
59	8/6/2013 16:00	8/6/2013 21:15	5.25	0.004	0.12	0.034	0.54	1.24	0.12	0.878	0.413	0.332	8/6/2013 16:15	8/6/2013 16:30	0.25
60	8/8/2013 0:15	8/8/2013 9:30	9.25	0.014	0.33	0.043	1.62	2.06	0.12	0.822	0.418	0.144	8/8/2013 0:30	8/8/2013 3:30	3
61	8/9/2013 15:15	8/9/2013 22:15	7	0.006	0.13	0.044	0.83	1.58	0.05	0.885	0.423	0.324	8/9/2013 15:30	8/9/2013 18:00	2.5
62	8/13/2013 5:00	8/14/2013 2:30	21.5	0.046	1.37	0.034	5.41	6.12	0.50	1.065	0.430	0.262	8/13/2013 5:00	8/13/2013 10:00	5
63	8/22/2013 6:15	8/23/2013 5:15	23	0.014	0.25	0.058	0.98	1.70	0.08	0.768	0.419	0.242	8/22/2013 6:30	8/22/2013 17:15	10.75
64	8/28/2013 9:45	8/29/2013 1:45	16	0.040	0.71	0.057	5.09	5.80	0.16	1.141	0.426	0.277	8/28/2013 9:45	8/28/2013 19:15	9.5
65	9/2/2013 10:15	9/3/2013 3:00	16.75	0.026	0.26	0.099	1.28	1.98	0.09	0.938	0.415	0.258	9/2/2013 10:15	9/2/2013 13:45	3.5
66	9/12/2013 19:00	9/13/2013 0:30	5.5	0.004	0.08	0.047	0.50	1.30	0.07	0.845	0.434	0.299	9/12/2013 19:15	9/12/2013 19:30	0.25
67	9/13/2013 1:45	9/13/2013 20:45	19	0.017	0.25	0.068	2.56	3.00	0.10	0.831	0.432	0.241	9/13/2013 2:00	9/13/2013 2:45	0.75
68	9/21/2013 20:30	9/23/2013 1:45	29.25	0.055	1.15	0.048	3.4	3.9	0.22	1.0	0.4	0.26	9/21/2013 20:45	9/22/2013 3:15	6.5
Average:			16.0	0.029	0.59	0.051	1.76	2.45	0.11	0.962	0.423	0.257			8.5



**P083-03-S0050 Upper Delaware Low Level Interceptor (2013)**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 270

Tributary Service Population: 4,775

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
		Maximum Value:	56.0	0.150	3.73	0.121	7.12	7.55	0.64	1.346	0.492	0.397			30.8
		Minimum Value:	3.8	0.004	0.08	0.022	0.41	1.13	0.02	0.653	0.372	0.059			0.25
		Standard Deviation:	10.0	0.029	0.63	0.018	1.44	1.41	0.11	0.147	0.027	0.066			6.8
		Weighted Mean R-Value*:				0.048									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**UDLL-0270 Upper Delaware Low Level Interceptor**

Pipe Size (In.): 72 x 62

Tributary Drainage Area (acres): 14,644

Tributary Service Population: 118,393

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/7/2012 11:00	10/8/2012 0:45	13.75	0.003	0.18	0.019	5.65	25.51	0.02	21.2	11.5	7.34	10/7/2012 11:00	10/7/2012 21:00	10
2	10/9/2012 4:45	10/9/2012 12:15	7.5	0.002	0.10	0.016	5.95	22.73	0.03	17.8	11.9	3.81	10/9/2012 5:00	10/9/2012 9:30	4.5
3	10/15/2012 14:15	10/16/2012 1:15	11	0.004	0.36	0.012	12.21	29.63	0.09	21.3	11.3	6.21	10/15/2012 15:00	10/15/2012 21:15	6.25
4	10/19/2012 9:30	10/19/2012 21:45	12.25	0.011	0.96	0.011	32.14	51.13	0.23	26.6	11.7	6.63	10/19/2012 9:30	10/19/2012 14:30	5
5	10/28/2012 14:45	10/29/2012 1:00	10.25	0.004	0.13	0.026	6.81	24.43	0.03	20.8	10.8	6.71	10/28/2012 15:30	10/29/2012 0:15	8.75
6	10/29/2012 6:00	10/30/2012 17:30	35.5	0.040	2.07	0.019	27.75	45.57	0.10	27.3	11.6	5.05	10/29/2012 6:15	10/30/2012 9:30	27.25
7	11/7/2012 11:30	11/8/2012 18:45	31.25	0.013	0.54	0.025	10.61	29.75	0.03	21.8	12.4	5.24	11/7/2012 11:45	11/8/2012 1:15	13.5
8	11/13/2012 3:00	11/13/2012 14:30	11.5	0.003	0.22	0.015	8.21	25.84	0.04	18.3	11.6	3.90	11/13/2012 3:00	11/13/2012 12:30	9.5
9	11/27/2012 6:30	11/28/2012 2:15	19.75	0.013	0.63	0.020	14.20	32.71	0.02	23.5	11.7	5.75	11/27/2012 6:30	11/27/2012 16:00	9.5
10	12/7/2012 22:15	12/8/2012 12:15	14	0.005	0.29	0.017	11.40	27.28	0.05	18.1	11.4	3.41	12/7/2012 22:15	12/8/2012 1:45	3.5
11	12/9/2012 9:30	12/10/2012 11:15	25.75	0.008	0.34	0.024	6.57	27.12	0.04	20.5	12.1	5.41	12/9/2012 9:30	12/10/2012 2:30	17
12	12/18/2012 1:00	12/18/2012 12:30	11.5	0.004	0.33	0.012	10.93	24.82	0.13	18.9	12.1	3.34	12/18/2012 1:15	12/18/2012 2:30	1.25
13	12/20/2012 21:45	12/21/2012 22:45	25	0.030	1.75	0.017	32.06	46.88	0.13	30.6	14.0	5.20	12/20/2012 21:45	12/21/2012 8:00	10.25
14	12/26/2012 13:45	12/27/2012 23:15	33.5	0.039	1.26	0.031	34.18	54.00	0.11	30.5	14.2	5.30	12/26/2012 14:00	12/27/2012 9:45	19.75
15	12/29/2012 11:15	12/29/2012 23:00	11.75	0.004	0.22	0.018	9.02	31.98	0.02	25.9	15.0	7.70	12/29/2012 11:15	12/29/2012 16:30	5.25
16	1/11/2013 15:30	1/12/2013 8:45	17.25	0.007	0.49	0.015	15.96	35.90	0.06	21.2	12.9	4.21	1/11/2013 16:15	1/11/2013 21:00	4.75
17	1/14/2013 21:15	1/15/2013 9:45	12.5	0.006	0.32	0.019	11.08	28.81	0.03	22.3	14.2	3.46	1/14/2013 21:30	1/15/2013 2:45	5.25
18	1/15/2013 19:30	1/17/2013 14:45	43.25	0.030	1.02	0.030	31.92	46.88	0.06	26.1	14.7	4.74	1/15/2013 21:30	1/16/2013 12:00	14.5
19	1/28/2013 13:00	1/28/2013 21:15	8.25	0.003	0.18	0.015	8.76	28.89	0.03	23.7	14.1	6.38	1/28/2013 13:15	1/28/2013 17:00	3.75
20	1/30/2013 23:00	1/31/2013 18:00	19	0.019	1.08	0.018	28.51	43.50	0.24	29.1	15.0	4.48	1/30/2013 23:00	1/31/2013 6:30	7.5
21	2/8/2013 5:45	2/8/2013 22:00	16.25	0.005	0.33	0.016	7.87	28.35	0.02	23.0	14.2	5.76	2/8/2013 6:15	2/8/2013 21:45	15.5
22	2/11/2013 5:30	2/12/2013 8:30	27	0.012	0.31	0.039	14.91	35.66	0.04	23.9	15.0	4.54	2/11/2013 5:45	2/11/2013 9:00	3.25
23	2/13/2013 18:45	2/14/2013 7:45	13	0.003	0.18	0.014	4.98	26.93	0.02	21.2	15.5	3.88	2/13/2013 18:45	2/14/2013 0:30	5.75
24	2/19/2013 12:30	2/19/2013 23:45	11.25	0.005	0.17	0.028	7.68	28.14	0.01	24.7	14.4	6.41	2/19/2013 12:30	2/19/2013 18:00	5.5
25	2/23/2013 3:15	2/23/2013 22:15	19	0.002	0.15	0.017	4.23	26.61	0.01	20.8	14.2	5.38	2/23/2013 3:30	2/23/2013 19:00	15.5
26	2/26/2013 20:00	2/28/2013 10:00	38	0.016	0.65	0.025	13.36	31.61	0.07	23.2	14.6	4.48	2/26/2013 20:00	2/28/2013 8:15	36.25
27	3/6/2013 9:00	3/6/2013 22:45	13.75	0.002	0.11	0.017	3.91	24.24	0.01	21.7	14.0	6.42	3/6/2013 9:00	3/6/2013 22:45	13.75
28	3/7/2013 16:00	3/8/2013 21:15	29.25	0.004	0.42	0.010	6.33	27.55	0.02	21.1	14.6	5.21	3/7/2013 16:30	3/8/2013 13:30	21
29	3/12/2013 3:45	3/13/2013 10:45	31	0.020	0.97	0.020	21.44	42.24	0.08	25.5	15.0	4.38	3/12/2013 3:45	3/12/2013 16:00	12.25
30	3/16/2013 11:15	3/16/2013 20:00	8.75	0.002	0.14	0.015	7.45	29.77	0.02	25.2	14.9	8.13	3/16/2013 11:15	3/16/2013 18:00	6.75
31	3/18/2013 17:45	3/19/2013 18:45	25	0.020	0.84	0.024	15.22	36.73	0.05	28.5	15.7	4.96	3/18/2013 18:15	3/19/2013 18:30	24.25
32	3/25/2013 6:45	3/26/2013 10:45	28	0.015	0.60	0.024	14.53	35.93	0.04	25.3	15.5	4.81	3/25/2013 6:45	3/25/2013 16:30	9.75
33	3/31/2013 15:30	3/31/2013 23:15	7.75	0.002	0.21	0.009	6.45	28.98	0.04	24.6	15.3	7.11	3/31/2013 15:30	3/31/2013 22:45	7.25
34	4/10/2013 20:30	4/11/2013 14:45	18.25	0.005	0.42	0.013	13.75	34.00	0.15	21.5	14.2	4.45	4/10/2013 20:45	4/11/2013 0:30	3.75

**UDLL-0270 Upper Delaware Low Level Interceptor**

Pipe Size (In.): 72 x 62

Tributary Drainage Area (acres): 14,644

Tributary Service Population: 118,393

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	4/12/2013 7:45	4/13/2013 16:15	32.5	0.024	1.13	0.022	17.52	38.35	0.10	26.9	14.3	5.38	4/12/2013 8:00	4/12/2013 23:30	15.5
36	4/19/2013 21:30	4/20/2013 11:15	13.75	0.007	0.45	0.016	10.51	29.71	0.06	22.8	14.6	3.30	4/19/2013 21:30	4/20/2013 3:00	5.5
37	4/29/2013 4:15	4/30/2013 8:15	28	0.006	0.35	0.018	5.46	25.84	0.02	20.5	14.0	4.35	4/29/2013 4:15	4/30/2013 1:45	21.5
38	5/8/2013 6:00	5/8/2013 21:45	15.75	0.004	0.38	0.012	8.04	28.18	0.07	21.9	13.6	5.66	5/8/2013 6:00	5/8/2013 18:45	12.75
39	5/9/2013 4:00	5/9/2013 18:45	14.75	0.008	0.45	0.017	17.28	31.77	0.08	23.2	13.6	4.71	5/9/2013 4:15	5/9/2013 6:45	2.5
40	5/10/2013 22:45	5/12/2013 12:30	37.75	0.013	0.85	0.015	13.96	29.84	0.10	21.3	13.5	4.55	5/10/2013 23:00	5/12/2013 5:30	30.5
41	5/18/2013 21:00	5/19/2013 11:00	14	0.004	0.26	0.014	7.25	23.30	0.03	19.1	13.3	3.28	5/18/2013 21:00	5/19/2013 9:45	12.75
42	5/23/2013 15:45	5/24/2013 5:45	14	0.005	0.47	0.011	8.30	25.62	0.15	21.0	12.8	4.69	5/23/2013 15:45	5/24/2013 3:15	11.5
43	5/24/2013 10:15	5/24/2013 22:15	12	0.002	0.13	0.018	5.31	24.06	0.02	21.2	12.6	6.64	5/24/2013 10:30	5/24/2013 22:00	11.5
44	5/28/2013 10:30	5/28/2013 19:30	9	0.003	0.25	0.013	9.16	28.94	0.03	23.1	13.2	6.53	5/28/2013 10:30	5/28/2013 18:45	8.25
45	6/3/2013 1:45	6/3/2013 21:30	19.75	0.013	1.04	0.013	28.05	46.46	0.40	24.8	13.6	4.75	6/3/2013 2:00	6/3/2013 17:15	15.25
46	6/7/2013 0:30	6/9/2013 13:45	61.25	0.067	3.55	0.019	25.88	46.69	0.27	30.5	15.3	4.76	6/7/2013 0:30	6/8/2013 2:15	25.75
47	6/10/2013 7:15	6/12/2013 13:45	54.5	0.054	2.02	0.027	25.46	51.38	0.23	33.7	19.3	4.98	6/10/2013 7:15	6/11/2013 1:00	17.75
48	6/13/2013 8:45	6/13/2013 15:00	6.25	0.004	0.37	0.010	12.87	39.58	0.21	32.1	20.0	6.39	6/13/2013 9:15	6/13/2013 11:15	2
49	6/13/2013 19:30	6/14/2013 6:00	10.5	0.002	0.13	0.018	4.81	30.68	0.02	26.3	20.1	4.09	6/13/2013 19:30	6/14/2013 5:15	9.75
50	6/18/2013 11:15	6/18/2013 23:00	11.75	0.005	0.34	0.016	9.11	33.86	0.02	29.2	18.2	6.53	6/18/2013 11:15	6/18/2013 20:15	9
51	6/25/2013 15:30	6/25/2013 21:00	5.5	0.001	0.11	0.011	4.80	26.64	0.06	24.2	15.9	6.22	6/25/2013 16:00	6/25/2013 16:45	0.75
52	6/26/2013 19:30	6/27/2013 2:30	7	0.002	0.10	0.016	8.42	31.58	0.06	24.1	16.2	5.77	6/26/2013 20:15	6/26/2013 21:30	1.25
53	6/27/2013 18:30	6/28/2013 9:30	15	0.007	0.85	0.008	14.09	37.42	0.14	24.8	16.6	3.99	6/27/2013 18:30	6/27/2013 22:00	3.5
54	6/30/2013 12:30	6/30/2013 22:15	9.75	0.002	0.29	0.006	5.42	29.98	0.07	25.9	16.5	7.63	6/30/2013 12:30	6/30/2013 16:15	3.75
55	7/1/2013 8:45	7/1/2013 20:00	11.25	0.004	0.35	0.012	9.18	32.30	0.10	26.5	16.7	6.27	7/1/2013 8:45	7/1/2013 15:15	6.5
56	7/2/2013 18:00	7/2/2013 21:30	3.5	0.000	0.07	0.002	2.34	25.34	0.03	23.7	16.8	6.61	7/2/2013 18:00	7/2/2013 20:30	2.5
57	7/12/2013 14:30	7/13/2013 2:45	12.25	0.011	0.85	0.012	22.38	43.34	0.14	29.1	14.9	5.99	7/12/2013 15:45	7/12/2013 23:00	7.25
58	7/13/2013 15:15	7/14/2013 12:30	21.25	0.010	0.71	0.014	20.24	42.37	0.27	24.4	15.3	4.74	7/13/2013 15:45	7/13/2013 20:00	4.25
59	7/22/2013 16:00	7/23/2013 0:00	8	0.001	0.56	0.003	5.07	26.51	0.16	22.7	14.7	6.38	7/22/2013 16:15	7/22/2013 23:45	7.5
60	7/23/2013 1:15	7/23/2013 23:45	22.5	0.018	1.23	0.015	30.97	45.94	0.39	27.6	14.9	4.85	7/23/2013 1:15	7/23/2013 18:15	17
61	7/28/2013 15:15	7/29/2013 8:30	17.25	0.009	0.60	0.015	10.89	31.81	0.06	23.9	14.3	4.62	7/28/2013 15:30	7/29/2013 2:30	11
62	8/1/2013 7:00	8/2/2013 2:15	19.25	0.018	0.86	0.021	24.60	45.29	0.08	28.8	14.0	5.87	8/1/2013 7:15	8/1/2013 15:15	8
63	8/8/2013 0:30	8/8/2013 7:45	7.25	0.006	0.39	0.016	21.58	36.97	0.15	24.1	14.2	1.81	8/8/2013 0:30	8/8/2013 3:30	3
64	8/9/2013 14:45	8/9/2013 22:45	8	0.001	0.11	0.011	5.84	26.94	0.03	22.1	14.1	6.53	8/9/2013 14:45	8/9/2013 18:00	3.25
65	8/13/2013 5:30	8/14/2013 7:15	25.75	0.027	2.06	0.013	32.04	53.12	0.66	29.0	14.3	4.60	8/13/2013 5:45	8/13/2013 10:00	4.25
66	8/22/2013 6:30	8/23/2013 5:00	22.5	0.005	0.58	0.008	9.76	30.44	0.14	21.6	14.5	5.19	8/22/2013 6:30	8/22/2013 17:30	11
67	8/28/2013 10:45	8/29/2013 0:30	13.75	0.006	0.44	0.014	15.28	35.43	0.06	24.7	13.9	6.44	8/28/2013 11:00	8/28/2013 16:00	5
68	9/2/2013 10:45	9/2/2013 18:45	8	0.005	0.42	0.012	15.84	38.75	0.10	27.9	13.7	8.04	9/2/2013 11:00	9/2/2013 13:45	2.75
69	9/12/2013 19:00	9/13/2013 1:15	6.25	0.001	0.11	0.009	5.14	24.84	0.09	20.9	13.1	6.30	9/12/2013 19:15	9/12/2013 19:45	0.5

**UDLL-0270 Upper Delaware Low Level Interceptor**

Pipe Size (In.): 72 x 62

Tributary Drainage Area (acres): 14,644

Tributary Service Population: 118,393

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
70	9/13/2013 1:30	9/13/2013 10:30	9	0.004	0.26	0.016	14.41	27.99	0.10	19.9	13.0	2.48	9/13/2013 2:00	9/13/2013 3:15	1.25
71	9/21/2013 21:00	9/22/2013 13:45	16.75	0.015	1.17	0.013	27.94	42.51	0.21	24.8	12.2	4.11	9/21/2013 21:00	9/22/2013 2:15	5.25
Average:			18.1	0.010	0.60	0.016	13.82	33.66	0.10	24.1	14.27	5.28			9.7
Maximum Value:			61.3	0.067	3.55	0.039	34.18	54.00	0.66	33.7	20.08	8.13			36.3
Minimum Value:			3.5	0.000	0.07	0.002	2.34	22.73	0.01	17.8	10.81	1.81			0.50
Standard Deviation:			11.3	0.012	0.59	0.006	8.72	8.24	0.11	3.5	1.89	1.30			7.5
Weighted Mean R-Value*:						0.017									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

S051-05-S0020 Upper Schuylkill East Side Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 90

Tributary Service Population: 2,264

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2/16/2001 13:15	2/17/2001 7:15	18	0.040	0.52	0.077	2.39	3.87	0.03	1.95	1.33	0.140	2/16/2001 13:15	2/17/2001 0:15	11
2	2/23/2001 13:30	2/23/2001 16:45	3.25	0.003	0.21	0.015	0.64	2.00	0.06	1.67	1.32	0.148	2/23/2001 13:30	2/23/2001 14:30	1
3	2/25/2001 6:30	2/26/2001 3:15	20.75	0.045	0.28	0.159	2.81	4.40	0.04	1.98	1.34	0.166	2/25/2001 6:45	2/25/2001 20:30	13.75
4	3/4/2001 10:00	3/4/2001 16:30	6.5	0.008	0.12	0.066	0.95	2.45	0.02	1.72	1.22	0.240	3/4/2001 10:45	3/4/2001 14:30	3.75
5	3/7/2001 8:15	3/7/2001 21:15	13	0.014	0.27	0.050	1.35	2.76	0.04	1.61	1.21	0.167	3/7/2001 8:30	3/7/2001 15:15	6.75
6	3/9/2001 2:45	3/9/2001 12:45	10	0.009	0.11	0.086	1.53	2.91	0.02	1.63	1.25	0.182	3/9/2001 4:45	3/9/2001 8:15	3.5
7	3/12/2001 22:15	3/13/2001 13:45	15.5	0.077	0.90	0.085	3.86	5.21	0.07	2.51	1.28	0.143	3/12/2001 22:45	3/13/2001 6:45	8
8	3/15/2001 17:45	3/16/2001 5:15	11.5	0.023	0.30	0.076	2.88	4.41	0.07	1.88	1.32	0.125	3/15/2001 18:45	3/15/2001 21:00	2.25
9	3/16/2001 15:45	3/17/2001 7:00	15.25	0.041	0.39	0.104	2.20	3.66	0.05	2.04	1.31	0.142	3/16/2001 16:30	3/17/2001 2:00	9.5
10	3/21/2001 8:30	3/22/2001 12:45	28.25	0.078	1.23	0.063	4.05	5.55	0.11	2.13	1.37	0.154	3/21/2001 10:15	3/22/2001 8:45	22.5
11	3/29/2001 16:15	3/30/2001 20:45	28.5	0.105	2.32	0.045	6.24	7.58	0.18	2.24	1.26	0.172	3/29/2001 17:00	3/30/2001 13:30	20.5
12	4/6/2001 9:15	4/6/2001 22:45	13.5	0.017	0.21	0.082	1.52	2.96	0.05	1.77	1.31	0.179	4/6/2001 10:15	4/6/2001 16:15	6
13	4/9/2001 19:30	4/9/2001 23:45	4.25	0.015	0.36	0.042	4.44	6.01	0.23	2.29	1.39	0.162	4/9/2001 20:45	4/9/2001 21:45	1
14	4/11/2001 4:15	4/12/2001 13:15	33	0.044	0.36	0.123	1.27	2.83	0.02	1.89	1.43	0.164	4/11/2001 4:45	4/12/2001 5:15	24.5
15	4/15/2001 20:00	4/16/2001 16:45	20.75	0.042	0.45	0.094	1.64	3.31	0.03	2.11	1.52	0.141	4/15/2001 20:30	4/16/2001 12:00	15.5
16	4/17/2001 23:00	4/18/2001 22:45	23.75	0.027	0.17	0.161	1.06	2.71	0.02	1.88	1.47	0.155	4/18/2001 0:00	4/18/2001 7:45	7.75
17	4/21/2001 6:15	4/21/2001 16:30	10.25	0.010	0.11	0.091	0.85	2.43	0.04	1.82	1.39	0.223	4/21/2001 8:00	4/21/2001 9:15	1.25
Average:			16.2	0.035	0.49	0.083	2.33	3.83	0.06	1.95	1.34	0.165			9.3
Maximum Value:			33.0	0.105	2.32	0.161	6.24	7.58	0.23	2.51	1.52	0.240			24.5
Minimum Value:			3.3	0.003	0.11	0.015	0.64	2.00	0.02	1.61	1.21	0.125			1.00
Standard Deviation:			8.7	0.029	0.55	0.038	1.54	1.52	0.06	0.25	0.08	0.029			7.6
Weighted Mean R-Value*:						0.072									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.



**S051-08-S0175 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 68

Tributary Service Population: 2,092

<-----EVENT AVERAGE----->																
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)	

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

S059-01-S0010 Upper Schuylkill East Side Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 134

Tributary Service Population: 1,565

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/18/2012 0:15	12/18/2012 6:45	6.5	0.004	0.16	0.028	0.19	0.35	0.07	0.21	0.11	0.042	12/18/2012 0:30	12/18/2012 2:00	1.5
2	12/20/2012 21:15	12/21/2012 10:00	12.75	0.026	2.28	0.011	0.51	0.71	0.21	0.38	0.12	0.089	12/20/2012 21:30	12/21/2012 7:15	9.75
3	12/26/2012 13:30	12/27/2012 6:30	17	0.014	1.15	0.012	0.26	0.53	0.10	0.30	0.13	0.094	12/26/2012 13:30	12/27/2012 5:45	16.25
4	1/11/2013 16:30	1/11/2013 21:30	5	0.002	0.35	0.005	0.08	0.33	0.04	0.27	0.11	0.133	1/11/2013 16:30	1/11/2013 21:00	4.5
5	1/14/2013 20:45	1/15/2013 6:45	10	0.005	0.38	0.014	0.12	0.26	0.04	0.22	0.10	0.071	1/14/2013 20:45	1/15/2013 2:30	5.75
6	1/15/2013 22:00	1/16/2013 7:00	9	0.013	0.91	0.014	0.26	0.41	0.06	0.29	0.11	0.064	1/15/2013 22:15	1/16/2013 5:15	7
7	1/28/2013 12:30	1/28/2013 21:30	9	0.001	0.17	0.004	0.07	0.30	0.02	0.25	0.12	0.126	1/28/2013 12:45	1/28/2013 17:00	4.25
8	1/30/2013 22:30	1/31/2013 7:30	9	0.013	1.31	0.010	0.53	0.67	0.27	0.32	0.13	0.066	1/30/2013 22:30	1/31/2013 5:45	7.25
9	2/8/2013 4:30	2/8/2013 15:00	10.5	0.002	0.26	0.007	0.08	0.40	0.02	0.29	0.16	0.116	2/8/2013 5:45	2/8/2013 13:45	8
10	2/11/2013 3:30	2/11/2013 11:00	7.5	0.003	0.37	0.009	0.10	0.38	0.04	0.29	0.15	0.099	2/11/2013 4:15	2/11/2013 8:45	4.5
11	2/26/2013 19:15	2/27/2013 6:45	11.5	0.007	0.61	0.011	0.14	0.41	0.06	0.28	0.15	0.081	2/26/2013 19:15	2/27/2013 6:30	11.25
12	3/6/2013 8:30	3/6/2013 22:45	14.25	0.001	0.12	0.005	0.07	0.35	0.01	0.28	0.14	0.128	3/6/2013 8:45	3/6/2013 22:15	13.5
13	3/12/2013 3:00	3/12/2013 15:15	12.25	0.016	1.02	0.015	0.28	0.55	0.06	0.36	0.14	0.103	3/12/2013 3:00	3/12/2013 14:30	11.5
14	3/16/2013 9:15	3/16/2013 18:45	9.5	0.002	0.25	0.006	0.07	0.37	0.04	0.32	0.16	0.145	3/16/2013 9:30	3/16/2013 17:45	8.25
15	3/18/2013 17:30	3/19/2013 9:15	15.75	0.008	0.81	0.010	0.11	0.37	0.06	0.29	0.14	0.098	3/18/2013 17:45	3/19/2013 9:00	15.25
16	3/25/2013 5:45	3/25/2013 16:45	11	0.003	0.55	0.005	0.11	0.38	0.05	0.29	0.15	0.127	3/25/2013 5:45	3/25/2013 15:45	10
17	4/10/2013 20:00	4/11/2013 1:00	5	0.003	0.45	0.006	0.15	0.45	0.18	0.34	0.16	0.122	4/10/2013 20:15	4/10/2013 23:45	3.5
18	4/12/2013 7:30	4/12/2013 16:45	9.25	0.013	0.55	0.024	0.29	0.59	0.11	0.41	0.16	0.127	4/12/2013 7:30	4/12/2013 13:30	6
19	4/12/2013 21:00	4/13/2013 1:15	4.25	0.002	0.35	0.006	0.10	0.39	0.09	0.32	0.16	0.114	4/12/2013 21:30	4/12/2013 23:15	1.75
20	4/19/2013 21:15	4/20/2013 4:00	6.75	0.005	0.60	0.009	0.12	0.40	0.06	0.32	0.17	0.080	4/19/2013 21:30	4/20/2013 2:45	5.25
21	4/29/2013 5:00	4/29/2013 15:45	10.75	0.006	0.40	0.014	0.11	0.39	0.03	0.33	0.17	0.121	4/29/2013 5:00	4/29/2013 15:15	10.25
22	5/7/2013 21:45	5/8/2013 0:45	3	0.001	0.12	0.011	0.05	0.34	0.05	0.32	0.16	0.115	5/7/2013 22:00	5/7/2013 23:15	1.25
23	5/8/2013 5:00	5/8/2013 16:30	11.5	0.003	0.49	0.007	0.09	0.38	0.11	0.31	0.16	0.121	5/8/2013 6:45	5/8/2013 13:15	6.5
24	5/9/2013 3:00	5/9/2013 8:45	5.75	0.005	0.41	0.012	0.18	0.37	0.06	0.31	0.16	0.077	5/9/2013 3:00	5/9/2013 6:30	3.5
25	5/10/2013 22:15	5/11/2013 3:45	5.5	0.005	1.03	0.005	0.16	0.42	0.15	0.32	0.17	0.074	5/10/2013 22:30	5/11/2013 2:00	3.5
26	5/11/2013 23:00	5/12/2013 3:45	4.75	0.002	0.13	0.016	0.10	0.32	0.05	0.28	0.17	0.063	5/11/2013 23:00	5/12/2013 3:15	4.25
27	5/18/2013 16:00	5/19/2013 1:45	9.75	0.001	0.21	0.003	0.04	0.32	0.04	0.28	0.15	0.119	5/18/2013 16:15	5/19/2013 0:30	8.25
28	5/19/2013 5:45	5/19/2013 9:45	4	0.001	0.12	0.012	0.09	0.32	0.02	0.27	0.15	0.083	5/19/2013 5:45	5/19/2013 9:00	3.25
29	5/23/2013 16:00	5/23/2013 19:30	3.5	0.001	0.19	0.007	0.07	0.34	0.04	0.31	0.15	0.127	5/23/2013 16:15	5/23/2013 19:00	2.75
30	5/23/2013 23:00	5/24/2013 3:15	4.25	0.003	0.49	0.007	0.20	0.45	0.33	0.29	0.16	0.068	5/23/2013 23:15	5/24/2013 1:30	2.25
31	5/24/2013 9:00	5/24/2013 15:00	6	0.002	0.23	0.010	0.07	0.34	0.05	0.32	0.16	0.125	5/24/2013 9:30	5/24/2013 14:45	5.25
32	5/28/2013 9:45	5/28/2013 19:15	9.5	0.003	0.27	0.012	0.08	0.36	0.03	0.32	0.17	0.123	5/28/2013 9:45	5/28/2013 16:15	6.5
33	6/3/2013 6:00	6/3/2013 10:15	4.25	0.003	0.65	0.004	0.28	0.61	0.30	0.36	0.16	0.143	6/3/2013 6:00	6/3/2013 8:00	2
34	6/3/2013 13:15	6/3/2013 18:30	5.25	0.002	0.11	0.017	0.07	0.36	0.04	0.32	0.17	0.119	6/3/2013 13:30	6/3/2013 17:00	3.5



S059-01-S0010 Upper Schuylkill East Side Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 134

Tributary Service Population: 1,565

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/6/2013 19:30	6/8/2013 10:45	39.25	0.038	3.77	0.010	0.41	0.71	0.22	0.37	0.18	0.097	6/6/2013 19:30	6/8/2013 1:30	30
36	6/10/2013 6:30	6/10/2013 9:15	2.75	0.003	0.80	0.003	0.36	0.73	0.47	0.44	0.20	0.153	6/10/2013 6:30	6/10/2013 8:15	1.75
37	6/10/2013 13:15	6/10/2013 19:30	6.25	0.004	0.71	0.006	0.36	0.69	0.19	0.38	0.20	0.122	6/10/2013 13:15	6/10/2013 18:15	5
38	6/10/2013 22:15	6/11/2013 6:15	8	0.005	0.29	0.018	0.13	0.43	0.06	0.31	0.20	0.056	6/10/2013 22:15	6/11/2013 0:45	2.5
39	6/13/2013 9:15	6/13/2013 12:15	3	0.001	0.46	0.003	0.12	0.45	0.31	0.37	0.20	0.130	6/13/2013 9:30	6/13/2013 10:30	1
40	6/18/2013 12:15	6/18/2013 20:15	8	0.003	0.62	0.005	0.12	0.45	0.13	0.37	0.21	0.124	6/18/2013 12:30	6/18/2013 20:00	7.5
41	6/25/2013 22:45	6/26/2013 0:30	1.75	0.001	0.19	0.004	0.09	0.42	0.16	0.31	0.21	0.109	6/25/2013 23:15	6/25/2013 23:45	0.5
42	6/26/2013 19:45	6/26/2013 22:45	3	0.002	0.35	0.006	0.24	0.59	0.26	0.41	0.21	0.138	6/26/2013 20:15	6/26/2013 21:15	1
43	6/27/2013 17:30	6/28/2013 6:00	12.5	0.007	0.70	0.010	0.42	0.77	0.41	0.35	0.22	0.086	6/27/2013 17:45	6/27/2013 21:30	3.75
44	6/30/2013 12:45	6/30/2013 18:30	5.75	0.001	0.22	0.006	0.06	0.41	0.04	0.38	0.22	0.140	6/30/2013 12:45	6/30/2013 15:45	3
45	6/30/2013 23:00	7/1/2013 2:30	3.5	0.001	0.13	0.010	0.09	0.40	0.12	0.33	0.22	0.075	6/30/2013 23:15	6/30/2013 23:30	0.25
46	7/1/2013 7:15	7/1/2013 15:00	7.75	0.002	0.24	0.008	0.08	0.44	0.08	0.37	0.22	0.133	7/1/2013 7:15	7/1/2013 14:15	7
47	7/3/2013 22:30	7/3/2013 23:45	1.25	0.000	0.12	0.001	0.02	0.36	0.09	0.34	0.21	0.117	7/3/2013 22:30	7/3/2013 22:45	0.25
48	7/7/2013 20:00	7/8/2013 2:15	6.25	0.003	0.18	0.018	0.08	0.40	0.12	0.34	0.19	0.102	7/7/2013 20:00	7/7/2013 21:00	1
49	7/12/2013 16:30	7/13/2013 4:00	11.5	0.007	0.84	0.008	0.27	0.58	0.17	0.34	0.19	0.102	7/12/2013 16:30	7/12/2013 23:30	7
50	7/20/2013 22:00	7/21/2013 1:00	3	0.001	0.12	0.011	0.12	0.42	0.12	0.33	0.19	0.102	7/20/2013 22:15	7/20/2013 22:15	0
51	7/23/2013 0:30	7/23/2013 4:45	4.25	0.006	0.78	0.007	0.32	0.53	0.42	0.34	0.20	0.032	7/23/2013 0:45	7/23/2013 3:00	2.25
52	7/28/2013 14:45	7/29/2013 2:30	11.75	0.005	0.23	0.023	0.14	0.38	0.05	0.35	0.19	0.116	7/28/2013 14:45	7/29/2013 2:30	11.75
53	8/1/2013 7:15	8/1/2013 19:15	12	0.008	0.84	0.009	0.14	0.44	0.10	0.36	0.18	0.129	8/1/2013 7:15	8/1/2013 16:45	9.5
54	8/8/2013 0:30	8/8/2013 3:00	2.5	0.002	0.29	0.007	0.12	0.35	0.13	0.30	0.18	0.050	8/8/2013 0:30	8/8/2013 1:45	1.25
55	8/28/2013 9:30	8/29/2013 0:15	14.75	0.013	1.44	0.009	0.38	0.66	0.61	0.36	0.15	0.126	8/28/2013 9:45	8/28/2013 15:45	6
56	9/2/2013 9:30	9/3/2013 0:15	14.75	0.009	1.36	0.007	0.52	0.84	0.57	0.37	0.17	0.137	9/2/2013 10:15	9/2/2013 13:00	2.75
57	9/12/2013 17:30	9/12/2013 22:15	4.75	0.003	0.12	0.024	0.14	0.45	0.06	0.37	0.18	0.138	9/12/2013 18:45	9/12/2013 19:45	1
58	9/13/2013 1:30	9/13/2013 3:30	2	0.003	0.44	0.006	0.35	0.54	0.17	0.32	0.18	0.028	9/13/2013 1:30	9/13/2013 3:00	1.5
59	9/21/2013 20:15	9/22/2013 3:15	7	0.012	1.15	0.010	0.42	0.73	0.21	0.43	0.19	0.091	9/21/2013 20:15	9/22/2013 2:00	5.75
Average:			8.1	0.005	0.57	0.010	0.18	0.46	0.14	0.33	0.17	0.104			5.6
Maximum Value:			39.3	0.038	3.77	0.028	0.53	0.84	0.61	0.44	0.22	0.153			30.0
Minimum Value:			1.3	0.000	0.11	0.001	0.02	0.26	0.01	0.21	0.10	0.028			0.00
Standard Deviation:			5.7	0.006	0.60	0.006	0.13	0.14	0.14	0.05	0.03	0.030			5.0
Weighted Mean R-Value*:						0.009									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

S059-02-S0010 Upper Schuylkill East Side Interceptor

Pipe Size (In.): 10

Tributary Drainage Area (acres): 86

Tributary Service Population: 2,029

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/28/2000 17:30	6/28/2000 23:30	6	0.019	0.33	0.057	0.79	1.14	0.09	0.510	0.235	0.105	6/28/2000 18:15	6/28/2000 21:00	2.75
2	7/3/2000 20:00	7/3/2000 22:30	2.5	0.010	0.40	0.025	0.57	0.91	0.22	0.533	0.219	0.112	7/3/2000 20:30	7/3/2000 22:00	1.5
3	7/10/2000 3:30	7/10/2000 7:45	4.25	0.012	0.23	0.053	0.64	0.86	0.12	0.441	0.219	0.066	7/10/2000 4:00	7/10/2000 6:00	2
4	7/14/2000 10:30	7/14/2000 15:00	4.5	0.012	0.16	0.075	0.61	0.92	0.04	0.452	0.219	0.092	7/14/2000 11:15	7/14/2000 14:15	3
5	7/15/2000 2:00	7/15/2000 10:15	8.25	0.025	0.41	0.061	1.26	1.49	0.18	0.430	0.218	0.047	7/15/2000 2:30	7/15/2000 6:15	3.75
6	7/16/2000 16:00	7/16/2000 21:30	5.5	0.020	0.52	0.039	1.37	1.69	0.18	0.522	0.228	0.095	7/16/2000 16:15	7/16/2000 19:15	3
7	7/19/2000 12:45	7/19/2000 19:45	7	0.031	0.36	0.086	0.84	1.14	0.06	0.550	0.214	0.097	7/19/2000 12:45	7/19/2000 19:45	7
8	7/21/2000 23:45	7/22/2000 3:00	3.25	0.012	0.19	0.064	1.09	1.34	0.09	0.436	0.212	0.028	7/22/2000 0:30	7/22/2000 1:00	0.5
9	7/26/2000 2:15	7/27/2000 5:30	27.25	0.181	2.54	0.071	1.72	2.03	0.25	0.646	0.205	0.072	7/26/2000 3:00	7/27/2000 4:45	25.75
10	7/31/2000 2:15	7/31/2000 6:00	3.75	0.029	0.39	0.074	1.31	1.51	0.13	0.625	0.201	0.016	7/31/2000 2:30	7/31/2000 4:15	1.75
11	8/1/2000 1:30	8/1/2000 6:45	5.25	0.029	0.70	0.042	1.88	2.09	0.27	0.525	0.200	0.029	8/1/2000 2:15	8/1/2000 5:15	3
12	8/1/2000 22:30	8/2/2000 0:45	2.25	0.011	0.12	0.092	1.06	1.35	0.09	0.506	0.205	0.064	8/1/2000 23:15	8/1/2000 23:45	0.5
13	8/3/2000 0:00	8/3/2000 5:45	5.75	0.017	0.23	0.073	1.25	1.49	0.10	0.388	0.212	0.018	8/3/2000 0:30	8/3/2000 2:00	1.5
14	8/3/2000 23:00	8/4/2000 5:45	6.75	0.019	0.40	0.048	1.27	1.52	0.21	0.396	0.214	0.026	8/3/2000 23:30	8/4/2000 2:00	2.5
15	8/7/2000 6:30	8/7/2000 8:30	2	0.006	0.10	0.056	0.62	0.97	0.07	0.497	0.215	0.143	8/7/2000 6:45	8/7/2000 7:45	1
16	8/11/2000 13:00	8/11/2000 22:30	9.5	0.034	0.49	0.070	1.78	2.05	0.23	0.475	0.180	0.098	8/11/2000 14:15	8/11/2000 21:15	7
17	8/14/2000 9:30	8/14/2000 21:30	12	0.081	0.97	0.084	1.70	1.99	0.18	0.669	0.202	0.098	8/14/2000 10:00	8/14/2000 19:30	9.5
18	8/27/2000 21:45	8/28/2000 4:00	6.25	0.059	0.57	0.102	1.93	2.19	0.21	0.719	0.180	0.035	8/27/2000 22:15	8/28/2000 1:00	2.75
19	8/31/2000 9:45	8/31/2000 14:45	5	0.013	0.15	0.087	0.81	1.06	0.09	0.407	0.175	0.091	8/31/2000 10:00	8/31/2000 13:15	3.25
20	9/3/2000 17:15	9/3/2000 19:30	2.25	0.018	0.72	0.025	1.61	1.88	0.26	0.674	0.173	0.102	9/3/2000 17:15	9/3/2000 19:15	2
21	9/13/2000 5:00	9/13/2000 8:00	3	0.021	0.73	0.029	1.82	2.04	0.38	0.625	0.156	0.101	9/13/2000 6:00	9/13/2000 7:45	1.75
22	9/15/2000 0:15	9/15/2000 6:15	6	0.060	1.75	0.035	1.64	1.82	0.32	0.712	0.149	0.022	9/15/2000 0:45	9/15/2000 3:45	3
23	9/19/2000 14:30	9/19/2000 17:15	2.75	0.018	0.60	0.031	1.19	1.45	0.22	0.612	0.181	0.086	9/19/2000 15:00	9/19/2000 16:15	1.25
24	9/19/2000 18:30	9/19/2000 23:30	5	0.027	0.68	0.040	1.19	1.49	0.17	0.577	0.183	0.106	9/19/2000 19:00	9/19/2000 23:15	4.25
25	9/20/2000 0:00	9/20/2000 4:00	4	0.009	0.11	0.084	0.51	0.73	0.03	0.321	0.185	0.018	9/20/2000 0:30	9/20/2000 1:45	1.25
26	9/24/2000 8:30	9/24/2000 11:45	3.25	0.002	0.10	0.015	0.29	0.58	0.07	0.336	0.180	0.132	9/24/2000 9:15	9/24/2000 11:00	1.75
27	9/25/2000 16:15	9/26/2000 15:30	23.25	0.144	1.99	0.072	1.36	1.67	0.12	0.598	0.175	0.081	9/25/2000 16:15	9/26/2000 14:00	21.75
28	10/4/2000 20:30	10/5/2000 3:30	7	0.013	0.80	0.016	0.51	0.79	0.17	0.328	0.172	0.057	10/4/2000 21:00	10/5/2000 1:45	4.75
29	11/9/2000 19:00	11/10/2000 8:45	13.75	0.042	0.70	0.060	0.61	0.79	0.09	0.396	0.157	0.072	11/9/2000 19:45	11/10/2000 7:45	12
30	11/14/2000 7:00	11/14/2000 13:30	6.5	0.019	0.31	0.063	0.49	0.76	0.03	0.443	0.172	0.112	11/14/2000 7:45	11/14/2000 13:00	5.25
31	11/20/2000 17:00	11/20/2000 20:15	3.25	0.009	0.11	0.078	0.51	0.78	0.05	0.417	0.169	0.108	11/20/2000 17:45	11/20/2000 18:30	0.75
32	11/25/2000 23:00	11/26/2000 16:15	17.25	0.086	1.21	0.071	0.79	0.95	0.06	0.508	0.162	0.070	11/25/2000 23:45	11/26/2000 13:15	13.5
33	1/6/2001 11:15	1/6/2001 15:30	4.25	0.003	0.12	0.025	0.10	0.40	0.05	0.331	0.171	0.122	1/6/2001 11:45	1/6/2001 12:30	0.75
34	1/8/2001 13:45	1/9/2001 1:15	11.5	0.013	0.18	0.071	0.16	0.42	0.02	0.322	0.173	0.089	1/8/2001 14:00	1/9/2001 1:00	11

S059-02-S0010 Upper Schuylkill East Side Interceptor

Pipe Size (In.): 10

Tributary Drainage Area (acres): 86

Tributary Service Population: 2,029

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	1/15/2001 0:45	1/15/2001 7:00	6.25	0.013	0.18	0.070	0.26	0.43	0.03	0.311	0.168	0.034	1/15/2001 1:15	1/15/2001 6:15	5
36	1/18/2001 12:15	1/18/2001 19:30	7.25	0.004	0.10	0.043	0.08	0.34	0.01	0.288	0.166	0.090	1/18/2001 12:30	1/18/2001 19:15	6.75
37	1/19/2001 3:00	1/19/2001 19:45	16.75	0.051	1.06	0.048	0.47	0.73	0.04	0.420	0.161	0.090	1/19/2001 3:15	1/19/2001 18:45	15.5
38	1/19/2001 20:45	1/20/2001 6:30	9.75	0.016	0.32	0.050	0.40	0.60	0.04	0.301	0.167	0.044	1/19/2001 20:45	1/20/2001 4:15	7.5
39	1/24/2001 11:15	1/24/2001 18:30	7.25	0.004	0.20	0.018	0.06	0.31	0.04	0.280	0.165	0.087	1/24/2001 12:15	1/24/2001 16:30	4.25
40	1/30/2001 5:30	1/30/2001 17:45	12.25	0.040	0.66	0.061	0.70	0.95	0.06	0.437	0.158	0.100	1/30/2001 5:45	1/30/2001 13:45	8
41	2/5/2001 4:45	2/5/2001 12:45	8	0.042	0.83	0.051	0.59	0.87	0.05	0.599	0.210	0.101	2/5/2001 5:00	2/5/2001 11:00	6
42	2/6/2001 9:45	2/6/2001 22:15	12.5	0.011	0.86	0.013	0.17	0.48	0.08	0.367	0.218	0.099	2/6/2001 11:30	2/6/2001 22:00	10.5
43	2/16/2001 13:45	2/17/2001 8:00	18.25	0.026	0.50	0.053	0.32	0.65	0.03	0.392	0.246	0.066	2/16/2001 14:00	2/17/2001 0:00	10
44	2/23/2001 13:15	2/23/2001 16:00	2.75	0.002	0.21	0.007	0.07	0.44	0.06	0.402	0.287	0.086	2/23/2001 13:15	2/23/2001 14:15	1
45	2/25/2001 9:45	2/25/2001 16:00	6.25	0.016	0.24	0.065	0.56	0.99	0.04	0.543	0.286	0.122	2/25/2001 10:00	2/25/2001 15:30	5.5
46	3/4/2001 9:45	3/5/2001 1:15	15.5	0.025	0.12	0.210	0.18	0.57	0.02	0.461	0.275	0.096	3/4/2001 10:30	3/4/2001 14:15	3.75
47	3/7/2001 7:30	3/7/2001 14:30	7	0.011	0.27	0.042	0.27	0.61	0.04	0.433	0.244	0.102	3/7/2001 8:15	3/7/2001 12:45	4.5
48	3/16/2001 16:00	3/16/2001 23:15	7.25	0.016	0.37	0.042	0.59	0.99	0.05	0.520	0.297	0.108	3/16/2001 16:15	3/16/2001 22:30	6.25
49	3/21/2001 9:45	3/21/2001 21:00	11.25	0.057	1.20	0.048	0.77	1.16	0.11	0.679	0.303	0.097	3/21/2001 10:00	3/21/2001 19:30	9.5
50	3/29/2001 16:45	3/30/2001 15:45	23	0.116	2.31	0.050	1.21	1.55	0.18	0.692	0.330	0.082	3/29/2001 17:15	3/30/2001 13:15	20
51	4/6/2001 10:15	4/6/2001 18:30	8.25	0.011	0.21	0.051	0.75	1.19	0.05	0.520	0.354	0.095	4/6/2001 10:15	4/6/2001 16:15	6
52	4/9/2001 20:00	4/9/2001 22:45	2.75	0.010	0.36	0.029	0.70	1.15	0.23	0.642	0.343	0.104	4/9/2001 20:45	4/9/2001 21:45	1
53	4/11/2001 11:45	4/11/2001 22:45	11	0.016	0.29	0.054	0.22	0.67	0.02	0.540	0.364	0.098	4/11/2001 11:45	4/11/2001 22:45	11
54	4/15/2001 20:15	4/16/2001 8:30	12.25	0.025	0.44	0.057	0.26	0.73	0.03	0.559	0.386	0.061	4/15/2001 20:30	4/16/2001 6:00	9.5
55	4/17/2001 23:00	4/18/2001 8:45	9.75	0.010	0.17	0.058	0.18	0.62	0.02	0.504	0.392	0.057	4/18/2001 0:00	4/18/2001 7:45	7.75
56	4/21/2001 8:00	4/21/2001 11:45	3.75	0.002	0.11	0.020	0.13	0.64	0.04	0.549	0.391	0.127	4/21/2001 8:00	4/21/2001 9:15	1.25
57	5/20/2001 22:45	5/22/2001 1:45	27	0.060	1.09	0.055	0.43	0.87	0.09	0.565	0.365	0.077	5/20/2001 23:00	5/22/2001 1:15	26.25
58	5/22/2001 4:15	5/22/2001 12:00	7.75	0.031	1.64	0.019	1.13	1.66	0.56	0.680	0.369	0.096	5/22/2001 4:45	5/22/2001 7:30	2.75
59	5/22/2001 19:00	5/23/2001 0:45	5.75	0.015	0.21	0.070	0.32	0.79	0.02	0.601	0.370	0.094	5/22/2001 19:45	5/22/2001 23:30	3.75
60	5/26/2001 6:00	5/27/2001 14:45	32.75	0.115	2.44	0.047	0.85	1.21	0.24	0.628	0.347	0.086	5/26/2001 6:15	5/27/2001 7:30	25.25
61	5/27/2001 17:30	5/27/2001 20:00	2.5	0.003	0.11	0.030	0.37	0.82	0.05	0.522	0.352	0.102	5/27/2001 17:45	5/27/2001 18:30	0.75
62	5/29/2001 15:00	5/29/2001 16:30	1.5	0.001	0.23	0.006	0.13	0.58	0.23	0.495	0.366	0.084	5/29/2001 15:15	5/29/2001 15:15	0
63	6/1/2001 13:15	6/2/2001 14:45	25.5	0.060	1.59	0.038	0.75	1.19	0.21	0.545	0.334	0.082	6/1/2001 13:45	6/2/2001 8:45	19
64	6/23/2001 10:30	6/23/2001 14:15	3.75	0.003	0.46	0.007	0.42	0.84	0.34	0.445	0.270	0.131	6/23/2001 10:45	6/23/2001 12:15	1.5
65	7/1/2001 18:00	7/1/2001 23:15	5.25	0.007	0.13	0.056	0.53	0.90	0.06	0.424	0.263	0.086	7/1/2001 18:15	7/1/2001 19:30	1.25
66	7/5/2001 0:30	7/5/2001 3:30	3	0.003	0.10	0.026	0.14	0.44	0.03	0.341	0.278	0.017	7/5/2001 0:45	7/5/2001 2:15	1.5
67	7/29/2001 17:15	7/30/2001 0:00	6.75	0.022	0.12	0.177	0.73	1.08	0.03	0.532	0.273	0.085	7/29/2001 17:15	7/29/2001 22:30	5.25
68	8/10/2001 15:15	8/10/2001 18:00	2.75	0.000	0.58	0.000	0.33	0.60	0.36	0.258	0.194	0.087	8/10/2001 15:30	8/10/2001 17:15	1.75
69	8/12/2001 4:45	8/13/2001 6:30	25.75	0.057	0.81	0.071	1.21	1.56	0.09	0.436	0.240	0.073	8/12/2001 6:00	8/13/2001 1:00	19

**S059-02-S0010 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 10

Tributary Drainage Area (acres): 86

Tributary Service Population: 2,029

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
Average:			8.8	0.029	0.58	0.054	0.75	1.06	0.12	0.490	0.238	0.082			6.3
Maximum Value:			32.8	0.181	2.54	0.210	1.93	2.19	0.56	0.719	0.392	0.143			26.3
Minimum Value:			1.5	0.000	0.10	0.000	0.06	0.31	0.01	0.258	0.149	0.016			0.00
Standard Deviation:			7.1	0.034	0.58	0.034	0.52	0.50	0.11	0.118	0.073	0.030			6.5
Weighted Mean R-Value*:						0.050									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

S059-04-S0035 Upper Schuylkill East Side Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 141

Tributary Service Population: 3,734

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/18/2000 16:30	6/19/2000 8:15	15.75	0.153	1.77	0.086	6.52	7.51	0.57	1.873	0.911	0.071	6/18/2000 16:45	6/19/2000 1:45	9
2	6/21/2000 22:30	6/22/2000 11:15	12.75	0.068	0.53	0.127	3.50	4.44	0.25	1.424	0.865	0.070	6/21/2000 23:00	6/22/2000 3:30	4.5
3	6/28/2000 18:15	6/28/2000 22:00	3.75	0.028	0.32	0.086	2.56	3.25	0.09	1.370	0.586	0.103	6/28/2000 18:30	6/28/2000 21:00	2.5
4	7/3/2000 20:30	7/4/2000 6:15	9.75	0.032	0.43	0.074	2.71	3.37	0.22	0.912	0.564	0.049	7/3/2000 20:45	7/4/2000 5:15	8.5
5	7/10/2000 4:00	7/10/2000 8:15	4.25	0.017	0.23	0.074	2.06	2.67	0.12	1.069	0.599	0.105	7/10/2000 4:15	7/10/2000 6:00	1.75
6	7/14/2000 11:15	7/14/2000 16:00	4.75	0.015	0.16	0.096	1.26	1.91	0.04	0.947	0.583	0.069	7/14/2000 11:15	7/14/2000 14:15	3
7	7/15/2000 2:30	7/15/2000 10:45	8.25	0.043	0.40	0.108	2.25	2.84	0.18	1.114	0.569	0.063	7/15/2000 2:45	7/15/2000 6:15	3.5
8	7/16/2000 16:15	7/17/2000 0:00	7.75	0.038	0.52	0.072	3.04	3.69	0.18	1.099	0.572	0.080	7/16/2000 16:15	7/16/2000 19:15	3
9	7/19/2000 12:30	7/19/2000 20:00	7.5	0.042	0.36	0.116	1.71	2.35	0.06	1.166	0.571	0.078	7/19/2000 12:30	7/19/2000 19:45	7.25
10	7/22/2000 0:00	7/22/2000 9:00	9	0.026	0.19	0.134	2.43	3.04	0.09	0.873	0.571	0.039	7/22/2000 0:30	7/22/2000 1:00	0.5
11	7/26/2000 2:45	7/27/2000 5:30	26.75	0.232	2.54	0.092	4.48	5.17	0.25	1.473	0.605	0.070	7/26/2000 3:00	7/27/2000 4:45	25.75
12	7/30/2000 19:00	7/31/2000 5:45	10.75	0.057	0.46	0.123	3.60	4.25	0.13	1.170	0.639	0.047	7/30/2000 19:15	7/31/2000 4:15	9
13	8/1/2000 2:15	8/1/2000 8:30	6.25	0.051	0.70	0.073	4.72	5.38	0.27	1.477	0.654	0.078	8/1/2000 2:15	8/1/2000 5:15	3
14	8/1/2000 22:45	8/2/2000 0:45	2	0.016	0.12	0.135	3.00	3.75	0.09	1.435	0.661	0.060	8/1/2000 23:15	8/1/2000 23:45	0.5
15	8/3/2000 0:00	8/3/2000 8:30	8.5	0.034	0.23	0.148	4.15	4.85	0.10	1.107	0.673	0.064	8/3/2000 0:30	8/3/2000 2:00	1.5
16	8/3/2000 23:30	8/4/2000 4:45	5.25	0.029	0.39	0.074	2.84	3.55	0.21	1.211	0.682	0.020	8/3/2000 23:45	8/4/2000 2:00	2.25
17	8/7/2000 6:30	8/7/2000 7:45	1.25	0.012	0.10	0.124	2.38	3.28	0.07	1.796	0.702	0.194	8/7/2000 6:45	8/7/2000 7:45	1
18	8/27/2000 22:15	8/28/2000 5:45	7.5	0.036	0.57	0.064	3.29	3.65	0.21	0.769	0.293	0.029	8/27/2000 22:15	8/28/2000 1:00	2.75
19	8/31/2000 7:15	8/31/2000 15:00	7.75	0.015	0.18	0.083	1.88	2.23	0.09	0.550	0.286	0.086	8/31/2000 7:30	8/31/2000 13:15	5.75
20	9/3/2000 14:45	9/3/2000 20:00	5.25	0.019	0.76	0.026	2.02	2.40	0.26	0.710	0.285	0.087	9/3/2000 15:15	9/3/2000 19:45	4.5
21	9/13/2000 2:30	9/13/2000 10:30	8	0.039	0.77	0.051	3.56	3.91	0.38	0.819	0.284	0.083	9/13/2000 2:45	9/13/2000 7:45	5
22	9/15/2000 0:30	9/15/2000 8:15	7.75	0.117	1.76	0.066	4.83	5.13	0.32	1.723	0.276	0.064	9/15/2000 0:45	9/15/2000 8:00	7.25
23	9/19/2000 15:00	9/20/2000 7:45	16.75	0.080	1.39	0.058	2.97	3.38	0.22	0.818	0.304	0.075	9/19/2000 15:00	9/20/2000 1:45	10.75
24	9/25/2000 16:00	9/26/2000 21:30	29.5	0.157	1.99	0.079	2.02	2.44	0.12	0.882	0.313	0.080	9/25/2000 16:15	9/26/2000 14:00	21.75
25	10/4/2000 21:00	10/5/2000 5:15	8.25	0.029	0.80	0.037	1.83	2.22	0.17	0.679	0.309	0.043	10/4/2000 21:00	10/5/2000 1:45	4.75
26	11/9/2000 19:45	11/10/2000 14:15	18.5	0.053	0.69	0.077	1.27	1.58	0.09	0.586	0.244	0.076	11/9/2000 20:00	11/10/2000 7:45	11.75
27	11/14/2000 7:30	11/14/2000 16:00	8.5	0.030	0.31	0.096	1.05	1.38	0.03	0.670	0.264	0.081	11/14/2000 7:45	11/14/2000 14:45	7
28	11/20/2000 17:15	11/21/2000 0:00	6.75	0.011	0.11	0.102	1.00	1.34	0.05	0.500	0.247	0.096	11/20/2000 17:45	11/20/2000 20:15	2.5
29	11/25/2000 23:30	11/27/2000 0:15	24.75	0.101	1.21	0.083	1.32	1.58	0.06	0.713	0.263	0.075	11/25/2000 23:45	11/26/2000 17:15	17.5
30	1/8/2001 14:00	1/9/2001 2:30	12.5	0.021	0.18	0.119	0.52	0.91	0.02	0.511	0.279	0.074	1/8/2001 14:15	1/9/2001 1:15	11
31	1/15/2001 1:30	1/15/2001 14:30	13	0.026	0.18	0.143	0.81	1.08	0.03	0.521	0.267	0.072	1/15/2001 1:30	1/15/2001 6:30	5
32	1/19/2001 3:15	1/21/2001 8:15	53	0.204	1.50	0.136	1.50	1.96	0.04	0.794	0.364	0.078	1/19/2001 3:30	1/20/2001 22:45	43.25
33	1/30/2001 5:45	1/30/2001 20:45	15	0.071	0.66	0.107	1.70	2.20	0.06	0.941	0.413	0.095	1/30/2001 6:00	1/30/2001 14:00	8
34	2/5/2001 5:00	2/5/2001 14:00	9	0.082	0.83	0.098	2.07	2.58	0.05	1.339	0.409	0.097	2/5/2001 5:15	2/5/2001 11:15	6

S059-04-S0035 Upper Schuylkill East Side Interceptor

Pipe Size (In.): 15

Tributary Drainage Area (acres): 141

Tributary Service Population: 3,734

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
35	2/6/2001 11:45	2/7/2001 8:30	20.75	0.045	0.88	0.051	0.67	1.14	0.08	0.689	0.416	0.075	2/6/2001 11:45	2/7/2001 0:00	12.25
36	2/16/2001 13:15	2/17/2001 7:45	18.5	0.063	0.52	0.121	1.00	1.57	0.03	0.831	0.450	0.067	2/16/2001 13:15	2/17/2001 0:15	11
37	2/23/2001 11:15	2/23/2001 19:45	8.5	0.014	0.21	0.065	0.29	0.83	0.06	0.705	0.473	0.084	2/23/2001 13:30	2/23/2001 14:30	1
38	2/25/2001 9:00	2/25/2001 23:30	14.5	0.039	0.27	0.144	1.20	1.82	0.04	0.820	0.475	0.100	2/25/2001 9:15	2/25/2001 20:30	11.25
39	3/7/2001 9:30	3/7/2001 19:15	9.75	0.015	0.27	0.055	0.42	0.93	0.04	0.643	0.430	0.075	3/7/2001 9:30	3/7/2001 15:15	5.75
40	3/9/2001 4:15	3/9/2001 11:15	7	0.014	0.11	0.126	0.64	1.07	0.02	0.692	0.405	0.104	3/9/2001 4:45	3/9/2001 8:15	3.5
41	3/12/2001 22:30	3/13/2001 23:45	25.25	0.081	0.91	0.089	1.81	2.24	0.07	0.782	0.410	0.076	3/12/2001 22:45	3/13/2001 16:15	17.5
42	3/15/2001 18:45	3/16/2001 14:00	19.25	0.025	0.31	0.082	1.26	1.76	0.07	0.604	0.406	0.077	3/15/2001 18:45	3/16/2001 9:45	15
43	3/16/2001 16:45	3/17/2001 15:30	22.75	0.041	0.38	0.109	1.07	1.57	0.05	0.644	0.392	0.086	3/16/2001 17:00	3/17/2001 2:00	9
44	3/21/2001 9:45	3/22/2001 7:00	21.25	0.098	1.22	0.080	2.18	2.68	0.11	0.894	0.404	0.068	3/21/2001 10:15	3/22/2001 0:45	14.5
45	3/29/2001 17:30	3/31/2001 12:30	43	0.187	2.34	0.080	2.16	2.55	0.18	0.859	0.380	0.080	3/29/2001 18:00	3/31/2001 10:15	40.25
46	4/6/2001 10:15	4/6/2001 19:30	9.25	0.015	0.21	0.072	1.31	1.75	0.05	0.612	0.380	0.083	4/6/2001 10:15	4/6/2001 16:15	6
47	4/9/2001 20:45	4/10/2001 0:30	3.75	0.010	0.36	0.029	0.84	1.31	0.23	0.707	0.369	0.085	4/9/2001 20:45	4/9/2001 21:45	1
48	5/20/2001 21:30	5/23/2001 5:30	56	0.154	2.95	0.052	2.90	3.30	0.56	0.510	0.187	0.070	5/20/2001 23:00	5/23/2001 4:00	53
49	5/26/2001 6:00	5/28/2001 5:45	47.75	0.155	2.59	0.060	1.73	1.93	0.24	0.567	0.189	0.079	5/26/2001 6:15	5/28/2001 3:15	45
50	6/1/2001 13:30	6/2/2001 9:15	19.75	0.084	1.59	0.053	2.14	2.56	0.21	0.772	0.308	0.071	6/1/2001 13:45	6/2/2001 8:45	19
51	6/16/2001 11:30	6/18/2001 15:15	51.75	0.258	3.71	0.070	4.20	4.54	0.37	0.875	0.339	0.079	6/16/2001 11:45	6/17/2001 10:00	22.25
52	6/23/2001 10:45	6/24/2001 7:45	21	0.033	0.53	0.063	0.58	1.01	0.34	0.493	0.271	0.075	6/23/2001 11:00	6/23/2001 19:15	8.25
53	7/1/2001 18:15	7/2/2001 0:00	5.75	0.017	0.12	0.140	3.07	3.44	0.06	0.632	0.284	0.079	7/1/2001 18:30	7/1/2001 19:30	1
54	7/5/2001 0:00	7/5/2001 6:30	6.5	0.013	0.10	0.131	0.82	1.11	0.03	0.493	0.278	0.029	7/5/2001 0:45	7/5/2001 2:15	1.5
55	7/9/2001 2:30	7/9/2001 6:00	3.5	0.015	0.10	0.151	2.19	2.46	0.10	0.687	0.270	0.021	7/9/2001 2:45	7/9/2001 2:45	0
56	7/18/2001 4:15	7/18/2001 14:00	9.75	0.014	0.22	0.062	0.76	1.17	0.05	0.551	0.331	0.091	7/18/2001 4:30	7/18/2001 10:45	6.25
57	7/29/2001 17:15	7/30/2001 0:15	7	0.017	0.12	0.141	1.16	1.54	0.03	0.604	0.298	0.079	7/29/2001 17:15	7/29/2001 22:30	5.25
58	8/10/2001 15:00	8/10/2001 23:30	8.5	0.021	0.59	0.035	3.20	3.50	0.36	0.555	0.226	0.103	8/10/2001 15:30	8/10/2001 21:30	6
59	8/12/2001 6:00	8/13/2001 4:45	22.75	0.067	0.81	0.083	2.34	2.69	0.09	0.589	0.242	0.078	8/12/2001 6:00	8/13/2001 1:00	19
60	8/20/2001 0:45	8/20/2001 5:30	4.75	0.009	0.23	0.040	1.07	1.35	0.08	0.458	0.266	0.015	8/20/2001 1:00	8/20/2001 5:00	4
61	8/30/2001 14:00	8/31/2001 4:15	14.25	0.024	0.23	0.104	2.08	2.52	0.15	0.567	0.347	0.066	8/30/2001 14:45	8/30/2001 22:30	7.75
62	9/4/2001 17:15	9/4/2001 22:15	5	0.008	0.14	0.054	1.10	1.53	0.06	0.582	0.343	0.101	9/4/2001 17:15	9/4/2001 19:00	1.75
Average:			14.6	0.057	0.73	0.089	2.11	2.60	0.14	0.862	0.414	0.075			9.8
Maximum Value:			56.0	0.258	3.71	0.151	6.52	7.51	0.57	1.873	0.911	0.194			53.0
Minimum Value:			1.3	0.008	0.10	0.026	0.29	0.83	0.02	0.458	0.187	0.015			0.00
Standard Deviation:			12.6	0.058	0.79	0.033	1.26	1.34	0.12	0.346	0.166	0.026			11.2
Weighted Mean R-Value*:						0.078									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**USE-0365 Upper Schuylkill East Side Interceptor (2010)**

Pipe Size (In.): 48

Tributary Drainage Area (acres): 773

Tributary Service Population: 13,233

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	5/3/2010 3:45	5/3/2010 15:45	12	0.033	0.97	0.034	7.97	10.75	0.17	3.72	1.83	0.553	5/3/2010 3:45	5/3/2010 10:00	6.25
2	5/11/2010 18:45	5/12/2010 9:15	14.5	0.025	0.57	0.044	4.98	6.85	0.10	3.02	1.67	0.491	5/11/2010 18:45	5/12/2010 4:15	9.5
3	5/18/2010 1:00	5/18/2010 16:30	15.5	0.031	0.59	0.053	3.51	6.10	0.04	3.30	1.82	0.477	5/18/2010 1:15	5/18/2010 15:00	13.75
4	5/30/2010 0:45	5/30/2010 5:15	4.5	0.005	0.17	0.029	2.47	4.87	0.07	2.94	2.32	0.097	5/30/2010 0:45	5/30/2010 4:00	3.25
5	6/1/2010 12:00	6/1/2010 20:00	8	0.007	0.25	0.027	5.11	7.90	0.13	3.34	2.29	0.632	6/1/2010 12:00	6/1/2010 17:15	5.25
6	6/9/2010 11:30	6/9/2010 23:00	11.5	0.021	0.52	0.041	3.59	6.55	0.05	3.85	2.27	0.663	6/9/2010 12:30	6/9/2010 21:15	8.75
7	6/13/2010 14:00	6/14/2010 1:30	11.5	0.022	0.49	0.046	6.55	9.50	0.18	3.77	2.23	0.596	6/13/2010 14:00	6/13/2010 18:45	4.75
8	6/24/2010 15:30	6/24/2010 22:30	7	0.017	0.42	0.042	6.57	8.88	0.22	3.73	1.82	0.701	6/24/2010 15:30	6/24/2010 16:15	0.75
9	6/28/2010 15:45	6/28/2010 17:00	1.25	0.002	0.15	0.012	3.27	5.82	0.14	3.16	2.00	0.552	6/28/2010 15:45	6/28/2010 16:00	0.25
10	7/9/2010 14:15	7/10/2010 4:15	14	0.082	1.53	0.054	9.12	11.49	0.25	5.22	1.84	0.483	7/9/2010 14:15	7/9/2010 20:30	6.25
11	7/10/2010 8:00	7/11/2010 11:15	27.25	0.110	1.12	0.098	10.22	12.98	0.19	4.40	1.88	0.508	7/10/2010 8:00	7/10/2010 15:00	7
12	7/12/2010 19:00	7/14/2010 18:15	47.25	0.275	3.78	0.073	16.72	19.38	0.56	5.38	1.93	0.542	7/12/2010 19:15	7/14/2010 13:45	42.5
13	7/19/2010 18:45	7/20/2010 2:30	7.75	0.012	0.36	0.035	4.77	7.66	0.26	3.41	2.06	0.562	7/19/2010 18:45	7/19/2010 19:30	0.75
14	7/21/2010 23:15	7/22/2010 3:45	4.5	0.017	0.32	0.052	6.98	9.49	0.24	4.06	2.06	0.232	7/21/2010 23:15	7/21/2010 23:45	0.5
15	7/25/2010 14:45	7/26/2010 3:45	13	0.042	0.92	0.046	14.51	17.27	0.45	4.19	2.07	0.503	7/25/2010 14:45	7/25/2010 17:00	2.25
16	8/22/2010 8:00	8/22/2010 23:30	15.5	0.032	0.67	0.048	7.07	9.65	0.27	3.59	1.87	0.691	8/22/2010 8:00	8/22/2010 18:30	10.5
Average:			13.4	0.046	0.80	0.046	7.09	9.70	0.21	3.82	2.00	0.518			7.6
Maximum Value:			47.3	0.275	3.78	0.098	16.72	19.38	0.56	5.38	2.32	0.701			42.5
Minimum Value:			1.3	0.002	0.15	0.012	2.47	4.87	0.04	2.94	1.67	0.097			0.25
Standard Deviation:			10.8	0.067	0.88	0.020	3.98	4.03	0.14	0.71	0.20	0.157			10.1
Weighted Mean R-Value*:						0.057									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**USE-0365 Upper Schuylkill East Side Interceptor (2012)**

Pipe Size (In.): 48

Tributary Drainage Area (acres): 773

Tributary Service Population: 13,233

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4/1/2012 18:45	4/2/2012 4:45	10	0.012	0.18	0.069	3.43	6.34	0.04	3.90	2.78	0.519	4/1/2012 18:45	4/2/2012 2:15	7.5
2	4/22/2012 9:00	4/23/2012 18:45	33.75	0.180	2.34	0.077	11.60	14.91	0.11	5.76	2.42	0.676	4/22/2012 9:00	4/23/2012 17:45	32.75
3	5/1/2012 3:45	5/1/2012 14:15	10.5	0.011	0.19	0.059	2.01	5.97	0.04	4.07	2.97	0.579	5/1/2012 3:45	5/1/2012 10:00	6.25
4	5/3/2012 2:30	5/3/2012 8:15	5.75	0.011	0.15	0.074	3.39	6.42	0.03	4.21	2.98	0.327	5/3/2012 2:45	5/3/2012 5:00	2.25
5	5/4/2012 22:00	5/5/2012 6:00	8	0.014	0.13	0.104	4.57	8.19	0.04	4.08	2.90	0.347	5/4/2012 22:15	5/4/2012 23:45	1.5
6	5/9/2012 2:45	5/9/2012 8:30	5.75	0.018	0.34	0.053	4.46	7.45	0.09	4.79	2.91	0.366	5/9/2012 2:45	5/9/2012 7:00	4.25
7	5/9/2012 22:15	5/10/2012 4:45	6.5	0.014	0.25	0.054	2.80	6.02	0.02	4.24	2.91	0.314	5/9/2012 22:15	5/10/2012 4:00	5.75
8	5/15/2012 7:45	5/17/2012 2:00	42.25	0.164	1.77	0.093	21.41	24.56	0.31	5.48	2.92	0.612	5/15/2012 8:15	5/16/2012 4:15	20
9	5/24/2012 14:00	5/24/2012 22:15	8.25	0.017	0.42	0.041	7.79	11.27	0.26	4.68	2.97	0.678	5/24/2012 14:00	5/24/2012 22:00	8
10	5/27/2012 3:45	5/27/2012 13:30	9.75	0.051	0.81	0.063	14.74	17.93	0.22	6.15	3.03	0.576	5/27/2012 3:45	5/27/2012 7:15	3.5
11	6/1/2012 20:00	6/2/2012 19:00	23	0.057	0.99	0.058	12.14	16.11	0.40	4.97	3.08	0.650	6/1/2012 20:00	6/2/2012 2:15	6.25
12	6/3/2012 19:45	6/4/2012 1:00	5.25	0.010	0.05	0.177	4.05	8.12	0.05	4.64	3.04	0.717	6/3/2012 20:00	6/3/2012 20:00	0
13	6/4/2012 12:15	6/5/2012 3:15	15	0.021	0.18	0.113	4.00	7.90	0.06	4.27	3.02	0.562	6/4/2012 12:30	6/4/2012 21:15	8.75
14	6/12/2012 9:15	6/13/2012 12:45	27.5	0.095	0.84	0.113	7.55	10.98	0.06	4.96	2.65	0.589	6/12/2012 9:30	6/12/2012 23:00	13.5
15	6/22/2012 18:15	6/23/2012 19:00	24.75	0.068	0.89	0.077	15.97	19.52	0.22	4.78	2.75	0.662	6/22/2012 18:30	6/22/2012 22:15	3.75
16	7/14/2012 3:45	7/15/2012 10:00	30.25	0.074	0.40	0.186	5.35	8.21	0.06	4.32	2.49	0.599	7/14/2012 3:45	7/14/2012 12:45	9
17	7/15/2012 21:30	7/16/2012 22:45	25.25	0.060	0.76	0.078	13.38	16.74	0.39	4.34	2.59	0.577	7/15/2012 21:30	7/15/2012 23:45	2.25
18	7/19/2012 23:45	7/21/2012 5:45	30	0.097	1.34	0.073	19.77	22.59	0.63	4.83	2.69	0.514	7/19/2012 23:45	7/20/2012 8:45	9
19	7/26/2012 19:45	7/27/2012 3:30	7.75	0.022	0.33	0.067	8.50	12.08	0.22	4.67	2.78	0.512	7/26/2012 20:00	7/27/2012 0:30	4.5
20	7/28/2012 15:30	7/29/2012 4:45	13.25	0.017	0.22	0.079	5.91	9.42	0.10	4.03	2.74	0.646	7/28/2012 15:30	7/28/2012 22:15	6.75
21	8/4/2012 13:15	8/4/2012 20:45	7.5	0.010	0.15	0.069	6.62	10.37	0.13	4.30	2.73	0.922	8/4/2012 13:15	8/4/2012 13:30	0.25
22	8/5/2012 18:30	8/6/2012 8:45	14.25	0.031	0.45	0.068	4.61	8.33	0.09	4.37	2.77	0.540	8/5/2012 18:30	8/6/2012 2:15	7.75
23	8/10/2012 7:30	8/11/2012 7:15	23.75	0.058	0.77	0.076	11.25	14.83	0.22	4.56	2.76	0.579	8/10/2012 7:30	8/10/2012 12:00	4.5
24	8/11/2012 18:15	8/12/2012 17:15	23	0.022	0.31	0.073	6.86	10.64	0.13	3.88	2.74	0.653	8/11/2012 19:00	8/11/2012 20:15	1.25
25	8/14/2012 9:45	8/15/2012 11:45	26	0.053	0.79	0.067	10.74	14.31	0.48	4.38	2.78	0.585	8/14/2012 9:45	8/15/2012 1:45	16
26	8/17/2012 21:30	8/18/2012 20:45	23.25	0.065	0.89	0.074	10.82	14.33	0.22	4.88	2.81	0.663	8/17/2012 21:30	8/18/2012 6:45	9.25
27	8/27/2012 8:00	8/28/2012 22:45	38.75	0.045	0.69	0.066	10.42	14.08	0.22	3.98	2.77	0.625	8/27/2012 8:00	8/28/2012 7:30	23.5
28	9/3/2012 9:00	9/3/2012 21:30	12.5	0.031	0.50	0.062	5.88	9.36	0.17	4.71	2.79	0.688	9/3/2012 9:00	9/3/2012 18:45	9.75
29	9/4/2012 3:00	9/5/2012 1:45	22.75	0.047	0.49	0.095	9.82	13.31	0.13	4.39	2.79	0.587	9/4/2012 3:00	9/5/2012 0:15	21.25
30	9/5/2012 11:45	9/5/2012 18:00	6.25	0.012	0.20	0.060	3.48	6.80	0.12	4.27	2.79	0.567	9/5/2012 11:45	9/5/2012 14:15	2.5
31	9/8/2012 16:45	9/9/2012 16:15	23.5	0.027	0.30	0.088	5.82	9.50	0.05	3.97	2.74	0.661	9/8/2012 17:00	9/8/2012 22:30	5.5
32	9/18/2012 2:00	9/18/2012 13:45	11.75	0.021	0.27	0.079	5.63	8.49	0.05	4.17	2.79	0.509	9/18/2012 2:00	9/18/2012 13:45	11.75
33	9/18/2012 16:45	9/19/2012 18:30	25.75	0.048	0.81	0.059	8.72	12.21	0.25	4.28	2.79	0.575	9/18/2012 17:00	9/19/2012 1:45	8.75
34	9/22/2012 19:15	9/23/2012 16:15	21	0.025	0.33	0.075	8.47	12.33	0.15	4.09	2.86	0.633	9/22/2012 19:15	9/22/2012 21:30	2.25



**USE-0365 Upper Schuylkill East Side Interceptor (2012)**

Pipe Size (In.): 48

Tributary Drainage Area (acres): 773

Tributary Service Population: 13,233

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	9/26/2012 23:00	9/28/2012 0:15	25.25	0.039	0.24	0.160	4.95	8.64	0.09	4.51	3.18	0.567	9/26/2012 23:30	9/27/2012 23:30	24
36	10/2/2012 10:15	10/2/2012 21:00	10.75	0.018	0.26	0.069	4.94	8.55	0.07	4.55	3.07	0.660	10/2/2012 10:15	10/2/2012 15:30	5.25
37	10/3/2012 7:30	10/3/2012 13:45	6.25	0.010	0.11	0.090	5.13	9.27	0.11	4.60	3.02	0.798	10/3/2012 7:30	10/3/2012 7:45	0.25
38	10/7/2012 10:30	10/7/2012 23:15	12.75	0.015	0.23	0.063	2.51	6.09	0.04	4.27	2.81	0.893	10/7/2012 10:30	10/7/2012 21:00	10.5
39	10/15/2012 11:45	10/15/2012 23:30	11.75	0.010	0.28	0.038	2.97	6.70	0.06	4.11	3.01	0.658	10/15/2012 11:45	10/15/2012 20:30	8.75
40	10/19/2012 1:45	10/20/2012 9:45	32	0.035	0.88	0.040	8.15	11.96	0.20	3.97	2.91	0.513	10/19/2012 2:00	10/19/2012 23:15	21.25
41	10/28/2012 16:00	10/31/2012 12:45	68.75	0.323	3.51	0.092	14.79	18.20	0.14	5.76	2.82	0.582	10/28/2012 16:15	10/30/2012 20:30	52.25
42	11/7/2012 11:45	11/8/2012 4:30	16.75	0.030	0.37	0.080	2.55	5.85	0.02	3.99	2.58	0.530	11/7/2012 11:45	11/8/2012 1:00	13.25
43	11/13/2012 2:30	11/13/2012 19:30	17	0.032	0.26	0.121	4.83	7.30	0.07	3.89	2.41	0.555	11/13/2012 2:45	11/13/2012 12:00	9.25
44	11/27/2012 5:45	11/27/2012 22:45	17	0.059	0.61	0.097	4.90	8.06	0.02	4.99	2.57	0.693	11/27/2012 5:45	11/27/2012 15:45	10
45	12/7/2012 21:45	12/8/2012 23:45	26	0.028	0.22	0.132	4.25	7.24	0.04	3.67	2.45	0.672	12/7/2012 21:45	12/8/2012 1:30	3.75
46	12/9/2012 8:15	12/10/2012 19:15	35	0.042	0.29	0.145	2.80	6.26	0.04	3.79	2.51	0.677	12/9/2012 8:15	12/10/2012 0:45	16.5
47	12/11/2012 4:15	12/11/2012 12:15	8	0.010	0.10	0.098	2.68	5.33	0.03	3.76	2.54	0.618	12/11/2012 4:15	12/11/2012 6:30	2.25
48	12/18/2012 0:30	12/18/2012 9:00	8.5	0.015	0.16	0.093	5.63	8.63	0.08	4.00	2.77	0.378	12/18/2012 0:30	12/18/2012 2:00	1.5
49	12/20/2012 20:45	12/22/2012 7:15	34.5	0.229	2.31	0.099	17.83	20.68	0.20	6.33	2.50	0.515	12/20/2012 20:45	12/21/2012 7:15	10.5
50	12/26/2012 13:00	12/27/2012 21:15	32.25	0.096	1.19	0.081	8.75	11.84	0.10	4.33	2.26	0.589	12/26/2012 13:15	12/27/2012 9:15	20
Average:			19.7	0.050	0.61	0.084	7.59	11.00	0.14	4.48	2.78	0.594			9.8
Maximum Value:			68.8	0.323	3.51	0.186	21.41	24.56	0.63	6.33	3.18	0.922			52.3
Minimum Value:			5.3	0.010	0.05	0.038	2.01	5.33	0.02	3.67	2.26	0.314			0.00
Standard Deviation:			12.3	0.060	0.66	0.032	4.71	4.68	0.13	0.59	0.20	0.119			9.5
Weighted Mean R-Value*:						0.082									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**USE-0500 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 43 x 34

Tributary Drainage Area (acres): 397

Tributary Service Population: 3,193

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4/21/2012 20:45	4/22/2012 1:15	4.5	0.007	0.13	0.052	1.56	2.78	0.08	1.50	0.851	0.277	4/21/2012 21:15	4/21/2012 21:45	0.5
2	4/22/2012 8:45	4/23/2012 17:00	32.25	0.085	2.34	0.036	3.51	4.78	0.11	1.85	0.871	0.304	4/22/2012 8:45	4/23/2012 7:00	22.25
3	5/1/2012 4:00	5/1/2012 8:30	4.5	0.002	0.13	0.019	0.62	1.96	0.03	1.26	0.853	0.266	5/1/2012 4:15	5/1/2012 7:00	2.75
4	5/3/2012 2:15	5/3/2012 7:45	5.5	0.006	0.23	0.027	0.92	1.88	0.08	1.28	0.824	0.182	5/3/2012 2:15	5/3/2012 5:00	2.75
5	5/4/2012 21:30	5/5/2012 1:45	4.25	0.008	0.25	0.032	1.30	2.46	0.12	1.59	0.884	0.243	5/4/2012 21:45	5/4/2012 23:45	2
6	5/9/2012 4:15	5/9/2012 8:30	4.25	0.009	0.32	0.029	1.50	2.75	0.08	1.67	0.857	0.275	5/9/2012 4:30	5/9/2012 7:00	2.5
7	5/9/2012 22:15	5/10/2012 5:45	7.5	0.011	0.24	0.046	1.81	2.96	0.03	1.41	0.853	0.190	5/9/2012 22:30	5/10/2012 4:00	5.5
8	5/15/2012 8:15	5/15/2012 13:45	5.5	0.030	0.71	0.043	5.05	6.24	0.13	2.58	0.860	0.346	5/15/2012 8:15	5/15/2012 12:00	3.75
9	5/16/2012 0:30	5/16/2012 20:00	19.5	0.068	1.04	0.066	7.75	8.68	0.42	2.05	0.866	0.285	5/16/2012 0:30	5/16/2012 4:00	3.5
10	5/22/2012 2:30	5/22/2012 6:45	4.25	0.002	0.14	0.013	0.77	1.72	0.02	1.10	0.871	0.119	5/22/2012 2:45	5/22/2012 6:30	3.75
11	5/24/2012 14:15	5/24/2012 21:45	7.5	0.017	0.47	0.036	3.43	4.60	0.25	1.82	0.913	0.353	5/24/2012 14:15	5/24/2012 21:30	7.25
12	5/27/2012 3:45	5/28/2012 0:45	21	0.042	0.77	0.055	3.57	4.93	0.19	1.84	1.062	0.263	5/27/2012 3:45	5/27/2012 7:15	3.5
13	6/1/2012 20:00	6/2/2012 3:00	7	0.025	0.93	0.027	5.82	7.27	0.38	2.14	1.008	0.248	6/1/2012 20:00	6/2/2012 2:15	6.25
14	6/3/2012 19:45	6/3/2012 21:45	2	0.001	0.13	0.011	0.83	2.07	0.03	1.36	0.939	0.376	6/3/2012 20:00	6/3/2012 20:00	0
15	6/4/2012 11:30	6/4/2012 15:15	3.75	0.002	0.15	0.015	0.84	2.05	0.08	1.34	0.916	0.289	6/4/2012 12:15	6/4/2012 14:00	1.75
16	6/12/2012 9:15	6/13/2012 2:15	17	0.018	0.80	0.022	1.33	2.66	0.06	1.47	0.883	0.323	6/12/2012 9:30	6/12/2012 23:00	13.5
17	6/22/2012 18:15	6/23/2012 3:45	9.5	0.024	0.79	0.031	4.59	5.80	0.19	1.76	0.858	0.261	6/22/2012 18:30	6/22/2012 22:15	3.75
Average:			9.4	0.021	0.56	0.033	2.66	3.86	0.13	1.65	0.89	0.271			5.0
Maximum Value:			32.3	0.085	2.34	0.066	7.75	8.68	0.42	2.58	1.06	0.376			22.3
Minimum Value:			2.0	0.001	0.13	0.011	0.62	1.72	0.02	1.10	0.82	0.119			0.00
Standard Deviation:			8.2	0.024	0.56	0.015	2.12	2.12	0.12	0.38	0.06	0.065			5.4
Weighted Mean R-Value*:						0.037									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

USE-0660 Upper Schuylkill East Side Interceptor

Pipe Size (In.): 31

Tributary Drainage Area (acres): 246

Tributary Service Population: 1,627

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	7/14/2012 3:45	7/14/2012 13:45	10	0.007	0.37	0.018	0.33	0.58	0.05	0.445	0.226	0.116	7/14/2012 3:45	7/14/2012 12:45	9
2	7/15/2012 21:15	7/16/2012 1:30	4.25	0.044	0.91	0.048	11.21	11.58	0.56	1.873	0.214	0.102	7/15/2012 21:30	7/15/2012 23:45	2.25
3	7/19/2012 23:45	7/20/2012 11:30	11.75	0.062	1.36	0.045	12.59	12.86	0.52	1.119	0.207	0.087	7/19/2012 23:45	7/20/2012 8:45	9
4	7/26/2012 19:30	7/26/2012 21:15	1.75	0.006	0.28	0.022	2.80	3.24	0.19	0.921	0.282	0.151	7/26/2012 19:45	7/26/2012 21:15	1.5
5	7/28/2012 21:45	7/29/2012 1:30	3.75	0.005	0.14	0.033	1.39	1.80	0.11	0.545	0.261	0.102	7/28/2012 21:45	7/28/2012 22:15	0.5
6	8/5/2012 18:30	8/6/2012 5:45	11.25	0.024	0.58	0.042	4.87	5.18	0.16	0.668	0.242	0.085	8/5/2012 18:30	8/6/2012 2:00	7.5
7	8/10/2012 7:30	8/10/2012 14:30	7	0.039	1.03	0.038	9.73	10.17	0.36	1.248	0.244	0.145	8/10/2012 7:30	8/10/2012 12:00	4.5
8	8/11/2012 18:00	8/11/2012 23:00	5	0.044	0.72	0.062	11.32	11.74	0.32	1.747	0.238	0.162	8/11/2012 18:00	8/11/2012 20:15	2.25
9	8/14/2012 9:15	8/14/2012 14:15	5	0.038	0.68	0.057	10.40	10.79	0.48	1.552	0.250	0.132	8/14/2012 9:45	8/14/2012 10:45	1
10	8/17/2012 21:45	8/18/2012 8:30	10.75	0.023	0.84	0.027	1.97	2.39	0.17	0.682	0.297	0.054	8/17/2012 21:45	8/18/2012 6:45	9
11	8/27/2012 8:00	8/27/2012 14:45	6.75	0.011	0.49	0.023	2.04	2.46	0.15	0.681	0.284	0.139	8/27/2012 8:00	8/27/2012 12:45	4.75
12	8/28/2012 5:30	8/28/2012 10:30	5	0.004	0.14	0.026	0.38	0.81	0.03	0.540	0.288	0.142	8/28/2012 5:45	8/28/2012 7:00	1.25
13	9/3/2012 9:15	9/4/2012 1:00	15.75	0.017	0.40	0.042	0.94	1.36	0.13	0.588	0.295	0.123	9/3/2012 9:30	9/3/2012 18:45	9.25
14	9/4/2012 1:30	9/4/2012 21:15	19.75	0.014	0.33	0.042	0.48	0.90	0.05	0.524	0.303	0.108	9/4/2012 1:30	9/4/2012 17:45	16.25
15	9/8/2012 16:30	9/8/2012 23:30	7	0.005	0.34	0.013	0.73	1.23	0.06	0.591	0.331	0.160	9/8/2012 16:30	9/8/2012 22:30	6
16	9/18/2012 2:15	9/18/2012 8:45	6.5	0.008	0.29	0.028	0.76	1.09	0.08	0.564	0.297	0.076	9/18/2012 2:30	9/18/2012 6:00	3.5
17	9/18/2012 17:00	9/18/2012 23:45	6.75	0.021	0.85	0.025	3.82	4.25	0.23	0.919	0.298	0.133	9/18/2012 17:00	9/18/2012 20:45	3.75
18	9/22/2012 19:15	9/22/2012 22:00	2.75	0.005	0.24	0.021	1.25	1.73	0.10	0.746	0.306	0.164	9/22/2012 19:15	9/22/2012 21:30	2.25
19	10/7/2012 10:30	10/7/2012 23:00	12.5	0.007	0.23	0.032	0.35	0.83	0.04	0.576	0.311	0.172	10/7/2012 10:30	10/7/2012 21:00	10.5
20	10/15/2012 11:45	10/15/2012 21:30	9.75	0.011	0.37	0.028	1.39	1.82	0.11	0.612	0.315	0.128	10/15/2012 11:45	10/15/2012 20:30	8.75
21	10/19/2012 1:45	10/19/2012 13:45	12	0.019	0.66	0.029	3.10	3.55	0.18	0.658	0.314	0.099	10/19/2012 2:00	10/19/2012 13:00	11
22	10/28/2012 15:45	10/30/2012 23:00	55.25	0.230	3.67	0.063	7.92	8.34	0.15	1.071	0.292	0.114	10/28/2012 15:45	10/30/2012 20:30	52.75
23	11/7/2012 12:00	11/8/2012 0:45	12.75	0.007	0.36	0.020	0.22	0.68	0.02	0.516	0.309	0.122	11/7/2012 12:00	11/8/2012 0:30	12.5
24	11/27/2012 5:45	11/28/2012 1:00	19.25	0.022	0.61	0.036	0.63	1.07	0.02	0.608	0.300	0.128	11/27/2012 5:45	11/27/2012 15:45	10
25	12/7/2012 21:30	12/8/2012 5:15	7.75	0.005	0.22	0.023	0.38	0.70	0.05	0.400	0.240	0.060	12/7/2012 21:30	12/8/2012 1:30	4
26	12/9/2012 8:15	12/10/2012 10:45	26.5	0.020	0.29	0.069	0.31	0.77	0.04	0.533	0.278	0.133	12/9/2012 8:15	12/10/2012 0:45	16.5
27	12/18/2012 0:30	12/18/2012 4:30	4	0.003	0.13	0.020	0.33	0.66	0.06	0.422	0.301	0.023	12/18/2012 0:30	12/18/2012 2:00	1.5
28	12/20/2012 20:45	12/22/2012 1:45	29	0.187	2.43	0.077	6.32	6.73	0.20	1.405	0.273	0.107	12/20/2012 20:45	12/21/2012 23:45	27
29	12/26/2012 13:15	12/27/2012 17:00	27.75	0.061	1.13	0.054	2.54	3.01	0.10	0.777	0.319	0.108	12/26/2012 13:15	12/27/2012 9:15	20
30	1/11/2013 16:00	1/11/2013 23:45	7.75	0.002	0.36	0.006	0.32	0.76	0.04	0.472	0.296	0.133	1/11/2013 16:15	1/11/2013 21:00	4.75
31	1/14/2013 20:00	1/15/2013 17:30	21.5	0.010	0.39	0.026	0.23	0.64	0.04	0.446	0.268	0.103	1/14/2013 20:45	1/15/2013 2:30	5.75
32	5/18/2013 16:00	5/19/2013 19:00	27	0.012	0.36	0.034	0.34	0.69	0.04	0.487	0.289	0.127	5/18/2013 16:15	5/19/2013 17:45	25.5
33	5/28/2013 8:45	5/28/2013 17:00	8.25	0.004	0.28	0.014	0.25	0.66	0.03	0.478	0.279	0.126	5/28/2013 9:00	5/28/2013 16:15	7.25
34	6/2/2013 23:30	6/3/2013 20:30	21	0.011	0.74	0.015	0.56	0.99	0.21	0.461	0.273	0.103	6/2/2013 23:45	6/3/2013 17:00	17.25

**USE-0660 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 31

Tributary Drainage Area (acres): 246

Tributary Service Population: 1,627

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	6/6/2013 19:00	6/8/2013 14:00	43	0.173	3.70	0.047	3.72	4.13	0.19	1.053	0.303	0.108	6/6/2013 19:15	6/8/2013 1:30	30.25
36	6/10/2013 6:45	6/12/2013 22:00	63.25	0.183	1.87	0.098	3.47	4.02	0.52	0.915	0.339	0.114	6/10/2013 6:45	6/11/2013 0:30	17.75
37	6/13/2013 9:15	6/15/2013 13:15	52	0.038	0.59	0.065	1.14	1.62	0.32	0.567	0.339	0.110	6/13/2013 9:30	6/14/2013 5:15	19.75
38	6/18/2013 12:30	6/18/2013 22:45	10.25	0.005	0.59	0.008	0.29	0.76	0.13	0.558	0.360	0.129	6/18/2013 12:30	6/18/2013 20:30	8
39	6/25/2013 23:00	6/26/2013 1:30	2.5	0.002	0.20	0.008	0.30	0.73	0.16	0.504	0.344	0.072	6/25/2013 23:15	6/25/2013 23:45	0.5
40	6/26/2013 20:15	6/27/2013 0:15	4	0.006	0.49	0.012	1.02	1.51	0.35	0.684	0.344	0.124	6/26/2013 20:15	6/26/2013 21:15	1
41	6/27/2013 17:30	6/28/2013 1:15	7.75	0.007	0.70	0.010	1.09	1.57	0.40	0.608	0.344	0.120	6/27/2013 17:45	6/27/2013 21:30	3.75
42	6/30/2013 12:15	7/1/2013 2:30	14.25	0.005	0.27	0.017	0.32	0.84	0.06	0.536	0.345	0.140	6/30/2013 12:30	6/30/2013 23:30	11
43	7/7/2013 19:45	7/7/2013 22:45	3	0.001	0.19	0.007	0.23	0.72	0.13	0.501	0.322	0.156	7/7/2013 20:00	7/7/2013 21:00	1
44	7/12/2013 15:00	7/13/2013 13:30	22.5	0.013	0.81	0.016	0.45	0.86	0.13	0.489	0.291	0.108	7/12/2013 15:30	7/12/2013 22:45	7.25
45	7/20/2013 21:45	7/21/2013 1:30	3.75	0.002	0.20	0.010	0.37	0.73	0.15	0.391	0.210	0.102	7/20/2013 22:00	7/20/2013 22:15	0.25
46	7/22/2013 20:00	7/23/2013 7:30	11.5	0.011	0.72	0.015	0.96	1.18	0.35	0.433	0.205	0.078	7/22/2013 20:15	7/23/2013 3:00	6.75
Average:			14.8	0.031	0.71	0.032	2.51	2.93	0.17	0.720	0.288	0.116			9.5
Maximum Value:			63.3	0.230	3.70	0.098	12.59	12.86	0.56	1.873	0.360	0.172			52.8
Minimum Value:			1.8	0.001	0.13	0.006	0.22	0.58	0.02	0.391	0.205	0.023			0.25
Standard Deviation:			14.2	0.053	0.78	0.021	3.46	3.45	0.15	0.354	0.040	0.030			9.9
Weighted Mean R-Value*:						0.044									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**USE-0760 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 32

Tributary Drainage Area (acres): 184

Tributary Service Population: 1,310

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	12/2/2007 17:45	12/3/2007 16:15	22.5	0.040	0.85	0.047	1.70	2.01	0.09	0.540	0.259	0.068	12/2/2007 17:45	12/3/2007 10:00	16.25
2	12/9/2007 18:45	12/10/2007 15:30	20.75	0.010	0.13	0.080	0.61	0.91	0.05	0.318	0.192	0.067	12/9/2007 18:45	12/10/2007 6:30	11.75
3	12/13/2007 8:00	12/14/2007 19:00	35	0.052	0.59	0.088	0.93	1.17	0.05	0.437	0.189	0.070	12/13/2007 8:00	12/13/2007 17:45	9.75
4	12/16/2007 0:30	12/17/2007 18:00	41.5	0.141	1.09	0.130	2.56	2.80	0.12	0.707	0.232	0.069	12/16/2007 0:30	12/16/2007 14:45	14.25
5	12/23/2007 3:45	12/24/2007 23:00	43.25	0.085	0.50	0.170	4.68	5.03	0.07	0.566	0.256	0.076	12/23/2007 3:45	12/23/2007 21:30	17.75
6	12/26/2007 14:45	12/27/2007 5:30	14.75	0.072	0.14	0.509	2.27	2.67	0.02	0.934	0.295	0.062	12/26/2007 17:30	12/27/2007 1:45	8.25
7	12/28/2007 21:45	12/29/2007 16:00	18.25	0.050	0.68	0.073	2.37	2.71	0.09	0.712	0.323	0.067	12/28/2007 21:45	12/29/2007 6:00	8.25
8	12/30/2007 16:30	12/31/2007 6:15	13.75	0.125	0.43	0.289	5.40	5.82	0.05	1.459	0.323	0.064	12/30/2007 16:30	12/31/2007 2:15	9.75
9	1/11/2008 0:30	1/11/2008 16:00	15.5	0.021	0.53	0.040	1.34	1.74	0.16	0.557	0.338	0.057	1/11/2008 0:30	1/11/2008 13:45	13.25
10	1/13/2008 18:45	1/14/2008 2:45	8	0.009	0.31	0.029	0.48	0.93	0.03	0.540	0.339	0.069	1/13/2008 18:45	1/14/2008 2:30	7.75
11	1/17/2008 21:00	1/19/2008 20:15	47.25	0.039	0.64	0.061	0.69	1.07	0.05	0.505	0.336	0.071	1/17/2008 21:00	1/18/2008 12:00	15
12	2/1/2008 7:30	2/3/2008 7:00	47.5	0.145	1.61	0.090	3.16	3.50	0.12	0.701	0.268	0.067	2/1/2008 7:30	2/1/2008 19:00	11.5
13	2/12/2008 23:45	2/16/2008 6:45	79	0.438	2.16	0.203	4.68	5.03	0.11	1.036	0.309	0.064	2/13/2008 0:00	2/13/2008 23:30	23.5
14	2/18/2008 3:00	2/20/2008 3:45	48.75	0.061	0.35	0.176	0.86	1.34	0.07	0.601	0.383	0.069	2/18/2008 3:00	2/18/2008 18:45	15.75
15	3/4/2008 20:45	3/7/2008 1:30	52.75	0.085	0.72	0.118	2.32	2.64	0.11	0.596	0.334	0.070	3/4/2008 20:45	3/5/2008 9:45	13
16	3/7/2008 14:15	3/11/2008 7:00	88.75	0.405	2.23	0.181	7.01	7.49	0.21	1.000	0.384	0.071	3/7/2008 14:15	3/8/2008 18:30	28.25
17	3/18/2008 21:00	3/21/2008 4:30	55.5	0.051	0.82	0.063	1.23	1.56	0.08	0.498	0.322	0.066	3/18/2008 21:00	3/20/2008 4:30	31.5
18	4/3/2008 21:15	4/4/2008 8:45	11.5	0.009	0.51	0.018	0.40	0.73	0.03	0.479	0.322	0.061	4/3/2008 21:30	4/4/2008 8:30	11
19	4/11/2008 21:30	4/12/2008 19:15	21.75	0.025	0.47	0.054	1.84	2.18	0.12	0.502	0.292	0.072	4/11/2008 21:30	4/12/2008 11:45	14.25
20	4/28/2008 0:15	4/28/2008 21:15	21	0.025	0.70	0.036	2.65	3.05	0.13	0.523	0.314	0.068	4/28/2008 0:30	4/28/2008 20:00	19.5
21	5/9/2008 2:30	5/9/2008 17:15	14.75	0.070	1.43	0.049	3.79	4.08	0.13	0.903	0.280	0.062	5/9/2008 2:45	5/9/2008 16:30	13.75
22	5/12/2008 10:30	5/13/2008 5:45	19.25	0.032	0.65	0.049	0.62	0.95	0.04	0.530	0.274	0.062	5/12/2008 10:45	5/12/2008 20:00	9.25
23	5/16/2008 4:30	5/17/2008 22:15	41.75	0.046	1.05	0.044	2.32	2.70	0.17	0.519	0.310	0.076	5/16/2008 4:30	5/17/2008 1:45	21.25
24	5/18/2008 13:00	5/19/2008 3:45	14.75	0.015	0.41	0.038	1.42	1.84	0.10	0.519	0.319	0.077	5/18/2008 13:45	5/18/2008 18:15	4.5
25	5/20/2008 12:00	5/21/2008 5:15	17.25	0.030	0.56	0.054	1.76	2.13	0.13	0.577	0.312	0.061	5/20/2008 12:30	5/21/2008 5:00	16.5
26	5/27/2008 19:30	5/27/2008 23:00	3.5	0.005	0.16	0.032	0.62	1.02	0.04	0.567	0.294	0.107	5/27/2008 20:45	5/27/2008 22:45	2
27	6/3/2008 21:45	6/4/2008 14:30	16.75	0.035	0.89	0.040	2.94	3.29	0.21	0.626	0.314	0.062	6/3/2008 22:15	6/4/2008 9:00	10.75
28	6/4/2008 16:30	6/5/2008 17:00	24.5	0.017	0.26	0.065	0.47	0.88	0.04	0.455	0.305	0.070	6/4/2008 17:15	6/5/2008 5:00	11.75
29	6/27/2008 17:45	6/27/2008 23:45	6	0.011	0.32	0.035	2.41	2.69	0.18	0.495	0.189	0.094	6/27/2008 19:15	6/27/2008 20:45	1.5
30	7/5/2008 2:00	7/5/2008 6:45	4.75	0.024	0.63	0.038	3.14	3.33	0.23	0.760	0.172	0.012	7/5/2008 3:15	7/5/2008 6:30	3.25
31	7/7/2008 13:45	7/8/2008 0:45	11	0.014	0.16	0.083	2.34	2.57	0.08	0.398	0.172	0.081	7/7/2008 14:00	7/7/2008 16:45	2.75
32	7/9/2008 16:45	7/9/2008 19:30	2.75	0.015	0.39	0.039	3.94	4.19	0.28	0.886	0.176	0.093	7/9/2008 17:45	7/9/2008 19:00	1.25
33	7/14/2008 3:15	7/14/2008 17:00	13.75	0.010	0.37	0.026	0.75	0.93	0.06	0.319	0.171	0.067	7/14/2008 4:00	7/14/2008 9:15	5.25
34	7/23/2008 0:45	7/23/2008 13:30	12.75	0.013	0.22	0.059	0.49	0.67	0.08	0.354	0.176	0.059	7/23/2008 1:15	7/23/2008 4:45	3.5

**USE-0760 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 32

Tributary Drainage Area (acres): 184

Tributary Service Population: 1,310

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	7/23/2008 14:45	7/24/2008 22:45	32	0.039	1.09	0.036	3.43	3.69	0.32	0.406	0.186	0.075	7/23/2008 16:30	7/24/2008 10:30	18
36	7/27/2008 12:45	7/27/2008 17:00	4.25	0.006	0.29	0.021	1.64	1.97	0.19	0.484	0.223	0.099	7/27/2008 14:00	7/27/2008 15:15	1.25
37	8/6/2008 3:00	8/6/2008 16:45	13.75	0.008	0.17	0.044	1.19	1.51	0.12	0.330	0.200	0.066	8/6/2008 3:00	8/6/2008 7:15	4.25
38	8/10/2008 12:00	8/10/2008 21:30	9.5	0.004	0.22	0.019	0.79	1.12	0.05	0.377	0.221	0.104	8/10/2008 12:00	8/10/2008 19:30	7.5
39	9/5/2008 23:00	9/6/2008 23:45	24.75	0.089	3.20	0.028	4.80	4.99	0.32	0.596	0.096	0.073	9/5/2008 23:00	9/6/2008 20:45	21.75
40	9/9/2008 9:30	9/9/2008 13:30	4	0.009	0.51	0.019	2.13	2.27	0.18	0.405	0.070	0.067	9/9/2008 10:30	9/9/2008 12:15	1.75
41	9/12/2008 14:00	9/12/2008 23:30	9.5	0.008	0.49	0.016	0.81	0.99	0.06	0.292	0.114	0.082	9/12/2008 14:00	9/12/2008 21:45	7.75
42	9/26/2008 23:15	9/27/2008 6:45	7.5	0.007	0.18	0.037	0.73	0.88	0.05	0.264	0.138	0.024	9/26/2008 23:45	9/27/2008 4:15	4.5
43	9/28/2008 0:45	9/29/2008 9:45	33	0.070	1.99	0.035	3.81	4.03	0.62	0.450	0.129	0.070	9/28/2008 2:00	9/28/2008 19:45	17.75
44	9/30/2008 20:45	10/2/2008 5:00	32.25	0.015	0.37	0.041	1.10	1.37	0.10	0.291	0.171	0.064	9/30/2008 22:30	10/2/2008 0:30	26
45	10/25/2008 13:00	10/26/2008 1:45	12.75	0.046	1.34	0.035	3.03	3.27	0.41	0.646	0.135	0.084	10/25/2008 13:30	10/25/2008 22:15	8.75
46	10/27/2008 21:15	10/29/2008 6:45	33.5	0.071	1.57	0.045	1.38	1.58	0.08	0.456	0.140	0.064	10/27/2008 21:45	10/28/2008 16:30	18.75
47	11/5/2008 17:45	11/6/2008 10:45	17	0.004	0.40	0.011	0.40	0.64	0.05	0.242	0.138	0.073	11/5/2008 18:30	11/6/2008 9:45	15.25
48	11/13/2008 10:00	11/14/2008 14:15	28.25	0.021	0.76	0.028	0.63	0.84	0.07	0.301	0.145	0.068	11/13/2008 10:30	11/14/2008 5:15	18.75
49	11/15/2008 2:15	11/15/2008 13:00	10.75	0.008	0.36	0.023	0.55	0.70	0.06	0.299	0.148	0.063	11/15/2008 2:45	11/15/2008 10:00	7.25
50	11/15/2008 16:15	11/16/2008 14:30	22.25	0.023	0.61	0.037	0.84	1.09	0.22	0.339	0.146	0.073	11/15/2008 17:30	11/16/2008 3:15	9.75
51	11/24/2008 19:45	11/25/2008 20:15	24.5	0.010	0.46	0.021	0.17	0.35	0.03	0.209	0.092	0.071	11/24/2008 20:00	11/25/2008 10:15	14.25
52	11/30/2008 4:15	12/1/2008 0:00	19.75	0.010	0.76	0.013	0.18	0.37	0.04	0.230	0.085	0.087	11/30/2008 5:15	11/30/2008 23:30	18.25
Average:			24.0	0.051	0.73	0.069	1.96	2.26	0.12	0.533	0.232	0.070			12.1
Maximum Value:			88.8	0.438	3.20	0.509	7.01	7.49	0.62	1.459	0.384	0.107			31.5
Minimum Value:			2.8	0.004	0.13	0.011	0.17	0.35	0.02	0.209	0.070	0.012			1.25
Standard Deviation:			18.3	0.082	0.62	0.083	1.54	1.56	0.11	0.235	0.087	0.015			7.2
Weighted Mean R-Value*:						0.071									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**USE-0855 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 171

Tributary Service Population: 1,260

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	5/10/2000 18:15	5/10/2000 21:00	2.75	0.007	0.38	0.018	0.82	1.43	0.15	0.902	0.544	0.074	5/10/2000 18:45	5/10/2000 20:45	2
2	5/13/2000 21:00	5/14/2000 1:30	4.5	0.027	0.77	0.035	4.50	5.11	0.31	1.260	0.562	0.036	5/13/2000 21:15	5/14/2000 0:15	3
3	5/19/2000 7:45	5/19/2000 13:30	5.75	0.022	0.65	0.034	3.51	4.11	0.26	1.027	0.547	0.054	5/19/2000 8:00	5/19/2000 13:15	5.25
4	5/20/2000 5:15	5/20/2000 15:00	9.75	0.014	0.26	0.055	1.15	1.72	0.06	0.756	0.545	0.048	5/20/2000 6:15	5/20/2000 14:30	8.25
5	5/23/2000 23:00	5/24/2000 5:45	6.75	0.016	0.27	0.057	1.39	1.95	0.06	0.825	0.549	0.019	5/23/2000 23:45	5/24/2000 5:15	5.5
6	5/24/2000 20:30	5/25/2000 0:00	3.5	0.009	0.32	0.029	1.74	2.38	0.30	0.912	0.557	0.057	5/24/2000 21:00	5/24/2000 21:30	0.5
7	6/6/2000 6:00	6/6/2000 11:00	5	0.008	0.40	0.019	0.78	1.35	0.08	0.728	0.499	0.056	6/6/2000 6:00	6/6/2000 10:45	4.75
8	6/12/2000 17:45	6/13/2000 0:30	6.75	0.034	0.83	0.041	4.04	4.66	0.32	1.172	0.550	0.060	6/12/2000 19:00	6/12/2000 23:45	4.75
9	6/18/2000 16:30	6/19/2000 3:30	11	0.062	1.77	0.035	4.35	4.89	0.57	1.174	0.514	0.032	6/18/2000 16:45	6/19/2000 1:45	9
10	6/21/2000 21:45	6/22/2000 4:45	7	0.029	0.53	0.054	3.87	4.41	0.25	0.979	0.498	0.025	6/21/2000 23:00	6/22/2000 3:30	4.5
11	6/28/2000 18:30	6/28/2000 20:15	1.75	0.003	0.32	0.009	0.44	1.06	0.09	0.820	0.554	0.072	6/28/2000 18:30	6/28/2000 20:00	1.5
12	7/3/2000 20:00	7/3/2000 22:00	2	0.009	0.40	0.023	2.45	3.02	0.22	1.064	0.475	0.082	7/3/2000 20:30	7/3/2000 22:00	1.5
13	7/10/2000 3:30	7/10/2000 5:00	1.5	0.005	0.20	0.024	1.24	1.78	0.12	0.904	0.531	0.010	7/10/2000 4:00	7/10/2000 4:45	0.75
14	7/14/2000 11:00	7/14/2000 14:45	3.75	0.001	0.16	0.005	0.32	0.89	0.04	0.600	0.523	0.051	7/14/2000 11:15	7/14/2000 14:15	3
15	7/15/2000 2:15	7/15/2000 6:45	4.5	0.002	0.41	0.006	0.18	0.72	0.18	0.593	0.524	0.011	7/15/2000 2:30	7/15/2000 6:15	3.75
16	7/16/2000 15:30	7/16/2000 21:30	6	0.019	0.52	0.036	3.82	4.36	0.18	0.889	0.498	0.038	7/16/2000 16:15	7/16/2000 19:15	3
17	7/19/2000 12:45	7/19/2000 18:15	5.5	0.007	0.35	0.021	0.39	0.90	0.06	0.663	0.464	0.050	7/19/2000 12:45	7/19/2000 18:15	5.5
18	7/22/2000 0:00	7/22/2000 2:15	2.25	0.001	0.19	0.005	0.14	0.67	0.09	0.580	0.511	0.024	7/22/2000 0:30	7/22/2000 1:00	0.5
19	7/26/2000 3:15	7/26/2000 15:15	12	0.044	1.23	0.036	2.92	3.47	0.16	0.944	0.496	0.044	7/26/2000 3:30	7/26/2000 14:00	10.5
20	7/26/2000 16:00	7/27/2000 11:00	19	0.047	1.27	0.037	3.67	4.20	0.25	0.802	0.483	0.045	7/26/2000 16:15	7/27/2000 10:45	18.5
21	7/31/2000 2:00	7/31/2000 5:00	3	0.011	0.39	0.028	2.65	3.17	0.13	0.943	0.519	0.013	7/31/2000 2:30	7/31/2000 4:15	1.75
22	8/1/2000 2:00	8/1/2000 7:15	5.25	0.017	0.70	0.024	4.03	4.53	0.27	0.861	0.485	0.023	8/1/2000 2:15	8/1/2000 5:15	3
23	8/3/2000 0:15	8/3/2000 1:45	1.5	0.004	0.22	0.016	0.76	1.29	0.10	0.777	0.490	0.021	8/3/2000 0:30	8/3/2000 1:45	1.25
24	8/3/2000 22:45	8/4/2000 3:15	4.5	0.019	0.40	0.047	2.90	3.43	0.21	0.986	0.494	0.024	8/3/2000 23:30	8/4/2000 2:00	2.5
25	8/11/2000 13:45	8/11/2000 15:15	1.5	0.001	0.29	0.005	0.72	1.21	0.23	0.623	0.458	0.051	8/11/2000 14:15	8/11/2000 15:00	0.75
26	8/11/2000 19:15	8/11/2000 21:45	2.5	0.008	0.15	0.056	2.43	2.96	0.11	0.912	0.458	0.081	8/11/2000 20:45	8/11/2000 21:15	0.5
27	8/12/2000 13:30	8/12/2000 17:45	4.25	0.007	0.13	0.051	1.18	1.69	0.04	0.671	0.462	0.036	8/12/2000 13:45	8/12/2000 16:15	2.5
28	8/14/2000 10:00	8/14/2000 17:00	7	0.015	0.88	0.018	1.05	1.58	0.18	0.787	0.495	0.048	8/14/2000 10:15	8/14/2000 15:45	5.5
29	8/27/2000 19:45	8/28/2000 1:30	5.75	0.042	0.57	0.073	3.11	3.60	0.21	1.309	0.461	0.034	8/27/2000 22:15	8/28/2000 1:00	2.75
30	8/31/2000 9:45	8/31/2000 11:45	2	0.000	0.14	0.003	0.13	0.63	0.09	0.515	0.440	0.051	8/31/2000 10:00	8/31/2000 10:45	0.75
31	9/3/2000 17:15	9/3/2000 21:00	3.75	0.023	0.74	0.031	1.98	2.46	0.26	1.178	0.453	0.045	9/3/2000 17:15	9/3/2000 20:45	3.5
32	9/13/2000 5:00	9/13/2000 8:00	3	0.014	0.73	0.019	3.09	3.58	0.38	1.006	0.445	0.045	9/13/2000 6:00	9/13/2000 7:45	1.75
33	9/15/2000 0:00	9/15/2000 13:30	13.5	0.065	1.76	0.037	3.50	3.95	0.32	1.013	0.435	0.038	9/15/2000 0:45	9/15/2000 8:15	7.5
34	9/19/2000 14:30	9/19/2000 17:00	2.5	0.009	0.60	0.016	2.05	2.62	0.22	0.997	0.530	0.046	9/19/2000 15:00	9/19/2000 16:15	1.25

**USE-0855 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 171

Tributary Service Population: 1,260

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	9/19/2000 19:30	9/20/2000 3:15	7.75	0.018	0.77	0.023	1.66	2.27	0.17	0.820	0.523	0.043	9/19/2000 19:30	9/20/2000 1:45	6.25
36	9/25/2000 20:00	9/26/2000 17:15	21.25	0.111	1.92	0.058	2.51	3.01	0.12	1.067	0.440	0.044	9/25/2000 20:00	9/26/2000 14:00	18
37	10/4/2000 18:00	10/5/2000 2:15	8.25	0.023	0.80	0.028	2.00	2.53	0.17	0.811	0.453	0.052	10/4/2000 21:00	10/5/2000 1:45	4.75
38	11/9/2000 19:30	11/10/2000 9:15	13.75	0.021	0.70	0.030	1.06	1.52	0.09	0.648	0.439	0.041	11/9/2000 19:45	11/10/2000 7:45	12
39	11/14/2000 8:00	11/14/2000 13:30	5.5	0.007	0.30	0.022	0.31	0.79	0.03	0.617	0.429	0.051	11/14/2000 8:00	11/14/2000 13:00	5
40	11/20/2000 17:00	11/20/2000 20:00	3	0.000	0.11	0.003	0.09	0.60	0.05	0.527	0.449	0.067	11/20/2000 17:45	11/20/2000 18:30	0.75
41	11/25/2000 23:00	11/26/2000 20:00	21	0.044	1.21	0.036	0.97	1.42	0.06	0.707	0.441	0.035	11/25/2000 23:45	11/26/2000 17:15	17.5
42	1/6/2001 10:45	1/6/2001 14:45	4	0.002	0.12	0.014	0.16	0.67	0.05	0.539	0.439	0.054	1/6/2001 12:00	1/6/2001 12:45	0.75
43	1/15/2001 1:30	1/15/2001 9:00	7.5	0.009	0.18	0.050	0.31	0.86	0.03	0.663	0.498	0.032	1/15/2001 1:30	1/15/2001 6:30	5
44	1/19/2001 3:15	1/21/2001 0:00	44.75	0.119	1.50	0.079	1.20	1.76	0.04	0.840	0.499	0.045	1/19/2001 3:30	1/20/2001 22:45	43.25
45	1/24/2001 11:45	1/24/2001 18:30	6.75	0.005	0.20	0.027	0.23	0.88	0.04	0.751	0.612	0.050	1/24/2001 12:30	1/24/2001 16:45	4.25
46	1/30/2001 6:00	1/31/2001 6:45	24.75	0.071	0.66	0.108	1.34	2.08	0.06	1.074	0.706	0.046	1/30/2001 6:00	1/30/2001 14:00	8
47	2/5/2001 3:30	2/5/2001 18:45	15.25	0.048	0.83	0.058	1.21	2.09	0.05	1.212	0.815	0.047	2/5/2001 5:15	2/5/2001 11:15	6
48	2/6/2001 11:45	2/7/2001 7:15	19.5	0.032	0.88	0.037	0.47	1.39	0.08	1.116	0.888	0.044	2/6/2001 11:45	2/7/2001 0:00	12.25
49	2/10/2001 4:45	2/10/2001 13:00	8.25	0.021	0.20	0.105	0.71	1.62	0.15	1.216	0.887	0.046	2/10/2001 6:00	2/10/2001 6:45	0.75
50	2/16/2001 12:00	2/17/2001 10:45	22.75	0.054	0.53	0.101	0.63	1.60	0.03	1.218	0.909	0.046	2/16/2001 13:15	2/17/2001 10:15	21
51	2/23/2001 13:15	2/23/2001 16:15	3	0.001	0.21	0.005	0.13	1.10	0.06	1.008	0.921	0.048	2/23/2001 13:30	2/23/2001 14:30	1
52	2/25/2001 9:15	2/26/2001 7:30	22.25	0.045	0.26	0.172	0.71	1.68	0.04	1.191	0.929	0.037	2/25/2001 10:15	2/25/2001 20:30	10.25
53	3/4/2001 10:15	3/4/2001 15:45	5.5	0.002	0.12	0.020	0.26	1.01	0.02	0.814	0.717	0.050	3/4/2001 10:45	3/4/2001 14:30	3.75
54	3/7/2001 9:15	3/7/2001 18:00	8.75	0.010	0.27	0.036	0.34	1.14	0.04	0.913	0.741	0.049	3/7/2001 9:30	3/7/2001 15:15	5.75
55	3/9/2001 4:15	3/9/2001 6:45	2.5	0.003	0.10	0.034	0.27	1.03	0.02	0.925	0.745	0.027	3/9/2001 4:45	3/9/2001 6:30	1.75
56	3/12/2001 22:15	3/14/2001 7:45	33.5	0.095	0.91	0.104	1.30	2.04	0.07	1.085	0.729	0.041	3/12/2001 22:45	3/13/2001 16:15	17.5
57	3/15/2001 17:15	3/15/2001 21:30	4.25	0.010	0.30	0.032	0.60	1.41	0.07	1.060	0.736	0.072	3/15/2001 18:45	3/15/2001 21:00	2.25
58	3/16/2001 16:30	3/17/2001 9:45	17.25	0.045	0.39	0.115	0.77	1.58	0.05	1.069	0.734	0.044	3/16/2001 16:30	3/17/2001 2:00	9.5
59	3/21/2001 10:15	3/22/2001 6:30	20.25	0.079	1.22	0.065	1.73	2.57	0.11	1.269	0.791	0.044	3/21/2001 10:15	3/22/2001 0:45	14.5
60	3/29/2001 17:15	3/31/2001 11:30	42.25	0.324	2.36	0.137	3.96	4.90	0.18	1.872	0.971	0.046	3/29/2001 17:30	3/31/2001 10:15	40.75
61	4/6/2001 11:30	4/6/2001 17:30	6	0.007	0.19	0.037	0.39	1.35	0.05	1.088	0.907	0.051	4/6/2001 11:45	4/6/2001 16:15	4.5
62	4/9/2001 20:30	4/10/2001 1:45	5.25	0.011	0.36	0.031	1.32	2.28	0.23	1.162	0.880	0.046	4/9/2001 20:45	4/9/2001 21:45	1
63	4/11/2001 12:15	4/12/2001 6:45	18.5	0.065	0.30	0.217	3.33	4.17	0.02	1.267	0.832	0.043	4/11/2001 12:30	4/12/2001 5:15	16.75
64	4/15/2001 20:45	4/16/2001 6:45	10	0.013	0.43	0.030	0.47	1.24	0.03	0.914	0.745	0.025	4/15/2001 20:45	4/16/2001 6:00	9.25
65	4/18/2001 0:45	4/18/2001 7:15	6.5	0.004	0.14	0.030	0.18	0.99	0.02	0.845	0.752	0.022	4/18/2001 1:00	4/18/2001 6:30	5.5
66	4/21/2001 8:00	4/21/2001 9:45	1.75	0.001	0.11	0.007	0.65	1.48	0.04	0.863	0.753	0.061	4/21/2001 8:00	4/21/2001 9:15	1.25
Average:			9.4	0.029	0.57	0.043	1.55	2.19	0.13	0.929	0.596	0.044			6.7
Maximum Value:			44.8	0.324	2.36	0.217	4.50	5.11	0.57	1.872	0.971	0.082			43.3
Minimum Value:			1.5	0.000	0.10	0.003	0.09	0.60	0.02	0.515	0.429	0.010			0.50
Standard Deviation:			9.3	0.046	0.49	0.040	1.32	1.29	0.11	0.240	0.161	0.015			8.1



**USE-0855 Upper Schuylkill East Side Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 171

Tributary Service Population: 1,260

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
Weighted Mean R-Value*:						0.051									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**W067-01-S0060 Wissahickon High Level Interceptor**

Pipe Size (In.): 15

Tributary Drainage Area (acres): 257

Tributary Service Population: 3,990

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/3/2013 6:00	6/4/2013 8:45	26.75	0.025	0.69	0.036	1.76	2.41	0.25	0.745	0.449	0.139	6/3/2013 6:00	6/3/2013 17:00	11
2	6/6/2013 19:30	6/9/2013 0:30	53	0.126	3.64	0.035	2.25	2.87	0.20	1.013	0.476	0.140	6/6/2013 19:30	6/8/2013 1:30	30
3	6/10/2013 6:45	6/10/2013 10:45	4	0.012	0.80	0.014	3.71	4.37	0.48	1.086	0.433	0.199	6/10/2013 6:45	6/10/2013 8:15	1.5
4	6/10/2013 13:00	6/12/2013 3:15	38.25	0.047	0.99	0.048	3.89	4.53	0.19	0.825	0.490	0.129	6/10/2013 13:15	6/11/2013 0:45	11.5
5	6/13/2013 9:15	6/14/2013 9:30	24.25	0.015	0.57	0.026	3.67	4.43	0.32	0.798	0.564	0.133	6/13/2013 9:30	6/14/2013 5:15	19.75
6	6/18/2013 12:30	6/19/2013 6:30	18	0.019	0.61	0.031	1.23	1.84	0.12	0.746	0.462	0.113	6/18/2013 12:30	6/18/2013 20:30	8
7	6/25/2013 23:00	6/26/2013 3:30	4.5	0.002	0.18	0.009	0.19	0.85	0.16	0.673	0.580	0.039	6/25/2013 23:15	6/25/2013 23:45	0.5
8	6/26/2013 20:30	6/27/2013 7:15	10.75	0.014	0.40	0.034	2.92	3.70	0.36	0.872	0.578	0.086	6/26/2013 20:45	6/26/2013 21:15	0.5
9	6/27/2013 17:15	6/29/2013 0:00	30.75	0.047	0.74	0.064	2.49	3.25	0.34	0.972	0.577	0.139	6/27/2013 17:30	6/28/2013 21:15	27.75
10	6/30/2013 12:30	7/1/2013 3:00	14.5	0.018	0.30	0.061	0.68	1.37	0.06	0.902	0.548	0.144	6/30/2013 12:45	6/30/2013 23:30	10.75
11	7/1/2013 7:00	7/2/2013 0:15	17.25	0.018	0.26	0.068	1.76	2.49	0.10	0.854	0.518	0.165	7/1/2013 7:15	7/1/2013 14:15	7
12	7/3/2013 22:15	7/4/2013 7:45	9.5	0.006	0.11	0.054	0.73	1.34	0.10	0.637	0.478	0.057	7/3/2013 22:30	7/3/2013 22:45	0.25
13	7/7/2013 19:45	7/7/2013 23:00	3.25	0.002	0.18	0.012	1.05	1.74	0.11	0.765	0.505	0.160	7/7/2013 20:00	7/7/2013 21:00	1
14	7/12/2013 15:30	7/13/2013 10:15	18.75	0.028	0.84	0.034	1.31	1.92	0.16	0.830	0.456	0.123	7/12/2013 15:30	7/12/2013 23:30	8
15	7/20/2013 21:00	7/21/2013 0:15	3.25	0.004	0.18	0.023	1.56	2.07	0.15	0.707	0.379	0.128	7/20/2013 22:00	7/20/2013 22:15	0.25
16	7/23/2013 0:45	7/23/2013 6:45	6	0.014	0.73	0.019	2.65	3.03	0.38	0.760	0.354	0.042	7/23/2013 0:45	7/23/2013 3:00	2.25
17	7/28/2013 14:15	7/29/2013 3:45	13.5	0.013	0.22	0.058	0.62	1.18	0.05	0.661	0.376	0.127	7/28/2013 14:45	7/29/2013 2:30	11.75
18	8/1/2013 6:15	8/2/2013 5:30	23.25	0.031	0.83	0.038	1.43	2.01	0.07	0.782	0.426	0.133	8/1/2013 6:30	8/1/2013 16:45	10.25
19	8/7/2013 23:00	8/8/2013 4:00	5	0.007	0.30	0.024	1.25	1.68	0.16	0.675	0.409	0.036	8/8/2013 0:15	8/8/2013 1:45	1.5
20	8/13/2013 4:45	8/15/2013 0:00	43.25	0.065	2.33	0.028	5.25	5.79	0.47	0.727	0.332	0.144	8/13/2013 5:00	8/13/2013 9:30	4.5
21	8/28/2013 9:45	8/29/2013 3:00	17.25	0.031	1.48	0.021	5.11	5.65	0.49	0.802	0.372	0.136	8/28/2013 9:45	8/28/2013 16:15	6.5
22	9/2/2013 10:30	9/3/2013 2:45	16.25	0.021	1.52	0.014	3.11	3.75	0.61	0.740	0.368	0.161	9/2/2013 10:30	9/2/2013 13:00	2.5
23	9/12/2013 18:15	9/13/2013 16:45	22.5	0.019	0.50	0.037	1.97	2.28	0.16	0.560	0.293	0.130	9/12/2013 18:45	9/13/2013 7:30	12.75
24	9/21/2013 19:45	9/22/2013 21:30	25.75	0.027	1.18	0.023	1.48	1.78	0.21	0.546	0.225	0.149	9/21/2013 20:00	9/22/2013 3:30	7.5
Average:			18.7	0.025	0.82	0.034	2.17	2.76	0.24	0.778	0.444	0.123			8.2
Maximum Value:			53.0	0.126	3.64	0.068	5.25	5.79	0.61	1.086	0.580	0.199			30.0
Minimum Value:			3.3	0.002	0.11	0.009	0.19	0.85	0.05	0.546	0.225	0.036			0.25
Standard Deviation:			13.1	0.026	0.80	0.017	1.38	1.39	0.16	0.131	0.095	0.042			8.1
Weighted Mean R-Value*:						0.031									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**WHL-0110 Wissahickon High Level Interceptor (2001)**

Pipe Size (In.): 52.25

Tributary Drainage Area (acres): 1,834

Tributary Service Population: 13,706

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/19/2001 3:00	1/21/2001 0:00	45	0.037	1.30	0.028	3.75	7.06	0.04	4.33	2.45	0.828	1/19/2001 3:15	1/20/2001 19:45	40.5
2	1/22/2001 12:00	1/23/2001 0:00	12	0.002	0.10	0.021	0.69	4.14	0.01	3.69	2.61	0.852	1/22/2001 12:15	1/22/2001 16:15	4
3	1/30/2001 6:00	1/31/2001 2:00	20	0.017	0.79	0.022	4.14	7.74	0.08	4.74	2.70	0.926	1/30/2001 6:00	1/30/2001 14:00	8
4	2/5/2001 5:30	2/5/2001 15:00	9.5	0.012	0.68	0.018	3.70	7.66	0.04	5.42	2.83	0.976	2/5/2001 5:45	2/5/2001 12:00	6.25
5	2/6/2001 6:15	2/7/2001 0:00	17.75	0.007	0.53	0.014	1.27	5.31	0.06	4.63	3.17	0.953	2/6/2001 6:45	2/6/2001 13:00	6.25
6	2/16/2001 14:15	2/17/2001 5:30	15.25	0.012	0.47	0.026	2.48	6.67	0.03	5.08	3.43	0.647	2/16/2001 14:30	2/17/2001 0:00	9.5
7	2/23/2001 11:45	2/23/2001 21:00	9.25	0.003	0.22	0.014	1.14	5.37	0.07	4.64	3.33	0.884	2/23/2001 13:00	2/23/2001 15:30	2.5
8	2/25/2001 8:30	2/26/2001 2:45	18.25	0.008	0.24	0.034	2.27	7.02	0.05	4.76	3.20	0.985	2/25/2001 9:15	2/25/2001 20:30	11.25
9	3/4/2001 10:30	3/5/2001 0:30	14	0.005	0.10	0.053	1.35	5.89	0.01	4.82	3.26	1.081	3/4/2001 10:45	3/4/2001 14:15	3.5
10	3/6/2001 13:00	3/6/2001 20:30	7.5	0.002	0.23	0.008	1.43	5.80	0.02	4.56	3.43	0.834	3/6/2001 13:30	3/6/2001 18:15	4.75
11	3/7/2001 9:30	3/7/2001 19:30	10	0.007	0.21	0.032	2.11	6.43	0.03	5.20	3.43	0.930	3/7/2001 9:30	3/7/2001 13:00	3.5
12	3/9/2001 4:00	3/9/2001 10:00	6	0.003	0.09	0.028	1.97	6.09	0.02	4.59	3.33	0.738	3/9/2001 4:45	3/9/2001 6:45	2
13	3/12/2001 21:30	3/13/2001 15:30	18	0.019	0.65	0.029	4.54	8.48	0.06	5.47	3.39	0.734	3/12/2001 22:45	3/13/2001 9:45	11
14	3/15/2001 18:45	3/16/2001 0:45	6	0.005	0.43	0.012	3.48	7.98	0.11	5.46	3.49	0.903	3/15/2001 18:45	3/15/2001 21:30	2.75
15	3/16/2001 14:15	3/17/2001 7:45	17.5	0.010	0.41	0.024	3.16	7.57	0.11	4.84	3.54	0.580	3/16/2001 15:00	3/17/2001 4:45	13.75
16	3/21/2001 9:45	3/22/2001 9:30	23.75	0.024	0.80	0.030	5.34	9.86	0.07	5.87	3.82	0.759	3/21/2001 10:30	3/22/2001 1:00	14.5
17	4/6/2001 10:45	4/6/2001 18:00	7.25	0.002	0.14	0.018	2.98	8.57	0.04	6.00	4.68	0.898	4/6/2001 11:00	4/6/2001 16:00	5
18	4/9/2001 20:45	4/10/2001 2:15	5.5	0.004	0.21	0.020	4.66	9.75	0.15	5.79	4.10	0.730	4/9/2001 20:45	4/9/2001 21:45	1
19	4/11/2001 11:00	4/12/2001 4:45	17.75	0.008	0.36	0.023	1.85	6.98	0.02	5.42	4.11	0.709	4/11/2001 11:45	4/12/2001 1:30	13.75
20	4/15/2001 20:15	4/16/2001 16:15	20	0.011	0.37	0.029	2.71	7.40	0.02	5.35	3.94	0.732	4/15/2001 20:30	4/16/2001 9:45	13.25
21	5/21/2001 0:15	5/22/2001 2:45	26.5	0.015	1.11	0.014	4.22	7.60	0.11	4.26	2.81	0.716	5/21/2001 0:30	5/22/2001 0:15	23.75
22	5/22/2001 3:30	5/22/2001 14:15	10.75	0.017	0.58	0.029	12.14	16.56	0.12	5.61	2.86	0.805	5/22/2001 4:00	5/22/2001 8:30	4.5
23	5/22/2001 19:45	5/23/2001 4:00	8.25	0.003	0.23	0.012	1.64	5.41	0.04	3.93	2.90	0.612	5/22/2001 20:00	5/23/2001 1:00	5
24	5/26/2001 6:00	5/28/2001 16:00	58	0.058	2.56	0.023	5.30	8.10	0.16	4.94	2.83	0.839	5/26/2001 6:30	5/28/2001 1:30	43
25	6/1/2001 18:30	6/2/2001 15:00	20.5	0.023	1.46	0.016	6.80	10.77	0.16	5.30	3.09	0.778	6/1/2001 18:45	6/2/2001 9:00	14.25
26	6/11/2001 21:30	6/12/2001 2:30	5	0.000	0.12	0.002	0.48	3.92	0.12	3.44	2.73	0.652	6/11/2001 23:00	6/11/2001 23:00	0
27	6/16/2001 11:15	6/18/2001 5:00	41.75	0.093	2.69	0.035	17.54	21.28	0.59	6.80	3.12	0.812	6/16/2001 11:30	6/17/2001 9:45	22.25
28	6/23/2001 10:00	6/24/2001 0:00	14	0.004	0.14	0.029	2.42	7.54	0.10	5.03	3.53	1.128	6/23/2001 14:30	6/23/2001 14:45	0.25
29	7/1/2001 18:00	7/2/2001 1:45	7.75	0.004	0.35	0.011	3.58	7.64	0.23	4.46	3.02	0.811	7/1/2001 18:15	7/1/2001 19:45	1.5
30	7/4/2001 23:00	7/5/2001 7:15	8.25	0.002	0.21	0.010	2.04	4.90	0.03	3.40	2.81	0.283	7/4/2001 23:00	7/5/2001 5:15	6.25
31	7/9/2001 3:00	7/9/2001 7:15	4.25	0.002	0.33	0.006	3.09	5.97	0.17	3.53	2.85	0.114	7/9/2001 3:00	7/9/2001 4:00	1
32	7/18/2001 9:15	7/18/2001 13:15	4	0.001	0.08	0.011	1.55	5.34	0.02	3.63	2.64	1.124	7/18/2001 9:30	7/18/2001 10:30	1
33	8/10/2001 15:15	8/10/2001 20:15	5	0.005	0.57	0.008	9.31	12.25	0.37	4.12	2.17	0.835	8/10/2001 15:30	8/10/2001 18:45	3.25
34	8/12/2001 10:45	8/13/2001 7:30	20.75	0.015	1.05	0.014	8.66	12.36	0.31	3.87	2.19	0.780	8/12/2001 11:00	8/13/2001 1:00	14

**WHL-0110 Wissahickon High Level Interceptor (2001)**

Pipe Size (In.): 52.25

Tributary Drainage Area (acres): 1,834

Tributary Service Population: 13,706

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	8/19/2001 19:00	8/20/2001 7:30	12.5	0.007	0.31	0.022	8.50	10.93	0.28	3.44	2.24	0.501	8/19/2001 19:15	8/20/2001 1:45	6.5
36	9/14/2001 2:45	9/14/2001 14:45	12	0.010	0.63	0.016	5.22	8.99	0.14	3.82	2.01	0.770	9/14/2001 3:30	9/14/2001 11:45	8.25
37	9/20/2001 12:00	9/21/2001 1:15	13.25	0.008	0.22	0.038	2.58	5.43	0.05	3.58	1.95	0.843	9/20/2001 12:15	9/20/2001 22:00	9.75
38	9/21/2001 1:30	9/21/2001 8:45	7.25	0.003	0.19	0.017	2.41	4.39	0.06	2.93	1.96	0.408	9/21/2001 2:45	9/21/2001 4:30	1.75
39	9/24/2001 21:45	9/25/2001 12:30	14.75	0.010	0.46	0.023	4.66	7.13	0.06	3.60	2.01	0.701	9/24/2001 21:45	9/25/2001 9:45	12
40	9/30/2001 16:00	10/1/2001 10:30	18.5	0.006	0.23	0.028	2.84	5.65	0.03	3.07	1.90	0.733	9/30/2001 17:45	10/1/2001 7:00	13.25
41	10/6/2001 8:30	10/6/2001 12:30	4	0.001	0.14	0.008	3.91	7.31	0.08	3.59	1.89	1.359	10/6/2001 9:00	10/6/2001 10:45	1.75
42	10/14/2001 22:45	10/15/2001 5:30	6.75	0.006	0.27	0.023	4.64	6.69	0.08	3.20	1.75	0.303	10/14/2001 23:00	10/15/2001 1:15	2.25
43	11/25/2001 17:00	11/26/2001 0:00	7	0.009	0.67	0.013	11.58	14.15	0.29	4.11	1.60	0.910	11/25/2001 17:30	11/25/2001 22:15	4.75
44	12/8/2001 13:15	12/9/2001 6:15	17	0.018	0.97	0.019	3.61	6.28	0.04	3.72	1.65	0.714	12/8/2001 13:15	12/9/2001 5:15	16
45	12/12/2001 21:00	12/13/2001 9:15	12.25	0.003	0.10	0.025	0.70	3.79	0.01	2.54	1.68	0.601	12/12/2001 22:00	12/13/2001 6:30	8.5
46	12/14/2001 7:30	12/14/2001 19:30	12	0.007	0.25	0.027	1.83	4.63	0.02	3.46	1.73	1.038	12/14/2001 7:45	12/14/2001 16:30	8.75
47	12/17/2001 19:15	12/18/2001 11:45	16.5	0.010	0.42	0.025	1.80	4.54	0.03	3.25	1.72	0.731	12/17/2001 19:15	12/18/2001 7:15	12
48	12/23/2001 22:45	12/24/2001 7:30	8.75	0.010	0.58	0.017	4.86	6.91	0.11	3.44	1.75	0.315	12/23/2001 23:00	12/24/2001 5:30	6.5
49	1/6/2002 15:00	1/7/2002 3:45	12.75	0.016	0.84	0.019	6.00	8.81	0.09	4.18	1.87	0.741	1/6/2002 15:45	1/6/2002 21:00	5.25
50	1/7/2002 7:15	1/7/2002 19:00	11.75	0.003	0.12	0.024	0.95	4.22	0.01	3.32	1.98	1.035	1/7/2002 8:15	1/7/2002 17:45	9.5
51	1/9/2002 9:00	1/9/2002 16:45	7.75	0.002	0.11	0.018	0.91	3.85	0.01	3.27	1.95	1.013	1/9/2002 9:30	1/9/2002 13:30	4
52	1/11/2002 5:30	1/11/2002 18:45	13.25	0.007	0.29	0.024	2.80	5.65	0.02	3.51	1.90	0.944	1/11/2002 5:45	1/11/2002 13:00	7.25
53	1/21/2002 9:00	1/22/2002 3:30	18.5	0.006	0.37	0.017	1.00	3.78	0.02	3.04	1.80	0.823	1/21/2002 12:00	1/22/2002 2:00	14
54	1/24/2002 7:45	1/24/2002 17:15	9.5	0.012	0.51	0.023	6.21	9.13	0.14	4.45	1.85	1.061	1/24/2002 8:15	1/24/2002 12:30	4.25
55	1/30/2002 18:00	2/1/2002 22:45	52.75	0.013	0.44	0.031	2.53	5.29	0.04	2.98	1.87	0.785	1/30/2002 19:00	2/1/2002 17:45	46.75
56	2/10/2002 17:15	2/11/2002 3:30	10.25	0.004	0.26	0.016	2.15	4.60	0.10	2.95	1.74	0.696	2/10/2002 17:45	2/11/2002 0:00	6.25
57	3/2/2002 19:15	3/3/2002 7:30	12.25	0.021	1.25	0.017	8.32	10.41	0.16	4.55	1.86	0.477	3/2/2002 19:15	3/3/2002 4:15	9
58	3/13/2002 2:00	3/13/2002 14:30	12.5	0.003	0.15	0.020	0.97	4.29	0.01	2.79	1.77	0.721	3/13/2002 2:30	3/13/2002 11:45	9.25
59	3/17/2002 19:15	3/18/2002 14:15	19	0.013	0.81	0.016	2.15	5.33	0.04	3.53	1.92	0.740	3/17/2002 20:00	3/18/2002 11:30	15.5
60	3/20/2002 3:45	3/20/2002 23:30	19.75	0.022	1.27	0.017	3.47	6.37	0.05	4.30	2.06	0.843	3/20/2002 4:00	3/20/2002 16:15	12.25
61	3/26/2002 21:15	3/27/2002 6:30	9.25	0.009	0.71	0.013	4.25	7.17	0.13	3.59	1.95	0.404	3/26/2002 21:30	3/27/2002 1:30	4
Average:			14.9	0.011	0.53	0.021	3.85	7.33	0.09	4.21	2.59	0.773			9.4
Maximum Value:			58.0	0.093	2.69	0.053	17.54	21.28	0.59	6.80	4.68	1.359			46.8
Minimum Value:			4.0	0.000	0.08	0.002	0.48	3.78	0.01	2.54	1.60	0.114			0.00
Standard Deviation:			10.8	0.014	0.52	0.009	3.12	3.15	0.10	0.95	0.78	0.222			9.4
Weighted Mean R-Value*:						0.021									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**WHL-0110 Wissahickon High Level Interceptor (2013)**

Pipe Size (In.): 54

Tributary Drainage Area (acres): 1,834

Tributary Service Population: 13,706

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/3/2013 0:00	6/4/2013 6:15	30.25	0.023	0.89	0.025	13.08	16.25	0.25	3.87	2.43	0.556	6/3/2013 0:00	6/3/2013 17:00	17
2	6/6/2013 19:15	6/10/2013 1:30	78.25	0.130	3.54	0.037	14.00	17.31	0.20	5.42	2.80	0.638	6/6/2013 19:15	6/8/2013 1:45	30.5
3	6/10/2013 7:00	6/12/2013 20:15	61.25	0.065	1.80	0.036	12.18	16.10	0.40	5.40	3.47	0.678	6/10/2013 7:15	6/11/2013 0:45	17.5
4	6/13/2013 9:30	6/14/2013 9:30	24	0.014	0.62	0.023	11.27	16.12	0.36	5.10	3.75	0.641	6/13/2013 9:30	6/14/2013 5:45	20.25
5	6/18/2013 12:30	6/19/2013 9:45	21.25	0.014	0.46	0.031	5.27	9.58	0.08	4.91	3.52	0.588	6/18/2013 12:30	6/18/2013 20:30	8
6	6/25/2013 23:15	6/26/2013 16:15	17	0.003	0.13	0.024	1.60	5.26	0.11	3.94	3.12	0.601	6/25/2013 23:30	6/25/2013 23:45	0.25
7	6/26/2013 20:30	6/27/2013 16:00	19.5	0.011	0.48	0.024	10.19	14.14	0.39	4.42	3.10	0.629	6/26/2013 20:45	6/26/2013 23:30	2.75
8	6/27/2013 17:30	6/29/2013 19:45	50.25	0.021	0.61	0.035	8.30	12.03	0.22	4.22	3.08	0.631	6/27/2013 17:45	6/28/2013 21:15	27.5
9	6/30/2013 12:45	7/1/2013 5:45	17	0.009	0.28	0.032	3.49	7.39	0.03	4.34	3.09	0.645	6/30/2013 12:45	7/1/2013 5:30	16.75
10	7/1/2013 7:00	7/2/2013 9:15	26.25	0.013	0.27	0.048	5.28	9.57	0.08	4.33	3.12	0.638	7/1/2013 7:15	7/2/2013 1:00	17.75
11	7/3/2013 22:30	7/4/2013 10:45	12.25	0.003	0.14	0.023	1.79	5.57	0.12	3.76	3.08	0.383	7/3/2013 22:30	7/3/2013 23:00	0.5
12	7/7/2013 20:00	7/8/2013 9:00	13	0.004	0.17	0.022	2.00	5.60	0.11	3.59	2.80	0.456	7/7/2013 20:00	7/7/2013 21:00	1
13	7/12/2013 16:15	7/13/2013 15:00	22.75	0.028	0.82	0.034	7.69	10.52	0.12	4.86	2.80	0.601	7/12/2013 16:15	7/13/2013 0:00	7.75
14	7/20/2013 22:00	7/21/2013 17:45	19.75	0.007	0.23	0.029	7.34	10.65	0.20	3.57	2.56	0.606	7/20/2013 22:15	7/21/2013 8:15	10
15	7/22/2013 18:30	7/23/2013 21:45	27.25	0.017	0.84	0.021	10.83	13.41	0.38	3.81	2.42	0.645	7/22/2013 18:30	7/23/2013 17:45	23.25
16	7/28/2013 15:00	7/29/2013 18:30	27.5	0.012	0.25	0.049	3.42	6.53	0.08	3.51	2.31	0.664	7/28/2013 15:00	7/29/2013 2:30	11.5
17	8/1/2013 6:45	8/2/2013 8:00	25.25	0.028	0.71	0.039	6.49	9.64	0.08	4.21	2.30	0.616	8/1/2013 6:45	8/1/2013 15:15	8.5
18	8/8/2013 0:15	8/8/2013 21:00	20.75	0.009	0.26	0.034	3.85	6.56	0.12	3.35	2.25	0.614	8/8/2013 0:30	8/8/2013 15:00	14.5
19	8/9/2013 17:00	8/10/2013 14:15	21.25	0.006	0.12	0.054	2.50	5.39	0.06	3.19	2.26	0.585	8/9/2013 17:00	8/9/2013 17:45	0.75
20	8/13/2013 5:15	8/14/2013 15:15	34	0.047	2.41	0.020	14.46	17.79	0.37	4.55	2.23	0.665	8/13/2013 5:15	8/13/2013 9:30	4.25
21	8/22/2013 12:45	8/23/2013 5:15	16.5	0.007	0.24	0.029	5.55	8.63	0.18	3.38	2.27	0.607	8/22/2013 12:45	8/22/2013 17:00	4.25
22	8/28/2013 9:45	8/30/2013 0:00	38.25	0.049	1.75	0.028	14.69	17.65	0.64	4.29	2.07	0.707	8/28/2013 9:45	8/28/2013 16:15	6.5
23	9/2/2013 10:30	9/3/2013 15:15	28.75	0.026	0.93	0.028	14.65	17.73	0.36	3.79	2.00	0.729	9/2/2013 10:30	9/2/2013 13:00	2.5
24	9/12/2013 18:45	9/13/2013 20:45	26	0.016	0.51	0.033	8.17	10.53	0.15	3.64	2.25	0.634	9/12/2013 18:45	9/13/2013 7:30	12.75
25	9/21/2013 20:00	9/23/2013 2:00	30	0.033	1.16	0.029	10.54	13.40	0.23	4.05	2.10	0.637	9/21/2013 20:00	9/22/2013 3:30	7.5
Average:			28.3	0.024	0.78	0.031	7.94	11.33	0.21	4.14	2.69	0.616			11.0
Maximum Value:			78.3	0.130	3.54	0.054	14.69	17.79	0.64	5.42	3.75	0.729			30.5
Minimum Value:			12.3	0.003	0.12	0.020	1.60	5.26	0.03	3.19	2.00	0.383			0.25
Standard Deviation:			15.1	0.027	0.82	0.009	4.42	4.39	0.15	0.63	0.50	0.071			8.6
Weighted Mean R-Value*:						0.032									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**W075-01-S0018 Wissahickon Low Level Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 141

Tributary Service Population: 1,185

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/3/2013 0:00	6/3/2013 23:15	23.25	0.0040	0.67	0.007	0.176	0.237	0.16	0.075	0.046	0.012	6/3/2013 0:00	6/3/2013 16:45	16.75
2	6/6/2013 18:00	6/8/2013 14:45	44.75	0.0230	3.68	0.006	0.241	0.304	0.17	0.116	0.056	0.013	6/6/2013 19:15	6/8/2013 1:15	30
3	6/10/2013 5:00	6/11/2013 7:15	26.25	0.0110	1.94	0.006	0.361	0.441	0.55	0.118	0.068	0.012	6/10/2013 6:30	6/11/2013 0:45	18.25
4	6/13/2013 9:00	6/13/2013 13:45	4.75	0.0010	0.54	0.002	0.207	0.295	0.38	0.113	0.073	0.016	6/13/2013 9:15	6/13/2013 10:30	1.25
5	6/18/2013 12:15	6/18/2013 23:30	11.25	0.0030	0.58	0.004	0.082	0.165	0.12	0.103	0.069	0.014	6/18/2013 12:30	6/18/2013 20:00	7.5
6	6/25/2013 22:30	6/26/2013 1:45	3.25	0.0002	0.14	0.001	0.041	0.126	0.13	0.084	0.069	0.010	6/25/2013 23:15	6/25/2013 23:45	0.5
7	6/26/2013 20:00	6/27/2013 2:30	6.5	0.0030	0.66	0.004	0.211	0.287	0.52	0.110	0.065	0.010	6/26/2013 20:15	6/26/2013 21:15	1
8	6/27/2013 17:00	6/28/2013 0:00	7	0.0030	0.53	0.006	0.279	0.357	0.32	0.114	0.062	0.013	6/27/2013 17:30	6/27/2013 21:30	4
9	6/30/2013 12:45	6/30/2013 17:00	4.25	0.0004	0.21	0.002	0.037	0.122	0.03	0.087	0.063	0.021	6/30/2013 12:45	6/30/2013 15:45	3
10	7/1/2013 7:15	7/1/2013 16:15	9	0.0010	0.26	0.002	0.090	0.178	0.11	0.088	0.066	0.016	7/1/2013 7:15	7/1/2013 14:15	7
11	7/7/2013 19:15	7/7/2013 22:15	3	0.0010	0.21	0.003	0.121	0.206	0.15	0.103	0.068	0.017	7/7/2013 20:00	7/7/2013 20:30	0.5
Average:			13.0	0.0046	0.86	0.004	0.168	0.247	0.24	0.101	0.064	0.014			8.2
Maximum Value:			44.8	0.0230	3.68	0.007	0.361	0.441	0.55	0.118	0.073	0.021			30.0
Minimum Value:			3.0	0.0002	0.14	0.001	0.037	0.122	0.03	0.075	0.046	0.010			0.50
Standard Deviation:			13.1	0.0068	1.06	0.002	0.104	0.100	0.17	0.015	0.007	0.003			9.6
Weighted Mean R-Value*:						0.005									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**W076-13-S0100 Wissahickon Low Level Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 110

Tributary Service Population: 2,175

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	7/12/2010 19:00	7/13/2010 4:30	9.5	0.021	1.31	0.016	2.028	2.423	0.53	0.468	0.191	0.117	7/12/2010 19:15	7/12/2010 23:00	3.75
2	7/13/2010 5:45	7/13/2010 16:15	10.5	0.040	2.07	0.019	2.038	2.474	0.49	0.660	0.196	0.191	7/13/2010 5:45	7/13/2010 10:45	5
3	7/14/2010 2:30	7/14/2010 9:45	7.25	0.013	0.36	0.036	0.440	0.643	0.12	0.463	0.203	0.135	7/14/2010 2:45	7/14/2010 5:15	2.5
4	7/19/2010 18:45	7/19/2010 23:30	4.75	0.006	0.38	0.015	0.452	0.876	0.29	0.509	0.223	0.200	7/19/2010 18:45	7/19/2010 19:30	0.75
5	7/21/2010 23:00	7/22/2010 1:15	2.25	0.007	0.43	0.016	0.603	0.974	0.35	0.546	0.208	0.114	7/21/2010 23:15	7/21/2010 23:45	0.5
6	7/25/2010 14:45	7/25/2010 20:15	5.5	0.015	1.13	0.013	1.872	2.252	0.57	0.584	0.197	0.196	7/25/2010 14:45	7/25/2010 16:45	2
7	8/12/2010 8:15	8/12/2010 23:45	15.5	0.011	0.16	0.067	0.193	0.525	0.03	0.418	0.185	0.183	8/12/2010 8:15	8/12/2010 19:30	11.25
8	8/22/2010 7:45	8/22/2010 17:00	9.25	0.007	0.69	0.010	0.806	1.181	0.28	0.448	0.175	0.222	8/22/2010 8:00	8/22/2010 16:15	8.25
9	9/12/2010 6:30	9/12/2010 10:45	4.25	0.003	0.28	0.012	0.152	0.583	0.03	0.431	0.173	0.201	9/12/2010 6:45	9/12/2010 9:30	2.75
10	9/16/2010 17:15	9/17/2010 5:15	12	0.006	0.39	0.015	0.598	0.854	0.12	0.383	0.226	0.121	9/16/2010 17:15	9/17/2010 2:15	9
11	9/30/2010 3:30	10/1/2010 17:15	37.75	0.117	6.40	0.018	2.142	2.326	0.60	0.555	0.179	0.155	9/30/2010 3:45	10/1/2010 12:15	32.5
12	10/5/2010 0:00	10/5/2010 23:30	23.5	0.027	0.39	0.069	0.241	0.619	0.04	0.444	0.211	0.152	10/5/2010 0:00	10/5/2010 14:15	14.25
13	10/12/2010 2:45	10/12/2010 11:30	8.75	0.020	0.35	0.057	0.374	0.724	0.09	0.521	0.207	0.150	10/12/2010 3:00	10/12/2010 6:00	3
14	10/14/2010 11:30	10/15/2010 1:00	13.5	0.026	0.83	0.031	0.507	0.892	0.07	0.524	0.219	0.170	10/14/2010 11:45	10/14/2010 19:45	8
15	10/18/2010 23:00	10/19/2010 13:15	14.25	0.028	0.53	0.053	0.401	0.752	0.05	0.500	0.224	0.133	10/18/2010 23:00	10/19/2010 8:00	9
16	10/27/2010 2:15	10/27/2010 18:00	15.75	0.016	0.40	0.039	0.343	0.561	0.06	0.418	0.197	0.150	10/27/2010 2:15	10/27/2010 16:15	14
17	11/4/2010 2:15	11/4/2010 21:00	18.75	0.028	1.30	0.022	0.289	0.709	0.06	0.479	0.213	0.158	11/4/2010 2:30	11/4/2010 18:45	16.25
18	11/25/2010 9:15	11/25/2010 20:15	11	0.004	0.31	0.013	0.088	0.481	0.03	0.422	0.180	0.215	11/25/2010 9:30	11/25/2010 19:00	9.5
19	12/1/2010 0:00	12/1/2010 17:15	17.25	0.041	1.46	0.028	0.776	1.116	0.23	0.489	0.182	0.136	12/1/2010 0:00	12/1/2010 13:30	13.5
20	12/26/2010 13:00	12/27/2010 6:00	17	0.008	1.17	0.007	0.138	0.467	0.04	0.337	0.164	0.138	12/26/2010 13:15	12/27/2010 4:30	15.25
21	1/17/2011 21:15	1/18/2011 15:45	18.5	0.016	0.82	0.020	0.237	0.612	0.05	0.403	0.199	0.142	1/17/2011 21:30	1/18/2011 11:45	14.25
22	1/26/2011 5:15	1/27/2011 6:00	24.75	0.008	1.56	0.005	0.122	0.421	0.07	0.316	0.142	0.150	1/26/2011 5:15	1/27/2011 1:30	20.25
23	2/1/2011 23:30	2/2/2011 19:45	20.25	0.030	0.80	0.037	0.350	0.546	0.05	0.377	0.128	0.143	2/2/2011 0:30	2/2/2011 9:00	8.5
24	2/5/2011 7:15	2/5/2011 22:30	15.25	0.003	0.28	0.009	0.098	0.442	0.03	0.351	0.130	0.208	2/5/2011 7:30	2/5/2011 20:15	12.75
25	2/21/2011 21:15	2/22/2011 6:00	8.75	0.006	0.44	0.013	0.136	0.339	0.03	0.285	0.155	0.082	2/21/2011 21:30	2/22/2011 4:45	7.25
26	2/24/2011 23:45	2/25/2011 18:30	18.75	0.031	0.88	0.036	0.392	0.655	0.07	0.425	0.166	0.138	2/25/2011 1:00	2/25/2011 13:45	12.75
27	2/28/2011 2:15	2/28/2011 6:45	4.5	0.009	0.22	0.041	0.224	0.458	0.04	0.368	0.172	0.054	2/28/2011 2:15	2/28/2011 4:45	2.5
28	3/6/2011 6:15	3/7/2011 6:45	24.5	0.055	2.36	0.023	0.595	0.959	0.19	0.501	0.181	0.159	3/6/2011 7:00	3/7/2011 1:45	18.75
29	3/10/2011 1:00	3/11/2011 6:45	29.75	0.056	1.92	0.029	0.413	0.672	0.11	0.448	0.181	0.132	3/10/2011 1:15	3/11/2011 3:00	25.75
30	3/16/2011 0:00	3/16/2011 7:00	7	0.019	0.60	0.032	0.464	0.671	0.08	0.461	0.202	0.062	3/16/2011 0:00	3/16/2011 7:00	7
31	3/21/2011 2:45	3/21/2011 11:15	8.5	0.002	0.43	0.005	0.124	0.475	0.05	0.362	0.196	0.149	3/21/2011 2:45	3/21/2011 10:00	7.25
32	3/23/2011 11:00	3/23/2011 22:30	11.5	0.004	0.43	0.009	0.087	0.480	0.05	0.405	0.205	0.178	3/23/2011 11:00	3/23/2011 21:45	10.75
33	4/1/2011 3:15	4/1/2011 18:00	14.75	0.017	0.30	0.056	0.204	0.612	0.02	0.427	0.189	0.158	4/1/2011 3:30	4/1/2011 15:30	12
34	4/8/2011 10:30	4/8/2011 22:15	11.75	0.011	0.77	0.014	0.155	0.495	0.04	0.393	0.153	0.175	4/8/2011 10:30	4/8/2011 21:30	11

**W076-13-S0100 Wissahickon Low Level Interceptor**

Pipe Size (In.): 12

Tributary Drainage Area (acres): 110

Tributary Service Population: 2,175

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	4/12/2011 10:30	4/13/2011 7:00	20.5	0.019	0.79	0.024	0.364	0.573	0.09	0.364	0.159	0.138	4/12/2011 10:30	4/13/2011 3:00	16.5
36	4/16/2011 12:00	4/17/2011 7:45	19.75	0.053	2.92	0.018	1.387	1.751	0.41	0.509	0.182	0.135	4/16/2011 12:00	4/17/2011 1:45	13.75
37	4/23/2011 1:30	4/23/2011 17:15	15.75	0.010	0.48	0.020	0.291	0.748	0.08	0.391	0.200	0.147	4/23/2011 1:30	4/23/2011 15:00	13.5
38	5/4/2011 5:15	5/4/2011 15:45	10.5	0.007	0.47	0.015	0.126	0.584	0.05	0.441	0.205	0.187	5/4/2011 5:30	5/4/2011 14:15	8.75
39	5/15/2011 0:00	5/15/2011 7:45	7.75	0.013	0.47	0.028	0.348	0.618	0.16	0.388	0.222	0.046	5/15/2011 0:00	5/15/2011 4:45	4.75
40	5/15/2011 16:15	5/16/2011 6:15	14	0.007	0.79	0.009	0.683	1.097	0.47	0.375	0.216	0.123	5/15/2011 16:15	5/16/2011 2:00	9.75
41	5/17/2011 4:30	5/17/2011 8:15	3.75	0.004	0.21	0.020	0.213	0.610	0.06	0.461	0.212	0.171	5/17/2011 4:45	5/17/2011 8:00	3.25
42	5/18/2011 12:30	5/18/2011 17:15	4.75	0.002	0.17	0.013	0.184	0.546	0.06	0.394	0.208	0.153	5/18/2011 12:30	5/18/2011 14:15	1.75
43	5/19/2011 15:15	5/19/2011 17:30	2.25	0.009	0.91	0.010	0.760	1.113	0.54	0.651	0.205	0.154	5/19/2011 15:30	5/19/2011 16:45	1.25
44	5/23/2011 0:30	5/23/2011 6:15	5.75	0.010	0.23	0.043	0.319	0.524	0.05	0.358	0.200	0.035	5/23/2011 0:45	5/23/2011 5:00	4.25
45	6/9/2011 19:45	6/9/2011 21:00	1.25	0.001	0.18	0.006	0.165	0.542	0.16	0.445	0.172	0.208	6/9/2011 20:00	6/9/2011 20:45	0.75
46	6/11/2011 22:30	6/12/2011 7:15	8.75	0.015	0.63	0.023	0.563	0.800	0.16	0.356	0.177	0.060	6/11/2011 22:30	6/12/2011 1:30	3
47	6/14/2011 18:00	6/14/2011 23:45	5.75	0.003	0.24	0.013	0.152	0.523	0.06	0.407	0.169	0.197	6/14/2011 18:00	6/14/2011 19:15	1.25
48	6/16/2011 20:00	6/17/2011 6:45	10.75	0.013	1.28	0.010	0.795	0.980	0.32	0.357	0.168	0.106	6/16/2011 20:00	6/17/2011 6:30	10.5
49	7/8/2011 13:30	7/8/2011 20:45	7.25	0.005	0.70	0.008	0.326	0.645	0.26	0.397	0.173	0.171	7/8/2011 13:45	7/8/2011 19:45	6
Average:			12.6	0.018	0.87	0.023	0.505	0.835	0.16	0.437	0.188	0.147			9.2
Maximum Value:			37.8	0.117	6.40	0.069	2.142	2.474	0.60	0.660	0.226	0.222			32.5
Minimum Value:			1.3	0.001	0.16	0.005	0.087	0.339	0.02	0.285	0.128	0.035			0.50
Standard Deviation:			7.6	0.020	1.01	0.016	0.520	0.526	0.17	0.079	0.024	0.044			6.7
Weighted Mean R-Value*:						0.021									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.



**WLL-0028 Wissahickon Low Level Interceptor**

Pipe Size (In.): 42 x 28

Tributary Drainage Area (acres): 5,639

Tributary Service Population: 37,760

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	8/22/2010 7:30	8/25/2010 23:15	87.75	0.025	1.13	0.022	6.94	14.89	0.40	8.36	5.22	2.09	8/22/2010 7:45	8/24/2010 16:15	56.5
2	9/12/2010 6:45	9/13/2010 4:30	21.75	0.007	0.27	0.025	4.20	11.39	0.04	8.48	5.12	2.25	9/12/2010 6:45	9/12/2010 9:45	3
3	9/16/2010 17:00	9/18/2010 6:45	37.75	0.008	0.42	0.020	4.08	10.50	0.12	8.01	5.36	1.83	9/16/2010 17:00	9/17/2010 2:15	9.25
4	9/22/2010 20:45	9/23/2010 4:00	7.25	0.001	0.19	0.006	1.30	9.07	0.07	7.78	5.38	1.85	9/22/2010 21:00	9/22/2010 22:45	1.75
5	9/27/2010 9:00	9/28/2010 2:45	17.75	0.002	0.12	0.020	1.92	10.40	0.03	8.27	5.41	2.38	9/27/2010 9:00	9/27/2010 23:45	14.75
6	9/30/2010 4:00	10/3/2010 19:45	87.75	0.110	6.13	0.018	14.86	22.58	0.63	11.99	5.38	2.01	9/30/2010 4:15	10/1/2010 12:30	32.25
7	10/3/2010 21:00	10/9/2010 18:00	141	0.033	0.78	0.042	4.86	13.21	0.05	8.83	6.01	1.96	10/3/2010 21:00	10/7/2010 1:00	76
8	10/12/2010 2:15	10/12/2010 14:15	12	0.003	0.30	0.010	2.69	9.82	0.07	8.54	6.02	1.65	10/12/2010 2:15	10/12/2010 6:00	3.75
9	10/14/2010 11:15	10/15/2010 22:15	35	0.014	0.73	0.019	5.19	13.30	0.05	9.43	5.85	2.12	10/14/2010 11:45	10/14/2010 20:00	8.25
10	10/18/2010 23:15	10/20/2010 11:00	35.75	0.010	0.56	0.018	4.30	11.67	0.06	8.34	5.54	1.78	10/18/2010 23:15	10/19/2010 7:45	8.5
11	10/27/2010 2:15	10/29/2010 0:15	46	0.010	0.43	0.023	2.46	9.94	0.10	8.01	5.27	1.96	10/27/2010 2:15	10/27/2010 16:15	14
12	11/4/2010 2:15	11/6/2010 1:45	47.5	0.027	1.31	0.021	5.72	13.73	0.05	9.19	5.14	1.95	11/4/2010 2:30	11/5/2010 5:30	27
13	11/16/2010 1:15	11/19/2010 2:30	73.25	0.014	0.55	0.026	3.31	9.96	0.17	7.67	5.01	1.94	11/16/2010 1:15	11/18/2010 17:15	64
14	11/25/2010 9:45	11/27/2010 1:45	40	0.010	0.34	0.030	4.75	10.71	0.03	8.16	4.88	2.35	11/25/2010 9:45	11/26/2010 8:45	23
15	12/1/2010 0:00	12/4/2010 0:15	72.25	0.042	1.43	0.030	8.98	16.66	0.30	9.19	5.10	1.96	12/1/2010 0:00	12/1/2010 13:30	13.5
16	12/11/2010 22:45	12/15/2010 12:30	85.75	0.037	1.20	0.031	5.37	12.92	0.06	8.47	4.96	1.94	12/11/2010 23:00	12/15/2010 1:15	74.25
17	12/26/2010 13:00	12/27/2010 6:45	17.75	0.001	1.21	0.001	0.74	8.15	0.05	6.65	4.23	2.13	12/26/2010 13:15	12/27/2010 4:30	15.25
18	1/11/2011 18:30	1/12/2011 4:30	10	0.001	0.50	0.002	0.84	7.65	0.04	6.58	4.29	1.88	1/11/2011 18:30	1/12/2011 2:00	7.5
19	1/17/2011 21:00	1/24/2011 0:15	147.25	0.039	1.09	0.036	5.78	12.93	0.05	7.35	4.37	2.01	1/17/2011 21:00	1/21/2011 4:45	79.75
20	1/26/2011 5:15	1/27/2011 7:15	26	0.003	1.52	0.002	1.74	8.44	0.07	6.72	4.44	1.82	1/26/2011 5:15	1/27/2011 1:30	20.25
21	2/1/2011 22:45	2/4/2011 19:30	68.75	0.031	0.79	0.039	5.27	12.22	0.05	7.80	4.24	1.93	2/1/2011 23:30	2/2/2011 9:00	9.5
22	2/5/2011 7:30	2/7/2011 9:45	50.25	0.020	0.27	0.076	2.60	9.95	0.03	7.86	4.31	2.08	2/5/2011 7:30	2/5/2011 19:15	11.75
23	2/24/2011 19:30	2/27/2011 2:15	54.75	0.022	0.93	0.024	4.52	12.10	0.07	8.61	5.09	2.03	2/24/2011 19:45	2/25/2011 13:45	18
24	2/28/2011 2:30	3/1/2011 3:45	25.25	0.004	0.24	0.019	2.39	9.28	0.05	7.81	5.29	1.89	2/28/2011 2:45	2/28/2011 21:00	18.25
25	3/6/2011 6:45	3/10/2011 0:15	89.5	0.085	2.32	0.037	9.59	16.90	0.16	10.85	5.29	2.07	3/6/2011 7:00	3/7/2011 2:00	19
26	3/10/2011 2:00	3/15/2011 23:00	141	0.130	1.82	0.072	10.48	17.85	0.10	11.94	6.55	1.99	3/10/2011 2:00	3/11/2011 3:15	25.25
27	3/16/2011 0:00	3/18/2011 0:15	48.25	0.013	0.59	0.023	4.89	12.63	0.08	10.22	7.24	1.96	3/16/2011 0:00	3/16/2011 6:15	6.25
28	3/21/2011 2:30	3/22/2011 15:00	36.5	0.007	0.43	0.017	2.66	11.93	0.06	9.25	6.67	1.87	3/21/2011 2:45	3/21/2011 10:30	7.75
29	3/23/2011 6:00	3/25/2011 9:15	51.25	0.010	0.46	0.021	2.37	11.18	0.06	8.85	6.23	1.92	3/23/2011 6:00	3/24/2011 2:00	20
30	3/31/2011 16:30	4/2/2011 11:00	42.5	0.007	0.39	0.018	2.34	10.89	0.02	7.99	5.59	1.79	3/31/2011 16:30	4/1/2011 18:15	25.75
31	4/5/2011 6:15	4/6/2011 10:15	28	0.002	0.25	0.009	1.77	10.40	0.11	7.74	5.54	1.92	4/5/2011 6:30	4/5/2011 14:15	7.75
32	4/8/2011 10:00	4/10/2011 1:00	39	0.013	0.76	0.017	3.78	11.81	0.03	8.91	5.52	2.21	4/8/2011 10:30	4/8/2011 21:30	11
33	4/12/2011 10:30	4/14/2011 22:45	60.25	0.017	0.84	0.020	3.83	11.43	0.07	8.92	5.82	2.07	4/12/2011 10:30	4/13/2011 18:00	31.5
34	4/16/2011 12:00	4/22/2011 12:30	144.5	0.121	2.76	0.044	10.59	19.32	0.33	11.74	6.65	2.02	4/16/2011 12:15	4/19/2011 16:30	76.25

**WLL-0028 Wissahickon Low Level Interceptor**

Pipe Size (In.): 42 x 28

Tributary Drainage Area (acres): 5,639

Tributary Service Population: 37,760

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	4/23/2011 1:15	4/26/2011 9:00	79.75	0.017	0.66	0.026	3.71	13.32	0.08	10.06	7.34	1.92	4/23/2011 1:30	4/25/2011 3:15	49.75
36	4/28/2011 12:00	4/29/2011 18:45	30.75	0.004	0.25	0.014	1.45	10.87	0.11	9.22	6.75	2.05	4/28/2011 12:00	4/28/2011 17:45	5.75
37	5/4/2011 5:00	5/5/2011 16:30	35.5	0.009	0.46	0.020	2.57	11.63	0.05	8.87	5.96	1.98	5/4/2011 5:15	5/4/2011 14:15	9
38	5/15/2011 0:45	5/15/2011 14:45	14	0.003	0.38	0.007	2.72	9.66	0.14	7.95	5.61	1.63	5/15/2011 0:45	5/15/2011 4:45	4
39	5/15/2011 16:00	5/17/2011 1:00	33	0.007	0.58	0.012	3.16	11.58	0.19	8.50	5.62	2.15	5/15/2011 16:15	5/16/2011 20:45	28.5
40	5/17/2011 4:45	5/18/2011 11:00	30.25	0.005	0.31	0.017	2.50	9.87	0.06	8.11	5.63	1.86	5/17/2011 5:00	5/18/2011 7:15	26.25
41	5/18/2011 12:45	5/19/2011 11:45	23	0.003	0.21	0.013	1.82	9.93	0.06	8.02	5.65	1.92	5/18/2011 12:45	5/18/2011 20:00	7.25
42	5/19/2011 15:15	5/22/2011 4:00	60.75	0.018	0.77	0.024	6.58	14.37	0.34	8.87	5.77	2.01	5/19/2011 15:30	5/20/2011 20:30	29
43	5/23/2011 0:45	5/23/2011 15:30	14.75	0.001	0.20	0.007	1.72	9.66	0.04	8.00	5.94	1.73	5/23/2011 0:45	5/23/2011 4:45	4
44	6/9/2011 20:00	6/10/2011 1:45	5.75	0.001	0.10	0.007	1.65	9.15	0.09	7.64	4.92	2.32	6/9/2011 20:00	6/9/2011 20:45	0.75
45	6/11/2011 22:30	6/13/2011 17:00	42.5	0.011	0.57	0.019	5.58	11.99	0.15	7.87	4.98	1.96	6/11/2011 22:30	6/12/2011 1:45	3.25
46	6/14/2011 16:30	6/15/2011 12:45	20.25	0.003	0.32	0.009	2.27	9.79	0.08	7.50	5.08	1.88	6/14/2011 16:30	6/14/2011 19:15	2.75
47	6/16/2011 21:45	6/17/2011 23:45	26	0.014	0.86	0.017	9.54	15.08	0.16	8.87	4.87	1.99	6/16/2011 21:45	6/17/2011 17:15	19.5
48	7/8/2011 13:30	7/9/2011 21:45	32.25	0.010	0.49	0.020	4.64	10.98	0.05	7.32	4.09	2.14	7/8/2011 13:45	7/8/2011 19:45	6
49	7/19/2011 19:30	7/20/2011 1:30	6	0.003	0.20	0.016	5.82	12.69	0.08	8.49	4.30	2.36	7/19/2011 19:30	7/19/2011 21:15	1.75
50	7/25/2011 14:15	7/26/2011 22:15	32	0.011	0.68	0.016	4.96	11.52	0.14	7.37	4.07	2.06	7/25/2011 14:15	7/26/2011 21:00	30.75
51	7/29/2011 18:45	7/30/2011 19:45	25	0.003	0.21	0.015	1.57	8.32	0.09	6.70	4.17	2.07	7/29/2011 18:45	7/29/2011 20:15	1.5
52	8/1/2011 16:00	8/2/2011 2:45	10.75	0.001	0.09	0.010	2.10	8.38	0.03	6.57	4.08	2.18	8/1/2011 16:15	8/1/2011 18:30	2.25
53	8/3/2011 14:00	8/5/2011 5:00	39	0.012	0.91	0.014	8.11	14.49	0.30	7.04	3.93	1.95	8/3/2011 14:45	8/4/2011 11:00	20.25
54	8/7/2011 0:30	8/8/2011 6:30	30	0.007	0.43	0.017	3.21	8.93	0.08	6.49	3.80	1.80	8/7/2011 0:30	8/7/2011 15:15	14.75
55	8/9/2011 11:45	8/10/2011 14:00	26.25	0.012	0.92	0.013	10.85	17.38	0.35	7.84	4.11	2.03	8/9/2011 11:45	8/9/2011 19:15	7.5
Average:			46.3	0.019	0.78	0.021	4.43	11.92	0.11	8.40	5.27	1.99			20.3
Maximum Value:			147.3	0.130	6.13	0.076	14.86	22.58	0.63	11.99	7.34	2.38			79.8
Minimum Value:			5.8	0.001	0.09	0.001	0.74	7.65	0.02	6.49	3.80	1.63			0.75
Standard Deviation:			35.1	0.028	0.91	0.014	2.98	2.97	0.12	1.25	0.85	0.16			20.8
Weighted Mean R-Value*:						0.025									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**WLL-0100 Wissahickon Low Level Interceptor**

Pipe Size (In.): 36.5

Tributary Drainage Area (acres): 5,626

Tributary Service Population: 37,746

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	6/3/2013 1:30	6/4/2013 12:30	35	0.012	1.03	0.011	5.57	11.35	0.21	7.49	4.74	1.54	6/3/2013 1:30	6/3/2013 17:00	15.5
2	6/6/2013 20:00	6/9/2013 13:15	65.25	0.071	3.60	0.020	10.94	18.05	0.18	10.91	5.34	1.61	6/6/2013 20:00	6/8/2013 1:30	29.5
3	6/10/2013 6:45	6/12/2013 14:00	55.25	0.052	1.78	0.030	7.52	15.67	0.37	11.51	6.32	1.73	6/10/2013 6:45	6/11/2013 1:00	18.25
4	6/13/2013 9:30	6/14/2013 12:30	27	0.010	0.67	0.015	5.01	14.25	0.35	9.92	6.75	1.78	6/13/2013 9:30	6/14/2013 5:30	20
5	6/18/2013 12:45	6/19/2013 10:30	21.75	0.006	0.41	0.015	3.86	12.39	0.05	8.74	6.15	1.61	6/18/2013 12:45	6/18/2013 20:30	7.75
6	6/26/2013 20:30	6/27/2013 11:30	15	0.004	0.33	0.011	4.88	12.37	0.24	7.42	5.12	1.44	6/26/2013 20:45	6/26/2013 23:45	3
7	6/27/2013 16:00	6/28/2013 14:00	22	0.006	0.43	0.013	5.59	12.69	0.22	7.72	5.12	1.66	6/27/2013 17:30	6/27/2013 21:45	4.25
8	6/28/2013 15:30	6/28/2013 22:30	7	0.001	0.12	0.007	1.04	8.39	0.05	7.64	5.13	2.06	6/28/2013 16:00	6/28/2013 21:30	5.5
9	6/30/2013 13:00	6/30/2013 22:00	9	0.001	0.19	0.008	2.31	10.27	0.03	8.20	5.12	2.49	6/30/2013 13:15	6/30/2013 15:45	2.5
10	7/1/2013 7:30	7/2/2013 8:00	24.5	0.007	0.29	0.022	2.80	10.05	0.07	7.73	5.09	1.67	7/1/2013 7:30	7/1/2013 18:45	11.25
11	7/7/2013 19:30	7/8/2013 5:15	9.75	0.002	0.23	0.007	1.77	8.60	0.14	6.66	4.58	1.52	7/7/2013 20:00	7/7/2013 20:30	0.5
12	7/12/2013 16:30	7/13/2013 20:00	27.5	0.012	0.78	0.016	4.31	11.14	0.09	7.84	4.51	1.73	7/12/2013 16:30	7/13/2013 19:00	26.5
13	7/20/2013 22:00	7/21/2013 1:45	3.75	0.000	0.07	0.006	2.21	8.53	0.07	6.32	4.23	1.85	7/20/2013 22:15	7/20/2013 22:15	0
14	7/22/2013 15:15	7/22/2013 21:30	6.25	0.000	0.11	0.004	0.77	6.91	0.03	5.99	4.23	2.03	7/22/2013 15:45	7/22/2013 20:45	5
15	7/23/2013 1:00	7/23/2013 17:30	16.5	0.006	0.71	0.009	6.66	11.86	0.38	7.24	4.33	1.51	7/23/2013 1:15	7/23/2013 17:30	16.25
16	7/28/2013 14:15	7/29/2013 11:30	21.25	0.005	0.31	0.016	1.62	7.91	0.06	6.63	4.09	1.72	7/28/2013 14:45	7/29/2013 2:30	11.75
17	8/1/2013 6:45	8/2/2013 17:15	34.5	0.014	0.77	0.019	5.53	11.94	0.08	7.32	4.05	1.78	8/1/2013 6:45	8/1/2013 15:15	8.5
18	8/8/2013 0:30	8/8/2013 9:00	8.5	0.002	0.18	0.011	2.36	7.90	0.08	5.55	3.94	0.82	8/8/2013 0:30	8/8/2013 1:45	1.25
19	8/9/2013 15:45	8/9/2013 22:30	6.75	0.001	0.12	0.009	1.02	7.02	0.04	6.58	3.97	2.07	8/9/2013 16:00	8/9/2013 17:45	1.75
20	8/13/2013 4:30	8/15/2013 9:15	52.75	0.039	3.26	0.012	13.86	19.29	0.48	8.27	3.95	1.59	8/13/2013 4:45	8/13/2013 9:30	4.75
21	8/22/2013 12:30	8/23/2013 6:45	18.25	0.002	0.21	0.009	0.79	7.25	0.13	6.16	4.17	1.63	8/22/2013 12:30	8/22/2013 16:45	4.25
22	8/28/2013 9:30	8/29/2013 11:45	26.25	0.017	1.42	0.012	8.80	15.00	0.45	8.11	4.05	1.76	8/28/2013 9:45	8/28/2013 19:00	9.25
23	9/2/2013 11:30	9/3/2013 8:00	20.5	0.012	0.96	0.012	10.13	17.00	0.42	7.91	4.03	1.80	9/2/2013 11:45	9/2/2013 13:00	1.25
24	9/12/2013 18:00	9/13/2013 21:30	27.5	0.009	0.53	0.016	5.54	10.18	0.14	6.85	3.97	1.74	9/12/2013 18:30	9/13/2013 7:15	12.75
25	9/21/2013 19:45	9/23/2013 2:15	30.5	0.016	1.28	0.013	8.01	13.09	0.25	7.57	3.91	1.76	9/21/2013 20:00	9/22/2013 3:30	7.5
Average:			23.7	0.012	0.79	0.013	4.92	11.56	0.18	7.69	4.68	1.72			9.2
Maximum Value:			65.3	0.071	3.60	0.030	13.86	19.29	0.48	11.51	6.75	2.49			29.5
Minimum Value:			3.8	0.000	0.07	0.004	0.77	6.91	0.03	5.55	3.91	0.82			0.00
Standard Deviation:			15.8	0.017	0.91	0.006	3.48	3.50	0.15	1.42	0.81	0.29			8.0
Weighted Mean R-Value*:						0.016									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**WLL-0105 Wissahickon Low Level Interceptor**

Pipe Size (In.): 36

Tributary Drainage Area (acres): 5,626

Tributary Service Population: 37,746

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10/4/2000 20:45	10/6/2000 2:00	29.25	0.008	1.02	0.008	4.82	10.52	0.27	6.38	3.71	1.70	10/4/2000 21:00	10/5/2000 0:15	3.25
2	11/9/2000 19:45	11/11/2000 8:30	36.75	0.006	0.58	0.011	2.78	7.98	0.12	5.44	3.34	1.48	11/9/2000 20:00	11/10/2000 7:45	11.75
3	1/15/2001 0:30	1/16/2001 4:00	27.5	0.006	0.28	0.022	2.15	8.15	0.05	5.90	3.52	1.55	1/15/2001 0:30	1/15/2001 7:00	6.5
4	1/19/2001 3:00	1/22/2001 5:15	74.25	0.050	1.33	0.038	5.15	11.83	0.04	8.87	4.70	1.69	1/19/2001 3:15	1/21/2001 17:00	61.75
5	1/30/2001 6:00	2/1/2001 3:45	45.75	0.026	0.79	0.032	5.48	12.38	0.08	8.48	4.70	1.75	1/30/2001 6:00	1/30/2001 14:00	8
6	2/5/2001 5:15	2/8/2001 3:45	70.5	0.036	1.25	0.029	4.76	11.84	0.06	8.08	4.51	1.70	2/5/2001 5:15	2/6/2001 13:00	31.75
7	2/23/2001 11:30	2/24/2001 3:00	15.5	0.001	0.22	0.005	1.64	8.85	0.07	6.79	4.64	1.92	2/23/2001 13:00	2/23/2001 15:30	2.5
8	2/25/2001 9:15	2/26/2001 20:15	35	0.012	0.22	0.056	3.32	10.26	0.05	7.80	4.55	1.97	2/25/2001 9:45	2/25/2001 20:30	10.75
9	3/6/2001 12:30	3/7/2001 3:30	15	0.002	0.24	0.009	1.73	8.39	0.02	6.82	4.49	1.80	3/6/2001 13:30	3/6/2001 20:45	7.25
10	3/7/2001 9:30	3/8/2001 13:45	28.25	0.004	0.21	0.020	1.68	8.66	0.03	6.90	4.55	1.81	3/7/2001 9:30	3/7/2001 13:00	3.5
11	3/12/2001 22:45	3/15/2001 0:00	49.25	0.018	0.64	0.028	4.77	10.25	0.06	7.74	4.72	1.69	3/12/2001 23:00	3/13/2001 9:45	10.75
12	3/15/2001 18:30	3/19/2001 2:15	79.75	0.019	0.89	0.021	2.53	9.58	0.11	7.52	4.90	1.75	3/15/2001 18:45	3/17/2001 21:15	50.5
13	3/21/2001 10:30	3/24/2001 0:15	61.75	0.033	0.80	0.041	5.96	13.26	0.07	9.08	5.37	1.79	3/21/2001 10:30	3/22/2001 1:00	14.5
14	7/9/2001 2:45	7/9/2001 13:30	10.75	0.002	0.33	0.005	3.98	8.40	0.17	5.96	3.97	1.46	7/9/2001 3:00	7/9/2001 4:00	1
15	7/18/2001 4:00	7/18/2001 19:15	15.25	0.001	0.13	0.011	2.31	8.72	0.02	5.73	3.66	1.73	7/18/2001 4:30	7/18/2001 10:30	6
16	8/10/2001 15:15	8/11/2001 2:30	11.25	0.001	0.58	0.002	3.96	9.02	0.37	5.37	3.15	1.84	8/10/2001 15:30	8/11/2001 0:15	8.75
17	8/12/2001 10:45	8/14/2001 9:15	46.5	0.009	1.05	0.009	3.27	9.93	0.31	5.65	3.17	1.77	8/12/2001 11:00	8/13/2001 1:00	14
18	8/19/2001 19:15	8/21/2001 0:30	29.25	0.005	0.31	0.015	4.84	8.99	0.28	5.55	3.23	1.74	8/19/2001 19:15	8/20/2001 1:45	6.5
19	9/14/2001 3:15	9/15/2001 6:30	27.25	0.006	0.63	0.010	4.42	9.46	0.14	5.31	3.02	1.50	9/14/2001 3:30	9/14/2001 11:45	8.25
20	9/20/2001 12:00	9/22/2001 7:30	43.5	0.008	0.41	0.020	2.44	7.59	0.06	5.37	3.08	1.60	9/20/2001 12:15	9/21/2001 4:30	16.25
21	9/24/2001 21:45	9/26/2001 6:15	32.5	0.007	0.46	0.015	3.67	8.56	0.06	5.28	3.04	1.50	9/24/2001 21:45	9/25/2001 9:45	12
22	9/30/2001 15:00	10/2/2001 5:00	38	0.005	0.25	0.020	2.50	7.42	0.03	5.02	2.85	1.68	9/30/2001 15:00	10/1/2001 7:00	16
23	10/6/2001 8:30	10/7/2001 9:30	25	0.002	0.14	0.013	1.63	7.56	0.08	4.90	2.89	1.74	10/6/2001 9:00	10/6/2001 10:45	1.75
24	10/14/2001 22:00	10/16/2001 3:00	29	0.003	0.27	0.012	2.38	6.74	0.08	5.03	3.00	1.63	10/14/2001 23:00	10/15/2001 1:15	2.25
Average:			36.5	0.011	0.54	0.019	3.42	9.35	0.11	6.46	3.86	1.70			13.1
Maximum Value:			79.8	0.050	1.33	0.056	5.96	13.26	0.37	9.08	5.37	1.97			61.8
Minimum Value:			10.8	0.001	0.13	0.002	1.63	6.74	0.02	4.90	2.85	1.46			1.00
Standard Deviation:			19.4	0.013	0.36	0.013	1.36	1.67	0.10	1.31	0.79	0.13			14.9
Weighted Mean R-Value*:						0.021									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

WLL-0332 Wissahickon Low Level Interceptor

Pipe Size (In.): 36

Tributary Drainage Area (acres): 4,966

Tributary Service Population: 27,664

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	5/10/2000 17:45	5/11/2000 13:15	19.5	0.002	0.39	0.005	1.05	6.38	0.15	5.08	3.45	1.32	5/10/2000 18:45	5/11/2000 3:15	8.5
2	5/13/2000 19:00	5/15/2000 5:45	34.75	0.005	0.77	0.007	2.04	6.98	0.31	5.18	3.43	1.27	5/13/2000 21:15	5/14/2000 0:15	3
3	5/19/2000 6:45	5/21/2000 13:00	54.25	0.011	0.94	0.012	2.80	8.29	0.26	5.47	3.39	1.41	5/19/2000 8:00	5/21/2000 13:00	53
4	5/23/2000 19:00	5/25/2000 15:45	44.75	0.008	0.61	0.013	2.00	6.65	0.30	5.30	3.35	1.36	5/23/2000 20:45	5/25/2000 4:45	32
5	6/6/2000 6:00	6/7/2000 4:00	22	0.004	0.46	0.009	1.53	6.97	0.08	5.32	3.28	1.47	6/6/2000 6:00	6/7/2000 4:00	22
6	6/12/2000 17:15	6/13/2000 17:30	24.25	0.005	0.83	0.006	3.41	8.14	0.32	5.23	3.23	1.37	6/12/2000 19:00	6/13/2000 3:45	8.75
7	6/18/2000 13:30	6/19/2000 18:15	28.75	0.010	1.77	0.006	3.76	8.48	0.57	5.56	3.00	1.48	6/18/2000 16:45	6/19/2000 1:45	9
8	6/21/2000 20:30	6/23/2000 8:30	36	0.010	0.54	0.018	3.40	7.57	0.25	4.76	2.68	1.23	6/21/2000 23:00	6/22/2000 13:00	14
9	6/28/2000 17:30	6/29/2000 10:00	16.5	0.002	0.34	0.005	2.07	6.15	0.09	4.08	2.57	1.16	6/28/2000 18:15	6/29/2000 9:00	14.75
10	7/3/2000 18:45	7/4/2000 7:00	12.25	0.001	0.43	0.002	1.92	6.33	0.22	3.85	2.62	0.97	7/3/2000 20:30	7/4/2000 5:15	8.75
11	7/10/2000 2:00	7/10/2000 21:00	19	0.003	0.23	0.013	1.54	5.61	0.12	4.30	2.46	1.35	7/10/2000 4:00	7/10/2000 6:00	2
12	7/14/2000 9:45	7/14/2000 21:45	12	0.002	0.16	0.015	1.96	6.12	0.04	4.90	2.45	1.81	7/14/2000 11:15	7/14/2000 14:15	3
13	7/15/2000 0:00	7/15/2000 22:00	22	0.004	0.44	0.009	1.62	5.86	0.18	4.42	2.43	1.39	7/15/2000 2:30	7/15/2000 21:00	18.5
14	7/16/2000 15:00	7/17/2000 13:00	22	0.006	0.52	0.012	4.48	8.71	0.18	4.83	2.52	1.40	7/16/2000 16:15	7/16/2000 19:15	3
15	7/19/2000 12:30	7/20/2000 0:45	12.25	0.001	0.37	0.004	1.05	5.13	0.06	4.50	2.54	1.60	7/19/2000 12:30	7/19/2000 22:30	10
16	7/26/2000 2:30	7/28/2000 16:30	62	0.029	2.55	0.012	5.20	8.52	0.25	5.20	2.32	1.36	7/26/2000 3:00	7/27/2000 10:45	31.75
17	7/30/2000 18:30	7/31/2000 15:00	20.5	0.005	0.47	0.010	2.42	6.30	0.13	4.70	2.60	1.34	7/30/2000 19:00	7/31/2000 6:30	11.5
18	7/31/2000 19:00	8/2/2000 10:00	39	0.015	0.87	0.018	5.13	8.26	0.27	5.36	2.80	1.28	7/31/2000 20:15	8/2/2000 0:45	28.5
19	8/3/2000 0:00	8/3/2000 8:30	8.5	0.001	0.23	0.004	1.33	5.40	0.10	4.02	2.98	0.69	8/3/2000 0:30	8/3/2000 2:00	1.5
20	8/3/2000 22:15	8/5/2000 15:30	41.25	0.015	0.47	0.032	4.98	8.03	0.21	5.44	2.91	1.34	8/3/2000 23:30	8/4/2000 21:30	22
21	8/11/2000 12:45	8/13/2000 7:45	43	0.007	0.62	0.011	3.01	7.22	0.23	4.53	2.72	1.29	8/11/2000 14:15	8/13/2000 2:00	35.75
22	8/14/2000 1:00	8/16/2000 9:45	56.75	0.012	0.99	0.012	3.27	7.39	0.18	4.67	2.74	1.28	8/14/2000 4:30	8/14/2000 19:30	15
23	8/27/2000 19:15	8/28/2000 3:30	8.25	0.001	0.57	0.001	3.40	7.56	0.21	4.25	2.75	1.23	8/27/2000 22:15	8/28/2000 1:00	2.75
24	9/3/2000 13:30	9/4/2000 20:00	30.5	0.005	0.79	0.006	2.75	7.22	0.26	4.58	2.57	1.52	9/3/2000 15:15	9/4/2000 14:00	22.75
25	9/13/2000 2:30	9/13/2000 16:15	13.75	0.003	0.77	0.004	4.43	7.01	0.38	4.33	2.33	1.31	9/13/2000 2:45	9/13/2000 7:45	5
26	9/15/2000 0:30	9/15/2000 20:30	20	0.012	1.76	0.007	5.46	8.45	0.32	5.70	2.46	1.34	9/15/2000 0:45	9/15/2000 8:15	7.5
27	9/19/2000 7:15	9/21/2000 12:45	53.5	0.021	1.46	0.014	4.72	8.20	0.22	5.17	2.48	1.43	9/19/2000 7:30	9/20/2000 1:45	18.25
28	9/25/2000 6:00	9/28/2000 5:00	71	0.032	2.04	0.016	4.46	8.14	0.12	5.48	2.63	1.38	9/25/2000 8:15	9/26/2000 14:00	29.75
29	10/4/2000 19:15	10/5/2000 19:45	24.5	0.007	0.80	0.008	2.96	7.15	0.17	4.93	2.70	1.37	10/4/2000 21:00	10/5/2000 1:45	4.75
30	12/14/2000 0:30	12/15/2000 15:30	39	0.012	0.95	0.013	5.11	8.63	0.09	4.57	2.23	1.33	12/14/2000 2:00	12/14/2000 8:45	6.75
31	12/16/2000 9:00	12/19/2000 10:45	73.75	0.032	1.34	0.024	6.68	9.70	0.08	5.52	2.68	1.43	12/16/2000 9:15	12/17/2000 18:45	33.5
32	1/8/2001 12:45	1/9/2001 8:45	20	0.001	0.18	0.005	2.59	6.50	0.02	3.84	2.50	1.21	1/8/2001 14:15	1/9/2001 1:15	11
33	1/18/2001 12:45	1/22/2001 3:45	87	0.041	1.61	0.026	4.57	9.21	0.04	5.94	3.03	1.39	1/18/2001 12:45	1/20/2001 22:45	58
34	1/30/2001 5:45	1/31/2001 10:15	28.5	0.014	0.66	0.021	5.55	10.64	0.06	6.21	3.29	1.37	1/30/2001 6:00	1/30/2001 14:00	8

**WLL-0332 Wissahickon Low Level Interceptor**

Pipe Size (In.): 36

Tributary Drainage Area (acres): 4,966

Tributary Service Population: 27,664

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
Average:			33.0	0.010	0.82	0.011	3.31	7.44	0.19	4.92	2.77	1.34			16.6
Maximum Value:			87.0	0.041	2.55	0.032	6.68	10.64	0.57	6.21	3.45	1.81			58.0
Minimum Value:			8.3	0.001	0.16	0.001	1.05	5.13	0.02	3.84	2.23	0.69			1.50
Standard Deviation:			20.1	0.010	0.57	0.007	1.51	1.26	0.12	0.60	0.35	0.18			14.2
Weighted Mean R-Value*:						0.012									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

**WLL-0565 Wissahickon Low Level Interceptor**

Pipe Size (In.): 27.5

Tributary Drainage Area (acres): 4,214

Tributary Service Population: 19,592

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	3/8/2013 7:45	3/9/2013 4:45	21	0.0010	0.19	0.008	0.59	4.07	0.04	3.39	2.22	0.981	3/8/2013 8:00	3/8/2013 13:30	5.5
2	3/12/2013 3:00	3/13/2013 22:00	43	0.0150	0.99	0.015	3.96	7.25	0.07	4.21	2.32	0.938	3/12/2013 3:00	3/13/2013 17:00	38
3	3/16/2013 9:15	3/17/2013 1:00	15.75	0.0010	0.20	0.005	0.82	4.35	0.02	3.68	2.32	1.200	3/16/2013 9:30	3/16/2013 18:00	8.5
4	3/18/2013 17:30	3/20/2013 22:45	53.25	0.0140	0.81	0.017	2.20	5.41	0.06	4.12	2.48	0.929	3/18/2013 17:45	3/19/2013 11:00	17.25
5	3/25/2013 6:00	3/26/2013 12:00	30	0.0070	0.55	0.014	1.48	5.11	0.04	4.19	2.56	0.960	3/25/2013 6:00	3/25/2013 20:30	14.5
6	3/31/2013 15:00	3/31/2013 21:30	6.5	0.0004	0.14	0.003	0.41	3.99	0.02	3.63	2.48	1.134	3/31/2013 15:00	3/31/2013 21:15	6.25
7	4/10/2013 19:15	4/11/2013 23:15	28	0.0040	0.62	0.007	1.20	4.77	0.18	3.57	2.23	0.936	4/10/2013 20:15	4/10/2013 23:45	3.5
8	4/12/2013 5:45	4/14/2013 17:00	59.25	0.0130	0.83	0.016	1.60	5.12	0.15	3.79	2.25	0.952	4/12/2013 7:15	4/12/2013 23:15	16
9	4/19/2013 21:30	4/21/2013 6:00	32.5	0.0080	0.56	0.014	1.47	5.19	0.06	3.82	2.39	0.784	4/19/2013 21:30	4/20/2013 2:45	5.25
10	4/29/2013 5:15	5/1/2013 4:00	46.75	0.0080	0.46	0.017	1.24	4.75	0.03	3.82	2.44	0.918	4/29/2013 5:15	4/30/2013 3:45	22.5
11	5/8/2013 4:15	5/9/2013 1:15	21	0.0040	0.66	0.007	1.61	5.19	0.18	4.07	2.50	1.000	5/8/2013 4:15	5/8/2013 18:30	14.25
12	5/9/2013 2:30	5/10/2013 4:45	26.25	0.0050	0.47	0.011	2.10	5.64	0.08	3.89	2.52	0.819	5/9/2013 3:00	5/9/2013 13:00	10
13	5/10/2013 22:15	5/13/2013 0:15	50	0.0170	1.26	0.014	2.76	5.96	0.16	4.34	2.52	0.894	5/10/2013 22:30	5/12/2013 3:30	29
14	5/19/2013 0:00	5/20/2013 0:30	24.5	0.0030	0.23	0.014	1.07	4.93	0.03	3.76	2.52	0.876	5/19/2013 0:00	5/19/2013 15:45	15.75
15	5/23/2013 16:15	5/25/2013 17:00	48.75	0.0060	0.70	0.009	0.98	4.93	0.13	3.71	2.46	0.918	5/23/2013 16:15	5/24/2013 15:30	23.25
16	5/28/2013 9:00	5/29/2013 13:45	28.75	0.0040	0.28	0.013	1.00	4.45	0.03	3.71	2.41	0.967	5/28/2013 9:00	5/28/2013 18:45	9.75
17	6/3/2013 0:30	6/4/2013 23:30	47	0.0110	1.15	0.010	2.33	5.78	0.20	3.92	2.38	0.903	6/3/2013 0:30	6/3/2013 17:00	16.5
18	6/6/2013 19:30	6/10/2013 0:00	76.5	0.0620	3.64	0.017	6.39	9.31	0.18	5.56	2.44	0.911	6/6/2013 19:30	6/8/2013 1:30	30
19	6/10/2013 6:45	6/12/2013 23:30	64.75	0.0470	1.75	0.027	5.82	8.93	0.33	5.74	2.80	0.971	6/10/2013 6:45	6/11/2013 1:00	18.25
20	6/13/2013 9:00	6/15/2013 3:00	42	0.0120	0.71	0.017	1.98	6.22	0.34	4.72	2.97	0.960	6/13/2013 9:15	6/14/2013 19:30	34.25
21	6/18/2013 12:15	6/19/2013 22:00	33.75	0.0040	0.34	0.012	0.87	4.98	0.04	4.17	2.89	0.965	6/18/2013 12:30	6/18/2013 20:15	7.75
22	6/26/2013 20:00	6/27/2013 15:45	19.75	0.0020	0.30	0.006	0.61	4.53	0.19	3.74	2.62	0.860	6/26/2013 20:15	6/26/2013 23:45	3.5
23	6/27/2013 17:15	6/29/2013 17:45	48.5	0.0050	0.54	0.010	1.10	4.91	0.26	3.77	2.56	0.919	6/27/2013 17:30	6/28/2013 21:30	28
24	6/30/2013 12:30	7/1/2013 0:15	11.75	0.0010	0.28	0.003	0.60	4.24	0.04	3.86	2.54	1.118	6/30/2013 12:30	6/30/2013 23:45	11.25
25	7/1/2013 7:15	7/2/2013 12:00	28.75	0.0040	0.31	0.015	0.97	4.69	0.06	3.96	2.57	0.978	7/1/2013 7:15	7/1/2013 18:45	11.5
26	7/7/2013 19:45	7/8/2013 6:30	10.75	0.0008	0.25	0.003	0.50	3.97	0.17	2.98	2.39	0.525	7/7/2013 20:00	7/7/2013 20:30	0.5
27	7/12/2013 15:30	7/13/2013 20:00	28.5	0.0050	0.79	0.006	1.08	4.76	0.09	3.78	2.39	0.955	7/12/2013 15:30	7/13/2013 19:00	27.5
28	7/22/2013 18:15	7/24/2013 5:45	35.5	0.0080	0.84	0.010	2.03	5.07	0.39	3.77	2.31	0.821	7/22/2013 18:30	7/23/2013 17:45	23.25
29	7/28/2013 15:00	7/30/2013 5:30	38.5	0.0080	0.33	0.025	1.70	4.65	0.08	3.56	2.13	0.851	7/28/2013 15:00	7/29/2013 2:30	11.5
30	8/1/2013 6:45	8/2/2013 16:45	34	0.0090	0.76	0.011	2.39	5.73	0.10	4.04	2.35	0.991	8/1/2013 6:45	8/1/2013 15:15	8.5
31	8/8/2013 0:30	8/9/2013 1:45	25.25	0.0020	0.18	0.010	0.49	4.29	0.07	3.46	2.40	0.870	8/8/2013 0:30	8/8/2013 15:15	14.75
32	8/9/2013 16:00	8/10/2013 15:30	23.5	0.0020	0.10	0.018	0.73	4.25	0.05	3.49	2.36	0.915	8/9/2013 16:15	8/9/2013 17:45	1.5
33	8/13/2013 5:00	8/15/2013 17:15	60.25	0.0340	3.47	0.010	6.92	10.27	0.56	4.83	2.35	0.932	8/13/2013 5:00	8/13/2013 9:30	4.5
34	8/22/2013 6:00	8/23/2013 6:15	24.25	0.0030	0.34	0.009	0.87	4.17	0.15	3.32	2.09	0.889	8/22/2013 6:00	8/22/2013 16:45	10.75

**WLL-0565 Wissahickon Low Level Interceptor**

Pipe Size (In.): 27.5

Tributary Drainage Area (acres): 4,214

Tributary Service Population: 19,592

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)			
35	8/28/2013 9:45	9/1/2013 5:00	91.25	0.0210	1.37	0.015	3.34	6.62	0.46	3.67	2.14	0.904	8/28/2013 9:45	9/1/2013 4:45	91
36	9/2/2013 9:00	9/3/2013 18:45	33.75	0.0080	0.90	0.009	4.83	8.37	0.52	3.79	2.15	1.011	9/2/2013 9:00	9/2/2013 13:00	4
37	9/12/2013 18:30	9/13/2013 11:30	17	0.0020	0.53	0.003	3.38	5.80	0.17	3.43	2.33	0.833	9/12/2013 18:30	9/13/2013 2:45	8.25
38	9/21/2013 20:45	9/23/2013 4:15	31.5	0.0110	1.24	0.009	2.86	5.25	0.26	3.96	2.22	0.804	9/21/2013 20:45	9/22/2013 3:30	6.75
Average:			35.8	0.010	0.76	0.011	2.01	5.47	0.16	3.93	2.42	0.92			16.1
Maximum Value:			91.3	0.062	3.64	0.027	6.92	10.27	0.56	5.74	2.97	1.20			91.0
Minimum Value:			6.5	0.000	0.10	0.003	0.41	3.97	0.02	2.98	2.09	0.53			0.50
Standard Deviation:			18.2	0.013	0.77	0.006	1.66	1.51	0.14	0.54	0.19	0.11			15.7
Weighted Mean R-Value*:						0.013									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.



**WBR-0375 Wooden Bridge Run Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 301

Tributary Service Population: 4,310

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/18/2004 8:30	1/18/2004 21:30	13	0.033	0.34	0.097	1.35	2.47	0.03	1.55	0.742	0.325	1/18/2004 9:45	1/18/2004 16:30	6.75
2	3/30/2004 17:00	3/31/2004 9:45	16.75	0.018	0.17	0.106	1.27	1.99	0.03	1.02	0.615	0.194	3/30/2004 17:15	3/30/2004 23:45	6.5
3	4/2/2004 12:30	4/4/2004 3:15	38.75	0.059	0.86	0.068	1.07	1.83	0.03	1.09	0.559	0.233	4/2/2004 12:30	4/3/2004 7:30	19
4	4/4/2004 9:30	4/4/2004 22:15	12.75	0.023	0.59	0.039	1.39	2.38	0.07	1.22	0.552	0.322	4/4/2004 10:15	4/4/2004 15:00	4.75
5	5/3/2004 1:30	5/4/2004 9:15	31.75	0.024	0.88	0.027	0.74	1.42	0.09	0.89	0.549	0.194	5/3/2004 1:30	5/3/2004 23:30	22
6	5/5/2004 18:30	5/6/2004 3:30	9	0.005	0.11	0.041	1.17	2.00	0.11	0.81	0.521	0.188	5/5/2004 18:30	5/5/2004 18:30	0
7	5/31/2004 9:15	6/1/2004 9:00	23.75	0.020	0.61	0.032	1.24	1.90	0.07	0.80	0.430	0.214	5/31/2004 9:30	6/1/2004 2:15	16.75
8	6/1/2004 15:15	6/2/2004 1:00	9.75	0.003	0.35	0.008	0.71	1.36	0.33	0.72	0.426	0.247	6/1/2004 15:30	6/1/2004 15:45	0.25
9	6/3/2004 3:00	6/3/2004 13:15	10.25	0.005	0.10	0.047	0.43	0.98	0.03	0.72	0.421	0.208	6/3/2004 3:00	6/3/2004 6:00	3
10	6/5/2004 6:00	6/6/2004 13:45	31.75	0.022	0.39	0.057	0.63	1.26	0.04	0.78	0.393	0.249	6/5/2004 6:00	6/6/2004 7:15	25.25
11	6/14/2004 20:15	6/15/2004 9:30	13.25	0.006	0.14	0.042	0.53	1.01	0.02	0.64	0.382	0.169	6/14/2004 20:15	6/15/2004 1:00	4.75
12	6/17/2004 17:45	6/18/2004 7:00	13.25	0.007	0.11	0.062	0.64	1.30	0.04	0.63	0.366	0.163	6/17/2004 17:45	6/17/2004 21:30	3.75
13	6/22/2004 19:00	6/23/2004 4:30	9.5	0.004	0.15	0.024	0.75	1.41	0.13	0.59	0.349	0.164	6/22/2004 19:15	6/22/2004 19:30	0.25
14	6/29/2004 1:30	6/29/2004 11:30	10	0.008	0.25	0.031	1.43	1.78	0.14	0.65	0.329	0.172	6/29/2004 1:45	6/29/2004 2:30	0.75
15	8/1/2004 8:00	8/1/2004 17:30	9.5	0.024	2.39	0.010	2.93	3.56	0.55	1.22	0.392	0.340	8/1/2004 8:00	8/1/2004 11:00	3
16	8/3/2004 16:30	8/4/2004 0:45	8.25	0.005	0.54	0.009	0.86	1.54	0.29	0.76	0.403	0.255	8/3/2004 16:30	8/3/2004 17:45	1.25
17	8/4/2004 20:45	8/5/2004 6:45	10	0.006	0.15	0.040	0.70	1.39	0.10	0.64	0.402	0.120	8/4/2004 21:00	8/4/2004 21:15	0.25
18	8/14/2004 20:30	8/15/2004 12:15	15.75	0.012	0.52	0.022	0.74	1.30	0.06	0.71	0.372	0.192	8/14/2004 20:45	8/15/2004 6:45	10
19	8/16/2004 6:30	8/16/2004 16:15	9.75	0.004	0.20	0.020	0.60	1.35	0.06	0.75	0.389	0.281	8/16/2004 6:30	8/16/2004 7:45	1.25
20	8/21/2004 14:15	8/21/2004 22:30	8.25	0.011	0.74	0.015	1.24	1.90	0.26	0.88	0.344	0.289	8/21/2004 14:15	8/21/2004 16:15	2
21	8/30/2004 21:45	8/31/2004 10:15	12.5	0.011	0.62	0.017	1.35	1.73	0.19	0.69	0.360	0.163	8/30/2004 21:45	8/31/2004 4:15	6.5
22	9/8/2004 3:45	9/8/2004 16:30	12.75	0.008	0.49	0.017	0.80	1.46	0.10	0.68	0.327	0.226	9/8/2004 4:00	9/8/2004 10:00	6
23	9/18/2004 2:15	9/19/2004 1:15	23	0.028	1.31	0.021	1.36	2.08	0.23	0.76	0.290	0.238	9/18/2004 2:45	9/18/2004 17:00	14.25
24	9/28/2004 0:15	9/29/2004 10:15	34	0.113	6.61	0.017	5.25	5.83	0.53	1.12	0.280	0.194	9/28/2004 0:30	9/29/2004 6:45	30.25
25	9/30/2004 11:30	10/1/2004 0:00	12.5	0.006	0.21	0.029	0.58	1.14	0.08	0.65	0.289	0.262	9/30/2004 11:45	9/30/2004 17:15	5.5
26	1/11/2005 15:30	1/12/2005 6:45	15.25	0.016	0.42	0.040	0.94	1.54	0.04	0.73	0.351	0.171	1/11/2005 15:30	1/11/2005 23:45	8.25
27	1/13/2005 23:30	1/15/2005 13:45	38.25	0.057	1.77	0.032	2.01	2.44	0.18	0.87	0.363	0.212	1/13/2005 23:45	1/14/2005 12:45	13
28	2/14/2005 10:15	2/16/2005 0:00	37.75	0.055	1.03	0.054	1.39	2.02	0.05	0.91	0.386	0.234	2/14/2005 10:15	2/14/2005 23:45	13.5
29	2/16/2005 14:45	2/16/2005 23:45	9	0.007	0.21	0.033	0.82	1.44	0.05	0.80	0.392	0.264	2/16/2005 14:45	2/16/2005 16:30	1.75
30	2/21/2005 9:15	2/22/2005 23:15	38	0.029	0.46	0.064	0.60	1.25	0.03	0.80	0.408	0.237	2/21/2005 12:00	2/22/2005 0:45	12.75
31	3/1/2005 12:00	3/2/2005 0:00	12	0.012	0.33	0.035	0.47	1.16	0.07	0.88	0.430	0.261	3/1/2005 12:00	3/1/2005 17:30	5.5
32	3/8/2005 4:30	3/8/2005 20:45	16.25	0.017	0.32	0.053	0.71	1.47	0.03	0.86	0.409	0.253	3/8/2005 4:30	3/8/2005 11:00	6.5
33	3/23/2005 6:15	3/24/2005 7:15	25	0.039	0.87	0.045	1.43	2.07	0.05	0.91	0.396	0.214	3/23/2005 6:30	3/24/2005 0:45	18.25
34	3/27/2005 22:30	3/29/2005 2:30	28	0.064	1.43	0.045	2.10	2.80	0.10	1.08	0.439	0.201	3/27/2005 22:45	3/28/2005 21:00	22.25

**WBR-0375 Wooden Bridge Run Interceptor**

Pipe Size (In.): 24

Tributary Drainage Area (acres): 301

Tributary Service Population: 4,310

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)			
35	4/1/2005 22:30	4/4/2005 1:30	51	0.133	2.70	0.049	3.07	3.81	0.18	1.22	0.483	0.225	4/1/2005 22:45	4/3/2005 20:15	45.5
36	4/7/2005 22:15	4/8/2005 16:30	18.25	0.029	0.78	0.037	1.25	1.96	0.05	1.09	0.584	0.196	4/7/2005 22:15	4/8/2005 8:15	10
37	4/23/2005 15:15	4/24/2005 8:00	16.75	0.005	0.17	0.032	0.57	1.34	0.06	0.76	0.519	0.174	4/23/2005 15:30	4/24/2005 1:45	10.25
38	4/30/2005 4:15	5/1/2005 12:00	31.75	0.036	1.07	0.033	1.84	2.57	0.17	0.92	0.472	0.229	4/30/2005 4:15	5/1/2005 8:15	28
39	5/20/2005 5:00	5/21/2005 0:30	19.5	0.034	0.94	0.036	0.87	1.53	0.04	0.99	0.385	0.265	5/20/2005 5:00	5/20/2005 19:00	14
40	6/3/2005 10:30	6/4/2005 9:00	22.5	0.037	0.78	0.047	1.17	1.83	0.05	0.86	0.342	0.203	6/3/2005 10:30	6/4/2005 0:30	14
41	6/6/2005 18:15	6/7/2005 7:00	12.75	0.024	1.07	0.022	3.06	3.74	0.65	0.89	0.372	0.158	6/6/2005 18:45	6/6/2005 22:30	3.75
42	6/10/2005 12:00	6/11/2005 1:30	13.5	0.019	0.87	0.022	2.38	2.98	0.25	0.88	0.356	0.258	6/10/2005 12:15	6/10/2005 16:00	3.75
43	6/27/2005 9:30	6/28/2005 7:15	21.75	0.028	0.94	0.029	0.98	1.59	0.08	0.77	0.324	0.203	6/27/2005 9:30	6/28/2005 5:45	20.25
Average:			19.2	0.026	0.81	0.037	1.29	1.95	0.13	0.86	0.42	0.22			10.4
Maximum Value:			51.0	0.133	6.61	0.106	5.25	5.83	0.65	1.55	0.74	0.34			45.5
Minimum Value:			8.3	0.003	0.10	0.008	0.43	0.98	0.02	0.59	0.28	0.12			0.00
Standard Deviation:			10.7	0.027	1.07	0.021	0.92	0.92	0.15	0.20	0.09	0.05			9.8
Weighted Mean R-Value*:						0.032									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

WBR-B0585 Wooden Bridge Run Interceptor (2003)

Pipe Size (In.): 18

Tributary Drainage Area (acres): 278

Tributary Service Population: 3,693

										<-----EVENT AVERAGE----->					
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1/1/2003 8:45	1/2/2003 5:30	20.75	0.023	1.06	0.021	1.36	2.06	0.18	0.836	0.410	0.230	1/1/2003 8:45	1/2/2003 2:15	17.5
2	1/3/2003 7:30	1/4/2003 4:15	20.75	0.008	0.30	0.027	0.34	1.08	0.03	0.735	0.410	0.256	1/3/2003 7:30	1/3/2003 22:30	15
3	1/31/2003 12:00	1/31/2003 20:45	8.75	0.002	0.14	0.014	0.14	0.90	0.03	0.802	0.447	0.316	1/31/2003 12:30	1/31/2003 14:00	1.5
4	2/4/2003 9:15	2/4/2003 20:45	11.5	0.005	0.21	0.024	0.37	1.13	0.03	0.845	0.452	0.316	2/4/2003 9:30	2/4/2003 14:30	5
5	2/21/2003 16:45	2/24/2003 10:45	66	0.124	2.38	0.052	1.57	2.34	0.19	0.984	0.415	0.231	2/21/2003 17:30	2/23/2003 12:45	43.25
6	3/2/2003 6:15	3/3/2003 16:00	33.75	0.035	0.83	0.042	0.75	1.63	0.07	0.976	0.536	0.255	3/2/2003 6:30	3/2/2003 17:15	10.75
7	3/5/2003 4:15	3/6/2003 3:00	22.75	0.022	0.35	0.062	0.48	1.30	0.03	0.961	0.549	0.242	3/5/2003 4:15	3/5/2003 9:45	5.5
8	3/6/2003 3:45	3/7/2003 9:15	29.5	0.028	0.53	0.054	0.71	1.60	0.05	0.961	0.567	0.221	3/6/2003 5:00	3/6/2003 11:30	6.5
9	3/26/2003 17:15	3/27/2003 4:00	10.75	0.007	0.25	0.028	0.58	1.34	0.05	0.740	0.428	0.197	3/26/2003 17:15	3/26/2003 20:15	3
10	3/29/2003 15:15	3/31/2003 1:00	33.75	0.015	0.47	0.031	0.65	1.37	0.07	0.750	0.424	0.248	3/29/2003 15:30	3/30/2003 18:15	26.75
11	4/1/2003 14:45	4/2/2003 4:15	13.5	0.004	0.12	0.034	0.35	1.06	0.05	0.682	0.417	0.211	4/1/2003 15:00	4/2/2003 0:00	9
12	4/7/2003 15:00	4/8/2003 21:00	30	0.023	0.50	0.046	0.44	1.14	0.02	0.804	0.417	0.249	4/7/2003 15:15	4/8/2003 12:30	21.25
13	4/11/2003 4:15	4/11/2003 19:45	15.5	0.015	0.38	0.039	0.89	1.63	0.08	0.871	0.427	0.275	4/11/2003 4:15	4/11/2003 14:45	10.5
14	4/12/2003 2:45	4/13/2003 3:15	24.5	0.017	0.31	0.056	0.60	1.13	0.04	0.789	0.429	0.233	4/12/2003 2:45	4/12/2003 7:30	4.75
15	4/25/2003 21:45	4/26/2003 17:30	19.75	0.022	0.51	0.044	0.64	1.22	0.03	0.871	0.438	0.229	4/25/2003 21:45	4/26/2003 12:30	14.75
16	5/2/2003 16:45	5/2/2003 21:30	4.75	0.004	0.25	0.015	1.37	2.14	0.22	0.880	0.420	0.325	5/2/2003 17:00	5/2/2003 19:00	2
17	5/6/2003 5:00	5/6/2003 10:30	5.5	0.004	0.21	0.017	0.65	1.39	0.11	0.772	0.417	0.244	5/6/2003 5:00	5/6/2003 7:15	2.25
18	5/7/2003 22:45	5/8/2003 7:15	8.5	0.016	0.75	0.021	1.97	2.57	0.20	0.827	0.411	0.091	5/7/2003 23:00	5/8/2003 2:30	3.5
19	5/16/2003 12:15	5/17/2003 8:30	20.25	0.010	0.39	0.024	0.31	0.90	0.03	0.703	0.415	0.203	5/16/2003 12:45	5/17/2003 3:15	14.5
20	5/21/2003 5:00	5/22/2003 1:00	20	0.004	0.32	0.014	0.47	1.08	0.05	0.723	0.412	0.273	5/21/2003 5:00	5/21/2003 19:00	14
21	5/23/2003 13:30	5/24/2003 14:15	24.75	0.011	0.38	0.030	0.58	1.32	0.08	0.718	0.394	0.241	5/23/2003 13:30	5/24/2003 7:00	17.5
22	5/25/2003 14:30	5/26/2003 19:00	28.5	0.048	2.05	0.024	2.66	3.39	0.22	0.957	0.407	0.245	5/25/2003 14:45	5/26/2003 11:00	20.25
23	5/31/2003 16:45	6/1/2003 5:00	12.25	0.010	0.60	0.017	0.68	1.43	0.16	0.776	0.444	0.188	5/31/2003 17:00	6/1/2003 2:15	9.25
24	6/1/2003 6:30	6/1/2003 18:45	12.25	0.013	0.62	0.021	0.89	1.76	0.10	0.960	0.446	0.328	6/1/2003 6:30	6/1/2003 12:15	5.75
25	6/3/2003 22:30	6/5/2003 7:00	32.5	0.047	1.44	0.033	1.22	1.69	0.10	0.903	0.449	0.194	6/3/2003 22:30	6/5/2003 3:00	28.5
26	6/7/2003 9:30	6/8/2003 5:00	19.5	0.029	0.88	0.033	1.34	2.15	0.09	0.986	0.455	0.262	6/7/2003 9:30	6/8/2003 1:45	16.25
27	6/12/2003 20:00	6/13/2003 6:00	10	0.016	0.47	0.034	1.71	2.47	0.20	0.926	0.513	0.130	6/12/2003 20:30	6/13/2003 1:15	4.75
28	6/17/2003 23:30	6/18/2003 15:30	16	0.020	0.91	0.022	0.84	1.68	0.10	1.026	0.601	0.198	6/17/2003 23:45	6/18/2003 7:45	8
29	6/19/2003 23:30	6/20/2003 8:30	9	0.009	0.43	0.021	1.57	2.24	0.14	0.911	0.622	0.111	6/19/2003 23:45	6/20/2003 2:00	2.25
30	6/20/2003 10:15	6/21/2003 10:00	23.75	0.036	1.23	0.030	1.34	2.28	0.13	1.128	0.629	0.224	6/20/2003 10:30	6/21/2003 4:45	18.25
31	7/7/2003 17:15	7/8/2003 2:15	9	0.006	0.13	0.042	1.26	2.16	0.13	0.906	0.562	0.234	7/7/2003 17:15	7/7/2003 18:15	1
32	7/10/2003 4:45	7/10/2003 20:00	15.25	0.004	0.22	0.017	0.42	1.06	0.08	0.870	0.543	0.283	7/10/2003 5:00	7/10/2003 14:45	9.75
33	7/18/2003 20:30	7/19/2003 6:00	9.5	0.010	0.38	0.028	1.70	2.46	0.26	0.840	0.518	0.128	7/18/2003 20:45	7/18/2003 22:15	1.5
34	7/22/2003 23:30	7/23/2003 8:30	9	0.009	0.22	0.040	1.86	2.51	0.09	0.782	0.501	0.111	7/22/2003 23:45	7/23/2003 8:00	8.25

**WBR-B0585 Wooden Bridge Run Interceptor (2003)**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 278

Tributary Service Population: 3,693

Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	<-----EVENT AVERAGE----->			Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)
										Observed Flow (mgd)	GWI Flow (mgd)	Base Wastewater Flow (mgd)			
35	7/24/2003 3:15	7/24/2003 12:15	9	0.006	0.18	0.031	0.43	0.98	0.04	0.829	0.505	0.213	7/24/2003 3:30	7/24/2003 6:45	3.25
36	8/1/2003 13:45	8/1/2003 22:30	8.75	0.010	0.45	0.023	1.83	2.61	0.28	0.998	0.476	0.311	8/1/2003 14:00	8/1/2003 21:30	7.5
37	8/5/2003 12:00	8/6/2003 0:00	12	0.009	0.28	0.033	0.62	1.40	0.09	0.899	0.468	0.296	8/5/2003 12:00	8/5/2003 17:30	5.5
38	9/13/2003 1:00	9/14/2003 23:15	46.25	0.026	1.01	0.026	1.03	1.66	0.14	0.704	0.362	0.241	9/13/2003 1:15	9/14/2003 15:15	38
39	9/15/2003 16:30	9/16/2003 1:30	9	0.008	0.38	0.021	1.06	1.75	0.17	0.784	0.369	0.256	9/15/2003 16:30	9/16/2003 1:15	8.75
40	9/18/2003 16:15	9/19/2003 13:45	21.5	0.022	0.99	0.022	0.91	1.47	0.15	0.776	0.368	0.226	9/18/2003 16:30	9/19/2003 4:45	12.25
41	9/23/2003 6:15	9/23/2003 21:00	14.75	0.013	0.79	0.016	1.35	2.05	0.24	0.844	0.380	0.309	9/23/2003 6:30	9/23/2003 11:30	5
42	9/27/2003 12:15	9/27/2003 17:00	4.75	0.002	0.17	0.011	0.28	1.06	0.06	0.757	0.404	0.369	9/27/2003 12:30	9/27/2003 16:30	4
43	9/28/2003 0:30	9/28/2003 18:00	17.5	0.017	0.64	0.026	1.22	1.66	0.15	0.804	0.402	0.231	9/28/2003 0:30	9/28/2003 9:30	9
44	11/12/2003 0:30	11/12/2003 16:15	15.75	0.014	0.41	0.034	0.44	1.19	0.03	0.807	0.447	0.205	11/12/2003 0:45	11/12/2003 8:45	8
45	12/10/2003 19:00	12/12/2003 10:00	39	0.099	1.54	0.064	2.22	2.95	0.27	1.088	0.418	0.214	12/10/2003 19:15	12/11/2003 11:30	16.25
46	12/14/2003 13:00	12/15/2003 13:30	24.5	0.036	0.49	0.073	0.82	1.49	0.04	0.844	0.344	0.240	12/14/2003 13:15	12/15/2003 9:45	20.5
47	12/17/2003 6:45	12/18/2003 8:30	25.75	0.022	0.41	0.055	0.70	1.36	0.05	0.749	0.355	0.237	12/17/2003 6:45	12/17/2003 18:15	11.5
48	12/24/2003 3:30	12/25/2003 5:45	26.25	0.048	1.21	0.040	1.05	1.76	0.08	0.929	0.387	0.212	12/24/2003 3:45	12/24/2003 16:00	12.25
Average:			19.3	0.021	0.61	0.032	0.97	1.69	0.11	0.854	0.450	0.235			11.3
Maximum Value:			66.0	0.124	2.38	0.073	2.66	3.39	0.28	1.128	0.629	0.369			43.3
Minimum Value:			4.8	0.002	0.12	0.011	0.14	0.90	0.02	0.682	0.344	0.091			1.00
Standard Deviation:			11.7	0.023	0.49	0.014	0.57	0.58	0.07	0.104	0.070	0.058			9.1
Weighted Mean R-Value*:						0.034									

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.



**WBR-B0585 Wooden Bridge Run Interceptor (2004)**

Pipe Size (In.): 18

Tributary Drainage Area (acres): 278

Tributary Service Population: 3,693

<-----EVENT AVERAGE----->															
Event	Event Start	Event End	Duration (hours)	I/I Volume (In.)	Rain Volume (In.)	Total R-value (ratio)	Peak I/I Flow (mgd)	Peak Total Flow (mgd)	Event Peak Rainfall (In./15 min)	Observed Flow (mgd)	GWFI Flow (mgd)	Base Wastewater Flow (mgd)	Rainfall Start Date	Rainfall End Date	Rainfall Duration (hours)

\* The weighted mean R-value ratio is calculated by dividing the sum of the I/I volume for all listed events by the sum of the rain volume for all listed events.

## **Appendix D**

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# **SSOAP Curve Fitting Analysis Result Summaries**

# Appendix D

## SSOAP Curve Fitting Analysis Result Summaries

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This appendix includes a series of spreadsheets that summarize the results of the completed unit hydrograph curve fitting analyses that were conducted on the monitored precipitation and wastewater flow data that were obtained for the sewershed sites. These Phase 2 SSES analyses were conducted using the Environmental Protection Agency (US EPA) Sanitary Sewer Overflow Analysis Program (SSOAP). An individual spreadsheet was prepared for each sewershed that was analyzed.

The SSOAP analysis procedure was described in Section 3.6. For the first step in the analyses, the total monitored wastewater flows were deconstructed into their characteristic flow components of base wastewater flow (BWFF), ground water infiltration (GWI), and rainfall-dependent infiltration and inflow (RDII). A figure illustrating these components is provided in Section 3.6. The BWFF and GWI flows represent the dry weather flow component of the total monitored flow, while the RDII component represents the wet weather flow, or the response of the sanitary sewer collection system to storms. The SSOAP analysis calculated the volume of RDII flow for each successfully monitored storm, for each successfully monitored City sewershed area. Each of the calculated storm volumes was divided by the corresponding volume of rainfall over the sewershed area and expressed as a percentage, or R-value. A calculated R-value of 0.045 would indicate that 4.5% of the measured rainfall over the sewershed area “leaked” into the sewer system as monitored RDII. Low values typically indicate a tight sewer system with minimal extraneous flow. On the contrary, high values indicate high quantities of extraneous flow originating from possible sources such as roof leader connections, foundation drain connections, connections with storm inlets or area drains, and leaking pipe joints.

For the second step in the SSOAP analyses, a series of three triangular unit hydrographs were developed for each of the calculated RDII responses. Each hydrograph is defined by three parameters represented by the variables R, T, and K. A figure illustrating the three triangular hydrographs and their corresponding R, T, and K values is provided in Section 3.6. As described above, the R parameter represents the fraction of precipitation falling over a sewershed that enters or “leaks” into the sanitary sewer system. The T parameter represents the travel time through the collection system to the monitoring site, and the K parameter represents the length or duration of the recession limb after the storm has ended. The first R-T-K hydrograph represents the fast response of the collection system, which generally tends to be more inflow driven. The second and third hydrographs simulate the intermediate and delayed responses of the sewer system, which generally tend to be more infiltration driven.

The quality assurance goals for the SSOAP curve fitting analyses were to have the RDII for the simulated storms be within five percent of the monitored storms for both total storm volume and peak storm flow. Storms which did not meet the quality assurance goal were removed from the data set and are indicated within the spreadsheets as rows with red, strikeout font.



The spreadsheets contain the following information.

- Column 1: Indicates an event number assigned in chronological order for each analyzed storm.
- Columns 2 through 4: Shows the start and ending dates and times for each storm, along with the associated duration in hours.
- Columns 5 through 13: Provides the three parameters needed to define each of the three unit hydrographs used to simulate the fast (R1, T1, K1) moderate (R2, T2, K2) and slow (R3, T3, K3) responses of the sanitary sewer system as a function of precipitation.
- Columns 14 and 15: Display the total monitored storm volume in inches and the peak 15 minute precipitation in inches.
- Columns 16 through 19: Show how the simulated storm volumes compare to the corresponding observed volumes for the individual storm. The volumes are ratios indicating the percentage of sewershed rainfall that was observed to leak into the sewer collection system pipes.
- Columns 20 through 23: Shows how the simulated storm peaks compare to the corresponding monitored storm peak for the individual storm. The peak values are expressed in million gallons per day (mgd).

The individual site summaries are organized and grouped by the interceptor sewer into which the monitored sewershed conveys flow. A listing of the analyzed sewershed monitoring sites for each interceptor sewer is provided.

## Appendix D

# List of Analyzed Sewershed Monitoring Sites

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### **Byberry Creek Interceptor**

- BC-0010
- BC-0055 (2012)
- BC-0055 (2013)
- BC-B0675
- BC-B0755

### **Cheltenham Interceptor**

- THL-B0705

### **Cresheim Valley Interceptor**

- CV-0145
- W077-02-S0060
- W086-01-S0060

### **Island Avenue Lower Level Interceptor**

- IALL-B0355
- IALL-B0810
- IALL-B0862

### **Monoshone Interceptor**

- M0045
- W068-05-S0047
- W068-05-S0078

### **Paul's Run Interceptor**

- PR-0060
- PR-0150
- PR-B0405
- PR-B0455

### **Pennypack Interceptor**

- PP-B0840
- PP-B1035
- PP-B1080

### **Poquessing Interceptor**

- PC-0010 (2009)

- PC-0010 (2013)
- PC-1210
- PC-B1330
- PC-P1360
- PC-B1440
- PC-B1530

**Sandy Run Interceptor**

- P090-02-S0090
- P090-02-S0590
- P090-02-S0715

**Tacony High Level Interceptor**

- T088-01-S0050
- T088-01-S0155

**Upper Delaware Low Level Interceptor**

- P083-03-S0050 (2012)
- P083-03-S0050 (2013)

**Upper Schuylkill East Side**

- USE-0365 (2010)
- USE-0365 (2012)
- USE-0500
- USE-0660
- USE-0760

**Wissahickon High level Interceptor**

- WHL-0110 (2013)
- W067-01-S0060

**Wissahickon Low Level Interceptor**

- WLL-0028
- WLL-0105
- WLL-0565

**Wooden Bridge Interceptor**

- WBR-0375
- WBR-B0585

## Appendix D

# List of Analyzed Sewershed Monitoring Sites

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### **Byberry Creek Interceptor**

- BC-0010
- BC-0055 (2012)
- BC-0055 (2013)
- BC-B0675
- BC-B0755

### **Cheltenham Interceptor**

- THL-B0705

### **Cresheim Valley Interceptor**

- CV-0145
- W077-02-S0060
- W086-01-S0060

### **Island Avenue Lower Level Interceptor**

- IALL-B0355
- IALL-B0810
- IALL-B0862

### **Monoshone Interceptor**

- M0045
- W068-05-S0047
- W068-05-S0078

### **Paul's Run Interceptor**

- PR-0060
- PR-0150
- PR-B0405
- PR-B0455

### **Pennypack Interceptor**

- PP-B0840
- PP-B1035
- PP-B1080

**Poquessing Interceptor**

- PC-0010 (2009)
- PC-0010 (2013)
- PC-1210
- PC-B1330
- PC-P1360
- PC-B1440
- PC-B1530

**Sandy Run Interceptor**

- P090-02-S0090
- P090-02-S0590
- P090-02-S0715

**Tacony High Level Interceptor**

- T088-01-S0050
- T088-01-S0155

**Upper Delaware Low Level Interceptor**

- P083-03-S0050 (2012)
- P083-03-S0050 (2013)

**Upper Schuylkill East Side**

- USE-0365 (2010)
- USE-0365 (2012)
- USE-0500
- USE-0660
- USE-0760

**Wissahickon High level Interceptor**

- WHL-0110 (2013)
- W067-01-S0060

**Wissahickon Low Level Interceptor**

- WLL-0028
- WLL-0105
- WLL-0565

**Wooden Bridge Interceptor**

- WBR-0375
- WBR-B0585

BC-0010 Byberry Creek Interceptor

Pipe Size: 48" dia.

Tributary Drainage Area: 3,271 acres

Tributary Service Population: 40,961

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	7/27/2008 14:00	7/28/2008 1:45	11.75	0.001	1	1.75	0.005	2	3	0.000	0	0	0.43	0.29	0.006	0.006	0	-0.9	1.41	1.45	0.034	2.4
2	8/10/2008 12:15	8/11/2008 1:30	13.25	0.007	1	1.75	0.002	2	2.5	0.000	0	0	0.31	0.05	0.009	0.009	-0.0004	-4.7	1.64	1.65	0.012	0.7
3	8/14/2008 21:30	8/15/2008 7:00	9.5	0.008	1.25	2	0.010	2	3	0.000	0	0	0.13	0.04	0.017	0.018	0	2.9	1.45	1.47	0.019	1.3
4	8/29/2008 23:15	8/30/2008 13:30	14.25	0.008	1	1.75	0.011	2	4	0.000	0	0	0.42	0.26	0.019	0.019	0	-0.4	5.21	5.24	0.028	0.5
5	9/5/2008 23:15	9/6/2008 10:15	11	0.021	1	1.75	0.014	2.5	3	0.000	0	0	0.19	0.09	0.035	0.035	0	-0.8	5.13	5.17	0.031	0.6
6	9/6/2008 11:45	9/7/2008 3:00	15.25	0.012	0.75	1.75	0.011	2	2.5	0.000	0	0	2.05	0.20	0.023	0.023	0	-0.3	22.50	22.58	0.076	0.3
7	9/9/2008 10:00	9/10/2008 3:30	17.5	0.014	0.75	1.75	0.004	2	4	0.013	4	3	0.57	0.19	0.030	0.031	0.001	4.3	13.54	13.57	0.025	0.2
8	9/12/2008 13:15	9/13/2008 18:30	29.25	0.025	0.75	1.75	0.011	2	3	0.012	4	5	0.64	0.07	0.047	0.048	0.001	2.2	10.00	10.07	0.069	0.7
9	9/25/2008 20:00	9/26/2008 21:45	25.75	0.025	0.75	1.75	0.025	2	3	0.000	0	0	0.33	0.06	0.050	0.050	0	0.2	4.52	4.06	-0.456	-10.1
10	9/27/2008 0:45	9/27/2008 21:15	20.5	0.016	0.75	2	0.013	2	4	0.029	4	4	0.24	0.11	0.058	0.058	0	-0.1	6.89	6.86	-0.034	-0.5
11	9/28/2008 4:15	9/30/2008 1:00	44.75	0.016	0.75	2.75	0.005	2	3	0.017	4	7	1.42	0.45	0.037	0.038	0	0.0	22.56	22.61	0.048	0.2
12	9/30/2008 21:45	10/1/2008 15:30	17.75	0.013	0.75	1.75	0.003	2	3	0.018	4	6	0.46	0.19	0.034	0.034	0	0.1	10.08	10.02	-0.06	-0.6
13	10/1/2008 15:45	10/2/2008 13:15	21.5	0.001	0	0	0.001	0	0	0.001	0	0	0.11	0.02	0.104	0.003	-0.101	-97.1	3.73	0.61	-3.122	-83.8
14	10/25/2008 12:30	10/26/2008 7:30	19	0.015	0.75	2	0.008	2	4	0.000	3.13	7.63	0.86	0.30	0.024	0.023	0	-1.8	13.06	13.38	0.322	2.5
15	10/27/2008 22:30	10/29/2008 17:15	42.75	0.010	0.75	2	0.016	1.75	3	0.010	4	7	1.86	0.11	0.039	0.035	-0.004	-10.8	15.03	14.95	-0.084	-0.6
16	11/5/2008 16:00	11/7/2008 1:30	33.5	0.022	0.75	2	0.016	2	3	0.024	4	4	0.34	0.05	0.062	0.062	0	0.7	6.02	6.02	0.009	0.2
17	11/8/2008 10:45	11/8/2008 21:15	10.5	0.019	0.75	1.75	0.014	2	3	0.000	0	0	0.16	0.05	0.033	0.033	0	0.1	4.59	4.51	-0.074	-1.6
18	11/13/2008 10:30	11/14/2008 15:30	29	0.021	0.75	2	0.007	2	4	0.014	4	6	0.91	0.07	0.042	0.042	0	0.7	10.73	10.90	0.174	1.6
19	11/15/2008 3:00	11/17/2008 0:15	45.25	0.024	0.75	2	0.009	2	4	0.015	4	6	1.05	0.14	0.049	0.048	0	-0.8	10.69	10.82	0.131	1.2
20	11/24/2008 19:00	11/26/2008 3:30	32.5	0.029	0.75	1.75	0.029	2	3	0.020	4	6	0.37	0.02	0.075	0.078	0.003	4.0	6.49	6.53	0.047	0.7
21	11/30/2008 4:45	12/1/2008 16:30	35.75	0.022	0.75	2	0.013	2	4	0.018	4	5	0.84	0.05	0.053	0.053	0	-0.8	8.45	8.58	0.133	1.6
22	12/1/2008 17:45	12/2/2008 16:00	22.25	0.019	0.75	2	0.010	2	4	0.045	4	4	0.14	0.08	0.074	0.074	0	0.2	4.87	4.82	-0.051	-1.0
23	12/10/2008 6:00	12/13/2008 5:15	71.25	0.018	0.75	2	0.011	2	3.5	0.010	4	7	3.21	0.15	0.039	0.039	0	-1.2	20.18	20.54	0.356	1.8
24	12/15/2008 23:15	12/18/2008 9:30	58.25	0.011	1	2	0.020	2	3	0.028	4	4	0.81	0.24	0.060	0.059	-0.001	-0.8	7.66	7.78	0.12	1.6
25	12/19/2008 7:15	12/20/2008 19:45	36.5	0.027	0.75	2	0.005	2	3	0.008	4	6	0.98	0.09	0.040	0.040	0	1.0	11.79	11.64	-0.146	-1.2
26	12/21/2008 7:00	12/22/2008 8:30	25.5	0.019	0.75	2	0.020	2	3.5	0.028	4	4	0.28	0.12	0.068	0.067	-0.001	-1.7	6.25	6.04	-0.208	-3.3
27	1/7/2009 0:00	1/9/2009 0:30	48.5	0.008	0.75	2	0.013	2	4	0.024	4	9	1.57	0.43	0.045	0.045	0	-0.2	10.41	10.47	0.059	0.6
28	1/28/2009 8:15	1/29/2009 6:00	21.75	0.023	1	2	0.025	2	5	0.000	0	0	0.80	0.08	0.055	0.048	-0.007	-13.2	11.57	11.39	-0.178	-1.5
29	3/19/2009 12:00	3/20/2009 7:00	19	0.022	1	2	0.014	2	4	0.051	4	4	0.13	0.03	0.087	0.087	0	0.3	3.22	3.20	-0.024	-0.7
30	3/26/2009 15:15	3/27/2009 21:45	30.5	0.021	0.75	2	0.014	1.75	3	0.018	4	6	0.32	0.04	0.053	0.053	0	0.2	6.00	6.08	0.089	1.5
31	3/28/2009 1:45	3/28/2009 17:15	15.5	0.028	0.75	2	0.010	2	3	0.000	0	0	0.22	0.04	0.037	0.038	0.001	3.2	5.19	5.10	-0.089	-1.7
32	3/29/2009 2:45	3/29/2009 16:00	13.25	0.019	0.75	2	0.003	2	3	0.000	0	0	0.26	0.06	0.022	0.022	0	0.6	5.08	5.09	0.011	0.2
33	3/29/2009 19:00	3/30/2009 3:00	8	0.004	0.75	1.5	0.003	2	3	0.000	0	0	0.32	0.24	0.006	0.007	0	7.6	3.14	2.54	-0.597	-19.0
34	4/1/2009 15:30	4/2/2009 6:00	14.5	0.035	1	2.5	0.015	2	3	0.000	0	0	0.22	0.03	0.051	0.050	-0.001	-2.3	4.85	4.83	-0.019	-0.4
35	4/3/2009 5:15	4/4/2009 11:30	30.25	0.009	0.75	2	0.011	2	3	0.015	4	4	0.62	0.18	0.035	0.035	0	-0.1	7.22	7.28	0.065	0.9
36	4/6/2009 7:15	4/7/2009 6:00	22.75	0.014	0.75	2	0.034	2	4	0.000	0	0	0.43	0.06	0.047	0.048	0.001	2.6	4.64	4.59	-0.05	-1.1
37	4/11/2009 6:15	4/12/2009 1:30	19.25	0.023	0.75	2	0.011	2.5	3	0.000	0	0	0.55	0.05	0.034	0.034	0	-1.0	8.28	8.11	-0.169	-2.0
38	4/13/2009 23:15	4/16/2009 4:45	53.5	0.022	0.75	2	0.017	2	3	0.010	4	3	1.26	0.08	0.047	0.049	0.002	3.5	9.36	9.40	0.043	0.5
39	4/20/2009 10:00	4/21/2009 11:15	25.25	0.017	0.75	2	0.016	2	3	0.013	4	5	0.70	0.09	0.046	0.046	0	0.3	8.05	8.20	0.156	1.9
40	4/21/2009 21:30	4/22/2009 6:00	8.5	0.016	0.75	2	0.017	2	3	0.000	0	0	0.17	0.05	0.033	0.033	0	0.1	4.52	4.48	-0.045	-1.0
41	4/22/2009 17:15	4/23/2009 4:45	11.5	0.035	0.75	2	0.034	2	3	0.000	0	0	0.08	0.04	0.068	0.069	0.001	1.4	4.76	4.75	-0.009	-0.2
42	4/29/2009 4:30	4/29/2009 17:30	13	0.020	0.75	1.75	0.010	2	3	0.000	0	0	0.15	0.02	0.030	0.030	0	1.5	2.43	2.37	-0.061	-2.5
43	5/3/2009 4:15	5/5/2009 16:30	60.25	0.019	0.75	2	0.017	2	3	0.011	4	4	1.48	0.08	0.046	0.047	0	0.0	8.05	7.92	-0.13	-1.6
44	5/5/2009 18:00	5/6/2009 18:30	24.5	0.033	0.75	2	0.022	2	3	0.025	4	4	0.31	0.05	0.080	0.080	0	0.2	7.71	7.74	0.025	0.3

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BC-0010 Byberry Creek Interceptor

Pipe Size: 48" dia.

Tributary Drainage Area: 3,271 acres

Tributary Service Population: 40,961

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
45	5/6/2009 20:30	5/8/2009 12:45	40.25	0.010	0.75	2	0.016	2	3.5	0.018	4	7	1.21	0.24	0.044	0.044	0	0.4	15.37	15.57	0.2	1.3
46	5/14/2009 22:00	5/16/2009 3:00	29	0.012	0.75	2	0.007	2	4	0.023	4	6	0.38	0.17	0.041	0.042	0.001	1.8	7.33	7.53	0.201	2.7
47	5/24/2009 20:30	5/25/2009 2:30	6	0.014	1	2	0.000	0	0	0.000	0	0	0.18	0.15	0.013	0.014	0.001	4.6	3.50	3.52	0.025	0.7
48	5/29/2009 3:00	5/29/2009 14:45	11.75	0.018	0.75	2	0.013	2	4	0.000	0	0	0.49	0.12	0.032	0.031	-0.001	-1.7	12.14	12.08	-0.063	-0.5
49	5/29/2009 18:00	5/29/2009 23:30	5.5	0.018	0.75	2	0.012	2	2	0.000	0	0	0.08	0.05	0.030	0.030	0	-0.4	2.67	2.76	0.092	3.4
50	6/3/2009 4:00	6/3/2009 12:30	8.5	0.019	0.75	2	0.007	2	3	0.000	0	0	0.31	0.13	0.026	0.027	-0.0012	-4.7	8.69	8.50	0.193	2.2
51	6/3/2009 23:45	6/4/2009 15:00	15.25	0.030	0.75	2	0.022	2	3	0.000	0	0	0.32	0.04	0.051	0.052	0.001	1.5	5.94	5.83	-0.118	-2.0
52	6/5/2009 0:45	6/6/2009 16:15	39.5	0.033	0.75	2	0.006	2	3	0.014	4	5		0.03	0.061	0.053	-0.008	-13.7	7.82	7.39	-0.432	-5.5
53	6/9/2009 7:30	6/9/2009 16:45	9.25	0.018	0.75	2	0.015	2	3	0.000	0	0	0.23	0.07	0.032	0.033	0	0.3	6.51	6.58	0.068	1.0
54	6/11/2009 3:15	6/11/2009 14:30	11.25	0.022	1	2	0.021	2	3	0.000	0	0	0.27	0.09	0.044	0.042	-0.002	-3.4	8.30	8.14	-0.165	-2.0
55	6/13/2009 14:00	6/14/2009 6:00	16	0.033	1	1	0.015	2.5	2.25	0.000	0	0	0.46	0.05	0.041	0.048	0.007	17.3	12.20	12.20	-0.003	0.0
56	6/15/2009 23:45	6/16/2009 22:15	22.5	0.017	0.75	2	0.012	2	2.5	0.011	4	4	0.58	0.13	0.040	0.040	0	0.5	12.65	12.68	0.023	0.2
57	6/18/2009 3:30	6/19/2009 14:00	34.5	0.024	0.75	2	0.009	2	3	0.026	4	7	0.69	0.09	0.061	0.059	-0.002	-3.0	10.44	10.72	0.285	2.7
58	6/20/2009 9:45	6/21/2009 5:30	19.75	0.022	0.75	2	0.010	2	3	0.020	4	4	0.34	0.06	0.052	0.052	0	-0.2	7.20	7.35	0.144	2.0
59	6/26/2009 18:15	6/26/2009 23:15	5	0.012	0.75	2	0.000	0	0	0.000	0	0	0.90	0.64	0.012	0.012	0	-1.5	18.17	18.52	0.348	1.9
60	7/2/2009 1:30	7/2/2009 10:45	9.25	0.018	0.75	2	0.010	2	3	0.000	0	0	0.62	0.36	0.028	0.028	0.0004	1.4	19.27	19.78	0.505	2.6
61	7/11/2009 21:15	7/12/2009 11:30	14.25	0.014	0.75	2	0.007	2	4	0.000	0	0	1.37	0.52	0.022	0.021	-0.001	-2.7	20.31	20.52	0.205	1.0
62	7/16/2009 18:15	7/17/2009 14:45	20.5	0.019	0.75	2	0.008	2	3	0.042	4	4	0.13	0.08	0.069	0.069	0.0001	0.1	4.41	4.49	0.085	1.9
63	7/17/2009 18:45	7/18/2009 4:45	10	0.015	0.75	2.5	0.012	2	3.5	0.000	0	0	0.24	0.14	0.027	0.027	0	-0.1	5.54	5.57	0.029	0.5
64	7/21/2009 3:15	7/22/2009 7:00	27.75	0.025	0.75	2	0.007	2	4	0.007	4	5	1.07	0.15	0.038	0.039	0.001	1.9	15.60	15.16	-0.431	-2.8
65	7/23/2009 10:30	7/24/2009 1:15	14.75	0.014	0.75	2	0.020	2	3	0.010	4	3	0.22	0.04	0.044	0.044	0	0.8	3.93	3.97	0.042	1.1
66	7/29/2009 16:00	7/30/2009 3:45	11.75	0.017	0.75	2	0.005	2	3	0.000	0	0	0.62	0.21	0.022	0.022	0	2.2	10.27	10.26	-0.008	-0.1
67	7/31/2009 5:30	7/31/2009 13:30	8	0.013	0.75	2	0.010	2	3	0.000	0	0	0.20	0.16	0.024	0.023	0.0009	3.8	5.28	5.06	-0.224	-4.2
68	7/31/2009 15:30	8/1/2009 6:00	14.5	0.011	0.5	2.75	0.004	1.5	2	0.004	4	3	0.80	0.31	0.018	0.018	0	-0.1	16.38	16.56	0.173	1.1
69	8/2/2009 7:00	8/2/2009 21:15	14.25	0.013	0.75	2	0.010	2	3	0.000	0	0	1.27	0.57	0.023	0.023	0	-1.6	23.01	23.32	0.314	1.4
70	8/6/2009 7:00	8/7/2009 0:00	17	0.026	0.75	2	0.010	2	3	0.014	4	3	0.20	0.06	0.050	0.049	-0.001	-1.1	7.11	7.09	-0.016	-0.2
71	8/9/2009 2:00	8/10/2009 2:45	24.75	0.017	0.75	2	0.009	2	3	0.008	4	3	0.64	0.13	0.034	0.034	0	0.5	11.43	11.58	0.151	1.3
72	8/13/2009 13:45	8/14/2009 6:00	16.25	0.013	0.5	2.5	0.003	1.5	2	0.006	4	3	0.85	0.38	0.022	0.022	0	1.7	21.57	22.06	0.487	2.3
73	8/21/2009 16:00	8/23/2009 9:00	41	0.015	0.75	2	0.006	2	3	0.006	4	3	2.46	0.45	0.026	0.027	0	0.1	28.84	29.40	0.559	1.9
74	8/29/2009 21:45	8/30/2009 6:30	8.75	0.024	0.75	2	0.003	2	3	0.000	0	0	0.58	0.17	0.027	0.027	0	0.1	13.90	14.06	0.165	1.2
75	9/10/2009 18:30	9/12/2009 14:00	43.5	0.021	0.75	2	0.012	2	2.5	0.010	4	3	1.94	0.16	0.043	0.043	0	0.0	17.67	17.46	-0.204	-1.2
76	9/16/2009 10:15	9/17/2009 9:45	23.5	0.025	0.75	2	0.010	2	3	0.015	4	3.5	0.40	0.09	0.051	0.050	-0.001	-1.4	11.12	11.30	0.179	1.6
77	10/15/2009 6:45	10/16/2009 5:30	22.75	0.026	0.75	2	0.008	2	3	0.006	4	3	0.74	0.05	0.039	0.040	0.001	1.9	8.82	8.72	-0.103	-1.2
78	10/17/2009 2:45	10/18/2009 23:45	45	0.022	0.75	2	0.008	2	3	0.020	4	3	0.82	0.07	0.050	0.050	-0.001	-2.0	9.10	9.22	0.119	1.3
79	10/23/2009 18:45	10/24/2009 11:00	16.25	0.031	0.75	2	0.023	2	3	0.000	0	0	0.33	0.06	0.054	0.054	0	0.9	7.09	7.08	-0.01	-0.1
80	10/24/2009 12:00	10/26/2009 0:00	36	0.015	0.75	2	0.005	2	3	0.012	4	6	1.49	0.56	0.033	0.032	-0.001	-3.7	23.69	23.76	0.074	0.3
81	10/27/2009 20:45	10/29/2009 10:45	38	0.021	0.75	2	0.012	2	3	0.030	4	10	1.26	0.14	0.064	0.063	-0.001	-2.3	17.33	17.37	0.039	0.2
82	10/31/2009 18:15	11/1/2009 16:45	22.5	0.021	0.88	2	0.026	2	3	0.024	4	3	0.29	0.12	0.070	0.071	0.001	1.7	8.53	8.43	-0.098	-1.2
83	11/11/2009 23:15	11/13/2009 18:30	43.25	0.073	0.75	2	0.023	2	3.5	0.010	4	3	0.29	0.01	0.105	0.106	0.001	1.4	5.34	5.37	0.032	0.6
84	11/13/2009 20:00	11/15/2009 0:00	28	0.052	0.75	1.5	0.041	1.5	2.5	0.026	4	4	0.18	0.02	0.120	0.119	-0.001	-0.9	7.21	7.16	-0.056	-0.8
85	11/19/2009 17:45	11/20/2009 19:45	26	0.020	0.75	2	0.012	2	3	0.008	4	3	0.66	0.12	0.040	0.040	0	0.2	12.24	12.51	0.276	2.3
86	11/25/2009 11:15	11/26/2009 7:15	20	0.064	0.75	2	0.040	2	2.5	0.000	0	0	0.13	0.01	0.103	0.104	0.001	0.7	5.37	5.40	0.026	0.5
87	11/30/2009 11:00	12/1/2009 0:45	13.75	0.029	0.75	2	0.024	2	3	0.000	0	0	0.26	0.03	0.053	0.053	0	-0.8	5.89	5.99	0.1	1.7
88	12/2/2009 15:15	12/3/2009 14:45	23.5	0.020	0.75	2	0.010	2	3	0.010	4	3	1.16	0.09	0.041	0.040	-0.001	-1.8	14.41	14.66	0.25	1.7

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BC-0010 Byberry Creek Interceptor

Pipe Size: 48" dia.

Tributary Drainage Area: 3,271 acres

Tributary Service Population: 40,961

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
89	12/5/2009 11:45	12/6/2009 7:30	19.75	0.028	0.75	2	0.022	1.75	3.5	0.000	0	0	0.53	0.02	0.051	0.050	-0.001	-2.5	6.24	6.30	0.058	0.9
90	12/9/2009 0:30	12/10/2009 1:15	24.75	0.025	0.75	2	0.008	2	3	0.010	4	3.5	2.02	0.13	0.043	0.043	0	0.1	31.15	31.52	0.378	1.2
91	12/13/2009 8:45	12/14/2009 10:45	26	0.018	0.75	2	0.010	2	3	0.012	4	3.5	1.14	0.09	0.040	0.040	0	0.0	13.65	13.73	0.074	0.5
92	12/25/2009 9:30	12/28/2009 2:30	65	0.034	0.75	2	0.028	1.75	3.5	0.020	4	6	1.97	0.09	0.081	0.082	0.001	0.8	22.18	22.06	-0.121	-0.5
93	12/31/2009 12:45	1/1/2010 19:15	30.5	0.041	0.75	2	0.010	2	3	0.010	4	4	0.25	0.02	0.058	0.061	0.003	5.2	4.26	4.25	-0.009	-0.2
94	1/17/2010 10:30	1/18/2010 8:30	22	0.038	0.75	2	0.028	2	3	0.000	0	0	0.85	0.06	0.058	0.066	0.008	13.1	18.76	18.83	0.073	0.4
95	1/24/2010 20:15	1/26/2010 9:45	37.5	0.046	0.75	2	0.013	2.5	3	0.008	4	4	1.57	0.11	0.066	0.067	0.001	1.5	37.00	36.73	-0.273	-0.7

Statistics comparing sim and obs peak I/I flow for all 95 events

Average error = -0.006 MGD

Standard error = 0.378 MGD

Stats for 86 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = 0.040 MGD

Standard error = 0.142 MGD



BC-0055 Byberry Creek Interceptor (2012)

Pipe Size: 51" h x 48" w

Tributary Drainage Area: 2,715 acres

Tributary Service Population: 33,648

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	12/6/2011 14:15	12/9/2011 10:15	68	0.040	1.25	1	0.009	2.5	2	0.005	5	6	2.58	0.16	0.052	0.054	0.002	4.7	24.70	24.31	-0.385	-1.6
2	12/21/2011 17:45	12/22/2011 6:30	12.75	0.015	1.25	1	0.009	2.5	2	0.000	0	0	0.18	0.13	0.023	0.023	0	1.5	3.26	3.29	0.026	0.8
3	12/22/2011 21:30	12/23/2011 20:30	23	0.023	1.25	1	0.007	2.5	2	0.004	5	4	1.36	0.14	0.035	0.034	0	-0.3	18.85	18.91	0.063	0.3
4	12/27/2011 13:30	12/28/2011 17:45	28.25	0.026	1.25	1	0.006	2.5	2	0.008	5	5	0.60	0.13	0.039	0.039	0	-0.2	7.58	7.58	0	0.0
5	1/11/2012 20:15	1/13/2012 20:45	48.5	0.023	1.25	1	0.006	2.5	2	0.008	5	4	1.70	0.15	0.037	0.037	0	0.0	18.77	18.69	-0.072	-0.4
6	1/16/2012 22:45	1/18/2012 16:45	42	0.020	1.25	1	0.008	2.5	2	0.018	5	5	0.34	0.03	0.047	0.046	-0.001	-1.1	4.49	4.50	0.002	0.1
7	<del>1/23/2012 11:00</del>	<del>1/24/2012 21:45</del>	<del>34.75</del>	<del>0.024</del>	<del>1.25</del>	<del>1</del>	<del>0.019</del>	<del>2.5</del>	<del>2</del>	<del>0.054</del>	<del>5</del>	<del>5</del>	<del>0.27</del>	<del>0.05</del>	<del>0.111</del>	<del>0.097</del>	<del>-0.014</del>	<del>-12.5</del>	<del>6.23</del>	<del>6.22</del>	<del>-0.009</del>	<del>-0.1</del>
8	1/27/2012 6:00	1/28/2012 11:15	29.25	0.035	1.25	1	0.004	2.5	2	0.008	5	4	0.37	0.09	0.045	0.047	0.0022	4.9	8.70	8.40	-0.303	-3.5
9	2/11/2012 3:45	2/12/2012 9:30	29.75	0.013	1.25	1	0.015	2.5	2.5	0.033	5	5	0.22	0.03	0.060	0.061	0	0.4	2.14	2.14	-0.002	-0.1
10	2/16/2012 12:00	2/17/2012 21:15	33.25	0.015	1.25	1	0.010	2.5	2	0.040	5	5	0.16	0.02	0.065	0.065	0	-0.1	1.85	1.89	0.039	2.1
11	2/24/2012 3:00	2/25/2012 20:30	41.5	0.014	1.25	1	0.004	2.5	2	0.007	5	5	0.33	0.05	0.023	0.024	0.001	3.5	2.83	2.83	0.003	0.1
12	2/29/2012 10:15	3/2/2012 0:15	38	0.027	1.25	1	0.005	2.5	2	0.009	5	5	0.97	0.08	0.039	0.041	0.002	4.9	8.18	8.04	-0.14	-1.7
13	3/2/2012 20:30	3/3/2012 20:15	23.75	0.026	1.25	2	0.009	2.5	2	0.012	5	5	0.33	0.04	0.049	0.047	-0.002	-5.0	3.60	3.73	0.135	3.8
14	3/31/2012 0:45	4/1/2012 8:00	31.25	0.017	1.25	1	0.006	2.5	2	0.025	5	5	0.36	0.06	0.047	0.048	0	0.4	5.14	5.15	0.006	0.1
15	4/1/2012 18:15	4/3/2012 3:45	33.5	0.026	1.25	1.25	0.010	2.5	2	0.038	5	5	0.17	0.04	0.075	0.074	-0.001	-1.0	3.32	3.39	0.077	2.3
16	4/21/2012 21:45	4/24/2012 1:30	51.75	0.020	1.25	1	0.009	2.5	2.5	0.005	5	5	2.26	0.13	0.032	0.034	0.002	5.0	16.30	16.45	0.152	0.9
17	5/1/2012 4:00	5/2/2012 5:00	25	0.014	1.25	1	0.007	2.5	2	0.012	5	4	0.33	0.11	0.033	0.033	0	0.0	4.64	4.65	0.009	0.2
18	5/3/2012 2:15	5/4/2012 1:30	23.25	0.020	1.25	1.25	0.010	2.5	2	0.016	5	4	0.14	0.04	0.045	0.046	0	1.0	2.76	2.78	0.018	0.7
19	5/9/2012 0:00	5/9/2012 16:00	16	0.018	1.25	1	0.006	2.5	2	0.011	5	4	0.29	0.06	0.034	0.035	0	0.3	4.71	4.76	0.049	1.0
20	5/9/2012 21:45	5/11/2012 1:30	27.75	0.031	1.25	1	0.015	2.5	2	0.013	5	4	0.21	0.02	0.059	0.059	0	0.2	3.43	3.50	0.068	2.0
21	5/14/2012 20:15	5/17/2012 9:00	60.75	0.020	1.25	1	0.006	2.5	2	0.007	5	5	2.32	0.25	0.034	0.033	-0.001	-2.7	24.16	24.27	0.106	0.4
22	5/21/2012 1:30	5/23/2012 3:00	49.5	0.013	1.25	1	0.007	2.5	2	0.013	5	4	0.50	0.08	0.034	0.033	-0.001	-1.7	3.46	3.52	0.066	1.9
23	5/24/2012 7:30	5/25/2012 4:00	20.5	0.015	1.25	1	0.004	2.5	2	0.004	5	4	0.39	0.25	0.023	0.023	0	0.1	7.48	7.48	0.002	0.0
24	5/27/2012 4:15	5/28/2012 0:00	19.75	0.025	1.25	1	0.002	2.5	2	0.004	5	4	0.35	0.11	0.030	0.031	0.001	3.0	8.22	8.13	-0.092	-1.1
25	6/1/2012 20:30	6/3/2012 2:30	30	0.027	1	1	0.007	2.5	2.5	0.004	5	4	0.55	0.21	0.039	0.038	-0.001	-1.5	14.94	14.95	0.007	0.0
26	6/3/2012 14:00	6/4/2012 9:00	19	0.014	1.25	1	0.005	2.5	2	0.009	5	4	0.28	0.16	0.029	0.028	-0.001	-2.7	4.22	4.18	-0.038	-0.9
27	6/12/2012 9:30	6/14/2012 0:45	39.25	0.020	1.25	1	0.008	2.5	2	0.008	5	5	0.68	0.07	0.036	0.036	0	-0.1	5.80	5.77	-0.035	-0.6
28	6/22/2012 18:45	6/23/2012 20:45	26	0.014	1.25	1	0.010	2.5	2	0.020	5	4	0.23	0.06	0.044	0.044	0	-0.1	3.44	3.46	0.022	0.6
29	7/5/2012 0:15	7/5/2012 20:30	20.25	0.022	1	1	0.003	2.5	2	0.006	5	4	0.19	0.13	0.032	0.031	-0.001	-3.4	5.69	5.73	0.042	0.7
30	7/14/2012 4:00	7/14/2012 20:00	16	0.015	1.25	1	0.004	2.5	2	0.006	5	4	0.24	0.05	0.025	0.025	-0.0002	-0.8	3.29	3.14	-0.15	-4.6
31	7/15/2012 21:30	7/16/2012 20:30	23	0.020	1.25	1	0.005	2.5	2	0.007	5	4	0.97	0.50	0.032	0.032	0	-1.0	22.20	22.29	0.084	0.4
32	<del>7/18/2012 17:45</del>	<del>7/19/2012 0:00</del>	<del>6.25</del>	<del>0.009</del>	<del>1</del>	<del>1</del>	<del>0.002</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.14</del>	<del>0.10</del>	<del>0.011</del>	<del>0.011</del>	<del>0</del>	<del>-0.2</del>	<del>3.10</del>	<del>2.13</del>	<del>-0.969</del>	<del>-31.3</del>
33	7/20/2012 0:30	7/21/2012 9:15	32.75	0.016	1.25	1	0.006	2.5	2	0.002	5	4	0.90	0.25	0.024	0.024	0	-0.1	9.42	9.37	-0.051	-0.5
34	7/26/2012 19:45	7/27/2012 22:15	26.5	0.018	1.25	1	0.006	2.5	2	0.008	5	4	0.44	0.24	0.031	0.032	0	0.4	6.98	6.95	-0.029	-0.4
35	<del>7/28/2012 12:45</del>	<del>7/29/2012 17:30</del>	<del>28.75</del>	<del>0.020</del>	<del>1.25</del>	<del>1</del>	<del>0.002</del>	<del>2.5</del>	<del>2</del>	<del>0.004</del>	<del>5</del>	<del>4</del>	<del>0.55</del>	<del>0.17</del>	<del>0.026</del>	<del>0.026</del>	<del>0</del>	<del>0.6</del>	<del>12.24</del>	<del>6.64</del>	<del>-5.6</del>	<del>-45.8</del>
36	8/1/2012 4:00	8/2/2012 16:30	36.5	0.030	1.25	1	0.005	2.5	2	0.014	5	4	0.37	0.11	0.049	0.049	-0.0003	-0.6	11.96	11.94	-0.018	-0.2
37	8/4/2012 13:45	8/4/2012 23:00	9.25	0.013	1.25	1	0.004	2.5	2	0.005	5	4	0.50	0.34	0.021	0.022	0.0002	0.9	8.73	8.80	0.076	0.9
38	8/5/2012 18:45	8/6/2012 22:30	27.75	0.021	1.25	1	0.006	2.5	2	0.007	5	4	0.78	0.11	0.034	0.034	0	0.0	7.82	7.78	-0.038	-0.5
39	8/10/2012 10:00	8/11/2012 9:00	23	0.023	1.25	1	0.005	2.5	2	0.007	5	4	0.24	0.07	0.033	0.035	0.002	4.5	5.70	5.60	-0.104	-1.8
40	8/14/2012 10:00	8/16/2012 7:00	45	0.023	1.25	1	0.004	2.5	2	0.006	5	4	0.71	0.17	0.031	0.033	0.0015	4.8	9.82	9.40	-0.423	-4.3
41	8/17/2012 22:15	8/19/2012 1:45	27.5	0.017	1.25	1	0.007	2.5	2	0.007	5	4	0.58	0.07	0.031	0.031	0	0.7	6.63	6.63	0.007	0.1
42	8/27/2012 10:00	8/29/2012 0:00	38	0.021	1.25	1	0.005	2.5	2	0.005	5	4	0.97	0.20	0.031	0.031	0	1.5	12.79	12.69	-0.1	-0.8
43	9/2/2012 22:15	9/3/2012 5:45	7.5	0.008	1.25	1	0.011	2.5	2	0.000	0	0	0.14	0.03	0.019	0.019	0	0.5	1.41	1.47	0.057	4.0
44	9/3/2012 10:00	9/6/2012 6:45	68.75	0.020	1.25	1	0.010	2.5	2	0.015	5	5	4.21	0.53	0.046	0.045	-0.001	-2.3	33.86	33.91	0.045	0.1
45	9/8/2012 16:45	9/9/2012 15:00	22.25	0.022	1.25	1	0.004	2.5	2	0.006	5	4	0.24	0.04	0.030	0.032	0.0015	5.0	3.66	3.57	-0.085	-2.3
46	9/18/2012 3:30	9/20/2012 0:00	44.5	0.013	1.25	1	0.006	2.5	2	0.006	5	5	1.04	0.33	0.024	0.024	0	1.2	10.21	10.11	-0.1	-1.0
47	9/22/2012 19:45	9/23/2012 19:15	23.5	0.012	1.25	1	0.006	2.5	2	0.011	5	5	0.29	0.11	0.028	0.028	0.0001	0.4	3.64	3.68	0.036	1.0
48	<del>10/7/2012 10:45</del>	<del>10/8/2012 2:30</del>	<del>15.75</del>	<del>0.026</del>	<del>1.25</del>	<del>1</del>	<del>0.009</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.19</del>	<del>0.03</del>	<del>0.033</del>	<del>0.035</del>	<del>0.002</del>	<del>7.4</del>	<del>2.49</del>	<del>2.20</del>	<del>-0.286</del>	<del>-11.5</del>
49	<del>10/9/2012 5:00</del>	<del>10/9/2012 11:00</del>	<del>6</del>	<del>0.014</del>	<del>1.25</del>	<del>1</del>	<del>0.003</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.13</del>	<del>0.04</del>	<del>0.017</del>	<del>0.017</del>	<del>0</del>	<del>-0.4</del>	<del>2.12</del>	<del>1.59</del>	<del>-0.531</del>	<del>-25.0</del>

\*

BC-0055 Byberry Creek Interceptor (2012)

Pipe Size: 51" h x 48" w

Tributary Drainage Area: 2,715 acres

Tributary Service Population: 33,648

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
50	10/15/2012 13:15	10/16/2012 9:45	20.5	0.031	1	1	0.006	2.5	2	0.006	5	5	0.28	0.09	0.043	0.043	0	0.1	11.68	9.12	-2.561	-21.9
51	10/19/2012 9:30	10/19/2012 20:30	11	0.026	1	1	0.005	2.5	2	0.000	0	0	0.91	0.23	0.030	0.031	0.001	3.0	27.68	27.56	-0.12	-0.4
52	10/28/2012 15:30	10/30/2012 16:45	49.25	0.028	1	1	0.005	2.5	2	0.004	5	4	2.27	0.12	0.037	0.037	0	-1.1	30.71	17.60	-13.118	-42.7
53	11/7/2012 11:15	11/8/2012 15:00	27.75	0.023	1.25	1	0.007	2.5	2	0.013	5	4	0.55	0.03	0.042	0.043	0.001	2.9	3.66	3.60	-0.059	-1.6
54	11/13/2012 3:00	11/14/2012 3:00	24	0.018	1.25	1	0.006	2.5	2	0.012	5	4	0.20	0.04	0.036	0.036	0	-0.7	1.82	1.85	0.029	1.6
55	11/27/2012 6:15	11/28/2012 15:45	33.5	0.027	1.25	1	0.005	2.5	2	0.007	5	5	0.62	0.02	0.038	0.039	0.0014	3.7	5.34	5.08	-0.3	-4.8
56	12/7/2012 10:00	12/8/2012 20:00	34	0.017	1.25	1	0.006	2.5	2	0.022	5	4	0.36	0.06	0.043	0.045	0.001	2.7	5.24	5.40	0.154	2.9
57	12/9/2012 8:45	12/10/2012 22:30	37.75	0.020	1.25	1	0.010	2.5	2	0.032	5	4	0.36	0.04	0.062	0.062	0	-0.7	2.76	2.81	0.047	1.7
58	12/18/2012 0:15	12/18/2012 5:45	5.5	0.013	1.25	1	0.004	2.5	2	0.000	0	0	0.41	0.17	0.017	0.017	-0.0003	-1.7	6.94	7.05	0.108	1.6
59	12/20/2012 21:30	12/21/2012 22:00	24.5	0.024	1.25	1	0.008	2.5	2	0.005	5	4	1.63	0.12	0.035	0.036	0.001	2.6	15.58	15.46	-0.115	-0.7
60	12/24/2012 17:30	12/25/2012 6:15	12.75	0.007	1.25	1	0.023	2.5	2	0.000	0	0	0.19	0.02	0.031	0.030	-0.001	-2.0	1.76	2.15	0.397	22.6
61	12/26/2012 13:30	12/28/2012 6:15	40.75	0.019	1.25	1	0.008	2.5	2.5	0.019	5	6	1.30	0.10	0.047	0.046	-0.001	-1.9	13.40	13.29	-0.112	-0.8

Statistics comparing sim and obs peak I/I flow for all 61 events

Average error = -0.427 MGD

Standard error = 1.892 MGD

Stats for 58 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.082 MGD

Standard error = 0.288 MGD

BC-0055 Byberry Creek Interceptor (2013)

Pipe Size: 51" h x 48" w

Tributary Drainage Area: 2,715 acres

Tributary Service Population: 33,648

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1/11/2013 16:15	1/13/2013 0:00	31.75	0.022	1.25	1	0.005	2.5	2	0.010	5	5	0.45	0.06	0.037	0.037	0	-0.6	6.13	6.08	-0.053	-0.9
2	1/14/2013 20:45	1/15/2013 11:00	14.25	0.021	1.25	1	0.018	2.5	2.5	0.000	0	0	0.36	0.04	0.038	0.039	0.001	2.7	4.61	4.61	0.005	0.1
3	1/15/2013 21:30	1/17/2013 8:30	35	0.027	1.25	1	0.010	2.5	2	0.010	4	6	1.02	0.07	0.046	0.047	0.001	2.8	12.42	12.31	-0.114	-0.9
4	1/28/2013 12:45	1/28/2013 23:30	10.75	0.016	1.25	1	0.019	2.5	2	0.000	0	0	0.20	0.03	0.035	0.035	0	-1.3	3.10	3.12	0.021	0.7
5	1/30/2013 21:45	2/1/2013 1:00	27.25	0.018	1.25	1	0.008	2.5	2	0.008	4	5	1.09	0.26	0.034	0.034	0	-0.7	14.43	14.55	0.128	0.9
6	2/8/2013 7:30	2/9/2013 10:00	26.5	0.015	1	1	0.015	2.5	2	0.000	0	0	0.42	0.03	0.028	0.029	0.001	5.0	2.34	2.31	-0.037	-1.6
7	2/11/2013 4:00	2/12/2013 10:00	30	0.021	1.25	1	0.006	2.5	2	0.030	4	6	0.34	0.04	0.057	0.057	0	-0.8	4.82	4.84	0.02	0.4
8	2/13/2013 18:45	2/14/2013 16:30	21.75	0.020	1.25	1	0.016	2.5	2	0.015	4	4	0.16	0.02	0.050	0.051	0.001	1.8	1.98	1.91	-0.067	-3.4
9	2/19/2013 11:30	2/20/2013 1:00	13.5	0.021	1	1	0.019	2.5	2	0.000	0	0	0.20	0.02	0.039	0.040	0.001	3.3	2.33	2.31	-0.022	-1.0
10	2/26/2013 19:15	2/28/2013 2:15	31	0.011	1.25	1	0.014	2.5	2	0.011	4	5	0.68	0.07	0.035	0.036	0.001	1.5	5.41	5.43	0.021	0.4
11	3/8/2013 5:00	3/9/2013 2:15	21.25	0.010	1.25	1	0.019	2.5	2	0.022	4	4	0.22	0.02	0.051	0.051	0	-0.2	2.36	2.39	0.023	1.0
12	3/12/2013 3:15	3/13/2013 21:45	42.5	0.026	1	1	0.008	2.5	2	0.009	4	7	0.97	0.07	0.042	0.043	0.001	2.0	9.77	9.57	-0.206	-2.1
13	3/16/2013 9:45	3/17/2013 3:15	17.5	0.025	1	1	0.019	2.5	2.5	0.000	0	0	0.14	0.02	0.042	0.044	0.002	3.8	2.11	2.02	-0.087	-4.1
14	3/18/2013 18:00	3/20/2013 10:45	40.75	0.017	1.25	1	0.013	2.5	2	0.012	4	7	0.82	0.05	0.042	0.042	0	-0.8	5.88	5.99	0.107	1.8
15	3/25/2013 6:30	3/26/2013 22:15	39.75	0.009	1.25	1	0.015	3	2	0.022	4	8	0.61	0.04	0.046	0.046	0	-0.5	4.78	4.74	-0.037	-0.8
16	3/31/2013 15:30	4/1/2013 3:30	12	0.014	1.25	1	0.019	2.5	2.5	0.000	0	0	0.21	0.04	0.034	0.033	-0.001	-2.1	2.80	2.78	-0.014	-0.5
17	4/10/2013 20:30	4/11/2013 23:00	26.5	0.010	1	1	0.005	2.5	2	0.011	4	6	0.38	0.17	0.026	0.026	-0.0002	-0.8	4.83	4.68	-0.154	-3.2
18	4/12/2013 7:00	4/14/2013 4:00	45	0.016	1.25	1	0.006	2.5	2	0.012	4	7	1.18	0.10	0.034	0.034	0	-0.4	7.76	7.82	0.063	0.8
19	4/19/2013 21:15	4/21/2013 0:00	26.75	0.017	1.25	1	0.007	2.5	2	0.012	4	5	0.45	0.05	0.035	0.036	0.001	3.3	4.45	4.54	0.085	1.9
20	4/29/2013 3:30	4/30/2013 9:30	30	0.017	1.25	1	0.026	2.5	2.5	0.000	0	0	0.37	0.02	0.043	0.043	0	-0.3	2.10	2.13	0.027	1.3
21	5/8/2013 5:30	5/8/2013 23:00	17.5	0.022	1	1	0.000	0	0	0.000	0	0	0.32	0.06	0.022	0.022	0.0003	1.4	4.59	4.22	-0.364	-7.9
22	5/9/2013 4:00	5/10/2013 1:00	21	0.017	1.25	1	0.006	2.5	2	0.008	4	9	0.44	0.08	0.031	0.031	0	-0.8	7.66	7.44	-0.22	-2.9
23	5/10/2013 22:30	5/12/2013 11:30	37	0.019	1.25	1	0.008	2.5	2	0.005	4	4	0.77	0.08	0.031	0.032	0.001	1.8	7.13	7.02	-0.112	-1.6
24	5/18/2013 18:00	5/20/2013 0:15	30.25	0.014	1.25	1	0.013	2.5	2.5	0.007	4	4	0.36	0.04	0.033	0.034	0.001	3.1	3.28	3.26	-0.016	-0.5
25	5/23/2013 11:00	5/25/2013 17:45	54.75	0.008	1.25	1	0.004	2.5	2	0.019	4	7	0.62	0.24	0.032	0.031	-0.0014	-4.3	4.17	4.27	0.099	2.4
26	5/28/2013 9:30	5/29/2013 12:00	26.5	0.015	1.25	1	0.010	2.5	2	0.015	4	5	0.30	0.03	0.040	0.040	0	1.1	3.07	3.10	0.029	1.0
27	6/3/2013 1:00	6/4/2013 3:15	26.25	0.015	1.25	1	0.003	2.5	2	0.005	4	4	1.39	0.63	0.022	0.022	0	0.3	19.99	20.09	0.098	0.5
28	6/6/2013 19:30	6/10/2013 2:30	79	0.013	1.25	1	0.009	2.5	2	0.010	4	14	3.77	0.36	0.032	0.032	0	1.0	18.74	18.88	0.145	0.8
29	6/10/2013 7:15	6/13/2013 4:00	68.75	0.021	1.25	1	0.007	2.5	2	0.017	4	14	2.06	0.29	0.045	0.045	0	0.3	18.08	17.97	-0.11	-0.6
30	6/13/2013 9:30	6/13/2013 21:15	11.75	0.012	1.25	1	0.010	2.5	2.75	0.000	0	0	0.36	0.18	0.022	0.022	0	-1.3	5.46	5.55	0.087	1.6
31	6/18/2013 12:45	6/19/2013 15:15	26.5	0.028	1.25	1	0.011	2.5	2	0.012	4	5	0.29	0.03	0.051	0.051	0	0.9	4.54	4.40	-0.135	-3.0
32	6/25/2013 16:00	6/25/2013 22:00	6	0.019	1.25	1	0.015	2.25	2	0.000	0	0	0.10	0.10	0.034	0.034	-1E-04	-0.3	3.24	3.15	-0.091	-2.8
33	6/26/2013 20:30	6/27/2013 3:30	7	0.018	1.25	1	0.006	2.5	2	0.000	0	0	0.15	0.09	0.024	0.024	-0.0003	-1.2	3.83	3.71	-0.119	-3.1
34	6/27/2013 18:30	6/28/2013 7:45	13.25	0.016	1.25	1	0.009	2.5	3	0.000	0	0	0.62	0.18	0.025	0.025	0	0.7	10.31	10.11	-0.2	-1.9
35	6/30/2013 13:30	6/30/2013 20:15	6.75	0.016	1	1	0.004	2.5	2	0.000	0	0	0.20	0.06	0.019	0.019	0	-0.6	3.55	3.55	-0.001	0.0
36	7/1/2013 8:30	7/1/2013 19:30	11	0.022	1	1	0.008	2.5	2	0.000	0	0	0.25	0.05	0.029	0.030	0.001	3.0	4.20	4.17	-0.038	-0.9
37	7/3/2013 21:30	7/4/2013 9:00	11.5	0.007	1	1	0.007	2.5	3	0.000	0	0	0.25	0.14	0.014	0.014	0	2.9	2.32	2.34	0.021	0.9
38	7/9/2013 17:00	7/9/2013 22:45	5.75	0.012	1	1	0.000	0	0	0.000	0	0	0.16	0.09	0.012	0.012	0	3.2	3.96	2.38	-1.573	-39.8
39	7/10/2013 12:30	7/10/2013 21:15	8.75	0.013	1	1	0.010	2.5	2.5	0.000	0	0	0.18	0.11	0.023	0.023	0	0.3	4.11	4.04	-0.076	-1.8
40	7/12/2013 15:45	7/13/2013 12:00	20.25	0.020	1.25	1	0.007	2.5	2	0.006	4	4	0.88	0.18	0.033	0.033	0	1.4	14.99	15.18	0.195	1.3
41	7/13/2013 15:30	7/14/2013 13:30	22	0.028	1	1	0.004	2.5	2	0.006	4	4	0.53	0.22	0.039	0.038	-0.001	-1.5	18.22	18.00	-0.217	-1.2
42	7/23/2013 1:30	7/23/2013 11:00	9.5	0.019	1.25	1.25	0.004	2.5	2.5	0.000	0	0	1.28	0.49	0.024	0.023	-0.001	-4.7	27.23	26.88	-0.351	-1.3
43	7/23/2013 16:30	7/24/2013 0:30	8	0.011	1.25	1	0.010	2.5	2	0.000	0	0	0.14	0.06	0.021	0.021	0	-0.1	2.59	1.59	-0.999	-38.6
44	7/28/2013 16:00	7/29/2013 21:00	29	0.018	1	1	0.015	2.5	2	0.008	4	5	0.46	0.09	0.041	0.041	0	-0.5	5.74	5.69	-0.055	-1.0
45	8/1/2013 6:30	8/2/2013 7:00	24.5	0.024	1.25	1	0.006	2.5	2	0.010	4	4	0.97	0.12	0.039	0.040	0.001	1.9	12.13	11.85	-0.278	-2.3

**BC-0055 Byberry Creek Interceptor (2013)**

Pipe Size: 51"h x 48"w

Tributary Drainage Area: 2,715 acres

Tributary Service Population: 33,648

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
46	8/8/2013 0:15	8/9/2013 6:15	30	0.023	1	1	0.004	2.5	2	0.016	4	6	0.60	0.26	0.042	0.043	0.001	2.5	15.04	15.01	-0.031	-0.2
47	8/9/2013 15:45	8/10/2013 19:00	27.25	0.013	1.25	1	0.013	2.5	2	0.024	4	6	0.16	0.07	0.050	0.050	0	-0.5	2.75	2.72	-0.026	-0.9
48	8/13/2013 5:00	8/14/2013 12:30	31.5	0.015	1.25	1.5	0.006	2.5	2	0.006	4	6	2.05	0.80	0.028	0.027	-0.0012	-4.3	28.82	28.63	-0.191	-0.7
49	8/22/2013 6:15	8/23/2013 4:15	22	0.012	1	1	0.006	2.5	3	0.008	4	3	0.34	0.15	0.026	0.026	0	0.9	5.13	4.90	-0.226	-4.4
50	8/28/2013 10:45	8/29/2013 11:30	24.75	0.021	1	1	0.005	2.5	2	0.010	4	5	0.46	0.07	0.035	0.036	0	1.1	8.12	7.96	-0.165	-2.0
51	9/2/2013 10:30	9/4/2013 6:00	43.5	0.015	1.25	1	0.007	2.5	2	0.025	4	10	0.55	0.16	0.047	0.047	0	-0.9	8.99	8.94	-0.047	-0.5
52	9/12/2013 19:00	9/13/2013 16:00	21	0.013	1	1	0.008	2.5	2	0.003	4	3	0.40	0.12	0.024	0.024	0.0005	2.1	6.77	6.78	0.005	0.1
53	9/21/2013 20:15	9/23/2013 4:00	31.75	0.016	1.25	1	0.005	2.5	2	0.005	4	6	1.19	0.27	0.026	0.026	0	1.2	11.61	11.64	0.031	0.3

Statistics comparing sim and obs peak I/I flow for all 53 events

Average error = -0.108 MGD

Standard error = 0.297 MGD

Stats for 47 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.038 MGD

Standard error = 0.117 MGD

BC-B0675 Bayberry Creek Interceptor

Pipe Size: 20" dia.

Tributary Drainage Area: 2,326 acres

Tributary Service Population: 23,909

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1/6/2009 21:30	1/8/2009 21:30	48	0.070	0.5	1.5	0.029	2.5	2	0.032	5	6	1.63	0.05	0.131	0.131	0	0.0	2.60	2.58	-0.016	-0.6
2	<del>1/28/2009 0:15</del>	<del>1/29/2009 7:45</del>	<del>31.5</del>	<del>0.055</del>	<del>0.75</del>	<del>1.5</del>	<del>0.015</del>	<del>2.5</del>	<del>2</del>	<del>0.015</del>	<del>5</del>	<del>6</del>	<del>0.79</del>	<del>0.04</del>	<del>0.086</del>	<del>0.085</del>	<del>-0.001</del>	<del>-1.5</del>	<del>1.71</del>	<del>0.98</del>	<del>-0.724</del>	<del>-42.4</del>
3	2/18/2009 13:00	2/18/2009 23:15	10.25	0.045	0.5	1.5	0.005	2.5	2	0.000	0	0	0.18	0.02	0.050	0.049	-0.001	-1.5	0.48	0.46	-0.02	-4.2
4	2/22/2009 8:15	2/23/2009 11:45	27.5	0.040	0.5	1.5	0.045	2.5	2	0.090	5	4	0.09	0.01	0.176	0.175	-0.001	-0.6	0.35	0.35	-0.001	-0.4
5	3/19/2009 12:15	3/20/2009 13:00	24.75	0.051	0.5	1.5	0.018	2.5	2	0.047	5	4	0.10	0.02	0.115	0.116	0.0012	1.0	0.46	0.46	0.001	0.1
6	3/26/2009 15:45	3/27/2009 5:15	13.5	0.055	0.5	1.5	0.008	2.5	2.5	0.000	0	0	0.33	0.04	0.061	0.063	0.002	3.6	1.00	0.98	-0.019	-1.9
7	3/28/2009 2:00	3/28/2009 10:00	8	0.035	0.5	1.5	0.030	2.5	2	0.000	0	0	0.24	0.04	0.067	0.065	-0.0024	-3.6	0.73	0.74	0.009	1.2
8	<del>3/29/2009 1:00</del>	<del>3/29/2009 19:00</del>	<del>18</del>	<del>0.024</del>	<del>0.5</del>	<del>1.5</del>	<del>0.025</del>	<del>2.5</del>	<del>2</del>	<del>0.042</del>	<del>5</del>	<del>4</del>	<del>0.33</del>	<del>0.07</del>	<del>0.088</del>	<del>0.091</del>	<del>0.003</del>	<del>3.2</del>	<del>0.70</del>	<del>0.68</del>	<del>-0.02</del>	<del>-2.8</del>
9	4/3/2009 5:30	4/4/2009 7:30	26	0.007	0.5	1.5	0.014	2.5	2	0.015	5	4	0.61	0.13	0.036	0.036	0	-1.2	0.47	0.46	-0.006	-1.4
10	4/6/2009 6:00	4/7/2009 2:15	20.25	0.031	0.5	1.5	0.039	2.5	2	0.000	0	0	0.39	0.04	0.070	0.070	0	0.5	0.61	0.61	-0.006	-1.0
11	4/11/2009 6:30	4/12/2009 9:15	26.75	0.027	0.5	1.5	0.056	2.5	2.5	0.026	5	4	0.59	0.05	0.109	0.109	0	0.4	1.05	1.04	-0.006	-0.6
12	4/29/2009 4:30	4/30/2009 6:00	25.5	0.125	0.5	1.5	0.040	2.5	2	0.070	5	4	0.09	0.01	0.235	0.235	0	-0.2	0.62	0.62	0.002	0.3
13	5/3/2009 5:45	5/6/2009 13:45	80	0.014	0.5	1.5	0.030	2.5	2	0.060	5	6	1.80	0.11	0.104	0.104	0	0.4	0.86	0.88	0.022	2.6
14	5/6/2009 20:45	5/7/2009 22:30	25.75	0.012	0.75	1.5	0.016	2.5	2	0.012	5	4	1.22	0.22	0.039	0.040	0.001	2.4	1.36	1.36	0.006	0.4
15	5/14/2009 22:15	5/15/2009 5:30	7.25	0.014	0.5	2	0.013	2.5	2	0.000	0	0	0.42	0.18	0.026	0.027	0.001	5.0	0.86	0.85	-0.008	-1.0
16	5/29/2009 3:15	5/30/2009 1:45	22.5	0.030	0.5	1.5	0.024	2.5	2	0.025	5	4	0.51	0.13	0.080	0.079	-0.002	-2.4	1.65	1.63	-0.022	-1.3
17	6/3/2009 4:00	6/3/2009 20:30	16.5	0.047	0.5	1.5	0.022	2.5	2	0.038	5	2	0.17	0.12	0.107	0.107	0.0003	0.3	1.42	1.38	-0.037	-2.6
18	6/3/2009 23:45	6/4/2009 17:45	18	0.078	0.5	1.5	0.041	2.5	2	0.000	0	0	0.32	0.04	0.112	0.119	0.007	6.0	1.06	1.05	-0.011	-1.1
19	6/4/2009 18:15	6/7/2009 7:15	61	0.026	0.5	1.5	0.050	2.5	2	0.105	5	8	0.85	0.04	0.178	0.181	0.003	1.8	1.11	1.09	-0.019	-1.7
20	6/9/2009 6:30	6/9/2009 17:45	11.25	0.032	0.5	1.5	0.060	2.5	3	0.000	0	0	0.21	0.09	0.091	0.092	0.001	0.7	1.17	1.17	0.004	0.3
21	6/11/2009 3:00	6/12/2009 23:00	44	0.042	0.5	1.25	0.020	2.5	2	0.112	5	4	0.28	0.07	0.173	0.174	0.001	0.3	1.28	1.27	-0.009	-0.7
22	<del>6/13/2009 13:15</del>	<del>6/14/2009 1:00</del>	<del>11.75</del>	<del>0.035</del>	<del>0.5</del>	<del>1.25</del>	<del>0.007</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.56</del>	<del>0.12</del>	<del>0.036</del>	<del>0.042</del>	<del>0.006</del>	<del>17.6</del>	<del>1.46</del>	<del>1.43</del>	<del>-0.032</del>	<del>-2.2</del>
23	6/15/2009 23:45	6/17/2009 2:30	26.75	0.016	0.5	1.5	0.026	2.5	3	0.026	5	4	0.50	0.30	0.068	0.068	0	0.2	1.49	1.50	0.015	1.0
24	6/17/2009 20:30	6/19/2009 2:45	30.25	0.025	0.75	1.5	0.030	2.5	2.5	0.000	0	0	0.90	0.11	0.056	0.055	-0.001	-1.1	1.14	1.13	-0.01	-0.9
25	6/20/2009 9:45	6/21/2009 2:15	16.5	0.052	0.5	1.5	0.060	2.5	2	0.000	0	0	0.33	0.07	0.108	0.112	0.004	3.5	1.03	1.03	-0.005	-0.5
26	<del>6/26/2009 18:30</del>	<del>6/27/2009 4:00</del>	<del>9.5</del>	<del>0.013</del>	<del>0.5</del>	<del>1</del>	<del>0.008</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.56</del>	<del>0.27</del>	<del>0.021</del>	<del>0.021</del>	<del>0</del>	<del>-1.2</del>	<del>2.00</del>	<del>1.64</del>	<del>-0.358</del>	<del>-17.9</del>
27	7/2/2009 0:30	7/2/2009 10:00	9.5	0.013	0.5	1.5	0.008	2.5	2	0.000	0	0	0.74	0.37	0.022	0.021	-0.001	-3.6	1.80	1.84	0.036	2.0
28	7/11/2009 22:30	7/12/2009 12:45	14.25	0.009	0.5	1.5	0.017	2.5	3	0.000	0	0	1.36	0.38	0.027	0.026	-0.001	-3.7	1.48	1.49	0.005	0.3
29	<del>7/16/2009 18:45</del>	<del>7/17/2009 2:45</del>	<del>8</del>	<del>0.014</del>	<del>0.5</del>	<del>1</del>	<del>0.008</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.24</del>	<del>0.16</del>	<del>0.014</del>	<del>0.022</del>	<del>0.008</del>	<del>56.6</del>	<del>0.84</del>	<del>0.83</del>	<del>-0.014</del>	<del>-1.7</del>
30	7/17/2009 19:45	7/18/2009 3:00	7.25	0.043	0.5	1	0.010	2.5	2	0.000	0	0	0.09	0.04	0.050	0.053	0.0022	4.4	0.81	0.78	-0.026	-3.2
31	7/21/2009 4:15	7/22/2009 5:45	25.5	0.023	0.5	1.5	0.006	2.5	2.5	0.009	5	5	1.04	0.12	0.037	0.038	0.001	1.6	1.36	1.35	-0.007	-0.5
32	7/23/2009 10:30	7/24/2009 11:15	24.75	0.027	0.5	1.5	0.010	2.5	2	0.051	5	4	0.18	0.04	0.088	0.088	0	0.2	0.50	0.50	-0.009	-1.8
33	7/29/2009 16:00	7/30/2009 17:00	25	0.015	0.5	1.25	0.006	2.5	2.5	0.013	5	4	0.48	0.15	0.032	0.034	0.001	3.4	0.94	0.92	-0.022	-2.4
34	7/31/2009 5:15	8/1/2009 16:45	35.5	0.010	0.75	1.5	0.004	2.5	2	0.009	5	4	1.20	0.52	0.023	0.023	0	1.2	1.35	1.36	0.013	1.0
35	8/2/2009 11:00	8/3/2009 21:15	34.25	0.008	0.75	2	0.002	2.5	2	0.031	5	6	1.27	0.61	0.041	0.041	0	-0.9	1.19	1.15	-0.042	-3.5
36	<del>8/6/2009 6:30</del>	<del>8/6/2009 17:15</del>	<del>10.75</del>	<del>0.048</del>	<del>0.5</del>	<del>1.5</del>	<del>0.013</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.16</del>	<del>0.03</del>	<del>0.063</del>	<del>0.061</del>	<del>-0.002</del>	<del>-3.2</del>	<del>0.74</del>	<del>0.55</del>	<del>-0.186</del>	<del>-25.3</del>
37	8/9/2009 0:30	8/11/2009 22:15	69.75	0.025	0.5	1.5	0.011	2.5	2	0.087	5	11	0.73	0.13	0.123	0.123	0	-0.1	1.46	1.45	-0.011	-0.8
38	8/21/2009 17:00	8/23/2009 10:00	41	0.018	0.5	1.5	0.006	2.5	2	0.016	5	4	2.22	0.46	0.039	0.040	0.001	1.3	3.40	3.38	-0.025	-0.7
39	8/28/2009 7:45	8/29/2009 12:15	28.5	0.019	0.5	1.5	0.017	2	2	0.015	5	4	0.55	0.17	0.052	0.051	-0.001	-1.9	1.15	1.12	-0.036	-3.1
40	8/29/2009 18:15	8/31/2009 10:00	39.75	0.012	0.5	2	0.010	2.5	2	0.045	5	8	1.07	0.32	0.068	0.067	-0.002	-2.4	1.40	1.42	0.014	1.0
41	9/10/2009 17:30	9/12/2009 19:45	50.25	0.009	0.5	1.5	0.023	2.5	2	0.018	5	4	2.00	0.13	0.048	0.050	0.001	2.5	1.16	1.15	-0.01	-0.9
42	9/16/2009 9:15	9/17/2009 15:45	30.5	0.012	0.5	1.5	0.008	2.5	2	0.030	5	4	0.53	0.07	0.050	0.050	0	0.9	0.54	0.54	-0.001	-0.2
43	9/28/2009 16:30	9/29/2009 9:00	16.5	0.011	0.5	1.5	0.006	2.5	2	0.018	5	4	0.34	0.13	0.034	0.034	0	-0.1	0.54	0.55	0.004	0.7
44	10/7/2009 4:30	10/7/2009 14:30	10	0.064	0.5	1.5	0.094	2.5	2	0.000	0	0	0.06	0.03	0.159	0.158	-0.001	-0.3	0.72	0.72	-0.004	-0.6
45	10/15/2009 8:15	10/16/2009 13:00	28.75	0.027	0.5	1.5	0.018	2.5	2	0.027	5	4	0.76	0.04	0.070	0.072	0.002	2.4	0.87	0.87	0.001	0.1
46	10/17/2009 2:15	10/19/2009 1:30	47.25	0.026	0.5																	

BC-B0675 Bayberry Creek Interceptor

Pipe Size: 20" dia.

Tributary Drainage Area: 2,326 acres

Tributary Service Population: 23,909

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
47	10/23/2009 19:30	10/25/2009 17:45	46.25	0.055	0.75	2	0.044	2.5	2	0.026	5	4	1.46	0.49	0.125	0.125	0	0.1	5.68	5.68	-0.007	-0.1	
48	<del>10/27/2009 2:45</del>	<del>10/28/2009 17:30</del>	<del>38.75</del>	<del>0.076</del>	<del>0.5</del>	<del>1.5</del>	<del>0.008</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>1.76</del>	<del>0.12</del>	<del>0.084</del>	<del>0.084</del>	<del>0</del>	<del>0.0</del>	<del>9.46</del>	<del>4.10</del>	<del>-5.363</del>	<del>-56.7</del>	*
49	10/31/2009 1:15	11/1/2009 23:45	46.5	0.021	0.5	1.5	0.013	2.5	2.5	0.050	5	4	0.55	0.13	0.083	0.084	0.001	1.3	0.98	0.96	-0.014	-1.5	
50	11/12/2009 0:45	11/13/2009 5:15	28.5	0.060	0.5	1.5	0.031	2.5	2	0.020	5	2	0.29	0.01	0.111	0.111	0	-0.4	0.46	0.46	0.001	0.2	
51	<del>11/13/2009 21:00</del>	<del>11/15/2009 5:15</del>	<del>32.25</del>	<del>0.080</del>	<del>0.5</del>	<del>1.5</del>	<del>0.070</del>	<del>2.5</del>	<del>2</del>	<del>0.164</del>	<del>5</del>	<del>4</del>	<del>0.14</del>	<del>0.02</del>	<del>0.314</del>	<del>0.314</del>	<del>0</del>	<del>0.1</del>	<del>0.85</del>	<del>0.85</del>	<del>0.003</del>	<del>0.4</del>	
52	11/19/2009 19:15	11/21/2009 8:00	36.75	0.007	0.5	1.5	0.005	2.5	2	0.039	5	5	0.67	0.23	0.052	0.051	-0.002	-3.6	0.65	0.64	-0.008	-1.2	
53	11/23/2009 16:45	11/24/2009 12:00	19.25	0.035	0.5	1.5	0.035	2.5	2	0.000	0	0	0.17	0.02	0.069	0.070	0.001	1.4	0.40	0.40	-0.007	-1.7	
54	<del>11/25/2009 8:00</del>	<del>11/27/2009 5:15</del>	<del>45.25</del>	<del>0.110</del>	<del>0.5</del>	<del>1.5</del>	<del>0.176</del>	<del>2.5</del>	<del>2</del>	<del>0.200</del>	<del>5</del>	<del>6</del>	<del>0.13</del>	<del>0.01</del>	<del>0.487</del>	<del>0.486</del>	<del>-0.001</del>	<del>-0.2</del>	<del>0.92</del>	<del>0.95</del>	<del>0.026</del>	<del>2.9</del>	
55	11/30/2009 11:45	12/1/2009 5:30	17.75	0.037	0.5	1.5	0.023	2.5	2	0.020	5	2.5	0.25	0.03	0.081	0.080	-0.001	-1.8	0.58	0.55	-0.03	-5.1	
56	<del>12/2/2009 16:00</del>	<del>12/3/2009 19:15</del>	<del>27.25</del>	<del>0.045</del>	<del>0.5</del>	<del>1.5</del>	<del>0.016</del>	<del>2.5</del>	<del>2</del>	<del>0.010</del>	<del>5</del>	<del>4</del>	<del>1.09</del>	<del>0.09</del>	<del>0.071</del>	<del>0.071</del>	<del>0</del>	<del>-0.5</del>	<del>5.73</del>	<del>2.23</del>	<del>-3.496</del>	<del>-61.0</del>	*
57	12/5/2009 10:45	12/6/2009 6:45	20	0.020	0.5	1.5	0.019	2.5	3	0.000	0	0	0.59	0.03	0.038	0.039	0.001	2.6	0.44	0.43	-0.009	-2.1	
58	12/8/2009 22:45	12/10/2009 6:15	31.5	0.024	0.5	1.5	0.017	2.5	2	0.021	5	4	2.28	0.16	0.060	0.062	0.002	3.3	2.80	2.78	-0.022	-0.8	
59	12/13/2009 9:45	12/14/2009 21:15	35.5	0.024	0.5	1.5	0.019	2	2	0.027	5	5	1.13	0.12	0.070	0.069	-0.001	-1.0	1.66	1.67	0.007	0.4	

Statistics comparing sim and obs peak I/I flow for all 59 events

Average error = -0.178 MGD

Standard error = 0.848 MGD

Stats for 57 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.029 MGD

Standard error = 0.112 MGD

Site BC-B0755 Bayberry Creek Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 275 acres

Tributary Service Population: 4,752

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1/11/2013 13:15	1/12/2013 4:00	14.75	0.038	0.5	0.75	0.014	1	1.5	0.006	2	3	0.45	0.08	0.055	0.058	0.003	4.6	1.84	1.83	-0.012	-0.6
2	<del>1/14/2013 21:30</del>	<del>1/15/2013 9:00</del>	<del>11.5</del>	<del>0.063</del>	<del>0.5</del>	<del>0.75</del>	<del>0.015</del>	<del>1</del>	<del>1.5</del>	<del>0.020</del>	<del>2</del>	<del>3</del>	<del>0.33</del>	<del>0.03</del>	<del>0.086</del>	<del>0.098</del>	<del>0.012</del>	<del>13.4</del>	<del>1.65</del>	<del>1.65</del>	<del>-0.007</del>	<del>-0.4</del>
3	4/10/2013 20:15	4/11/2013 7:00	10.75	0.025	0.5	0.75	0.013	1	1.75	0.007	2	3.5	0.43	0.14	0.046	0.045	-0.001	-2.2	2.17	2.17	0.002	0.1
4	4/12/2013 7:00	4/12/2013 20:30	13.5	0.028	0.5	0.75	0.021	1	1.5	0.011	2	3	0.89	0.09	0.062	0.060	-0.002	-2.5	2.32	2.35	0.032	1.4
5	4/12/2013 21:45	4/13/2013 11:45	14	0.031	0.5	0.75	0.020	1	1.5	0.030	2	6	0.38	0.09	0.081	0.081	0	0.5	2.50	2.49	-0.007	-0.3
6	4/19/2013 21:30	4/20/2013 10:45	13.25	0.038	0.25	0.75	0.015	1	1.5	0.011	2	3	0.45	0.05	0.063	0.064	0.001	2.1	1.79	1.78	-0.011	-0.6
7	4/29/2013 3:30	4/30/2013 4:00	24.5	0.036	0.25	0.75	0.025	1	1.5	0.000	0	0	0.37	0.02	0.061	0.061	0	0.6	0.64	0.63	-0.011	-1.8
8	5/7/2013 22:15	5/8/2013 16:30	18.25	0.035	0.5	0.75	0.017	1	1.5	0.000	0	0	0.20	0.04	0.053	0.052	-0.001	-1.8	0.69	0.70	0.001	0.1
9	5/9/2013 3:45	5/9/2013 15:15	11.5	0.025	0.25	0.75	0.019	0.75	1.5	0.007	2	4	0.53	0.09	0.051	0.051	0	-0.7	2.84	2.84	-0.005	-0.2
10	5/10/2013 22:45	5/11/2013 14:30	15.75	0.022	0.25	1.5	0.021	1	1.5	0.018	2	4	0.46	0.13	0.059	0.061	0.0024	4.1	1.94	1.86	-0.078	-4.0
11	5/11/2013 19:00	5/12/2013 6:00	11	0.024	0.5	0.75	0.028	1	1.5	0.000	0	0	0.13	0.04	0.050	0.052	0.002	4.9	0.82	0.80	-0.023	-2.8
12	5/18/2013 16:30	5/19/2013 15:30	23	0.029	0.5	0.75	0.014	1	1.5	0.010	2	3	0.36	0.06	0.051	0.053	0.002	3.1	1.25	1.24	-0.008	-0.6
13	5/23/2013 15:45	5/23/2013 23:00	7.25	0.031	0.5	0.75	0.007	1	1.5	0.015	2	3	0.14	0.09	0.054	0.053	-0.001	-1.4	1.49	1.47	-0.02	-1.3
14	5/23/2013 23:45	5/25/2013 5:15	29.5	0.022	0.5	0.75	0.012	1	1.5	0.017	2	4	0.36	0.20	0.053	0.051	-0.002	-2.9	2.16	2.16	0.008	0.4
15	5/28/2013 9:30	5/28/2013 23:30	14	0.027	0.5	0.75	0.015	1	1.5	0.015	2	4	0.29	0.04	0.057	0.056	0	0.0	0.89	0.87	-0.016	-1.8
16	6/3/2013 0:45	6/3/2013 21:00	20.25	0.026	0.5	0.75	0.005	1	1.5	0.008	2	3	1.36	0.29	0.038	0.039	0.001	3.1	4.09	4.01	-0.087	-2.1
17	6/6/2013 19:30	6/8/2013 12:00	40.5	0.016	0.5	1.5	0.018	1	1.75	0.035	2	5	3.78	0.37	0.072	0.069	-0.003	-4.8	5.35	5.38	0.036	0.7
18	6/10/2013 7:15	6/11/2013 17:00	33.75	0.030	0.5	0.75	0.016	1	1.5	0.035	2	10	2.23	0.36	0.082	0.080	-0.002	-2.3	5.89	5.95	0.06	1.0
19	6/13/2013 8:30	6/13/2013 21:00	12.5	0.023	0.5	0.75	0.011	1	1.5	0.012	2	4	0.36	0.15	0.047	0.046	-0.001	-1.4	2.12	2.11	-0.007	-0.3
20	6/14/2013 17:15	6/14/2013 20:30	3.25	0.036	0.5	0.75	0.005	1	1.5	0.000	0	0	0.17	0.13	0.039	0.040	0.001	3.8	2.22	2.21	-0.009	-0.4
21	6/18/2013 12:45	6/19/2013 6:00	17.25	0.037	0.5	0.75	0.025	1	1.5	0.020	2	6	0.31	0.04	0.080	0.082	0.002	2.5	0.94	0.94	0.005	0.5
22	6/25/2013 16:00	6/25/2013 19:00	3	0.034	0.3	0.75	0.006	1	1.5	0.000	0	0	0.19	0.15	0.042	0.040	-0.002	-4.2	2.84	2.86	0.017	0.6
23	6/26/2013 20:30	6/26/2013 23:30	3	0.030	0.25	0.75	0.007	1	1.5	0.000	0	0	0.21	0.11	0.037	0.037	0	-0.5	2.82	2.76	-0.064	-2.3
24	6/27/2013 18:30	6/28/2013 6:45	12.25	0.034	0.5	0.75	0.006	1	1.5	0.008	2	5	0.50	0.18	0.048	0.048	0	0.6	3.09	3.10	0.004	0.1
25	6/28/2013 17:15	6/28/2013 21:30	4.25	0.024	0.5	0.75	0.011	1	1.5	0.000	0	0	0.10	0.03	0.033	0.035	0.0015	4.5	0.41	0.40	-0.013	-3.2
26	<del>6/30/2013 13:15</del>	<del>6/30/2013 21:00</del>	<del>7.75</del>	<del>0.053</del>	<del>0.5</del>	<del>0.75</del>	<del>0.005</del>	<del>1</del>	<del>2.5</del>	<del>0.008</del>	<del>2</del>	<del>3</del>	<del>0.15</del>	<del>0.03</del>	<del>0.054</del>	<del>0.066</del>	<del>0.012</del>	<del>22.1</del>	<del>1.27</del>	<del>1.24</del>	<del>-0.028</del>	<del>-2.2</del>
27	7/1/2013 8:45	7/1/2013 23:15	14.5	0.059	0.3	0.75	0.011	1	1.5	0.011	2	4	0.28	0.06	0.080	0.081	0.001	1.7	2.34	2.33	-0.01	-0.4
28	7/12/2013 15:45	7/13/2013 6:15	14.5	0.025	0.5	0.75	0.015	1	1.5	0.015	2	4	0.88	0.21	0.055	0.055	0	0.5	3.85	3.78	-0.069	-1.8
29	7/13/2013 15:30	7/14/2013 12:00	20.5	0.032	0.5	1	0.040	1	1.5	0.017	2	8	0.58	0.29	0.088	0.089	0.001	0.9	5.64	5.65	0.016	0.3
30	7/23/2013 1:30	7/23/2013 16:00	14.5	0.013	0.5	1	0.022	1	2	0.004	2	6	1.54	0.60	0.039	0.039	0	0.7	6.37	6.42	0.046	0.7
31	7/28/2013 16:00	7/29/2013 4:30	12.5	0.027	0.5	0.75	0.023	1	2	0.000	0	0	0.74	0.13	0.048	0.050	0.002	3.9	2.17	2.10	-0.071	-3.3

Statistics comparing sim and obs peak I/I flow for all 31 events

Average error = -0.012 MGD

Standard error = 0.039 MGD

Stats for 24 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.003 MGD

Standard error = 0.016 MGD



Site THL-B0705 Cheltenham Interceptor

Pipe Size: 12" dia.

Tributary Drainage Area: 200 acres

Tributary Service Population: 1,942

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	12/18/2012 0:45	12/18/2012 6:00	5.25	0.004	0.25	1	0.001	1.25	2	0.000	0	0	0.38	0.15	0.005	0.005	0	2.5	0.32	0.32	-0.003	-0.9
2	12/20/2012 21:15	12/22/2012 0:00	26.75	0.006	0.25	1	0.004	1.25	2	0.004	4	4	1.88	0.17	0.013	0.013	0	1.1	0.69	0.66	-0.022	-3.2
3	<del>12/24/2012 17:00</del>	<del>12/24/2012 22:00</del>	5	0.000	0	0	0.000	0	0	0.000	0	0	0.21	0.02	-0.001	0.000	0.001	0.0	0.09	0.00	-0.087	-100.0
4	12/26/2012 13:30	12/27/2012 16:30	27	0.002	0.25	1	0.004	1.25	2	0.005	4	4	1.24	0.10	0.011	0.011	0	0.1	0.24	0.25	0.012	4.9
5	<del>12/29/2012 11:00</del>	<del>12/29/2012 20:15</del>	9.25	0.002	0.25	1	0.002	1.25	2	0.000	0	0	0.23	0.02	0.004	0.004	0	-4.7	0.10	0.03	-0.067	-67.7
6	1/11/2013 16:15	1/11/2013 21:45	5.5	0.003	0.25	1	0.002	1.25	1	0.000	0	0	0.42	0.07	0.005	0.005	0	3.2	0.13	0.13	-0.005	-3.7
7	1/14/2013 21:15	1/15/2013 5:45	8.5	0.005	0.25	0.75	0.001	1.25	2	0.000	0	0	0.34	0.04	0.006	0.006	0	0.0	0.11	0.11	-0.002	-1.8
8	1/15/2013 21:30	1/17/2013 0:00	26.5	0.006	0.25	1	0.003	1.25	2	0.004	4	4	1.05	0.07	0.012	0.013	0.0006	4.9	0.28	0.28	0.001	0.5
9	1/28/2013 12:45	1/28/2013 18:00	5.25	0.005	0.25	0.75	0.001	1.25	1.5	0.000	0	0	0.21	0.03	0.006	0.006	0	1.7	0.10	0.10	0.002	1.9
10	1/30/2013 23:00	1/31/2013 22:15	23.25	0.006	0.25	1	0.002	1.25	2	0.003	4	4	1.26	0.24	0.011	0.011	0	2.5	0.82	0.82	-0.001	-0.1
11	<del>2/8/2013 6:00</del>	<del>2/8/2013 16:30</del>	10.5	0.010	0.25	0.75	0.004	1.25	2	0.000	0	0	0.24	0.02	0.010	0.014	0.004	35.6	0.12	0.12	0.001	1.1
12	2/11/2013 4:15	2/12/2013 1:30	21.25	0.005	0.25	1	0.005	1.25	2	0.010	4	4	0.37	0.04	0.019	0.019	0	0.1	0.16	0.16	0.002	1.1
13	<del>2/13/2013 18:30</del>	<del>2/14/2013 2:15</del>	7.75	0.006	0.25	0.75	0.005	1.25	2	0.000	0	0	0.17	0.02	0.010	0.011	0	3.5	0.10	0.06	-0.041	-40.5
14	2/19/2013 11:30	2/19/2013 20:45	9.25	0.008	0.25	0.75	0.004	1.25	2	0.000	0	0	0.20	0.02	0.011	0.012	0.0004	3.6	0.09	0.09	0	0.0
15	2/23/2013 9:45	2/23/2013 20:30	10.75	0.011	0.25	1	0.008	1.25	2	0.000	0	0	0.11	0.01	0.019	0.019	0	-0.6	0.08	0.08	-0.001	-1.0
16	2/26/2013 19:15	2/27/2013 21:00	25.75	0.004	0.25	1	0.005	1.25	2	0.005	4	3	0.68	0.08	0.013	0.014	0	1.8	0.23	0.22	-0.009	-3.7
17	3/8/2013 7:45	3/8/2013 14:45	7	0.004	0.25	0.75	0.002	1.25	1.5	0.000	0	0	0.19	0.03	0.000	0.006	0.006	0.0	0.07	0.06	-0.002	-3.1
18	3/12/2013 3:15	3/13/2013 6:45	27.5	0.001	0.25	1	0.008	1.25	2	0.006	4	4	1.03	0.09	0.015	0.015	0	-2.9	0.24	0.24	-0.002	-0.8
19	3/16/2013 10:15	3/16/2013 19:00	8.75	0.008	0.25	1	0.009	1.25	2	0.000	0	0	0.14	0.02	0.016	0.016	0	-0.7	0.11	0.11	-0.002	-1.4
20	3/18/2013 18:00	3/20/2013 0:15	30.25	0.004	0.25	1	0.004	1.25	2	0.008	4	4	0.90	0.06	0.016	0.016	0	-2.2	0.17	0.17	0.004	2.5
21	<del>3/25/2013 6:15</del>	<del>3/25/2013 21:30</del>	15.25	0.004	0.25	1	0.004	1.25	2	0.000	0	0	0.58	0.04	0.006	0.007	0.001	26.7	0.16	0.13	-0.036	-22.3
22	3/31/2013 15:15	3/31/2013 22:30	7.25	0.008	0.25	1	0.008	1.25	2	0.000	0	0	0.16	0.02	0.015	0.015	0.0005	3.4	0.11	0.11	-0.004	-3.6
23	4/10/2013 20:15	4/11/2013 2:15	6	0.002	0.25	1	0.004	1.25	2	0.000	0	0	0.50	0.18	0.006	0.006	0	-1.6	0.23	0.23	0	-0.2
24	4/12/2013 8:15	4/13/2013 17:45	33.5	0.003	0.25	1	0.005	1.25	2	0.008	4	4	1.03	0.10	0.015	0.015	0	0.4	0.23	0.23	-0.001	-0.5
25	4/19/2013 21:30	4/20/2013 10:15	12.75	0.007	0.25	1	0.002	1.25	2	0.004	4	2	0.53	0.05	0.012	0.013	0.0004	3.3	0.22	0.22	0	0.0
26	4/29/2013 1:45	4/30/2013 1:15	23.5	0.007	0.25	1	0.005	1.25	2	0.000	0	0	0.44	0.03	0.011	0.012	0.0003	2.7	0.11	0.11	-0.005	-4.4
27	5/7/2013 22:00	5/10/2013 1:15	51.25	0.004	0.25	1	0.005	1.25	2	0.005	4	4	1.29	0.12	0.013	0.014	0.001	9.0	0.32	0.31	-0.007	-2.1
28	5/10/2013 22:30	5/11/2013 22:00	23.5	0.006	0.25	1	0.004	1	2	0.007	4	4	0.83	0.13	0.016	0.016	0	1.3	0.40	0.40	0.001	0.3
29	5/18/2013 21:45	5/19/2013 4:15	6.5	0.003	0.25	1	0.004	1.25	2	0.000	0	0	0.20	0.05	0.007	0.007	0	-0.3	0.09	0.09	0	-0.4
30	5/23/2013 16:00	5/23/2013 19:45	3.75	0.004	0.25	1	0.004	1.25	2	0.000	0	0	0.12	0.09	0.008	0.008	0	0.0	0.20	0.19	-0.005	-2.8
31	5/23/2013 23:30	5/24/2013 3:30	4	0.004	0.25	1	0.003	1.25	2	0.000	0	0	0.57	0.41	0.008	0.008	-0.0003	-3.8	0.92	0.96	0.041	4.5
32	<del>5/24/2013 10:30</del>	<del>5/24/2013 16:30</del>	6	0.004	0.25	0.75	0.005	1.25	2	0.000	0	0	0.14	0.04	0.005	0.009	0.004	83.5	0.08	0.08	-0.003	-3.3
33	5/28/2013 10:45	5/28/2013 17:45	7	0.008	0.25	1	0.004	1.25	2	0.000	0	0	0.26	0.03	0.012	0.012	0	0.0	0.15	0.15	-0.004	-2.7
34	6/3/2013 0:45	6/3/2013 10:45	10	0.005	0.25	1	0.002	1.25	2	0.000	0	0	1.30	0.55	0.006	0.006	0	1.2	1.48	1.45	-0.027	-1.9
35	6/3/2013 14:30	6/3/2013 20:00	5.5	0.002	0.25	1	0.005	1.25	2.5	0.000	0	0	0.37	0.17	0.007	0.007	0	0.0	0.22	0.22	0.003	1.4
36	6/6/2013 19:30	6/9/2013 7:15	59.75	0.006	0.25	1	0.004	1.25	2	0.010	4	8	3.94	0.26	0.019	0.019	0.001	4.1	1.08	1.06	-0.026	-2.4
37	<del>6/10/2013 7:15</del>	<del>6/10/2013 11:00</del>	3.75	0.006	0.25	0.75	0.003	1	1.5	0.000	0	0	0.64	0.27	0.007	0.009	0.002	27.5	0.96	0.95	-0.005	-0.5
38	6/10/2013 13:30	6/11/2013 17:30	28	0.006	0.25	1	0.006	1.25	2	0.014	4	5	1.31	0.25	0.025	0.025	0	0.0	0.87	0.87	-0.001	-0.1
39	6/13/2013 9:30	6/13/2013 13:15	3.75	0.003	0.25	1.25	0.003	1.25	2	0.000	0	0	0.45	0.22	0.006	0.006	0	4.1	0.29	0.29	-0.001	-0.4
40	6/18/2013 12:00	6/18/2013 23:00	11	0.005	0.25	1	0.005	1.25	2	0.000	0	0	0.37	0.08	0.009	0.009	0	4.3	0.21	0.20	-0.005	-2.2

\* \* \* \* \*



Site THL-B0705 Cheltenham Interceptor

Pipe Size: 12" dia.

Tributary Drainage Area: 200 acres

Tributary Service Population: 1,942

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
41	6/23/2013 15:45	6/23/2013 19:00	3.25	0.002	0.25	1	0.004	1.25	2	0.000	0	0	0.11	0.07	0.006	0.006	0	1.2	0.09	0.09	0	0.0
42	6/26/2013 20:30	6/27/2013 0:30	4	0.003	0.25	1	0.003	1.25	2	0.000	0	0	0.29	0.23	0.006	0.006	-0.0001	-1.7	0.33	0.34	0.01	3.0
43	6/27/2013 18:15	6/27/2013 22:45	4.5	0.005	0.25	1	0.001	1.25	2	0.000	0	0	1.04	0.30	0.006	0.006	0	-0.2	0.79	0.78	-0.004	-0.5
44	6/30/2013 13:00	6/30/2013 15:45	2.75	0.010	0.25	0.75	0.000	0	0	0.000	0	0	0.18	0.02	0.010	0.010	0	-2.2	0.17	0.14	-0.036	-20.6

\*

Statistics comparing sim and obs peak I/I flow for all 44 events

Average error = -0.007 MGD

Standard error = 0.025 MGD

Stats for 33 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.001 MGD

Standard error = 0.007 MGD

CV-0145 Cresheim Valley Interceptor

Pipe Size: 27"h x 18"w.

Tributary Drainage Area: 882 acres

Tributary Service Population: 9,340

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3/8/2013 7:45	3/8/2013 20:00	12.25	0.019	0.5	1.5	0.038	2	3	0.000	0	0	0.16	0.04	0.056	0.057	0.0008	1.4	1.32	1.26	-0.06	-4.5
2	3/12/2013 3:00	3/13/2013 12:15	33.25	0.044	0.5	1.5	0.017	2	2	0.019	4	5	1.04	0.06	0.079	0.080	0.001	0.8	6.42	6.47	0.045	0.7
3	3/16/2013 9:15	3/17/2013 8:45	23.5	0.032	0.5	1.5	0.031	2	2	0.041	4	4	0.19	0.02	0.104	0.104	0.0003	0.3	1.80	1.78	-0.018	-1.0
4	3/18/2013 17:45	3/20/2013 4:30	34.75	0.023	0.5	1.5	0.023	2	2	0.034	4	5	0.89	0.06	0.080	0.080	0	0.1	4.07	4.04	-0.03	-0.7
5	3/25/2013 5:15	3/26/2013 8:30	27.25	0.008	0.5	1.5	0.008	2	2	0.035	4	5	0.63	0.04	0.049	0.050	0.001	1.8	1.69	1.66	-0.032	-1.9
6	3/31/2013 15:00	4/1/2013 4:30	13.5	0.029	0.5	1.5	0.039	2	2	0.000	0	0	0.15	0.02	0.068	0.068	0	0.1	1.50	1.51	0.013	0.8
7	4/10/2013 19:45	4/11/2013 8:45	13	0.030	0.5	1.5	0.012	2	4	0.000	0	0	0.55	0.17	0.041	0.042	0.0003	0.7	6.20	6.26	0.059	1.0
8	4/12/2013 7:15	4/12/2013 20:45	13.5	0.032	0.5	1.5	0.023	2	4	0.000	0	0	0.55	0.10	0.053	0.055	0.002	3.7	6.11	6.09	-0.019	-0.3
9	4/12/2013 21:15	4/13/2013 20:00	22.75	0.023	0.5	1.5	0.012	2	3	0.034	4	5	0.35	0.14	0.069	0.069	-0.0002	-0.3	4.24	4.18	-0.062	-1.5
10	4/19/2013 21:15	4/20/2013 21:00	23.75	0.041	0.5	1.5	0.012	2	2	0.017	4	4	0.58	0.06	0.070	0.070	0	0.2	5.02	4.99	-0.027	-0.5
11	5/7/2013 14:00	5/10/2013 8:15	66.25	0.037	0.5	1.5	0.023	2	3	0.025	4	6	1.08	0.13	0.084	0.085	0.001	1.2	5.97	5.86	-0.111	-1.9
12	5/10/2013 22:30	5/12/2013 21:30	47	0.030	0.5	1.5	0.006	2	2	0.016	4	4	1.23	0.12	0.049	0.051	0.002	4.1	6.74	6.75	0.012	0.2
13	5/18/2013 15:45	5/20/2013 3:15	35.5	0.021	0.5	1.5	0.020	2	2	0.055	4	4	0.37	0.05	0.094	0.096	0.002	1.8	1.96	1.96	0.002	0.1
14	5/23/2013 16:00	5/24/2013 22:00	30	0.034	0.5	1.5	0.023	2	3.5	0.000	0	0	0.78	0.19	0.058	0.057	-0.001	-2.2	9.31	9.29	-0.014	-0.2
15	5/28/2013 9:00	5/29/2013 12:15	27.25	0.033	0.5	1.5	0.030	2	2.5	0.027	4	5	0.30	0.03	0.089	0.090	0.001	0.8	2.60	2.56	-0.039	-1.5
16	6/2/2013 23:45	6/4/2013 0:15	24.5	0.028	0.5	1.5	0.017	2	3.5	0.000	0	0	0.92	0.23	0.045	0.045	0	-1.0	9.69	9.71	0.025	0.3
17	6/6/2013 19:15	6/10/2013 2:45	79.5	0.015	0.5	1.5	0.033	2	3	0.028	4	15	3.55	0.21	0.079	0.076	-0.003	-4.2	11.07	11.01	-0.055	-0.5
18	6/10/2013 6:45	6/13/2013 0:30	65.75	0.022	0.5	1.5	0.014	2	2	0.061	4	15	1.85	0.38	0.096	0.097	0	0.2	12.54	12.46	-0.079	-0.6
19	6/13/2013 9:15	6/15/2013 22:15	61	0.025	0.5	1.5	0.015	2	2	0.086	4	14	0.66	0.37	0.129	0.126	-0.003	-2.2	10.04	9.95	-0.096	-1.0
20	6/18/2013 12:30	6/19/2013 7:15	18.75	0.062	0.5	1.5	0.008	2	2	0.018	4	4	0.40	0.07	0.085	0.088	0.003	4.1	5.31	5.30	-0.014	-0.3
21	6/25/2013 16:00	6/26/2013 6:45	14.75	0.020	0.5	1.5	0.025	2	3	0.000	0	0	0.18	0.08	0.045	0.045	0.0005	1.1	1.84	1.86	0.021	1.1
22	6/26/2013 20:30	6/27/2013 4:15	7.75	0.026	0.5	1.25	0.005	2	2.5	0.000	0	0	0.50	0.38	0.029	0.031	0.002	6.0	11.76	11.68	-0.073	-0.6
23	6/27/2013 17:30	6/28/2013 4:15	10.75	0.028	0.5	1.5	0.008	2	3	0.000	0	0	0.56	0.26	0.034	0.036	0.002	5.0	8.27	8.24	-0.033	-0.4
24	6/30/2013 12:30	7/1/2013 3:00	14.5	0.042	0.5	1.25	0.009	2	2	0.000	0	0	0.27	0.03	0.049	0.051	0.0021	4.3	3.00	2.98	-0.019	-0.6
25	7/1/2013 7:00	7/1/2013 19:45	12.75	0.039	0.5	1.25	0.008	2	2	0.000	0	0	0.29	0.09	0.046	0.047	0.001	3.3	5.37	5.37	-0.005	-0.1
26	7/3/2013 12:00	7/3/2013 21:30	9.5	0.052	0.5	1.5	0.033	2	2	0.000	0	0	0.07	0.04	0.083	0.085	0.002	2.3	2.45	2.46	0.001	0.1
27	7/3/2013 22:45	7/4/2013 5:45	7	0.016	0.5	1.5	0.021	2	2.5	0.000	0	0	0.03	0.03	0.037	0.037	0	0.0	1.91	0.42	-1.491	-78.0
28	7/7/2013 20:00	7/8/2013 1:30	5.5	0.016	0.5	1.5	0.012	2	2	0.000	0	0	0.18	0.13	0.029	0.028	-0.001	-2.9	2.46	2.44	-0.011	-0.4
29	7/12/2013 15:45	7/13/2013 10:00	18.25	0.033	0.5	1.5	0.015	2	2	0.010	4	3	0.86	0.13	0.056	0.058	0.002	3.4	7.86	7.90	0.037	0.5
30	7/20/2013 22:00	7/21/2013 2:00	4	0.030	0.5	1.25	0.010	1.5	2	0.000	0	0	0.21	0.21	0.039	0.040	0.0012	3.1	6.55	6.59	0.032	0.5
31	7/22/2013 18:30	7/23/2013 10:00	15.5	0.023	0.5	1.5	0.008	2	3	0.000	0	0	0.85	0.40	0.031	0.031	0	1.0	11.67	11.75	0.087	0.8
32	7/28/2013 15:00	7/29/2013 16:45	25.75	0.027	0.5	1.5	0.020	2	3	0.053	4	4	0.24	0.09	0.100	0.100	0	0.4	2.94	2.93	-0.012	-0.4
33	8/1/2013 6:15	8/1/2013 18:30	12.25	0.044	0.5	1.5	0.009	2	2	0.000	0	0	0.67	0.07	0.052	0.053	0.0014	2.7	5.43	5.37	-0.056	-1.0
34	8/8/2013 0:15	8/8/2013 18:00	17.75	0.037	0.5	1.5	0.010	2	2	0.019	4	4	0.22	0.10	0.064	0.066	0.002	3.0	4.45	4.38	-0.064	-1.4
35	8/9/2013 16:00	8/9/2013 23:30	7.5	0.025	0.5	1.5	0.010	2	2	0.000	0	0	0.15	0.07	0.036	0.035	-0.001	-1.5	2.80	2.67	-0.132	-4.7
36	8/13/2013 5:00	8/15/2013 9:30	52.5	0.018	0.5	1.5	0.004	2	2	0.014	4	12	2.49	0.39	0.036	0.036	0	1.1	13.64	13.64	0	0.0

\*

**CV-0145 Cresheim Valley Interceptor**

Pipe Size: 27"h x 18"w.

Tributary Drainage Area: 882 acres

Tributary Service Population: 9,340

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
37	8/22/2013 12:45	8/22/2013 20:30	7.75	0.016	0.5	1.25	0.008	2	2.5	0.000	0	0	0.35	0.27	0.023	0.023	0	0.2	4.92	4.87	-0.045	-0.9
38	8/28/2013 9:45	8/30/2013 8:30	46.75	0.015	0.5	1.5	0.010	2	2	0.015	4	12	1.68	0.62	0.040	0.040	0	-0.2	13.98	13.91	-0.069	-0.5
39	9/2/2013 9:00	9/2/2013 18:30	9.5	0.027	0.5	1.5	0.010	2	2	0.000	0	0	0.81	0.33	0.038	0.037	-0.001	-2.8	14.37	14.32	-0.042	-0.3
40	9/12/2013 18:30	9/13/2013 0:45	6.25	0.012	0.5	1.5	0.014	2	2	0.000	0	0	0.19	0.12	0.025	0.026	0.001	3.4	1.91	1.88	-0.026	-1.4
41	9/13/2013 1:30	9/13/2013 10:15	8.75	0.034	0.5	1.25	0.017	2	2.5	0.000	0	0	0.31	0.14	0.049	0.051	0.002	3.3	7.93	7.79	-0.134	-1.7
42	9/21/2013 20:00	9/22/2013 6:45	10.75	0.026	0.5	1.25	0.005	2	2	0.000	0	0	1.18	0.24	0.027	0.031	0.004	16.9	11.79	10.33	-1.458	-12.4

\*

Statistics comparing sim and obs peak I/I flow for all 32 events

Average error = -0.062 MGD

Standard error = 0.272 MGD

Stats for 31 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.016 MGD

Standard error = 0.048 MGD

W077-02-S0060 Cresheim Valley Interceptor

Pipe Size: 15" dia.

Tributary Drainage Area: 225 acres

Tributary Service Population: 1,810

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2/5/2010 18:45	2/8/2010 0:00	53.25	0.005	0.25	0.5	0.005	0.75	1.25	0.013	4	9	4.38	0.08	0.024	0.023	-0.0005	-2.1	0.50	0.51	0.006	1.1
2	2/9/2010 19:30	2/11/2010 22:30	54	0.007	0.25	0.75	0.007	0.75	1.5	0.006	4	8	3.93	0.05	0.019	0.019	0	0.0	0.65	0.34	-0.308	-47.8
3	2/22/2010 19:45	2/25/2010 1:00	53.25	0.021	0.25	0.5	0.004	0.75	1.5	0.015	4	8	2.64	0.05	0.039	0.040	0.0013	3.4	0.96	0.96	0.002	0.2
4	2/25/2010 6:00	2/26/2010 6:00	24	0.030	0.25	0.75	0.031	0.75	2	0.000	0	0	0.62	0.01	0.063	0.061	-0.0016	-2.6	0.33	0.33	0.004	1.2
5	3/12/2010 9:30	3/19/2010 6:45	165.25	0.005	0.25	0.75	0.005	0.75	1.5	0.015	4	30	8.62	0.17	0.025	0.025	-1E-04	-0.4	0.86	0.85	-0.009	-1.1
6	3/22/2010 7:30	3/24/2010 7:15	47.75	0.002	0.25	0.75	0.002	0.75	1.5	0.007	4	8	2.29	0.16	0.011	0.011	0.0004	3.6	0.29	0.29	0	-0.1
7	3/25/2010 22:45	3/26/2010 7:00	8.25	0.007	0.25	1	0.015	0.75	2	0.000	0	0	0.31	0.03	0.023	0.022	-0.0008	-3.5	0.19	0.18	-0.004	-2.2
8	3/28/2010 20:30	4/4/2010 13:00	160.5	0.006	0.25	0.75	0.003	0.75	1.5	0.022	4	30	6.58	0.15	0.031	0.031	0	0.0	0.72	0.72	-0.004	-0.6
9	4/8/2010 22:00	4/11/2010 13:00	63	0.005	0.25	0.75	0.005	0.75	1.5	0.033	4	15	1.01	0.06	0.042	0.043	0.0009	2.2	0.23	0.24	0.007	2.9
10	4/13/2010 10:15	4/13/2010 16:15	6	0.002	0.25	0.5	0.002	0.75	1.5	0.000	0	0	0.31	0.02	0.004	0.004	-0.0003	-7.0	0.14	0.04	-0.102	-73.5
11	4/16/2010 17:30	4/17/2010 9:45	16.25	0.007	0.25	0.5	0.007	0.75	1.5	0.016	4	3	0.40	0.04	0.030	0.030	-0.0002	-0.7	0.24	0.23	-0.006	-2.5
12	4/24/2010 23:15	4/28/2010 8:00	80.75	0.003	0.25	0.5	0.003	0.75	1.5	0.017	4	9	2.65	0.07	0.024	0.023	-0.0006	-2.5	0.24	0.24	0.002	0.9
13	6/1/2010 12:00	6/1/2010 20:30	8.5	0.001	0.25	0.5	0.002	0.75	2	0.000	0	0	0.81	0.19	0.002	0.002	0	0.0	0.09	0.09	0	-0.2
14	6/3/2010 22:00	6/4/2010 18:00	20	0.004	0.25	0.5	0.004	0.75	1.5	0.016	4	4	0.19	0.03	0.023	0.023	-1E-04	-0.4	0.12	0.12	0.001	0.5
15	6/9/2010 12:30	6/10/2010 20:45	32.25	0.003	0.25	0.5	0.003	0.75	1.5	0.011	4	6	1.18	0.06	0.018	0.017	-0.0002	-1.1	0.23	0.23	0	0.2
16	6/13/2010 13:30	6/13/2010 21:30	8	0.002	0.25	0.5	0.003	0.75	3	0.000	0	0	0.48	0.08	0.005	0.005	0	0.0	0.14	0.14	0.001	0.4
17	6/24/2010 15:00	6/24/2010 23:45	8.75	0.003	0.25	0.5	0.003	0.75	1.5	0.003	3	2	0.55	0.10	0.008	0.008	1E-04	1.2	0.26	0.26	-0.003	-1.0
18	7/19/2010 18:45	7/21/2010 9:45	39	0.003	0.25	0.5	0.003	0.75	1.5	0.048	3	12	0.84	0.32	0.054	0.055	0.0002	0.4	0.86	0.84	-0.014	-1.6
19	7/21/2010 22:00	7/22/2010 19:15	21.25	0.003	0.25	0.5	0.003	0.75	1.5	0.024	3	6	0.97	0.37	0.029	0.029	0	0.0	0.77	0.78	0.005	0.6
20	7/25/2010 15:00	7/28/2010 13:15	70.25	0.002	0.25	0.5	0.001	0.75	1.5	0.017	4	17	2.40	0.60	0.020	0.020	1E-04	0.5	0.92	0.91	-0.004	-0.5
21	8/11/2010 1:00	8/11/2010 16:15	15.25	0.003	0.25	0.5	0.003	0.75	1.5	0.025	3	4	0.31	0.14	0.031	0.030	-0.0005	-1.6	0.31	0.29	-0.017	-5.5
22	8/12/2010 8:15	8/12/2010 20:30	12.25	0.003	0.5	0.75	0.003	0.75	1.5	0.000	0	0	0.29	0.02	0.005	0.005	0.0002	4.2	0.20	0.03	-0.167	-84.0
23	8/22/2010 8:00	8/22/2010 17:30	9.5	0.001	0.25	0.5	0.001	0.75	1.5	0.000	0	0	1.50	0.37	0.002	0.002	0	0.0	0.53	0.32	-0.217	-40.7
24	8/23/2010 15:30	8/24/2010 11:45	20.25	0.007	0.25	0.5	0.007	0.75	1.5	0.022	3	4	0.53	0.09	0.036	0.036	0.0002	0.6	0.60	0.60	-0.002	-0.4
25	9/12/2010 6:45	9/13/2010 4:00	21.25	0.007	0.25	0.75	0.007	0.75	1.5	0.030	3	6	0.56	0.04	0.044	0.044	-0.0001	-0.2	0.30	0.30	0	0.1
26	9/16/2010 16:45	9/18/2010 4:00	35.25	0.004	0.25	0.75	0.004	0.75	1.5	0.023	4	6	0.82	0.12	0.031	0.031	0	0.0	0.38	0.39	0.004	1.0
27	9/22/2010 20:45	9/23/2010 0:45	4	0.003	0.25	0.75	0.013	0.75	2	0.000	0	0	0.21	0.05	0.016	0.016	-0.0008	-4.9	0.14	0.14	-0.001	-0.8
28	9/27/2010 8:30	9/27/2010 23:30	15	0.006	0.25	0.5	0.010	0.75	1.5	0.031	3	2	0.21	0.03	0.047	0.047	-0.0004	-0.8	0.16	0.17	0.009	6.0
29	9/30/2010 4:00	9/30/2010 13:45	9.75	0.006	0.25	0.75	0.006	0.75	1.5	0.002	3	4	2.32	0.37	0.013	0.013	0.0001	0.8	1.74	1.72	-0.018	-1.0
30	9/30/2010 14:45	10/7/2010 0:00	153.25	0.004	0.25	0.5	0.004	0.75	1.5	0.013	4	30	11.46	0.68	0.020	0.021	1E-04	0.5	2.30	2.29	-0.001	-0.1
31	10/12/2010 2:00	10/12/2010 16:15	14.25	0.003	0.25	0.5	0.003	0.75	1.5	0.006	3	3	0.55	0.06	0.013	0.013	1E-04	0.8	0.19	0.19	0.001	0.4
32	10/14/2010 11:45	10/16/2010 20:00	56.25	0.007	0.25	0.5	0.007	0.75	1.5	0.035	4	12	1.63	0.07	0.048	0.048	0.0002	0.4	0.59	0.59	0.006	1.1
33	10/18/2010 23:00	10/20/2010 0:00	25	0.007	0.25	0.75	0.007	0.75	1.5	0.010	4	4	1.09	0.06	0.024	0.024	0	0.0	0.32	0.32	0.004	1.2
34	10/27/2010 2:15	10/28/2010 6:15	28	0.003	0.25	0.5	0.000	0	0	0.000	0	0	0.79	0.08	0.003	0.003	0	0.0	0.34	0.16	-0.18	-52.9
35	11/4/2010 2:30	11/7/2010 21:30	91	0.010	0.25	0.5	0.010	0.75	1.5	0.026	4	20	2.60	0.06	0.046	0.046	-0.0002	-0.4	0.65	0.64	-0.003	-0.5
36	11/16/2010 19:30	11/17/2010 15:00	19.5	0.004	0.25	0.5	0.004	0.75	1.5	0.004	3	3	0.87	0.18	0.012	0.012	0.0003	2.6	0.63	0.61	-0.012	-1.8
37	11/25/2010 9:30	11/25/2010 19:30	10	0.013	0.25	0.5	0.013	0.75	1.5	0.000	0	0	0.66	0.03	0.027	0.026	-0.001	-3.7	0.37	0.38	0.005	1.4
38	12/1/2010 0:00	12/5/2010 11:00	107	0.006	0.25	0.5	0.006	0.75	1.5	0.022	4	24	2.88	0.26	0.033	0.033	0	0.0	1.30	1.30	0.001	0.1

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**W077-02-S0060 Cresheim Valley Interceptor**

Pipe Size: 15" dia.

Tributary Drainage Area: 225 acres

Tributary Service Population: 1,810

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
39	12/11/2010 23:00	12/14/2010 6:15	55.25	0.005	0.25	0.5	0.005	0.75	2	0.009	4	9	2.45	0.06	0.019	0.019	1E-04	0.5	0.33	0.33	0.004	1.2
<del>40</del>	<del>12/26/2010 13:00</del>	<del>12/27/2010 16:30</del>	<del>27.5</del>	<del>0.001</del>	<del>0.25</del>	<del>0.5</del>	<del>0.001</del>	<del>0.75</del>	<del>1.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>2.44</del>	<del>0.05</del>	<del>0.002</del>	<del>0.002</del>	<del>0</del>	<del>0.0</del>	<del>0.10</del>	<del>0.05</del>	<del>-0.049</del>	<del>-50.1</del>

Statistics comparing sim and obs peak I/I flow for all 40 events

Average error = -0.027 MGD

Standard error = 0.075 MGD

Stats for 35 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.003 MGD

Standard error = 0.011 MGD

**W086-01-S0060 Cresheim Valley Interceptor**

Pipe Size: 18" dia.

Tributary Drainage Area: 225 acres

Tributary Service Population: 2,546

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2/11/2012 6:00	2/12/2012 11:15	29.25	0.010	0.25	0.75	0.010	1	1.5	0.034	4	2	0.31	0.06	0.054	0.054	0	-0.7	0.49	0.49	-0.004	-0.9
2	2/16/2012 11:30	2/16/2012 22:15	10.75	0.026	0.25	0.75	0.010	1	1.5	0.000	0	0	0.15	0.02	0.035	0.036	0.0006	1.7	0.37	0.35	-0.016	-4.4
3	2/24/2012 1:45	2/24/2012 11:00	9.25	0.015	0.25	0.75	0.022	1	2	0.000	0	0	0.18	0.04	0.037	0.037	-0.0002	-0.5	0.51	0.50	-0.007	-1.4
4	2/29/2012 10:30	2/29/2012 22:15	11.75	0.015	0.25	0.75	0.017	1	2	0.000	0	0	0.86	0.06	0.033	0.032	-0.001	-3.0	0.83	0.86	0.024	2.9

\*

Statistics comparing sim and obs peak I/I flow for all 4 events

Average error = -0.001 MGD

Standard error = 0.018 MGD

Stats for 3 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.009 MGD

Standard error = 0.013 MGD

IALL-B0355 Island Ave Low Level Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 214 acres

Tributary Service Population: 1,308

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	7/14/2012 5:00	7/14/2012 16:30	11.5	0.011	0.5	1	0.002	1.5	2	0.000	0	0	0.58	0.08	0.013	0.013	0.0006	4.8	0.43	0.42	-0.01	-2.3
2	7/15/2012 21:15	7/16/2012 3:15	6	0.010	0.5	1	0.009	1.5	2	0.000	0	0	0.19	0.06	0.018	0.019	0.0004	2.2	0.23	0.23	0.001	0.6
3	7/20/2012 1:15	7/20/2012 12:15	11	0.007	0.5	1	0.005	1.5	2	0.000	0	0	0.41	0.09	0.012	0.012	0	-0.5	0.26	0.26	-0.001	-0.3
4	7/26/2012 20:00	7/27/2012 4:30	8.5	0.005	0.5	1	0.006	1.5	2.5	0.000	0	0	0.53	0.11	0.012	0.011	-0.001	-3.0	0.31	0.31	0	0.0
5	7/28/2012 17:00	7/29/2012 1:30	8.5	0.003	0.5	0.75	0.004	1.5	2	0.000	0	0	0.27	0.17	0.007	0.007	0	-0.8	0.23	0.23	0.003	1.3
6	8/1/2012 18:15	8/1/2012 23:30	5.25	0.001	0.5	1	0.002	1.5	2.5	0.000	0	0	0.31	0.20	0.003	0.003	0	1.3	0.10	0.10	-0.001	-1.2
7	8/5/2012 18:30	8/6/2012 3:15	8.75	0.003	0.5	1	0.004	1.5	1.75	0.000	0	0	0.66	0.23	0.007	0.007	0	1.4	0.33	0.34	0.004	1.1
8	8/10/2012 9:45	8/11/2012 2:00	16.25	0.005	0.5	1	0.002	1.5	2	0.004	4	3	1.33	0.43	0.011	0.011	0	0.1	0.97	0.96	-0.009	-1.0
9	8/11/2012 17:00	8/11/2012 20:30	3.5	0.001	0.5	1	0.001	1.5	1.75	0.000	0	0	0.27	0.26	0.002	0.002	0	0.0	0.11	0.11	0.003	2.4
10	8/14/2012 9:30	8/14/2012 22:00	12.5	0.009	0.5	1	0.006	1.5	3	0.000	0	0	0.60	0.19	0.014	0.014	0	3.1	0.62	0.61	-0.007	-1.1
11	8/15/2012 15:45	8/16/2012 4:30	12.75	0.004	0.5	1	0.001	1.5	2	0.002	4	3	0.70	0.36	0.007	0.007	0	-0.4	0.56	0.55	-0.005	-0.9
12	8/17/2012 21:00	8/18/2012 23:30	26.5	0.005	0.5	1	0.003	1.5	2	0.004	4	4	1.26	0.28	0.012	0.012	0	0.4	0.59	0.59	0.002	0.3
13	8/27/2012 7:45	8/28/2012 0:00	16.25	0.005	0.5	1	0.002	1.5	2	0.004	4	3	0.59	0.20	0.010	0.011	0.001	5.0	0.52	0.52	-0.001	-0.1
14	8/28/2012 5:15	8/28/2012 13:00	7.75	0.011	0.5	1	0.007	1.5	2.5	0.000	0	0	0.16	0.03	0.018	0.018	0	0.3	0.16	0.16	0.002	1.4
15	9/2/2012 11:30	9/2/2012 19:00	7.5	0.008	0.5	1	0.007	1.5	2	0.000	0	0	0.19	0.07	0.016	0.015	-0.001	-3.7	0.25	0.25	-0.006	-2.2
16	9/3/2012 7:30	9/3/2012 23:15	15.75	0.003	0.5	1	0.006	1.5	2	0.006	4	3	0.69	0.18	0.015	0.015	0	-0.1	0.34	0.33	-0.003	-1.0
17	9/4/2012 2:30	9/4/2012 7:45	5.25	0.006	0.25	1	0.003	1.5	2	0.000	0	0	0.60	0.21	0.008	0.008	0	2.9	0.69	0.67	-0.022	-3.2
18	9/4/2012 12:45	9/5/2012 20:15	31.5	0.009	0.5	1	0.008	1.5	2.5	0.014	4	6	2.63	0.51	0.030	0.031	0.0009	3.0	2.14	2.14	0	0.0
19	9/8/2012 17:00	9/9/2012 1:45	8.75	0.006	0.5	0.75	0.012	1.5	2	0.000	0	0	0.43	0.15	0.018	0.018	0	-1.1	0.35	0.35	-0.001	-0.4
20	9/18/2012 4:00	9/18/2012 9:15	5.25	0.008	0.5	0.75	0.007	1.5	2	0.000	0	0	0.10	0.04	0.026	0.015	-0.011	-41.6	0.17	0.14	-0.024	-14.4
21	9/18/2012 16:30	9/19/2012 2:30	10	0.004	0.5	1	0.006	1.5	2.5	0.000	0	0	0.98	0.40	0.011	0.010	0	-3.2	0.69	0.69	-0.006	-0.9
22	9/22/2012 19:00	9/23/2012 1:30	6.5	0.004	0.5	1	0.004	1.5	2.5	0.000	0	0	0.71	0.27	0.009	0.009	0	-3.1	0.46	0.46	0.002	0.4
23	9/27/2012 6:15	9/27/2012 11:15	5	0.005	0.25	1	0.005	1.5	2	0.000	0	0	0.12	0.06	0.095	0.010	0	0.0	0.18	0.16	-0.024	-13.0
24	10/7/2012 18:30	10/8/2012 1:30	7	0.006	0.5	1	0.016	1.5	2.5	0.000	0	0	0.11	0.02	0.023	0.022	-0.001	-4.9	0.12	0.12	0.001	1.0
25	10/9/2012 4:30	10/9/2012 12:30	8	0.008	0.5	1	0.018	1.5	2.5	0.000	0	0	0.12	0.04	0.026	0.026	0	-0.6	0.17	0.16	-0.001	-0.4
26	10/15/2012 11:00	10/15/2012 22:15	11.25	0.018	0.25	1	0.013	1.5	2	0.000	0	0	0.11	0.02	0.030	0.031	0.001	3.1	0.19	0.19	-0.004	-2.0
27	10/19/2012 9:00	10/19/2012 18:00	9	0.006	0.25	1	0.008	1.5	2.5	0.000	0	0	0.34	0.08	0.014	0.014	0	0.9	0.30	0.30	-0.001	-0.3
28	10/28/2012 15:00	10/29/2012 1:15	10.25	0.012	0.5	1	0.005	1.5	2	0.000	0	0	0.41	0.05	0.017	0.017	0	1.6	0.35	0.34	-0.006	-1.6
29	10/29/2012 2:30	11/1/2012 6:00	75.5	0.008	0.5	1	0.007	1.5	2	0.021	3.5	14	3.34	0.13	0.037	0.036	-0.001	-2.6	1.00	1.01	0.014	1.4
30	11/7/2012 12:00	11/8/2012 14:00	26	0.014	0.5	1	0.013	1.5	2.5	0.011	4	4	0.40	0.02	0.037	0.038	0.001	3.0	0.24	0.24	0.003	1.2
31	11/13/2012 3:15	11/14/2012 0:15	21	0.011	0.25	1	0.020	1.5	2	0.015	4	3	0.14	0.03	0.047	0.046	-0.001	-1.5	0.18	0.18	-0.003	-1.7
32	11/27/2012 6:00	11/28/2012 6:15	24.25	0.013	0.5	1	0.003	1.5	2	0.003	4	4	0.51	0.02	0.018	0.018	-0.001	-4.5	0.19	0.19	0	0.0
33	12/7/2012 22:45	12/8/2012 14:30	15.75	0.005	0.5	1	0.005	1.5	2	0.005	4	3	0.38	0.11	0.015	0.015	0	-0.7	0.33	0.33	0	0.1
34	12/9/2012 8:30	12/9/2012 21:00	12.5	0.013	0.5	1	0.006	1.5	2	0.008	3	3	0.20	0.03	0.026	0.026	0.0005	2.0	0.24	0.23	-0.003	-1.1
35	12/9/2012 21:45	12/10/2012 12:00	14.25	0.008	0.5	1	0.008	1.5	2	0.007	3	3	0.16	0.04	0.023	0.023	0	0.7	0.14	0.14	0.002	1.2
36	12/11/2012 4:15	12/11/2012 9:30	5.25	0.011	0.5	1	0.008	1.5	2	0.000	0	0	0.09	0.03	0.019	0.019	0	0.9	0.15	0.14	-0.003	-2.0
37	12/18/2012 0:30	12/18/2012 21:00	20.5	0.008	0.5	1	0.004	1.5	2	0.007	3	4	0.39	0.15	0.019	0.019	0.001	2.8	0.55	0.54	-0.001	-0.1
38	12/20/2012 20:45	12/23/2012 1:15	52.5	0.012	0.5	1	0.012	1.5	2.5	0.032	3	14	1.69	0.13	0.055	0.056	0.001	1.4	1.16	1.17	0.008	0.7
39	12/24/2012 17:00	12/25/2012 9:00	16	0.013	0.5	1	0.013	1.5	2	0.020	4	3	0.15	0.02	0.044	0.046	0.002	4.0	0.17	0.16	-0.005	-2.7
40	12/26/2012 12:30	12/28/2012 7:00	42.5	0.012	0.5	1	0.011	1.5	2.5	0.037	4	8	1.23	0.10	0.060	0.060	0	-0.2	1.05	1.06	0.009	0.9

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IALL-B0355 Island Ave Low Level Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 214 acres

Tributary Service Population: 1,308

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
41	12/29/2012 10:15	12/30/2012 7:15	21	0.016	0.5	1	0.018	1.5	2.5	0.030	4	4	0.22	0.02	0.062	0.064	0.002	3.2	0.31	0.31	-0.001	-0.3
42	1/11/2013 16:00	1/12/2013 16:30	24.5	0.012	0.5	1	0.004	1.5	2	0.005	4	4	0.63	0.08	0.021	0.021	0	-0.2	0.50	0.50	0.006	1.1
43	1/14/2013 21:15	1/15/2013 6:45	9.5	0.018	0.5	1	0.004	1.5	2	0.000	0	0	0.41	0.03	0.021	0.022	0.001	3.9	0.34	0.34	0.001	0.3
44	1/15/2013 22:00	1/17/2013 1:15	27.25	0.009	0.5	1	0.002	1.5	2	0.005	4	4	0.98	0.06	0.015	0.015	0.0004	2.7	0.35	0.35	-0.004	-1.0
45	1/30/2013 17:00	2/1/2013 0:00	31	0.008	0.5	1	0.004	1.5	2	0.005	4	4	1.11	0.19	0.016	0.017	0.0007	4.4	0.67	0.66	-0.011	-1.6
46	2/8/2013 5:30	2/8/2013 16:45	11.25	0.005	0.5	1	0.004	1.5	2	0.000	0	0	0.26	0.02	0.009	0.009	0	0.8	0.12	0.06	-0.063	-53.1
47	2/11/2013 4:30	2/11/2013 22:15	17.75	0.006	0.5	1	0.005	1.5	2	0.006	4	3	0.44	0.06	0.016	0.015	-0.001	-4.5	0.23	0.23	0.003	1.2
48	2/13/2013 18:15	2/14/2013 10:45	16.5	0.006	0.5	1	0.006	1.5	2	0.005	4	3	0.24	0.02	0.016	0.016	0	0.4	0.16	0.10	-0.056	-35.3
49	2/19/2013 11:15	2/19/2013 20:45	9.5	0.004	0.5	1	0.007	1.5	2	0.000	0	0	0.22	0.02	0.010	0.010	0	0.1	0.07	0.07	0.003	3.8
50	2/26/2013 18:45	2/27/2013 20:15	25.5	0.008	0.5	1	0.003	1.5	2	0.005	4	4	0.56	0.07	0.015	0.016	0.001	4.1	0.31	0.31	0.002	0.6
51	3/6/2013 5:00	3/6/2013 18:30	13.5	0.007	0.5	1	0.006	1.5	2	0.000	0	0	0.13	0.01	0.013	0.013	0	3.7	0.09	0.05	-0.043	-47.1
52	3/12/2013 2:45	3/13/2013 21:15	42.5	0.007	0.5	1	0.006	1.5	2	0.010	4	8	0.89	0.06	0.024	0.023	0	-1.2	0.31	0.31	0	-0.1
53	3/18/2013 17:45	3/19/2013 15:30	21.75	0.004	0.5	1	0.009	1.5	2.5	0.000	0	0	0.77	0.06	0.013	0.013	0	3.9	0.22	0.23	0.002	0.8
54	3/25/2013 5:45	3/25/2013 21:15	15.5	0.003	0.5	1	0.005	1.5	2.5	0.000	0	0	0.71	0.05	0.009	0.009	0	0.0	0.15	0.15	0.001	0.8
55	3/31/2013 15:00	3/31/2013 22:30	7.5	0.005	0.5	1	0.005	1.5	2	0.000	0	0	0.16	0.03	0.010	0.010	0	1.9	0.12	0.10	-0.023	-19.5
56	4/10/2013 22:30	4/11/2013 6:45	8.25	0.007	0.25	1	0.008	1.5	4	0.000	0	0	0.19	0.08	0.014	0.015	0	3.0	0.29	0.29	-0.002	-0.7
57	4/12/2013 8:15	4/12/2013 19:45	11.5	0.005	0.5	1	0.005	1.5	4	0.000	0	0	0.86	0.15	0.010	0.010	0	0.4	0.37	0.37	-0.001	-0.3
58	4/12/2013 22:00	4/13/2013 16:30	18.5	0.006	0.5	1	0.003	1.5	2	0.006	4	4	0.45	0.31	0.014	0.015	0.001	4.4	0.62	0.62	-0.005	-0.7
59	4/19/2013 21:30	4/20/2013 8:30	11	0.007	0.5	1	0.003	1.5	3	0.000	0	0	0.63	0.07	0.010	0.010	0	0.2	0.27	0.27	-0.007	-2.5
60	4/29/2013 2:00	4/30/2013 16:00	38	0.010	0.5	1	0.025	1.5	2.5	0.015	4	4	0.29	0.02	0.050	0.050	0	-0.4	0.23	0.23	-0.001	-0.6
61	5/8/2013 6:30	5/9/2013 0:30	18	0.006	0.5	1.5	0.006	1.5	2	0.012	4	3	0.36	0.17	0.025	0.024	-0.001	-2.3	0.32	0.32	0.003	1.0
62	5/9/2013 2:15	5/9/2013 23:00	20.75	0.008	0.5	1	0.005	1.5	2	0.009	4	4	0.54	0.07	0.021	0.021	0	2.1	0.33	0.32	-0.001	-0.4
63	5/10/2013 22:30	5/11/2013 20:45	22.25	0.006	0.5	1	0.005	1.5	2	0.012	4	4	0.60	0.11	0.024	0.023	0	-1.0	0.40	0.40	-0.001	-0.1
64	5/11/2013 23:00	5/12/2013 18:30	19.5	0.007	0.5	1	0.008	1.5	2	0.036	4	3.5	0.15	0.04	0.052	0.051	-0.001	-2.1	0.15	0.15	-0.002	-1.5
65	5/18/2013 19:45	5/19/2013 6:00	10.25	0.004	0.5	1	0.015	1.5	2.5	0.000	0	0	0.21	0.07	0.019	0.019	0	-0.5	0.15	0.15	-0.006	-3.7
66	5/28/2013 10:45	5/29/2013 6:15	19.5	0.010	0.5	1	0.010	1.5	2	0.016	4	3	0.12	0.02	0.036	0.036	0	0.2	0.12	0.11	-0.005	-4.0
67	6/3/2013 1:00	6/3/2013 12:15	11.25	0.007	0.5	1	0.004	1.5	2	0.000	0	0	0.94	0.34	0.011	0.011	0	-2.1	0.89	0.87	-0.022	-2.5
68	6/3/2013 15:45	6/3/2013 23:30	7.75	0.001	0.5	1	0.005	1.5	4	0.000	0	0	0.51	0.36	0.006	0.006	0	-3.1	0.14	0.15	0.003	2.0
69	6/7/2013 0:00	6/10/2013 4:30	76.5	0.004	0.5	1.5	0.019	1.5	2.5	0.014	4	14	3.86	0.30	0.036	0.037	0.001	1.8	1.42	1.43	0.011	0.7
70	6/10/2013 6:45	6/12/2013 9:00	50.25	0.005	0.5	1	0.012	1.5	2.5	0.027	4	9	2.07	0.53	0.044	0.044	0	0.7	1.32	1.34	0.027	2.1
71	6/13/2013 9:30	6/14/2013 20:15	34.75	0.007	0.5	1	0.006	1.5	2	0.011	4	6	0.48	0.20	0.024	0.024	0	1.4	0.51	0.50	-0.007	-1.3
72	6/18/2013 12:00	6/19/2013 23:45	35.75	0.006	0.5	1	0.010	1.5	2.5	0.015	4	8	1.80	0.37	0.030	0.031	0	0.1	1.29	1.31	0.023	1.8
73	6/24/2013 14:15	6/25/2013 18:15	28	0.007	0.5	1	0.003	1.5	2	0.009	4	6	0.72	0.20	0.019	0.019	0	0.0	0.55	0.55	-0.002	-0.4
74	6/27/2013 17:45	6/27/2013 23:15	5.5	0.004	0.33	1	0.001	1.5	2	0.000	0	0	0.70	0.28	0.005	0.005	0.0002	3.8	0.38	0.38	-0.004	-1.1
75	6/28/2013 16:45	6/29/2013 0:45	8	0.007	0.5	1	0.008	1.5	2.5	0.000	0	0	0.21	0.10	0.014	0.014	0.0003	2.2	0.23	0.22	-0.007	-3.3
76	6/30/2013 12:30	6/30/2013 22:00	9.5	0.009	0.5	1	0.006	1.5	3	0.000	0	0	0.37	0.09	0.015	0.015	0	0.0	0.35	0.34	-0.009	-2.5
77	7/1/2013 7:00	7/3/2013 11:00	52	0.009	0.5	1	0.008	1.5	2	0.010	4	4	0.38	0.05	0.026	0.027	0.0009	3.5	0.16	0.16	0	-0.3
78	7/12/2013 14:45	7/13/2013 12:00	21.25	0.007	0.5	1	0.005	1.5	2	0.003	4	4	1.12	0.18	0.014	0.015	0.001	3.9	0.69	0.68	-0.013	-1.9
79	7/20/2013 21:00	7/21/2013 18:00	21	0.004	0.5	1	0.007	1.5	2	0.024	4	5	0.24	0.19	0.036	0.035	-0.001	-2.9	0.29	0.29	0.002	0.6
80	7/23/2013 0:45	7/25/2013 5:30	52.75	0.005	0.5	1	0.006	1.5	2	0.012	4	12	2.93	0.58	0.027	0.023	-0.004	-13.4	1.88	1.87	-0.012	-0.6



**IALL-B0355 Island Ave Low Level Interceptor**

Pipe Size: 24" dia.

Tributary Drainage Area: 214 acres

Tributary Service Population: 1,308

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
81	7/28/2013 15:00	8/6/2013 23:00	224	0.020	0.5	1	0.021	1.5	2	0.088	4	32	5.47	0.57	0.129	0.129	0	-0.2	6.69	6.68	-0.011	-0.2
82	8/7/2013 20:30	8/9/2013 1:15	28.75	0.007	0.5	1	0.005	1.5	2	0.018	4	5	0.39	0.19	0.030	0.030	-0.0004	-1.3	0.48	0.47	-0.014	-3.0
83	8/13/2013 5:00	8/15/2013 3:45	46.75	0.006	0.5	1	0.009	1.5	2	0.015	4	10	1.82	0.56	0.030	0.030	0.001	2.1	2.12	2.11	-0.012	-0.5
84	8/22/2013 15:30	8/24/2013 6:15	38.75	0.004	0.5	1	0.002	1.5	2	0.006	4	9	0.91	0.48	0.012	0.012	0	0.5	0.76	0.74	-0.019	-2.5
85	8/28/2013 10:00	8/29/2013 12:30	26.5	0.010	0.5	1	0.004	1.5	2	0.007	4	5	0.80	0.16	0.020	0.021	0.001	3.2	0.75	0.73	-0.021	-2.8
86	9/2/2013 8:45	9/5/2013 5:30	68.75	0.015	0.5	1	0.013	1.5	2.5	0.022	4	16	1.19	0.25	0.048	0.050	0.001	2.3	1.88	1.88	0	0.0
87	9/12/2013 18:45	9/13/2013 22:00	27.25	0.004	0.5	1	0.003	1.5	2	0.008	4	4	0.39	0.17	0.015	0.015	0	3.3	0.32	0.32	-0.002	-0.5
88	9/21/2013 19:30	9/23/2013 18:15	46.75	0.007	0.5	1	0.006	1.5	2	0.007	4	10	1.08	0.19	0.018	0.019	0.001	2.8	0.62	0.60	-0.021	-3.4

Statistics comparing sim and obs peak I/I flow for all 76 events

Average error = -0.004 MGD

Standard error = 0.014 MGD

Stats for 65 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.001 MGD

Standard error = 0.005 MGD

**IALL-B0810 Island Avenue Lower Level Interceptor**

Pipe Size: 20" dia.

Tributary Drainage Area: 211 acres

Tributary Service Population: 3,779

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1/17/2010 9:30	1/18/2010 7:00	21.5	0.012	0.5	1.5	0.016	2	3	0.006	4	4	0.87	0.08	0.034	0.034	0	-1.2	0.57	0.56	-0.009	-1.7
2	1/25/2010 1:30	1/26/2010 6:45	29.25	0.018	0.5	1.5	0.007	2	3	0.020	4	4	1.46	0.12	0.043	0.045	0.002	4.8	1.13	1.13	0	0.0
3	2/5/2010 19:00	2/7/2010 21:00	50	0.005	0.5	1.5	0.004	2	3	0.000	0	0	2.43	0.08	0.008	0.009	0	5.0	0.26	0.25	-0.011	-4.4
4	2/9/2010 19:15	2/11/2010 21:30	50.25	0.006	0.5	1.5	0.005	2	3	0.000	0	0	1.79	0.05	0.011	0.011	0	3.8	0.28	0.22	-0.058	-20.8
5	2/22/2010 19:45	2/24/2010 12:45	41	0.024	0.5	1.5	0.023	2	3	0.018	4	4	1.05	0.05	0.062	0.065	0.003	4.6	0.87	0.87	-0.002	-0.3
6	3/12/2010 7:15	3/14/2010 10:15	51	0.006	0.5	1.5	0.009	2	3	0.012	4	4	3.30	0.18	0.026	0.027	0	1.0	0.86	0.86	0.005	0.5
7	3/14/2010 10:45	3/15/2010 6:45	20	0.007	0.5	1.5	0.013	2	3	0.020	4	7	0.59	0.05	0.040	0.040	0	0.6	0.30	0.30	0.003	1.0
8	3/22/2010 9:30	3/23/2010 6:45	21.25	0.006	0.5	1.5	0.015	2	3	0.000	0	0	0.95	0.15	0.021	0.021	0	-1.5	0.31	0.30	-0.006	-2.0
9	3/28/2010 21:00	3/30/2010 3:45	30.75	0.012	0.5	1.5	0.006	2	3	0.014	4	5	2.01	0.17	0.031	0.032	0	0.8	1.08	1.08	-0.002	-0.2
10	3/30/2010 10:45	3/31/2010 12:30	25.75	0.014	0.5	1.5	0.020	2	3	0.019	4	4	0.74	0.04	0.051	0.053	0.002	4.6	0.56	0.55	-0.006	-1.1
11	4/8/2010 23:15	4/9/2010 20:30	21.25	0.012	0.5	1.5	0.012	2	3	0.015	4	4	0.52	0.06	0.039	0.039	0	-0.7	0.35	0.36	0.002	0.7
12	4/21/2010 16:30	4/21/2010 21:00	4.5	0.010	0.5	1.5	0.000	0	0	0.000	0	0	0.17	0.03	0.010	0.010	0	-4.1	0.21	0.15	-0.055	-26.6
13	4/24/2010 23:15	4/25/2010 10:45	11.5	0.014	0.5	1.5	0.000	0	0	0.000	0	0	0.43	0.04	0.014	0.014	0	2.9	0.30	0.23	-0.072	-24.0
14	4/25/2010 21:45	4/26/2010 21:15	23.5	0.012	0.5	1.5	0.000	0	0	0.000	0	0	1.15	0.09	0.003	0.012	0.009	259.1	0.46	0.45	-0.006	-1.3
15	5/3/2010 4:15	5/3/2010 9:45	5.5	0.006	0.5	1.5	0.000	0	0	0.000	0	0	0.95	0.23	0.007	0.006	-0.001	-19.3	0.53	0.54	0.016	3.1
16	5/11/2010 18:15	5/12/2010 9:30	15.25	0.011	0.5	1.5	0.000	0	0	0.000	0	0	0.52	0.16	0.009	0.011	0.002	19.5	0.58	0.51	-0.07	-12.1
17	5/14/2010 19:00	5/14/2010 21:45	2.75	0.011	0.5	1.5	0.000	0	0	0.000	0	0	0.09	0.05	0.021	0.011	-0.01	-46.5	0.24	0.15	-0.084	-35.3
18	5/18/2010 0:30	5/18/2010 14:45	14.25	0.018	0.5	1.5	0.000	0	0	0.000	0	0	0.62	0.05	0.018	0.018	0	0.9	0.35	0.35	-0.001	-0.2
19	5/27/2010 20:15	5/28/2010 0:45	4.5	0.019	0.5	1.5	0.000	0	0	0.000	0	0	0.13	0.03	0.019	0.019	0	1.6	0.27	0.27	0.001	0.2
20	5/30/2010 2:30	5/30/2010 11:15	8.75	0.015	0.5	1.5	0.011	2	3	0.000	0	0	0.14	0.05	0.027	0.026	-0.001	-4.6	0.30	0.31	0.008	2.6
21	6/9/2010 12:45	6/9/2010 23:15	10.5	0.012	0.5	1.5	0.000	0	0	0.000	0	0	0.56	0.05	0.012	0.012	0	-1.0	0.42	0.27	-0.153	-36.5
22	6/13/2010 14:00	6/13/2010 22:00	8	0.008	0.5	1.5	0.000	0	0	0.000	0	0	0.45	0.12	0.008	0.008	0	5.9	0.60	0.31	-0.292	-48.9
23	6/24/2010 14:30	6/24/2010 17:30	3	0.001	0.5	1.5	0.000	0	0	0.000	0	0	0.82	0.45	0.001	0.001	0	-0.5	0.13	0.12	-0.011	-8.3
24	6/28/2010 14:45	6/28/2010 23:30	8.75	0.003	0.5	1.5	0.006	2	3	0.000	0	0	0.41	0.20	0.009	0.009	0	2.1	0.23	0.22	-0.003	-1.5
25	7/10/2010 8:15	7/10/2010 14:45	6.5	0.004	0.5	1.5	0.000	0	0	0.000	0	0	0.85	0.14	0.004	0.004	0	1.2	0.32	0.23	-0.091	-28.9
26	7/12/2010 18:45	7/12/2010 22:15	3.5	0.009	0.5	1.5	0.000	0	0	0.000	0	0	0.52	0.31	0.010	0.009	0	-4.7	0.70	0.72	0.016	2.2
27	7/13/2010 7:00	7/13/2010 10:45	3.75	0.003	0.5	1.5	0.000	0	0	0.000	0	0	1.73	0.43	0.003	0.003	0	-1.1	0.53	0.44	-0.088	-16.6
28	7/14/2010 0:00	7/14/2010 11:30	11.5	0.005	0.5	1.5	0.003	2	3	0.000	0	0	0.94	0.31	0.008	0.008	0	-3.2	0.96	0.64	-0.317	-33.0
29	7/14/2010 12:00	7/15/2010 8:15	20.25	0.003	0.5	1.5	0.006	2	3	0.007	4	4	3.37	0.82	0.016	0.016	0	0.1	1.32	1.32	0.004	0.3
30	7/17/2010 3:00	7/17/2010 9:15	6.25	0.017	0.5	1.5	0.015	2	3	0.000	0	0	0.19	0.10	0.032	0.032	0	0.4	0.48	0.49	0.009	1.9
31	7/19/2010 9:00	7/19/2010 11:30	2.5	0.012	0.5	1.5	0.000	0	0	0.000	0	0	0.34	0.27	0.012	0.012	0	3.3	0.83	0.79	-0.033	-4.0
32	7/19/2010 19:15	7/19/2010 21:15	2	0.013	0.5	1.75	0.000	0	0	0.000	0	0	0.36	0.29	0.013	0.013	0	-0.7	0.91	0.91	0.003	0.4
33	7/25/2010 15:00	7/25/2010 17:30	2.5	0.015	0.5	1.5	0.000	0	0	0.000	0	0	0.19	0.07	0.012	0.015	0.002	18.9	0.59	0.29	-0.298	-50.6
34	8/22/2010 11:45	8/23/2010 0:15	12.5	0.007	0.5	1.5	0.005	2	3	0.000	0	0	1.94	0.68	0.013	0.012	-0.001	-4.1	1.91	1.91	0.006	0.3
35	9/12/2010 6:45	9/12/2010 11:30	4.75	0.009	0.5	1.75	0.000	0	0	0.000	0	0	0.21	0.04	0.009	0.009	0	0.2	0.12	0.12	0.002	1.3
36	9/16/2010 17:15	9/17/2010 9:15	16	0.006	0.5	1.5	0.006	2	3	0.000	0	0	0.39	0.07	0.012	0.012	0	-3.1	0.36	0.18	-0.179	-50.2
37	9/30/2010 3:45	9/30/2010 11:00	7.25	0.008	0.5	2	0.001	2	3	0.000	0	0	1.03	0.29	0.009	0.009	0	-1.1	0.85	0.84	-0.003	-0.3
38	9/30/2010 19:00	10/1/2010 22:15	27.25	0.005	0.5	1.5	0.004	2	3	0.004	4	4	4.18	0.54	0.013	0.013	0.001	4.0	1.30	1.29	-0.015	-1.2
39	10/5/2010 6:15	10/5/2010 17:45	11.5	0.013	0.5	1.5	0.007	2	3	0.000	0	0	0.34	0.05	0.017	0.020	0.003	15.3	0.27	0.27	-0.003	-1.1
40	10/11/2010 21:45	10/12/2010 0:00	2.25	0.006	0.5	1.5	0.000	0	0	0.000	0	0	0.30	0.17	0.006	0.006	0	4.6	0.49	0.31	-0.18	-36.5
41	10/12/2010 3:30	10/12/2010 8:30	5	0.009	0.5	1.5	0.000	0	0	0.000	0	0	0.15	0.03	0.009	0.009	0	5.4	0.22	0.08	-0.143	-65.3
42	10/14/2010 11:30	10/14/2010 20:00	8.5	0.014	0.5	1.5	0.000	0	0	0.000	0	0	0.65	0.05	0.013	0.014	0.001	11.2	0.39	0.35	-0.046	-11.6

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**IALL-B0810 Island Avenue Lower Level Interceptor**

Pipe Size: 20" dia.

Tributary Drainage Area: 211 acres

Tributary Service Population: 3,779

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
43	10/19/2010 1:15	10/19/2010 11:30	10.25	0.020	0.5	1.5	0.000	0	0	0.000	0	0	0.30	0.02	0.020	0.020	0	1.9	0.27	0.23	-0.046	-17.0
44	10/27/2010 2:15	10/27/2010 13:00	10.75	0.018	0.5	1.5	0.000	0	0	0.000	0	0	0.30	0.05	0.018	0.018	0	0.3	0.96	0.25	-0.705	-73.8
45	11/4/2010 1:45	11/4/2010 19:15	17.5	0.011	0.5	1.5	0.000	0	0	0.000	0	0	1.26	0.08	0.011	0.011	0	3.9	0.55	0.34	-0.206	-37.7
46	11/16/2010 19:30	11/17/2010 11:00	15.5	0.006	0.5	1.5	0.018	2	3	0.000	0	0	0.35	0.09	0.024	0.024	0	1.2	0.23	0.22	-0.013	-5.8
47	12/1/2010 0:15	12/1/2010 16:30	16.25	0.010	0.5	1.5	0.004	2	3	0.000	0	0	1.33	0.18	0.014	0.014	0	1.4	0.72	0.73	0.017	2.4
48	12/11/2010 23:00	12/13/2010 8:15	33.25	0.022	0.5	1.5	0.010	2	3	0.000	0	0	1.02	0.05	0.032	0.032	0	0.0	1.00	0.54	-0.457	-45.8
49	12/26/2010 12:30	12/27/2010 6:15	17.75	0.004	0.5	1.5	0.000	0	0	0.000	0	0	1.15	0.03	0.004	0.004	0	0.3	0.13	0.08	-0.052	-40.9

Statistics comparing sim and obs peak I/I flow for all 49 events

Average error = -0.074 MGD

Standard error = 0.157 MGD

Stats for 41 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.024 MGD

Standard error = 0.048 MGD

IALL-B0862 Island Avenue Lower Level Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 202 acres

Tributary Service Population: 2,201

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3/2/2002 19:00	3/3/2002 5:45	10.75	0.008	0.25	1.75	0.002	1.25	2	0.000	0	0	0.90	0.09	0.010	0.010	0	0.0	0.43	0.43	0.007	1.6
2	3/10/2002 1:45	3/10/2002 5:45	4	0.005	0.25	1.75	0.006	1.25	2	0.000	0	0	0.17	0.16	0.012	0.011	-0.0006	-5.1	0.33	0.33	0.007	2.0
3	3/20/2002 3:00	3/21/2002 3:45	24.75	0.011	0.25	1.75	0.003	1.25	2	0.004	3	4	0.96	0.04	0.017	0.018	0.001	3.4	0.28	0.28	-0.008	-2.8
4	3/26/2002 21:15	3/27/2002 5:15	8	0.008	0.25	1.75	0.007	1.25	2	0.000	0	0	0.57	0.09	0.014	0.014	0	0.2	0.38	0.38	0.005	1.3
5	3/31/2002 18:45	4/1/2002 5:00	10.25	0.008	0.25	1.75	0.004	1.25	2	0.000	0	0	0.38	0.04	0.011	0.012	0	4.2	0.18	0.17	-0.006	-3.6
6	4/12/2002 10:15	4/12/2002 17:45	7.5	0.003	0.25	1.75	0.003	1.25	2	0.000	0	0	0.24	0.03	0.006	0.006	0	1.7	0.08	0.08	-0.002	-3.0
7	4/25/2002 11:30	4/25/2002 17:45	6.25	0.007	0.25	1.75	0.003	1.25	2	0.000	0	0	0.22	0.03	0.009	0.010	0.0004	4.4	0.10	0.11	0.004	4.2
8	4/27/2002 23:45	4/28/2002 12:00	12.25	0.004	0.25	1.75	0.001	1.25	2	0.000	0	0	1.12	0.07	0.004	0.005	0.001	37.3	0.18	0.18	0.001	0.8
9	5/2/2002 3:00	5/2/2002 12:15	9.25	0.001	0.25	1.75	0.001	1.25	2	0.000	0	0	0.37	0.08	0.003	0.003	0	1.1	0.14	0.06	-0.082	-59.2
10	6/13/2002 20:45	6/14/2002 18:45	22	0.007	0.5	1.75	0.008	1.25	3	0.000	0	0	0.76	0.07	0.016	0.015	-0.001	-5.0	0.19	0.20	0.007	3.6
11	6/19/2002 16:00	6/19/2002 23:00	7	0.012	0.5	1.75	0.018	1.25	3.5	0.000	0	0	0.34	0.20	0.031	0.029	-0.0015	-4.9	0.69	0.67	-0.018	-2.6
12	6/27/2002 19:15	6/28/2002 2:00	6.75	0.004	0.25	1.75	0.006	1.25	3	0.000	0	0	0.81	0.46	0.011	0.010	-0.0005	-4.7	0.96	0.97	0.004	0.5
13	7/19/2002 17:45	7/19/2002 23:30	5.75	0.004	0.25	1.75	0.010	1.25	3	0.000	0	0	0.62	0.47	0.014	0.014	0	-1.5	0.67	0.68	0.01	1.4
14	8/24/2002 6:00	8/24/2002 12:00	6	0.005	0.25	1.75	0.002	1.25	3	0.000	0	0	0.56	0.32	0.007	0.007	0	2.6	0.67	0.67	-0.005	-0.8
15	8/24/2002 19:15	8/25/2002 1:00	5.75	0.008	0.25	1.75	0.004	1.25	3	0.000	0	0	0.63	0.43	0.015	0.011	-0.004	-26.0	1.32	1.32	0.003	0.2
16	8/28/2002 18:45	8/29/2002 19:45	25	0.010	0.25	1.75	0.004	1.25	3	0.006	3	4	1.11	0.19	0.020	0.020	0	2.4	1.04	1.04	-0.005	-0.4
17	9/1/2002 3:30	9/2/2002 4:45	25.25	0.012	0.25	1.75	0.002	1.25	2	0.000	0	0	1.25	0.06	0.013	0.014	0	1.9	0.36	0.36	-0.002	-0.6

Statistics comparing sim and obs peak I/I flow for all 17 events

Average error = -0.005 MGD

Standard error = 0.022 MGD

Stats for 16 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = 0.000 MGD

Standard error = 0.007 MGD

M-0045 Site 048 Monoshone Interceptor

Pipe Size: 30" dia.

Tributary Drainage Area: 868 acres

Tributary Service Population: 15,682

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	6/3/2013 0:30	6/3/2013 20:30	20	0.045	0.5	1.5	0.004	1.5	2	0.000	0	0	1.04	0.44	0.051	0.049	-0.002	-4.8	22.45	22.44	-0.01	0.0	
2	6/6/2013 19:30	6/9/2013 11:45	64.25	0.030	0.5	1.5	0.039	1.5	2	0.018	4	10	3.55	0.23	0.090	0.087	-0.003	-2.9	21.20	21.45	0.254	1.2	
3	6/10/2013 6:45	6/10/2013 11:45	5	0.044	0.33	1.5	0.007	1.5	2	0.000	0	0	0.66	0.33	0.049	0.051	0.002	5.1	28.61	25.21	-3.395	-11.9	*
4	6/13/2013 9:15	6/14/2013 1:30	16.25	0.047	0.33	1.5	0.005	1.5	2	0.000	0	0	0.53	0.33	0.052	0.052	0	0.8	17.30	17.36	0.063	0.4	
5	6/18/2013 12:30	6/18/2013 23:00	10.5	0.064	0.5	1.5	0.037	1.5	2.5	0.000	0	0	0.55	0.15	0.102	0.101	-0.001	-0.6	14.53	14.69	0.156	1.1	
6	6/26/2013 20:30	6/27/2013 1:30	5	0.049	0.33	1.25	0.005	1.5	2	0.000	0	0	0.31	0.27	0.056	0.054	-0.002	-3.6	15.32	15.22	-0.1	-0.7	
7	6/27/2013 18:00	6/27/2013 23:45	5.75	0.070	0.33	1.25	0.005	1.5	2	0.000	0	0	0.56	0.20	0.075	0.075	0	0.0	30.25	25.98	-4.266	-14.1	*
8	6/30/2013 12:45	6/30/2013 19:45	7	0.045	0.5	1.5	0.047	1.5	2.5	0.000	0	0	0.22	0.03	0.094	0.092	-0.002	-2.4	3.77	3.80	0.028	0.7	
9	7/1/2013 6:45	7/1/2013 18:30	11.75	0.080	0.33	1.25	0.020	1.5	2	0.000	0	0	0.20	0.02	0.095	0.100	0.005	5.7	4.38	2.85	-1.527	-34.9	*
10	7/3/2013 22:00	7/4/2013 3:30	5.5	0.040	0.33	1.5	0.007	1.5	2	0.000	0	0	0.16	0.11	0.047	0.047	0.0003	0.6	6.47	6.49	0.019	0.3	
11	7/7/2013 19:15	7/8/2013 9:00	13.75	0.040	0.33	1.25	0.010	1.5	2	0.020	3	4	0.11	0.06	0.071	0.070	-0.001	-0.9	4.55	4.51	-0.046	-1.0	
12	7/20/2013 21:45	7/21/2013 1:30	3.75	0.034	0.33	1.5	0.008	1.5	2	0.000	0	0	0.21	0.13	0.042	0.042	0	0.7	7.19	7.15	-0.035	-0.5	
13	7/23/2013 0:45	7/23/2013 6:45	6	0.037	0.5	1.5	0.009	1.5	2	0.000	0	0	0.99	0.38	0.046	0.046	0	1.0	20.09	19.85	-0.236	-1.2	
14	7/28/2013 15:00	7/29/2013 6:45	15.75	0.027	0.5	1.5	0.034	1.5	2	0.000	0	0	0.26	0.08	0.061	0.061	0	0.8	2.76	2.77	0.018	0.6	
15	8/1/2013 6:15	8/1/2013 20:15	14	0.058	0.33	1.5	0.026	1.5	2	0.000	0	0	0.86	0.10	0.085	0.084	-0.001	-1.1	12.17	12.23	0.07	0.6	
16	8/8/2013 0:15	8/8/2013 6:15	6	0.038	0.33	1.25	0.007	1.5	2	0.000	0	0	0.39	0.24	0.044	0.045	0.001	2.1	11.70	11.54	-0.158	-1.4	
17	8/13/2013 5:00	8/13/2013 13:30	8.5	0.031	0.33	1.5	0.010	1.5	2	0.000	0	0	2.25	0.60	0.040	0.041	0.001	2.4	31.74	31.62	-0.129	-0.4	
18	8/22/2013 12:15	8/22/2013 16:30	4.25	0.026	0.33	1.25	0.007	1.5	2	0.000	0	0	0.17	0.09	0.035	0.033	-0.002	-4.4	4.43	4.40	-0.032	-0.7	
19	9/2/2013 10:15	9/3/2013 0:30	14.25	0.117	0.33	1.25	0.018	1.5	2	0.018	3	3.5	0.70	0.18	0.149	0.153	0.004	2.7	39.85	39.74	-0.116	-0.3	
20	9/12/2013 18:45	9/12/2013 23:00	4.25	0.060	0.33	1.25	0.025	1.5	2	0.000	0	0	0.18	0.13	0.085	0.085	0	-0.4	11.75	11.36	-0.393	-3.3	
21	9/13/2013 1:30	9/13/2013 6:00	4.5	0.103	0.33	1.25	0.010	1.5	2	0.000	0	0	0.49	0.17	0.110	0.113	0.003	3.0	35.48	35.04	-0.445	-1.3	
22	9/21/2013 19:45	9/22/2013 6:45	11	0.053	0.33	1.25	0.015	1.5	2	0.000	0	0	1.07	0.24	0.069	0.068	-0.001	-1.0	20.64	20.36	-0.286	-1.4	

Statistics comparing sim and obs peak I/I flow for all 22 events

Average error = -0.480 MGD

Standard error = 1.248 MGD

Stats for 19 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.073 MGD

Standard error = 0.191 MGD

W068-05-S0047 Monoshone Interceptor

Pipe Size: 30" dia.

Tributary Drainage Area: 520 acres

Tributary Service Population: 8,863

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	12/6/2011 16:45	12/6/2011 20:45	4	0.052	0.25	0.75	0.017	1	2	0.000	0	0	0.07	0.02	0.072	0.069	-0.0026	-3.6	1.96	1.89	-0.066	-3.4
2	12/7/2011 3:15	12/8/2011 11:00	31.75	0.021	0.25	0.75	0.017	1	1	0.011	3	3	2.62	0.19	0.049	0.049	0	0.0	7.39	7.27	-0.118	-1.6
3	12/20/2011 13:30	12/20/2011 22:30	9	0.013	0.25	0.75	0.025	1	1	0.015	2	3	0.10	0.01	0.053	0.053	0	-0.5	0.62	0.64	0.023	3.8
4	12/21/2011 14:00	12/22/2011 6:00	16	0.020	0.25	0.75	0.016	1	1	0.021	2	3	0.16	0.09	0.058	0.057	-0.001	-1.0	2.96	2.92	-0.036	-1.2
5	12/22/2011 21:30	12/23/2011 19:00	21.5	0.024	0.25	0.75	0.014	1	1	0.017	3	5	1.24	0.12	0.056	0.055	-0.001	-2.7	6.61	6.63	0.017	0.3
6	12/27/2011 13:15	12/28/2011 5:15	16	0.009	0.25	0.75	0.033	0.75	1.5	0.010	3	3	0.66	0.18	0.053	0.052	-0.001	-1.2	3.75	3.76	0.007	0.2
7	1/11/2012 20:15	1/12/2012 18:00	21.75	0.008	0.25	0.75	0.039	1	1.5	0.015	3	3	1.41	0.11	0.063	0.062	-0.001	-1.2	4.82	4.84	0.027	0.6
8	1/13/2012 4:30	1/13/2012 9:30	5	0.024	0.25	0.75	0.023	1	1	0.000	0	0	0.07	0.03	0.047	0.047	0	-0.2	1.36	1.33	-0.029	-2.1
9	1/16/2012 22:30	1/17/2012 16:45	18.25	0.031	0.25	0.75	0.023	1	1.75	0.000	0	0	0.33	0.03	0.054	0.054	0	-0.1	2.03	2.05	0.023	1.1
10	1/21/2012 1:00	1/21/2012 12:45	11.75	0.000	0	0	0.000	0	0	0.000	0	0	0.33	0.03	0.004	0.000	-0.004	-100.0	0.21	0.00	-0.211	-100.0
11	1/23/2012 11:00	1/24/2012 7:30	20.5	0.027	0.75	0.75	0.026	1	2	0.070	3	4.5	0.32	0.05	0.145	0.123	-0.022	-15.1	2.72	2.73	0.006	0.2
12	1/26/2012 23:30	1/27/2012 23:45	24.25	0.014	0.5	0.75	0.022	1	1	0.010	3	4	0.56	0.15	0.046	0.046	-0.0001	-0.2	3.40	3.44	0.041	1.2
13	2/11/2012 5:45	2/11/2012 21:00	15.25	0.018	0.75	0.75	0.052	1.5	2	0.086	3	3	0.18	0.04	0.156	0.156	0	0.1	1.40	1.41	0.012	0.8
14	2/16/2012 14:00	2/17/2012 1:15	11.25	0.040	0.25	0.75	0.015	1	1	0.015	2	2	0.14	0.02	0.060	0.070	0.01	17.0	1.40	1.36	-0.04	-2.9
15	2/24/2012 2:45	2/25/2012 2:45	24	0.036	0.25	0.75	0.005	1	1	0.008	3	2	0.27	0.05	0.047	0.049	0.002	4.3	2.67	2.62	-0.045	-1.7
16	2/29/2012 9:30	2/29/2012 19:45	10.25	0.022	0.25	0.75	0.017	1	1	0.008	3	2	0.79	0.05	0.046	0.047	0.001	1.2	2.89	2.87	-0.016	-0.5
17	2/29/2012 20:00	3/1/2012 9:00	13	0.028	0.25	1.5	0.022	1.5	1.5	0.046	3	3	0.19	0.04	0.098	0.096	-0.002	-1.8	1.65	1.66	0.003	0.2
18	3/2/2012 21:30	3/3/2012 13:15	15.75	0.025	0.25	1.25	0.021	1	1	0.020	3	2	0.30	0.05	0.066	0.066	-0.001	-0.9	2.07	2.02	-0.049	-2.4
19	3/13/2012 3:00	3/13/2012 9:15	6.25	0.042	0.25	0.75	0.008	1	1	0.000	0	0	0.10	0.02	0.048	0.050	0.002	3.8	1.33	1.33	-0.005	-0.4
20	3/31/2012 0:45	3/31/2012 6:45	6	0.022	0.25	1	0.031	0.75	2	0.000	0	0	0.31	0.06	0.053	0.053	0	0.6	2.74	2.79	0.047	1.7
21	4/21/2012 21:00	4/23/2012 12:00	39	0.017	0.25	0.75	0.014	1	1	0.014	3	3	2.34	0.11	0.047	0.045	-0.002	-4.0	5.33	5.35	0.024	0.5
22	5/1/2012 4:00	5/1/2012 12:30	8.5	0.019	0.25	0.75	0.025	0.75	1.5	0.015	2	2	0.20	0.05	0.061	0.059	-0.002	-3.4	2.10	2.05	-0.057	-2.7
23	5/3/2012 2:15	5/3/2012 9:00	6.75	0.024	0.25	0.75	0.030	0.75	1	0.010	2	2	0.17	0.04	0.061	0.064	0.003	4.1	2.06	2.02	-0.034	-1.6
24	5/4/2012 21:45	5/5/2012 1:30	3.75	0.018	0.25	0.75	0.028	0.75	2	0.000	0	0	0.26	0.13	0.047	0.046	-0.001	-2.1	3.81	3.88	0.072	1.9
25	5/9/2012 3:00	5/9/2012 13:30	10.5	0.024	0.25	0.75	0.026	1	1.5	0.014	2	3	0.33	0.09	0.064	0.064	0	0.2	3.62	3.64	0.022	0.6
26	5/9/2012 22:15	5/10/2012 12:15	14	0.018	0.25	1	0.047	1	1	0.029	3	2	0.24	0.02	0.093	0.094	0	0.2	1.62	1.61	-0.006	-0.4
27	5/14/2012 20:00	5/15/2012 18:00	22	0.019	0.25	0.75	0.020	1	1.5	0.014	2	3	0.85	0.15	0.054	0.053	-0.001	-2.6	6.53	6.59	0.059	0.9
28	5/16/2012 0:30	5/16/2012 11:15	10.75	0.026	0.25	0.75	0.003	1	1	0.010	2	3.5	1.31	0.32	0.040	0.039	-0.001	-2.7	13.66	13.52	-0.141	-1.0
29	5/21/2012 0:00	5/21/2012 17:00	17	0.035	0.5	0.75	0.020	1	2	0.048	3	3.5	0.07	0.02	0.105	0.103	-0.002	-1.6	1.09	1.11	0.018	1.6
30	5/21/2012 21:00	5/22/2012 8:00	11	0.023	0.25	0.75	0.057	0.75	1	0.000	0	0	0.24	0.02	0.080	0.080	0	0.3	1.78	1.79	0.01	0.6
31	5/23/2012 17:15	5/23/2012 20:15	3	0.004	0.25	0.5	0.001	1	1	0.000	0	0	0.16	0.09	0.005	0.005	0	-1.5	0.72	0.60	-0.117	-16.3
32	5/24/2012 14:15	5/24/2012 17:30	3.25	0.018	0.5	1.25	0.005	1.25	1.5	0.000	0	0	0.27	0.21	0.023	0.023	0.001	3.3	2.77	2.76	-0.01	-0.4
33	5/27/2012 4:45	5/27/2012 11:45	7	0.023	0.25	0.5	0.010	1	1	0.007	2	2	0.36	0.13	0.041	0.040	-0.001	-3.2	5.77	5.63	-0.132	-2.3
34	5/29/2012 20:00	5/30/2012 4:15	8.25	0.003	0.25	0.75	0.004	0.75	1	0.004	2.5	2	0.40	0.20	0.011	0.011	0	-4.3	1.02	1.02	0.001	0.1
35	6/1/2012 19:30	6/2/2012 5:00	9.5	0.016	0.25	0.75	0.010	0.75	1	0.006	2	2	1.21	0.50	0.032	0.032	0	0.1	13.85	14.02	0.17	1.2
36	6/3/2012 13:30	6/3/2012 22:00	8.5	0.032	0.25	0.75	0.012	1	1	0.000	0	0	0.08	0.03	0.043	0.044	0.001	2.5	1.32	1.34	0.021	1.6
37	6/4/2012 12:00	6/4/2012 18:30	6.5	0.019	0.25	1	0.021	0.75	1.5	0.000	0	0	0.23	0.08	0.040	0.040	0	-1.1	2.66	2.68	0.022	0.8
38	6/4/2012 18:45	6/5/2012 3:30	8.75	0.021	0.25	1	0.037	0.75	1	0.023	2	3	0.10	0.06	0.081	0.081	0	-0.1	2.25	2.23	-0.017	-0.8
39	6/12/2012 9:30	6/13/2012 15:45	30.25	0.021	0.25	1	0.026	0.75	1	0.030	4	4	0.84	0.07	0.076	0.077	0.001	0.8	3.54	3.52	-0.015	-0.4
40	6/22/2012 17:00	6/23/2012 9:30	16.5	0.006	0.25	0.75	0.018	0.75	0.75	0.010	3	4	1.02	0.37	0.033	0.034	0.001	2.6	5.79	5.67	-0.114	-2.0
41	6/29/2012 5:00	6/29/2012 20:30	15.5	0.007	0.25	1	0.009	0.75	1	0.026	3	4	0.26	0.22	0.043	0.042	-0.001	-1.8	2.53	2.48	-0.051	-2.0
42	7/14/2012 3:45	7/14/2012 14:15	10.5	0.039	0.5	0.75	0.043	0.75	1	0.000	0	0	0.35	0.05	0.082	0.082	0	-0.4	3.25	3.27	0.019	0.6
43	7/15/2012 21:30	7/16/2012 15:15	17.75	0.006	0.25	0.75	0.013	1	1.5	0.011	3	5	0.78	0.40	0.030	0.030	0	-0.3	4.25	4.21	-0.038	-0.9

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W068-05-S0047 Monoshone Interceptor

Pipe Size: 30" dia.

Tributary Drainage Area: 520 acres

Tributary Service Population: 8,863

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
44	7/20/2012 1:00	7/20/2012 21:30	20.5	0.009	0.25	0.5	0.025	0.75	1	0.011	3.5	3	1.31	0.61	0.044	0.045	0.001	1.5	11.88	11.92	0.044	0.4
45	7/26/2012 19:45	7/27/2012 5:45	10	0.015	0.25	0.75	0.015	0.75	1	0.027	3	1.5	0.32	0.20	0.057	0.057	0	-0.4	5.17	5.09	-0.087	-1.7
46	7/28/2012 15:30	7/29/2012 3:30	12	0.018	0.25	0.75	0.026	0.75	1	0.019	2	2	0.17	0.07	0.063	0.063	0	0.7	2.16	2.16	-0.002	-0.1
47	8/5/2012 18:30	8/6/2012 8:00	13.5	0.025	0.25	0.75	0.032	0.75	1	0.026	3	2.5	0.48	0.08	0.084	0.083	-0.001	-1.0	4.39	4.39	0.001	0.0
48	8/10/2012 10:00	8/11/2012 1:45	15.75	0.014	0.25	0.75	0.005	0.75	1	0.016	2.5	5	0.55	0.22	0.036	0.035	-0.001	-3.8	4.90	4.82	-0.075	-1.5
49	8/11/2012 17:45	8/11/2012 22:00	4.25	0.002	0.25	0.75	0.002	1	1.5	0.000	0	0	0.25	0.13	0.004	0.004	0	0.0	0.35	0.34	-0.012	-3.4
50	8/17/2012 22:15	8/18/2012 13:15	15	0.003	0.25	0.75	0.029	0.75	1.25	0.018	2.5	3	0.82	0.17	0.052	0.050	-0.002	-3.1	4.67	4.65	-0.02	-0.4
51	8/27/2012 8:00	8/27/2012 21:45	13.75	0.013	0.25	0.75	0.012	0.75	1	0.012	2.5	4	0.55	0.36	0.037	0.037	0	-0.5	8.40	8.34	-0.053	-0.6
52	8/28/2012 5:30	8/28/2012 17:30	12	0.031	0.25	0.75	0.020	0.75	0.75	0.025	2	4	0.16	0.04	0.075	0.076	0.001	0.8	2.68	2.55	-0.132	-4.9
53	9/3/2012 9:30	9/3/2012 23:30	14	0.019	0.25	1	0.020	1	1	0.019	3	3	0.71	0.18	0.058	0.058	0	-0.7	6.12	6.12	0.001	0.0
54	9/4/2012 3:00	9/4/2012 11:30	8.5	0.019	0.25	0.75	0.055	0.75	0.75	0.031	2	3	0.20	0.07	0.105	0.105	0	0.3	4.13	4.11	-0.025	-0.6
55	9/4/2012 13:00	9/5/2012 4:30	15.5	0.035	0.25	0.75	0.010	0.75	1	0.020	2.5	3.5	0.43	0.17	0.064	0.065	0.001	2.0	9.51	9.54	0.028	0.3
56	9/8/2012 16:45	9/9/2012 0:00	7.25	0.041	0.25	0.75	0.035	1.25	1.5	0.000	0	0	0.29	0.05	0.081	0.076	-0.005	-6.0	3.40	3.42	0.014	0.4
57	9/18/2012 2:30	9/18/2012 13:15	10.75	0.041	0.25	0.75	0.022	0.75	1	0.020	2	2	0.21	0.04	0.082	0.083	0.0015	1.8	3.34	3.34	0.006	0.2
58	9/18/2012 16:45	9/19/2012 8:00	15.25	0.014	0.5	0.75	0.025	1	1.5	0.012	3	4	0.78	0.30	0.050	0.051	0.001	1.1	5.29	5.25	-0.04	-0.8
59	9/22/2012 19:00	9/23/2012 4:30	9.5	0.034	0.25	0.75	0.007	1.25	1	0.013	2.5	2.5	0.31	0.11	0.053	0.054	0.001	1.9	6.16	6.18	0.027	0.4
60	9/26/2012 23:15	9/27/2012 1:45	2.5	0.018	0.25	0.75	0.039	0.75	0.75	0.000	0	0	0.14	0.10	0.057	0.057	0	-0.5	3.61	3.61	-0.006	-0.2
61	9/27/2012 6:15	9/27/2012 14:15	8	0.030	0.25	0.75	0.050	1	1	0.025	3	2	0.08	0.04	0.105	0.105	0	0.3	1.91	1.87	-0.042	-2.2
62	9/28/2012 1:15	9/28/2012 9:15	8	0.027	0.25	1	0.022	0.75	1	0.028	2	3	0.12	0.08	0.077	0.077	0	0.2	3.51	3.45	-0.067	-1.9
63	10/2/2012 10:15	10/3/2012 0:30	14.25	0.032	0.25	0.75	0.022	1	1	0.025	2.5	3.5	0.24	0.06	0.079	0.079	0	-0.2	3.45	3.48	0.031	0.9
64	10/3/2012 7:15	10/3/2012 16:30	9.25	0.027	0.25	0.75	0.035	0.75	1.25	0.030	2	3.5	0.11	0.09	0.090	0.092	0.001	1.5	4.23	4.21	-0.022	-0.5
65	10/4/2012 16:30	10/5/2012 0:00	7.5	0.031	0.25	0.75	0.030	0.75	0.75	0.026	2	2.5	0.08	0.06	0.086	0.087	0.001	1.6	3.32	3.29	-0.034	-1.0
66	10/7/2012 10:00	10/7/2012 15:15	5.25	0.050	0.25	0.75	0.030	1	1.5	0.000	0	0	0.10	0.01	0.077	0.080	0.003	3.8	1.67	1.31	-0.359	-21.5
67	10/7/2012 18:00	10/8/2012 1:45	7.75	0.025	0.25	1	0.032	1	1.5	0.000	0	0	0.13	0.04	0.058	0.057	-0.001	-2.4	1.78	1.78	0	0.0
68	10/9/2012 4:30	10/9/2012 9:00	4.5	0.017	0.25	0.75	0.040	1	1.25	0.000	0	0	0.09	0.02	0.057	0.057	0	-0.1	0.92	0.93	0.016	1.8
69	10/15/2012 12:15	10/16/2012 2:30	14.25	0.007	0.25	1	0.050	1	1	0.020	3	2	0.24	0.05	0.078	0.077	-0.001	-1.5	1.87	1.88	0.018	0.9
70	10/19/2012 2:15	10/20/2012 7:30	29.25	0.037	0.25	0.75	0.017	0.75	1.25	0.017	3	3	0.68	0.12	0.071	0.071	0	0.3	8.22	8.21	-0.006	-0.1
71	10/28/2012 15:45	10/28/2012 22:15	6.5	0.029	0.25	0.75	0.050	1	1	0.000	0	0	0.16	0.03	0.079	0.079	0	0.0	1.58	1.50	-0.078	-4.9
72	10/29/2012 5:00	10/31/2012 3:45	46.75	0.022	0.25	0.75	0.023	0.75	1.25	0.030	2	4	3.02	0.14	0.076	0.075	-0.001	-1.1	9.02	9.13	0.108	1.2
73	11/7/2012 11:45	11/8/2012 5:45	18	0.022	0.25	0.75	0.034	1	1	0.033	2	2.5	0.40	0.02	0.088	0.089	0.001	1.7	1.64	1.66	0.016	1.0
74	11/13/2012 2:00	11/13/2012 14:00	12	0.052	0.25	0.75	0.038	0.75	0.75	0.000	0	0	0.23	0.04	0.086	0.090	0.004	4.2	3.37	3.36	-0.014	-0.4
75	11/27/2012 6:00	11/28/2012 0:00	18	0.055	0.25	0.75	0.020	1	1	0.010	3	3	0.62	0.02	0.084	0.085	0.001	0.7	2.86	2.86	-0.004	-0.1

Statistics comparing sim and obs peak I/I flow for all 75 events

Average error = -0.022 MGD

Standard error = 0.076 MGD

Stats for 61 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than

one standard error identified by \* in above table.

Average error = -0.003 MGD

Standard error = 0.032 MGD

**W068-05-S0078 Monoshone Interceptor**

Pipe Size: 30" dia.

Tributary Drainage Area: 691 acres

Tributary Service Population: 11,780

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	11/9/2000 19:45	11/11/2000 1:15	29.5	0.029	0.75	0.75	0.014	3	2	0.020	5	3	0.58	0.12	0.062	0.063	0.001	2.4	3.43	3.37	-0.053	-1.5
2	11/14/2000 8:00	11/15/2000 3:30	19.5	0.050	0.75	0.75	0.012	3	2.5	0.020	5	3	0.28	0.03	0.083	0.082	-0.001	-0.7	2.64	2.56	-0.077	-2.9
3	11/25/2000 23:45	11/27/2000 4:30	28.75	0.031	0.75	0.75	0.015	3	2	0.024	5	3	1.29	0.07	0.070	0.070	0	0.0	4.55	4.61	0.06	1.3
4	1/15/2001 0:30	1/16/2001 0:00	23.5	0.022	0.75	0.75	0.010	3	2	0.041	5	3	0.28	0.05	0.073	0.073	0	-0.7	1.45	1.44	-0.006	-0.4
5	1/19/2001 3:15	1/21/2001 10:00	54.75	0.044	0.75	0.75	0.013	3	2	0.020	5	3	1.29	0.04	0.077	0.077	0	0.2	3.02	2.95	-0.065	-2.1
6	1/30/2001 6:00	1/31/2001 4:45	22.75	0.025	0.75	0.75	0.007	3	2	0.012	5	3	0.79	0.08	0.042	0.044	0.002	4.0	3.03	3.04	0.01	0.3
7	2/5/2001 5:00	2/6/2001 5:45	24.75	0.028	0.75	0.75	0.010	3	2	0.017	5	3	0.72	0.04	0.054	0.055	0.001	2.7	2.33	2.33	0.004	0.2
8	2/6/2001 6:45	2/7/2001 7:45	25	0.009	0.75	0.75	0.009	3	2	0.031	5	3	0.53	0.06	0.047	0.048	0.001	2.0	1.33	1.30	-0.031	-2.3
9	2/16/2001 13:15	2/17/2001 6:00	16.75	0.045	0.75	0.75	0.010	3	2	0.000	0	0	0.50	0.03	0.055	0.055	0	0.4	2.12	1.79	-0.327	-15.4
10	2/25/2001 9:15	2/26/2001 5:00	19.75	0.032	0.75	0.75	0.015	3	2	0.042	5	3	0.22	0.05	0.090	0.089	-0.001	-1.5	1.74	1.67	-0.063	-3.6
11	3/4/2001 10:15	3/4/2001 21:30	11.25	0.051	0.75	0.75	0.010	3	2	0.000	0	0	0.11	0.01	0.061	0.061	0	-0.2	1.17	0.85	-0.321	-27.4
12	3/6/2001 12:30	3/6/2001 23:30	11	0.012	0.75	0.75	0.008	3	2	0.000	0	0	0.24	0.02	0.020	0.020	0	1.2	0.61	0.48	-0.138	-22.6
13	3/7/2001 9:30	3/8/2001 0:15	14.75	0.022	0.75	0.75	0.010	3	2	0.015	5	3	0.21	0.03	0.049	0.047	-0.002	-5.0	1.09	1.08	-0.009	-0.9
14	3/9/2001 4:00	3/9/2001 7:45	3.75	0.047	0.5	0.75	0.000	0	0	0.000	0	0	0.09	0.02	0.045	0.047	0.0019	4.3	1.45	1.38	-0.072	-5.0
15	3/12/2001 22:45	3/13/2001 11:45	13	0.034	0.75	0.75	0.013	3	2	0.000	0	0	0.64	0.06	0.045	0.047	0.002	3.7	3.12	3.19	0.066	2.1
16	3/15/2001 18:45	3/16/2001 4:45	10	0.019	0.75	0.75	0.007	3	2	0.000	0	0	0.43	0.11	0.026	0.026	0	-0.2	2.89	2.86	-0.025	-0.9
17	3/16/2001 15:00	3/17/2001 10:45	19.75	0.027	0.75	0.75	0.026	3	2	0.000	0	0	0.41	0.11	0.053	0.053	0	0.5	2.12	2.11	-0.012	-0.6
18	3/21/2001 10:15	3/23/2001 8:00	45.75	0.044	0.75	0.75	0.005	3	2	0.039	5	7	0.80	0.07	0.085	0.088	0.002	2.4	4.20	4.17	-0.031	-0.7
19	4/6/2001 11:00	4/6/2001 20:00	9	0.047	0.75	0.75	0.041	3	2	0.000	0	0	0.14	0.04	0.088	0.088	0	0.5	2.15	2.21	0.054	2.5
20	4/9/2001 20:30	4/10/2001 7:30	11	0.046	0.5	0.75	0.020	3	2.5	0.000	0	0	0.21	0.15	0.067	0.066	-0.001	-1.8	8.03	8.02	-0.006	-0.1
21	4/11/2001 11:45	4/12/2001 6:45	19	0.043	0.5	0.75	0.013	3	2	0.000	0	0	0.36	0.02	0.054	0.056	0.002	4.2	1.70	1.70	0	0.0
22	4/15/2001 20:30	4/16/2001 7:45	11.25	0.051	0.5	0.75	0.000	0	0	0.000	0	0	0.35	0.02	0.053	0.051	-0.002	-4.4	2.00	1.93	-0.073	-3.6

Statistics comparing sim and obs peak I/I flow for all 22 events

Average error = -0.052 MGD

Standard error = 0.114 MGD

Stats for 19 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.018 MGD

Standard error = 0.050 MGD



PR-0060 Pauls Run Interceptor

Pipe Size: 48" dia.

Tributary Drainage Area: 3,271 acres

Tributary Service Population: 40,961

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	12/6/2011 16:45	12/6/2011 20:30	3.75	0.032	0.75	1.5	0.000	0	0	0.000	0	0	0.10	0.03	0.033	0.032	-0.0008	-2.4	2.07	2.15	0.082	4.0
2	12/7/2011 3:30	12/8/2011 16:45	37.25	0.028	0.75	1.25	0.006	2.5	2	0.008	4	4	2.52	0.21	0.043	0.042	-0.001	-2.1	12.46	12.53	0.07	0.6
<del>3</del>	<del>12/20/2011 13:30</del>	<del>12/20/2011 22:15</del>	<del>8.75</del>	<del>0.015</del>	<del>0.75</del>	<del>1.25</del>	<del>0.015</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.13</del>	<del>0.01</del>	<del>0.030</del>	<del>0.030</del>	<del>0</del>	<del>0.0</del>	<del>1.41</del>	<del>0.89</del>	<del>-0.522</del>	<del>-37.1</del>
4	12/21/2011 22:30	12/22/2011 4:30	6	0.019	0.75	1.25	0.014	2.5	2	0.000	0	0	0.16	0.15	0.033	0.033	0.0003	0.9	3.45	3.31	-0.134	-3.9
5	12/22/2011 21:45	12/23/2011 21:15	23.5	0.027	0.75	1.25	0.005	2.5	2	0.009	4	4	1.36	0.14	0.041	0.041	0	-0.3	12.30	12.37	0.065	0.5
6	12/27/2011 13:30	12/28/2011 12:30	23	0.022	0.75	1.25	0.005	2.5	2	0.011	4	4	0.63	0.13	0.039	0.038	-0.001	-3.6	4.43	4.49	0.057	1.3
7	1/11/2012 20:00	1/12/2012 21:30	25.5	0.030	0.75	1.25	0.004	2.5	2	0.006	4	4	1.66	0.14	0.039	0.040	0.001	2.4	13.29	13.06	-0.224	-1.7
8	1/17/2012 10:15	1/18/2012 4:00	17.75	0.028	0.75	1.25	0.010	2.5	2	0.010	4	4	0.27	0.03	0.044	0.048	0.004	8.0	3.44	3.40	-0.043	-1.3
<del>9</del>	<del>1/21/2012 2:30</del>	<del>1/21/2012 11:15</del>	<del>8.75</del>	<del>0.001</del>	<del>0.75</del>	<del>1.25</del>	<del>0.001</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.31</del>	<del>0.03</del>	<del>0.003</del>	<del>0.002</del>	<del>0</del>	<del>-14.9</del>	<del>0.74</del>	<del>0.11</del>	<del>-0.629</del>	<del>-84.9</del>
<del>10</del>	<del>1/23/2012 8:45</del>	<del>1/24/2012 10:00</del>	<del>25.25</del>	<del>0.030</del>	<del>0.75</del>	<del>1.25</del>	<del>0.018</del>	<del>2.5</del>	<del>2</del>	<del>0.060</del>	<del>4</del>	<del>4</del>	<del>0.29</del>	<del>0.04</del>	<del>0.116</del>	<del>0.108</del>	<del>-0.008</del>	<del>-6.7</del>	<del>4.59</del>	<del>4.60</del>	<del>0.003</del>	<del>0.1</del>
11	1/27/2012 6:30	1/27/2012 19:00	12.5	0.031	0.75	1.25	0.009	2.5	2.5	0.000	0	0	0.42	0.10	0.039	0.040	0.001	3.7	6.63	6.53	-0.101	-1.5
12	2/11/2012 4:30	2/12/2012 3:00	22.5	0.009	0.75	1.25	0.022	2.5	2	0.036	4	4	0.23	0.03	0.067	0.067	0	-0.5	1.53	1.57	0.034	2.2
<del>13</del>	<del>2/16/2012 14:30</del>	<del>2/17/2012 3:30</del>	<del>13</del>	<del>0.037</del>	<del>0.75</del>	<del>1.25</del>	<del>0.020</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.14</del>	<del>0.02</del>	<del>0.036</del>	<del>0.057</del>	<del>0.021</del>	<del>57.9</del>	<del>2.36</del>	<del>2.24</del>	<del>-0.126</del>	<del>-5.3</del>
14	2/24/2012 2:45	2/24/2012 13:30	10.75	0.029	0.75	1.25	0.008	2.5	2	0.000	0	0	0.22	0.04	0.036	0.037	0.001	2.3	3.54	3.42	-0.125	-3.5
<del>15</del>	<del>2/24/2012 17:00</del>	<del>2/24/2012 21:00</del>	<del>4</del>	<del>0.040</del>	<del>0.75</del>	<del>1.25</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.10</del>	<del>0.03</del>	<del>0.040</del>	<del>0.040</del>	<del>0</del>	<del>0.0</del>	<del>2.22</del>	<del>1.85</del>	<del>-0.371</del>	<del>-16.7</del>
16	2/29/2012 10:15	3/1/2012 8:30	22.25	0.029	0.75	1.25	0.010	2.5	2	0.000	0	0	0.97	0.09	0.037	0.039	0.002	4.4	5.31	5.32	0.017	0.3
17	3/2/2012 21:30	3/3/2012 18:15	20.75	0.030	0.75	1.25	0.016	2.5	2	0.025	4	4	0.33	0.04	0.070	0.071	0.001	2.0	3.10	3.06	-0.042	-1.3
18	3/31/2012 0:45	3/31/2012 10:15	9.5	0.024	0.75	1.25	0.012	2.5	2	0.000	0	0	0.36	0.06	0.036	0.036	0	-1.1	4.30	4.33	0.035	0.8
19	4/21/2012 21:30	4/22/2012 3:30	6	0.014	0.75	1.25	0.006	2.5	2	0.000	0	0	0.22	0.20	0.020	0.020	0	1.9	3.35	3.35	0	0.0
20	4/22/2012 10:00	4/23/2012 19:15	33.25	0.020	0.75	1.25	0.007	2.5	2	0.009	4	4	2.05	0.11	0.036	0.036	-0.001	-2.3	9.40	9.33	-0.065	-0.7
21	5/1/2012 4:15	5/1/2012 16:15	12	0.015	0.75	1.25	0.021	2.5	2	0.000	0	0	0.29	0.10	0.034	0.036	0.002	4.6	2.75	2.73	-0.022	-0.8
22	5/3/2012 2:30	5/3/2012 11:30	9	0.019	0.75	1.25	0.026	2.5	2	0.000	0	0	0.12	0.04	0.044	0.045	0.001	2.3	2.12	2.07	-0.051	-2.4
23	5/4/2012 21:45	5/5/2012 5:45	8	0.041	0.75	1.25	0.015	2.5	2	0.000	0	0	0.06	0.02	0.055	0.056	0.001	1.8	1.89	1.80	-0.09	-4.8
24	5/9/2012 4:00	5/9/2012 13:30	9.5	0.027	0.75	1.25	0.017	2.5	2	0.000	0	0	0.27	0.07	0.045	0.044	-0.001	-2.9	5.36	5.12	-0.249	-4.6
25	5/9/2012 22:15	5/10/2012 10:00	11.75	0.048	0.75	1.25	0.019	2.5	2	0.000	0	0	0.18	0.02	0.067	0.067	0	0.4	2.46	2.39	-0.078	-3.2
26	5/14/2012 20:15	5/15/2012 1:00	4.75	0.039	0.75	1.25	0.000	0	0	0.000	0	0	0.12	0.02	0.038	0.039	0.001	2.6	1.85	1.78	-0.07	-3.8
27	5/15/2012 8:45	5/15/2012 17:30	8.75	0.024	0.75	1.25	0.007	2.5	2	0.000	0	0	0.83	0.11	0.029	0.031	0.001	4.8	8.41	8.04	-0.366	-4.4
28	5/16/2012 0:30	5/16/2012 18:45	18.25	0.023	0.75	1.25	0.004	2.5	2	0.007	4	4	1.54	0.26	0.035	0.034	-0.001	-2.9	16.73	16.66	-0.062	-0.4
29	5/21/2012 1:45	5/21/2012 13:15	11.5	0.024	0.75	1.25	0.014	2.5	2	0.000	0	0	0.22	0.07	0.040	0.038	-0.002	-5.5	4.38	4.29	-0.091	-2.1
30	5/22/2012 2:00	5/22/2012 13:15	11.25	0.052	0.75	1.25	0.032	2.5	2	0.000	0	0	0.19	0.02	0.081	0.084	0.003	4.3	3.57	3.52	-0.045	-1.3
31	5/27/2012 4:45	5/27/2012 13:30	8.75	0.029	0.75	1.25	0.004	2.5	2	0.000	0	0	0.42	0.14	0.034	0.033	-0.001	-2.3	10.21	9.96	-0.252	-2.5
32	5/29/2012 20:00	5/30/2012 4:45	8.75	0.021	0.75	1.25	0.017	2.5	2	0.000	0	0	0.24	0.10	0.038	0.038	0	-0.8	3.56	3.55	-0.01	-0.3
33	6/1/2012 20:15	6/2/2012 8:00	11.75	0.025	0.75	1.25	0.006	2.5	2	0.000	0	0	0.38	0.10	0.030	0.031	0.001	4.8	4.16	4.09	-0.07	-1.7
34	6/3/2012 14:00	6/4/2012 1:30	11.5	0.021	0.75	1.25	0.015	2.5	2	0.000	0	0	0.41	0.28	0.038	0.036	-0.002	-4.9	7.72	7.69	-0.026	-0.3
35	6/4/2012 12:45	6/4/2012 20:30	7.75	0.020	0.75	1.25	0.010	2.5	2	0.000	0	0	0.19	0.17	0.029	0.030	0.001	2.7	4.06	3.99	-0.07	-1.7
36	6/12/2012 9:45	6/13/2012 14:00	28.25	0.025	0.75	1.25	0.011	2.5	2	0.013	4	4	0.68	0.06	0.048	0.049	0.001	1.3	4.33	4.37	0.048	1.1
37	6/22/2012 18:30	6/23/2012 5:30	11	0.037	0.75	1.25	0.014	2.5	2	0.000	0	0	0.19	0.04	0.050	0.051	0.001	1.4	4.37	4.23	-0.142	-3.2
38	6/29/2012 5:30	6/29/2012 12:45	7.25	0.013	0.75	1.25	0.023	2.5	2	0.000	0	0	0.10	0.09	0.036	0.036	-0.0003	-0.8	1.55	1.49	-0.059	-3.8
<del>39</del>	<del>7/5/2012 0:30</del>	<del>7/5/2012 10:30</del>	<del>10</del>	<del>0.029</del>	<del>0.75</del>	<del>1.25</del>	<del>0.010</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.18</del>	<del>0.08</del>	<del>0.039</del>	<del>0.039</del>	<del>0</del>	<del>0.8</del>	<del>3.70</del>	<del>3.02</del>	<del>-0.681</del>	<del>-18.4</del>
<del>40</del>	<del>7/14/2012 4:00</del>	<del>7/14/2012 11:30</del>	<del>7.5</del>	<del>0.026</del>	<del>0.75</del>	<del>1.25</del>	<del>0.010</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.24</del>	<del>0.05</del>	<del>0.035</del>	<del>0.036</del>	<del>0.001</del>	<del>1.8</del>	<del>3.89</del>	<del>3.47</del>	<del>-0.426</del>	<del>-11.0</del>
41	7/15/2012 21:15	7/16/2012 5:15	8	0.018	0.75	1.25	0.005	2.5	2	0.000	0	0	1.07	0.44	0.024	0.023	-0.001	-4.8	15.01	15.18	0.17	1.1
42	7/20/2012 1:15	7/20/2012 16:45	15.5	0.024	0.75	1.5	0.010	2.5	2	0.000	0	0	1.35	0.31	0.032	0.033	0.0015	4.8	14.21	14.03	-0.189	-1.3
43	7/26/2012 19:30	7/27/2012 4:45	9.25	0.016	0.75	1.25	0.013	2.5	2	0.000	0	0	0.46	0.22	0.029	0.029	0	1.3	5.25	5.11	-0.137	-2.6
44	7/28/2012 12:45	7/28/2012 18:30	5.75	0.020	0.75	1.25	0.007	2.5	2	0.000	0	0	0.49	0.22	0.027	0.027	0	-0.7	7.89	7.79	-0.106	-1.3
45	8/1/2012 16:15	8/2/2012 0:00	7.75	0.013	0.75	1.25	0.007	2.5	2	0.000	0	0	1.32	0.49	0.021	0.020	-0.001	-5.0	15.01	15.24	0.228	1.5
46	8/4/2012 13:45	8/4/2012 21:00	7.25	0.017	0.75	1.25	0.005	2.5	2	0.000	0	0	0.60	0.46	0.022	0.022	0	-0.9	10.47	10.49	0.025	0.2
47	8/5/2012 18:15	8/6/2012 8:30	14.25	0.019	0.75	1.25	0.016	2.5	2	0.000	0	0	0.82	0.22	0.035	0.035	0	-0.6	5.79	5.71	-0.084	-1.4
48	8/10/2012 10:15	8/10/2012 19:15	9	0.034	0.75	1.25	0.013	2.5	2	0.000	0	0	0.28	0.06	0.045	0.047	0.002	4.9	5.28	5.07	-0.219	-4.1
49	8/11/2012 17:15	8/12/2012 3:00	9.75	0.022	0.75	1.25	0.005	2.5	2	0.000	0	0	0.31	0.12	0.026	0.027	0.001	3.2	4.73	4.61	-0.122	-2.6

\*

\*

PR-0060 Pauls Run Interceptor

Pipe Size: 48" dia.

Tributary Drainage Area: 3,271 acres

Tributary Service Population: 40,961

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
50	8/14/2012 9:45	8/15/2012 0:00	14.25	0.024	0.75	1.25	0.014	2.5	2	0.000	0	0	0.45	0.09	0.038	0.038	0	-0.7	6.70	6.58	-0.12	-1.8
<del>51</del>	<del>8/15/2012 16:15</del>	<del>8/16/2012 1:00</del>	<del>8.75</del>	<del>0.034</del>	<del>0.75</del>	<del>1.25</del>	<del>0.010</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.14</del>	<del>0.07</del>	<del>0.038</del>	<del>0.044</del>	<del>0.006</del>	<del>16.9</del>	<del>3.63</del>	<del>3.63</del>	<del>0.001</del>	<del>0.0</del>
52	8/17/2012 22:00	8/18/2012 12:30	14.5	0.026	0.75	1.25	0.013	2.5	2	0.000	0	0	0.76	0.13	0.038	0.039	0.001	3.5	9.02	8.95	-0.068	-0.7
53	8/27/2012 9:30	8/28/2012 0:15	14.75	0.020	0.75	1.25	0.006	2.5	2	0.000	0	0	1.12	0.38	0.027	0.026	-0.001	-4.3	14.29	14.05	-0.245	-1.7
54	8/28/2012 5:30	8/28/2012 13:00	7.5	0.034	0.75	1.25	0.020	2.5	2	0.000	0	0	0.15	0.05	0.052	0.054	0.0017	3.3	3.25	3.15	-0.099	-3.0
55	9/2/2012 22:00	9/3/2012 6:00	8	0.012	0.75	1.25	0.007	2.5	2	0.000	0	0	0.29	0.07	0.018	0.019	0.001	4.4	2.32	2.28	-0.04	-1.7
56	9/3/2012 10:00	9/3/2012 21:00	11	0.023	0.75	1.25	0.012	2.5	2	0.000	0	0	1.21	0.25	0.036	0.035	-0.001	-2.7	14.94	14.79	-0.152	-1.0
57	9/4/2012 3:45	9/5/2012 12:30	32.75	0.018	0.75	1.25	0.012	2.5	2	0.012	4	4	3.00	0.61	0.043	0.042	-0.002	-3.6	18.63	18.31	-0.32	-1.7
58	9/18/2012 4:00	9/18/2012 12:15	8.25	0.018	0.75	1.25	0.010	2.5	2	0.000	0	0	0.23	0.10	0.028	0.028	-1E-04	-0.4	3.20	3.16	-0.039	-1.2
59	9/18/2012 17:00	9/19/2012 2:45	9.75	0.020	0.75	1.25	0.007	2.5	2	0.000	0	0	0.79	0.29	0.027	0.027	0	-0.9	8.75	8.70	-0.054	-0.6
60	9/22/2012 19:45	9/23/2012 4:30	8.75	0.022	0.75	1.25	0.020	2.5	2	0.000	0	0	0.17	0.06	0.041	0.042	0.001	1.9	2.66	2.62	-0.031	-1.2
61	9/28/2012 1:00	9/28/2012 14:00	13	0.016	0.75	1.25	0.016	2.5	2	0.000	0	0	0.16	0.10	0.032	0.032	-0.0002	-0.6	2.41	2.45	0.039	1.6
<del>62</del>	<del>10/2/2012 11:00</del>	<del>10/2/2012 19:45</del>	<del>8.75</del>	<del>0.021</del>	<del>0.75</del>	<del>1.25</del>	<del>0.008</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.15</del>	<del>0.04</del>	<del>0.028</del>	<del>0.029</del>	<del>0.001</del>	<del>4.6</del>	<del>2.04</del>	<del>1.49</del>	<del>-0.545</del>	<del>-26.8</del>
<del>63</del>	<del>10/7/2012 10:45</del>	<del>10/8/2012 2:15</del>	<del>15.5</del>	<del>0.025</del>	<del>0.75</del>	<del>1.25</del>	<del>0.005</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.21</del>	<del>0.03</del>	<del>0.029</del>	<del>0.030</del>	<del>0.001</del>	<del>3.5</del>	<del>2.06</del>	<del>1.39</del>	<del>-0.679</del>	<del>-32.9</del>
<del>64</del>	<del>10/9/2012 4:45</del>	<del>10/9/2012 9:00</del>	<del>4.25</del>	<del>0.022</del>	<del>0.75</del>	<del>1.25</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.14</del>	<del>0.04</del>	<del>0.025</del>	<del>0.022</del>	<del>-0.003</del>	<del>-12.7</del>	<del>2.04</del>	<del>1.33</del>	<del>-0.713</del>	<del>-35.0</del>
65	10/15/2012 13:15	10/16/2012 0:15	11	0.030	0.75	1.25	0.007	2.5	2	0.000	0	0	0.19	0.07	0.036	0.037	0.001	3.1	2.89	2.76	-0.132	-4.6
66	10/19/2012 9:30	10/19/2012 18:00	8.5	0.020	0.75	1.25	0.003	2.5	2	0.000	0	0	0.92	0.21	0.022	0.023	0.001	3.6	11.38	10.97	-0.409	-3.6
67	10/28/2012 15:45	10/29/2012 0:00	8.25	0.040	0.75	1.25	0.010	2.5	2	0.000	0	0	0.14	0.03	0.048	0.051	0.003	6.2	2.96	2.80	-0.156	-5.3
68	10/29/2012 6:00	10/30/2012 11:00	29	0.031	0.75	1.25	0.005	2.5	2	0.006	4	4	2.20	0.12	0.040	0.042	0.002	4.1	12.43	11.94	-0.495	-4.0
69	11/7/2012 11:15	11/8/2012 14:45	27.5	0.026	0.75	1.25	0.009	2.5	2	0.018	4	4	0.53	0.03	0.053	0.053	0	0.9	2.55	2.40	-0.153	-6.0
70	11/13/2012 3:00	11/13/2012 18:45	15.75	0.023	0.75	1.25	0.025	2.5	2	0.000	0	0	0.23	0.04	0.047	0.048	0.001	2.1	1.74	1.70	-0.038	-2.2
<del>71</del>	<del>11/27/2012 6:15</del>	<del>11/27/2012 22:00</del>	<del>15.75</del>	<del>0.032</del>	<del>0.75</del>	<del>1.25</del>	<del>0.015</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.64</del>	<del>0.02</del>	<del>0.043</del>	<del>0.047</del>	<del>0.004</del>	<del>10.3</del>	<del>3.94</del>	<del>3.87</del>	<del>-0.069</del>	<del>-1.7</del>

Statistics comparing sim and obs peak I/I flow for all 71 events

Average error = -0.146 MGD

Standard error = 0.251 MGD

Stats for 55 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.055 MGD

Standard error = 0.112 MGD

PR-0150 Pauls Run Interceptor

Pipe Size: 27" dia.

Tributary Drainage Area: 1,069 acres

Tributary Service Population: 19,728

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	10/27/2011 5:45	10/28/2011 3:15	21.5	0.031	0.75	1.25	0.015	2.5	2.5	0.000	0	0	0.34	0.05	0.045	0.046	0.001	3.0	3.00	2.96	-0.035	-1.2
2	10/29/2011 6:15	10/30/2011 23:30	41.25	0.007	0.75	1.25	0.018	2.5	2.5	0.032	4	6	1.43	0.07	0.059	0.056	-0.002	-3.8	3.66	3.71	0.046	1.3
3	11/16/2011 1:00	11/17/2011 7:45	30.75	0.025	0.75	1.25	0.029	2.5	2.5	0.000	0	0	0.62	0.08	0.054	0.054	0	-0.7	2.82	2.88	0.065	2.3
4	11/21/2011 1:15	11/21/2011 12:00	10.75	0.042	0.75	1.25	0.030	2.5	2.5	0.000	0	0	0.13	0.02	0.053	0.072	0.019	36.9	1.87	1.81	-0.064	-3.4
5	11/22/2011 5:30	11/24/2011 6:30	49	0.031	0.75	1.25	0.008	2.5	2.5	0.012	4	6	2.35	0.15	0.051	0.051	0	-0.8	8.06	8.11	0.049	0.6
6	11/29/2011 6:00	11/30/2011 4:15	22.25	0.034	0.75	1.25	0.010	2.5	2.5	0.000	0	0	0.72	0.07	0.042	0.044	0.002	3.8	4.13	4.13	0.001	0.0
7	12/6/2011 10:45	12/7/2011 1:45	15	0.035	0.75	1.25	0.018	2.5	2.5	0.000	0	0	0.15	0.03	0.044	0.053	0.009	19.4	2.25	2.09	-0.159	-7.1
8	12/7/2011 3:45	12/8/2011 23:15	43.5	0.036	0.75	1.25	0.008	2.5	2.5	0.008	4	6	2.51	0.20	0.052	0.052	0	-0.7	11.58	11.46	-0.118	-1.0
9	12/20/2011 13:00	12/21/2011 0:15	11.25	0.020	0.75	1.25	0.020	2.5	2.5	0.000	0	0	0.13	0.01	0.022	0.040	0.018	83.7	0.91	0.86	-0.049	-5.4
10	12/21/2011 22:30	12/22/2011 6:45	8.25	0.027	0.75	1.25	0.008	2.5	2.5	0.000	0	0	0.16	0.15	0.027	0.035	0.008	30.3	3.60	3.55	-0.052	-1.5
11	12/22/2011 21:30	12/24/2011 2:30	29	0.024	0.75	1.25	0.004	2.5	2.5	0.006	4	6	1.36	0.14	0.035	0.034	-0.001	-2.3	8.17	8.07	-0.092	-1.1
12	12/27/2011 13:45	12/28/2011 3:45	14	0.035	0.75	1.25	0.015	2.5	2.5	0.000	0	0	0.60	0.13	0.049	0.050	0.001	2.1	5.16	5.09	-0.067	-1.3
13	1/11/2012 20:00	1/13/2012 9:30	37.5	0.037	0.75	1.25	0.007	2.5	2.5	0.010	4	6	1.72	0.14	0.054	0.054	0	-0.6	12.34	12.28	-0.065	-0.5
14	1/17/2012 10:00	1/17/2012 22:30	12.5	0.047	0.75	1.25	0.018	2.5	2.5	0.000	0	0	0.26	0.03	0.055	0.065	0.01	18.5	4.21	4.19	-0.021	-0.5
15	1/23/2012 10:00	1/24/2012 3:15	17.25	0.065	0.75	1.25	0.070	2.5	3.5	0.000	0	0	0.29	0.04	0.171	0.135	-0.036	-20.9	6.60	6.68	0.083	1.3
16	1/27/2012 5:30	1/27/2012 20:30	15	0.060	0.75	1.25	0.018	2.5	2.5	0.000	0	0	0.44	0.11	0.062	0.078	0.016	26.0	9.86	9.76	-0.103	-1.0
17	2/11/2012 4:45	2/12/2012 3:30	22.75	0.026	0.75	1.25	0.044	2.5	2.5	0.000	0	0	0.22	0.03	0.068	0.070	0.002	2.4	2.04	2.07	0.033	1.6
18	2/16/2012 14:30	2/17/2012 4:30	14	0.042	0.75	1.25	0.021	2.5	2.5	0.000	0	0	0.14	0.02	0.060	0.063	0.0028	4.7	1.92	1.87	-0.049	-2.6
19	2/24/2012 2:45	2/24/2012 14:15	11.5	0.029	0.75	1.25	0.011	2.5	2.5	0.000	0	0	0.22	0.04	0.039	0.040	0.001	1.7	2.63	2.56	-0.068	-2.6
20	2/24/2012 16:45	2/25/2012 0:45	8	0.044	0.75	1.25	0.012	2.5	2	0.000	0	0	0.10	0.03	0.052	0.056	0.004	7.1	1.76	1.67	-0.085	-4.9
21	2/29/2012 10:00	3/1/2012 8:30	22.5	0.041	0.75	1.25	0.010	2.5	2.5	0.000	0	0	0.97	0.09	0.049	0.051	0.002	3.5	5.84	5.19	-0.653	-11.2
22	3/2/2012 21:00	3/3/2012 17:45	20.75	0.034	0.75	1.25	0.016	2.5	2.5	0.000	0	0	0.34	0.04	0.049	0.050	0.001	2.5	2.38	2.35	-0.03	-1.2
23	3/31/2012 0:45	3/31/2012 11:00	10.25	0.031	0.75	1.25	0.007	2.5	2.5	0.000	0	0	0.36	0.06	0.032	0.038	0.006	20.5	3.90	3.91	0.006	0.1
24	4/1/2012 18:15	4/2/2012 9:45	15.5	0.043	0.75	1.25	0.020	2.5	2.5	0.000	0	0	0.16	0.04	0.053	0.063	0.01	19.8	2.65	2.68	0.024	0.9
25	4/21/2012 21:30	4/22/2012 4:45	7.25	0.014	0.75	1.25	0.005	2.5	2.5	0.000	0	0	0.22	0.20	0.018	0.019	0.001	3.6	2.54	2.48	-0.063	-2.5
26	4/22/2012 10:00	4/23/2012 23:30	37.5	0.029	0.75	1.25	0.006	2.5	2.5	0.009	4	6	2.05	0.11	0.044	0.044	0	0.3	9.51	9.43	-0.084	-0.9
27	5/1/2012 4:15	5/1/2012 17:15	13	0.020	0.75	1.25	0.010	2.5	2.5	0.000	0	0	0.30	0.11	0.029	0.030	0.0013	4.5	2.40	2.38	-0.021	-0.9
28	5/3/2012 2:15	5/3/2012 11:45	9.5	0.022	0.75	1.25	0.008	2.5	2.5	0.000	0	0	0.15	0.04	0.025	0.030	0.005	18.3	1.71	1.68	-0.032	-1.9
29	5/9/2012 3:00	5/9/2012 14:15	11.25	0.032	0.5	1.5	0.007	2.5	2.5	0.000	0	0	0.29	0.07	0.040	0.039	-0.001	-3.3	5.12	4.98	-0.138	-2.7
30	5/9/2012 22:00	5/10/2012 11:15	13.25	0.033	0.75	1.25	0.020	2.5	2.5	0.000	0	0	0.17	0.02	0.054	0.053	-0.001	-2.5	1.34	1.34	0.009	0.7
31	5/14/2012 20:00	5/15/2012 5:30	9.5	0.030	0.75	1.25	0.015	2.5	2.5	0.000	0	0	0.13	0.02	0.044	0.046	0.002	4.5	1.27	1.21	-0.058	-4.6
32	5/15/2012 8:45	5/15/2012 19:30	10.75	0.030	0.5	1.25	0.005	2.5	2.5	0.000	0	0	0.83	0.11	0.033	0.035	0.002	4.5	8.31	8.11	-0.199	-2.4
33	5/16/2012 1:00	5/17/2012 5:00	28	0.022	0.5	1.5	0.008	2.5	2.5	0.011	4	6	1.49	0.26	0.041	0.040	-0.001	-1.4	13.35	13.31	-0.044	-0.3
34	5/21/2012 1:30	5/21/2012 14:30	13	0.019	0.75	1.25	0.016	2.5	2.5	0.000	0	0	0.26	0.07	0.036	0.035	-0.001	-1.8	2.75	2.72	-0.033	-1.2
35	5/21/2012 21:00	5/22/2012 14:45	17.75	0.042	0.75	1.25	0.034	2.5	2.5	0.000	0	0	0.26	0.04	0.077	0.076	-0.001	-1.1	2.30	2.29	-0.01	-0.4
36	5/27/2012 5:30	5/27/2012 10:00	4.5	0.032	0.5	1.5	0.004	2.5	2.5	0.000	0	0	0.35	0.12	0.035	0.036	0.0013	3.7	9.13	8.85	-0.276	-3.0
37	5/29/2012 20:00	5/30/2012 6:00	10	0.026	0.75	1.25	0.010	2.5	2.5	0.000	0	0	0.24	0.11	0.037	0.036	-0.001	-1.4	3.34	3.30	-0.031	-0.9
38	6/1/2012 21:00	6/2/2012 9:30	12.5	0.025	0.75	1.25	0.005	2.5	2.5	0.000	0	0	0.38	0.11	0.029	0.030	0.001	4.7	3.42	3.08	-0.338	-9.9
39	6/3/2012 14:00	6/4/2012 0:15	10.25	0.019	0.5	1.25	0.010	2.5	2.5	0.000	0	0	0.44	0.31	0.029	0.029	0	-0.6	8.16	8.06	-0.108	-1.3
40	6/4/2012 13:15	6/4/2012 22:00	8.75	0.023	0.75	1.25	0.010	2.5	2.5	0.000	0	0	0.19	0.17	0.033	0.033	-0.001	-2.2	3.35	3.28	-0.067	-2.0
41	6/12/2012 11:15	6/13/2012 12:15	25	0.034	0.75	1.25	0.006	2.5	2.5	0.009	4	4	0.63	0.06	0.047	0.049	0.002	4.1	4.59	3.95	-0.646	-14.1
42	6/22/2012 18:45	6/23/2012 6:15	11.5	0.051	0.75	1.25	0.007	2.5	2.5	0.000	0	0	0.19	0.04	0.055	0.058	0.003	4.9	4.09	4.11	0.025	0.6
43	6/29/2012 5:30	6/29/2012 11:00	5.5	0.009	0.75	1.25	0.008	2.5	2	0.000	0	0	0.10	0.09	0.017	0.017	-0.0002	-1.2	0.75	0.73	-0.023	-3.1

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PR-0150 Pauls Run Interceptor

Pipe Size: 27" dia.

Tributary Drainage Area: 1,069 acres

Tributary Service Population: 19,728

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
44	7/5/2012 0:30	7/5/2012 5:45	5.25	0.025	0.75	1.25	0.009	2.5	2.5	0.000	0	0	0.19	0.09	0.025	0.034	0.0091	36.5	2.14	2.05	-0.09	-4.2
<del>45</del>	<del>7/14/2012 3:45</del>	<del>7/14/2012 8:45</del>	<del>5</del>	<del>0.030</del>	<del>0.75</del>	<del>1.25</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.23</del>	<del>0.05</del>	<del>0.028</del>	<del>0.030</del>	<del>0.001</del>	<del>5.0</del>	<del>3.19</del>	<del>2.87</del>	<del>-0.322</del>	<del>-10.1</del>
46	7/15/2012 21:30	7/16/2012 5:45	8.25	0.022	0.75	1.25	0.003	2.5	2.5	0.000	0	0	1.08	0.45	0.027	0.025	-0.0013	-4.9	13.58	13.88	0.307	2.3
47	7/20/2012 1:15	7/20/2012 17:30	16.25	0.020	0.5	1.25	0.013	2.5	2.5	0.000	0	0	1.36	0.33	0.033	0.033	0	-0.4	13.32	13.36	0.04	0.3
48	7/26/2012 19:30	7/27/2012 7:00	11.5	0.023	0.75	1.25	0.009	2.5	2.5	0.000	0	0	0.46	0.22	0.032	0.032	0	0.6	5.46	5.38	-0.079	-1.5
49	7/28/2012 12:45	7/28/2012 19:30	6.75	0.022	0.5	1.5	0.004	2.5	2.5	0.000	0	0	0.49	0.22	0.025	0.025	0.001	2.1	7.86	7.91	0.056	0.7
50	8/1/2012 16:30	8/2/2012 1:30	9	0.017	0.75	1.25	0.003	2.5	2.5	0.000	0	0	1.12	0.41	0.021	0.020	-0.001	-4.9	12.30	12.21	-0.086	-0.7
51	8/4/2012 13:30	8/4/2012 16:45	3.25	0.021	0.75	1.25	0.003	2.5	2.5	0.000	0	0	0.62	0.45	0.024	0.024	0	1.4	10.01	9.90	-0.107	-1.1
52	8/5/2012 18:30	8/6/2012 10:15	15.75	0.028	0.75	1.25	0.010	2.5	2.5	0.000	0	0	0.80	0.21	0.038	0.038	0	-0.8	6.25	6.03	-0.217	-3.5
<del>53</del>	<del>8/10/2012 10:30</del>	<del>8/10/2012 19:30</del>	<del>9</del>	<del>0.038</del>	<del>0.5</del>	<del>1.25</del>	<del>0.013</del>	<del>2.5</del>	<del>2.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.28</del>	<del>0.06</del>	<del>0.039</del>	<del>0.051</del>	<del>0.012</del>	<del>30.4</del>	<del>4.81</del>	<del>4.71</del>	<del>-0.096</del>	<del>-2.0</del>
<del>54</del>	<del>8/11/2012 17:00</del>	<del>8/12/2012 1:15</del>	<del>8.25</del>	<del>0.028</del>	<del>0.75</del>	<del>1.25</del>	<del>0.005</del>	<del>2.5</del>	<del>2.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.30</del>	<del>0.12</del>	<del>0.028</del>	<del>0.033</del>	<del>0.0048</del>	<del>17.0</del>	<del>4.24</del>	<del>4.10</del>	<del>-0.144</del>	<del>-3.4</del>
55	8/14/2012 10:15	8/15/2012 0:30	14.25	0.031	0.75	1.25	0.010	2.5	2.5	0.000	0	0	0.44	0.09	0.040	0.041	0.001	2.1	6.26	6.11	-0.144	-2.3
<del>56</del>	<del>8/15/2012 16:30</del>	<del>8/16/2012 1:00</del>	<del>8.5</del>	<del>0.037</del>	<del>0.75</del>	<del>1.25</del>	<del>0.025</del>	<del>2.5</del>	<del>2.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.14</del>	<del>0.06</del>	<del>0.045</del>	<del>0.062</del>	<del>0.017</del>	<del>38.1</del>	<del>3.04</del>	<del>3.00</del>	<del>-0.032</del>	<del>-1.0</del>
57	8/17/2012 22:00	8/18/2012 12:00	14	0.032	0.5	1.25	0.006	2.5	2.5	0.000	0	0	0.76	0.13	0.037	0.038	0.001	3.6	8.67	8.57	-0.1	-1.1
58	8/27/2012 9:15	8/27/2012 14:00	4.75	0.023	0.75	1.25	0.003	2.5	2.5	0.000	0	0	0.75	0.38	0.025	0.026	0.001	4.2	11.81	11.94	0.131	1.1
59	8/27/2012 17:00	8/28/2012 1:15	8.25	0.015	0.5	1.25	0.006	2.5	2.5	0.000	0	0	0.36	0.26	0.021	0.021	0	-1.4	6.19	6.10	-0.084	-1.4
60	9/2/2012 22:15	9/3/2012 6:30	8.25	0.012	0.75	1.25	0.004	2.5	2.5	0.000	0	0	0.32	0.08	0.016	0.016	0	-0.3	1.98	1.89	-0.099	-5.0
61	9/3/2012 10:00	9/3/2012 21:15	11.25	0.030	0.75	1.25	0.006	2.5	2.5	0.000	0	0	1.19	0.26	0.038	0.036	-0.002	-6.0	13.71	13.76	0.056	0.4
62	9/4/2012 3:45	9/5/2012 2:00	22.25	0.030	0.75	3	0.012	2.5	2.5	0.000	0	0	2.88	0.58	0.044	0.042	-0.0022	-5.0	12.86	12.97	0.116	0.9
63	9/8/2012 16:45	9/9/2012 3:45	11	0.022	0.5	1.25	0.014	2.5	2.5	0.000	0	0	0.27	0.08	0.035	0.036	0.001	2.2	2.27	2.22	-0.054	-2.4
64	9/18/2012 4:15	9/18/2012 12:00	7.75	0.022	0.75	1.25	0.009	2.5	2.5	0.000	0	0	0.23	0.10	0.031	0.031	0	0.4	2.80	2.81	0.009	0.3
65	9/18/2012 17:00	9/19/2012 4:45	11.75	0.019	0.5	1.25	0.010	2.5	2.5	0.000	0	0	0.80	0.30	0.028	0.028	0	1.4	8.88	8.75	-0.13	-1.5
66	9/28/2012 1:30	9/28/2012 14:30	13	0.016	0.75	1.25	0.027	2.5	2.5	0.000	0	0	0.16	0.10	0.042	0.043	0.001	1.8	1.88	1.86	-0.021	-1.1
67	10/2/2012 11:00	10/2/2012 21:00	10	0.017	0.75	1.25	0.016	2.5	2.5	0.000	0	0	0.15	0.04	0.032	0.033	0.001	3.2	1.03	1.06	0.029	2.9
68	10/7/2012 10:45	10/8/2012 5:15	18.5	0.034	0.75	1.25	0.008	2.5	2.5	0.000	0	0	0.20	0.02	0.040	0.042	0.002	5.0	1.41	1.39	-0.021	-1.5
69	10/9/2012 4:45	10/9/2012 14:30	9.75	0.028	0.75	1.25	0.006	2.5	2.5	0.000	0	0	0.14	0.04	0.034	0.034	-0.001	-1.7	1.35	1.29	-0.057	-4.2
70	10/15/2012 13:30	10/16/2012 1:00	11.5	0.024	0.75	1.25	0.023	2.5	2.5	0.000	0	0	0.18	0.06	0.047	0.047	0	0.2	1.78	1.85	0.067	3.8
71	10/19/2012 9:15	10/19/2012 19:00	9.75	0.018	0.5	1.25	0.006	2.5	2.5	0.000	0	0	0.93	0.22	0.025	0.024	-0.001	-4.3	9.26	9.22	-0.039	-0.4
72	10/28/2012 16:00	10/28/2012 20:30	4.5	0.033	0.75	1.25	0.000	0	0	0.000	0	0	0.11	0.03	0.032	0.033	0.0007	2.2	1.61	1.60	-0.014	-0.9
73	10/29/2012 6:15	10/30/2012 19:00	36.75	0.031	0.5	1.25	0.006	2.5	2.5	0.006	4	6	2.19	0.12	0.042	0.043	0.001	2.6	9.94	9.74	-0.202	-2.0
74	11/7/2012 11:45	11/8/2012 19:45	32	0.026	0.75	1.25	0.011	2.5	2.5	0.019	4	6	0.52	0.03	0.054	0.056	0.002	3.4	1.81	1.79	-0.018	-1.0
75	11/13/2012 2:30	11/14/2012 8:30	30	0.028	0.75	1.25	0.015	2.5	2.5	0.015	4	5	0.23	0.04	0.057	0.057	0	0.3	1.52	1.46	-0.067	-4.4
<del>76</del>	<del>11/27/2012 6:15</del>	<del>11/28/2012 13:30</del>	<del>31.25</del>	<del>0.037</del>	<del>0.75</del>	<del>1.25</del>	<del>0.007</del>	<del>2.5</del>	<del>2.5</del>	<del>0.010</del>	<del>4</del>	<del>6</del>	<del>0.64</del>	<del>0.02</del>	<del>0.044</del>	<del>0.054</del>	<del>0.01</del>	<del>22.0</del>	<del>2.89</del>	<del>2.94</del>	<del>0.043</del>	<del>1.5</del>

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Statistics comparing sim and obs peak I/I flow for all 76 events

Average error = -0.098 MGD

Standard error = 0.291 MGD

Stats for 71 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.047 MGD

Standard error = 0.100 MGD

PR-B0405 Paul's Run Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 441 acres

Tributary Service Population: 9,757

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	12/18/2012 1:00	12/18/2012 14:00	13	0.024	0.5	1.5	0.012	1.5	1.5	0.016	4	3	0.35	0.15	0.050	0.052	0.001	2.7	3.18	3.10	-0.08	-2.5
2	12/20/2012 21:15	12/22/2012 0:15	27	0.026	0.5	1	0.018	1.5	1.5	0.018	4	4	1.80	0.17	0.063	0.062	-0.001	-2.3	5.15	5.14	-0.007	-0.1
3	12/24/2012 17:00	12/25/2012 6:30	13.5	0.029	0.5	1	0.028	1.5	1.5	0.041	4	2	0.21	0.02	0.096	0.098	0.002	2.2	1.31	1.26	-0.051	-3.9
4	12/26/2012 13:30	12/27/2012 22:00	32.5	0.025	0.5	1	0.026	1.5	1.5	0.020	4	5.5	1.27	0.10	0.071	0.071	0	0.1	4.32	4.36	0.031	0.7
5	<del>12/29/2012 11:00</del>	<del>12/30/2012 1:00</del>	<del>14</del>	<del>0.023</del>	<del>0.5</del>	<del>1</del>	<del>0.023</del>	<del>1.5</del>	<del>1.5</del>	<del>0.024</del>	<del>4</del>	<del>2.5</del>	<del>0.22</del>	<del>0.02</del>	<del>0.071</del>	<del>0.070</del>	<del>-0.001</del>	<del>-0.7</del>	<del>1.06</del>	<del>0.85</del>	<del>-0.213</del>	<del>-20.0</del>
6	1/11/2013 13:30	1/12/2013 14:15	24.75	0.040	0.5	1	0.013	1.5	1.5	0.026	4	4	0.48	0.05	0.078	0.079	0.001	1.5	2.45	2.47	0.021	0.9
7	1/14/2013 20:45	1/15/2013 20:00	23.25	0.038	0.5	1	0.020	1.5	1.5	0.035	4	4	0.41	0.05	0.091	0.093	0.002	1.8	2.08	2.04	-0.04	-1.9
8	1/15/2013 21:45	1/17/2013 2:00	28.25	0.048	0.5	1	0.019	1.5	1.5	0.025	4	4	1.05	0.07	0.089	0.092	0.003	3.6	4.36	4.31	-0.047	-1.1
9	1/28/2013 12:45	1/28/2013 22:45	10	0.042	0.5	1	0.043	1.5	3	0.000	0	0	0.20	0.03	0.085	0.085	0	-0.5	1.61	1.59	-0.02	-1.2
10	1/30/2013 18:30	1/31/2013 23:30	29	0.023	0.5	1	0.016	1.5	1.5	0.018	4	4	1.22	0.30	0.057	0.057	0	0.0	5.87	5.87	0.005	0.1
11	2/8/2013 7:15	2/8/2013 17:15	10	0.036	0.5	1	0.036	1.5	2	0.000	0	0	0.23	0.02	0.069	0.072	0.003	4.8	1.01	0.98	-0.033	-3.3
12	<del>2/8/2013 20:15</del>	<del>2/9/2013 7:15</del>	<del>11</del>	<del>0.011</del>	<del>0.5</del>	<del>1</del>	<del>0.010</del>	<del>1.5</del>	<del>3</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.21</del>	<del>0.04</del>	<del>0.020</del>	<del>0.021</del>	<del>0.001</del>	<del>4.0</del>	<del>0.59</del>	<del>0.43</del>	<del>-0.165</del>	<del>-28.0</del>
13	2/11/2013 4:00	2/12/2013 1:30	21.5	0.028	0.5	1	0.025	1.5	2	0.055	4	4	0.35	0.04	0.108	0.108	0	0.0	1.80	1.75	-0.049	-2.7
14	2/13/2013 18:45	2/14/2013 14:00	19.25	0.036	0.5	1	0.036	1.5	2	0.078	4	3	0.15	0.01	0.150	0.150	0	0.1	0.87	0.88	0.013	1.5
15	<del>2/19/2013 11:30</del>	<del>2/20/2013 2:30</del>	<del>15</del>	<del>0.030</del>	<del>0.5</del>	<del>1</del>	<del>0.030</del>	<del>1.5</del>	<del>1.5</del>	<del>0.030</del>	<del>3</del>	<del>3</del>	<del>0.21</del>	<del>0.02</del>	<del>0.072</del>	<del>0.090</del>	<del>0.018</del>	<del>25.1</del>	<del>1.22</del>	<del>0.88</del>	<del>-0.343</del>	<del>-28.0</del>
16	2/26/2013 19:15	2/27/2013 22:30	27.25	0.026	0.5	1	0.020	1.5	1.5	0.030	4	4	0.69	0.08	0.075	0.076	0.001	0.7	2.29	2.28	-0.012	-0.5
17	3/8/2013 7:30	3/9/2013 2:45	19.25	0.029	0.5	1	0.021	1.5	1.5	0.047	4	3	0.24	0.02	0.093	0.097	0.004	3.8	1.03	1.00	-0.033	-3.2
18	3/12/2013 3:15	3/13/2013 9:15	30	0.021	0.5	1	0.020	1.5	1.5	0.029	4	4	1.01	0.08	0.072	0.070	-0.002	-2.3	2.77	2.80	0.029	1.0
19	3/18/2013 18:15	3/20/2013 3:00	32.75	0.025	0.5	1	0.024	1.5	1.5	0.031	4	4	0.87	0.07	0.080	0.080	0	0.1	2.07	2.06	-0.013	-0.6
20	3/25/2013 6:45	3/26/2013 8:45	26	0.021	0.5	1	0.016	1.5	1.5	0.053	4	4	0.61	0.05	0.086	0.090	0.004	4.2	1.74	1.73	-0.004	-0.3
21	3/31/2013 15:30	4/1/2013 0:30	9	0.032	0.5	1	0.031	1.5	2	0.000	0	0	0.19	0.03	0.061	0.063	0.002	3.4	1.27	1.25	-0.023	-1.8
22	4/10/2013 20:30	4/11/2013 14:15	17.75	0.014	0.5	1	0.010	1.5	1.5	0.020	4	3	0.41	0.18	0.043	0.044	0.0007	1.6	2.25	2.16	-0.086	-3.8
23	4/12/2013 7:15	4/13/2013 16:45	33.5	0.019	0.5	1	0.019	1.5	1.5	0.024	4	4	1.09	0.10	0.062	0.062	0	0.6	2.47	2.46	-0.011	-0.4
24	<del>4/19/2013 21:45</del>	<del>4/20/2013 7:30</del>	<del>9.75</del>	<del>0.027</del>	<del>0.5</del>	<del>1</del>	<del>0.025</del>	<del>1.5</del>	<del>2.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.47</del>	<del>0.06</del>	<del>0.049</del>	<del>0.052</del>	<del>0.003</del>	<del>5.1</del>	<del>2.20</del>	<del>1.90</del>	<del>-0.302</del>	<del>-13.7</del>
25	<del>4/29/2013 3:30</del>	<del>4/30/2013 0:30</del>	<del>21</del>	<del>0.033</del>	<del>0.5</del>	<del>1</del>	<del>0.033</del>	<del>1.5</del>	<del>1.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.40</del>	<del>0.02</del>	<del>0.064</del>	<del>0.066</del>	<del>0.002</del>	<del>3.3</del>	<del>1.24</del>	<del>0.83</del>	<del>-0.404</del>	<del>-32.7</del>
26	<del>5/8/2013 5:15</del>	<del>5/8/2013 18:00</del>	<del>12.75</del>	<del>0.030</del>	<del>0.5</del>	<del>1</del>	<del>0.028</del>	<del>1.5</del>	<del>1.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.30</del>	<del>0.06</del>	<del>0.057</del>	<del>0.058</del>	<del>0.001</del>	<del>1.4</del>	<del>1.92</del>	<del>1.66</del>	<del>-0.252</del>	<del>-13.2</del>
27	5/9/2013 4:00	5/10/2013 0:00	20	0.033	0.5	1	0.010	1.5	1.5	0.016	4	4	0.48	0.08	0.060	0.059	-0.001	-1.1	3.16	3.08	-0.082	-2.6
28	5/10/2013 22:45	5/11/2013 20:00	21.25	0.022	0.5	1	0.011	1.5	1.5	0.011	4	4	0.79	0.10	0.045	0.044	-0.001	-2.6	2.73	2.62	-0.109	-4.0
29	5/18/2013 16:00	5/19/2013 17:15	25.25	0.028	0.5	1	0.025	1.5	1.5	0.000	0	0	0.49	0.05	0.051	0.053	0.002	3.5	1.95	1.90	-0.052	-2.7
30	<del>5/23/2013 15:45</del>	<del>5/23/2013 22:00</del>	<del>6.25</del>	<del>0.020</del>	<del>0.5</del>	<del>1</del>	<del>0.014</del>	<del>1.5</del>	<del>2.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.27</del>	<del>0.11</del>	<del>0.033</del>	<del>0.034</del>	<del>0.001</del>	<del>4.6</del>	<del>2.35</del>	<del>2.01</del>	<del>-0.344</del>	<del>-14.6</del>
31	5/23/2013 23:45	5/24/2013 4:45	5	0.013	0.5	1	0.011	1.5	2	0.000	0	0	0.42	0.28	0.024	0.024	0	1.9	2.69	2.66	-0.037	-1.4
32	5/24/2013 10:30	5/25/2013 0:00	13.5	0.026	0.5	1	0.025	1.5	1.5	0.000	0	0	0.17	0.04	0.050	0.051	0.001	3.0	0.87	0.84	-0.037	-4.2
33	5/28/2013 10:45	5/29/2013 1:00	14.25	0.033	0.5	1	0.033	1.5	1.5	0.000	0	0	0.26	0.03	0.066	0.066	0	0.7	1.51	1.54	0.029	1.9
34	6/3/2013 1:00	6/4/2013 11:15	34.25	0.015	0.5	1	0.005	1.5	1.5	0.027	4	6	1.33	0.63	0.049	0.047	-0.002	-3.4	6.94	6.82	-0.119	-1.7
35	6/6/2013 19:45	6/10/2013 1:30	77.75	0.018	0.5	1	0.018	1.5	1.5	0.034	4	12	3.81	0.34	0.069	0.069	0	-0.4	6.91	6.78	-0.128	-1.8
36	6/10/2013 7:15	6/13/2013 3:30	68.25	0.021	0.5	1	0.021	1.5	1.5	0.056	4	14	1.93	0.40	0.096	0.098	0.002	2.0	6.87	6.78	-0.083	-1.2
37	6/13/2013 9:15	6/14/2013 18:15	33	0.020	0.5	1	0.012	1.5	1.5	0.068	4	5	0.50	0.21	0.099	0.100	0.001	1.3	3.44	3.37	-0.069	-2.0
38	6/18/2013 12:45	6/19/2013 18:00	29.25	0.047	0.5	1	0.015	1.5	1.5	0.064	4	6	0.28	0.03	0.123	0.126	0.003	2.2	1.57	1.55	-0.019	-1.2
39	<del>6/25/2013 16:00</del>	<del>6/25/2013 19:30</del>	<del>3.5</del>	<del>0.041</del>	<del>0.5</del>	<del>1</del>	<del>0.008</del>	<del>1.5</del>	<del>1.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.07</del>	<del>0.07</del>	<del>0.095</del>	<del>0.049</del>	<del>-0.046</del>	<del>-48.2</del>	<del>3.03</del>	<del>1.68</del>	<del>-1.351</del>	<del>-44.6</del>
40	6/26/2013 20:30	6/27/2013 0:30	4	0.036	0.5	1	0.006	1.5	1.5	0.000	0	0	0.13	0.08	0.041	0.042	0.0007	1.7	2.20	2.17	-0.033	-1.5
41	6/27/2013 18:30	6/28/2013 0:30	6	0.023	0.5	1	0.005	1.5	1.5	0.000	0	0	0.91	0.22	0.028	0.028	0	1.6	4.81	4.77	-0.036	-0.7
42	<del>6/30/2013 12:45</del>	<del>6/30/2013 19:00</del>	<del>6.25</del>	<del>0.019</del>	<del>0.5</del>	<del>1</del>	<del>0.019</del>	<del>1.5</del>	<del>1.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.21</del>	<del>0.04</del>	<del>0.037</del>	<del>0.038</del>	<del>0.001</del>	<del>4.1</del>	<del>1.15</del>	<del>0.95</del>	<del>-0.196</del>	<del>-17.1</del>

PR-B0405 Paul's Run Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 441 acres

Tributary Service Population: 9,757

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
43	7/1/2013 7:45	7/2/2013 5:30	21.75	0.032	0.5	1	0.020	1.5	1.5	0.041	4	4	0.34	0.10	0.089	0.093	0.004	4.1	2.86	2.79	-0.075	-2.6
44	7/3/2013 22:00	7/4/2013 3:00	5	0.018	0.5	1	0.014	1.5	1.5	0.000	0	0	0.29	0.21	0.031	0.032	0.0008	2.6	2.70	2.60	-0.098	-3.6
45	7/10/2013 12:45	7/10/2013 17:15	4.5	0.018	0.5	1	0.021	1.5	2	0.000	0	0	0.14	0.09	0.037	0.039	0.002	4.6	1.29	1.28	-0.014	-1.1
46	7/12/2013 15:45	7/13/2013 2:00	10.25	0.026	0.5	1	0.015	1.5	2	0.000	0	0	0.87	0.15	0.040	0.041	0.001	3.1	4.30	4.34	0.038	0.9
47	7/13/2013 18:00	7/13/2013 23:15	5.25	0.024	0.5	1	0.021	1.5	1.5	0.000	0	0	0.20	0.11	0.043	0.045	0.002	3.8	2.05	2.00	-0.045	-2.2
48	7/22/2013 18:45	7/24/2013 19:00	48.25	0.018	0.5	1	0.015	1.5	1.5	0.032	4	6	1.19	0.44	0.065	0.065	0	-0.2	6.33	6.24	-0.093	-1.5
49	7/28/2013 15:30	7/29/2013 5:00	13.5	0.018	0.5	1	0.018	1.5	1.5	0.000	0	0	0.35	0.08	0.036	0.036	0	-0.6	1.65	1.14	-0.507	-30.8
50	8/1/2013 6:30	8/2/2013 22:30	40	0.030	0.5	1	0.016	1.5	1.5	0.024	4	8	0.97	0.11	0.068	0.070	0.002	3.5	3.97	3.91	-0.062	-1.6
51	8/8/2013 0:15	8/8/2013 21:15	21	0.034	0.5	1	0.010	1.5	1.5	0.020	4	4	0.56	0.15	0.063	0.064	0.001	1.4	4.43	4.42	-0.011	-0.3
52	8/9/2013 15:45	8/10/2013 12:45	21	0.047	0.5	1	0.021	1.5	1.5	0.032	4	4	0.29	0.09	0.098	0.100	0.002	2.4	3.41	3.33	-0.082	-2.4
53	8/13/2013 5:00	8/14/2013 19:15	38.25	0.008	0.5	1	0.022	1.5	2	0.024	4	8	2.20	0.68	0.054	0.054	0	0.7	7.85	7.68	-0.167	-2.1
54	8/22/2013 6:15	8/22/2013 10:45	4.5	0.027	0.33	1	0.017	1.5	1.5	0.000	0	0	0.42	0.24	0.044	0.044	0	1.1	6.67	6.47	-0.206	-3.1
55	8/22/2013 12:30	8/22/2013 17:00	4.5	0.056	0.33	1	0.010	1.5	1.5	0.000	0	0	0.12	0.05	0.066	0.066	0	0.5	2.33	1.98	-0.346	-14.9
56	8/28/2013 9:45	8/29/2013 6:45	21	0.035	0.5	1	0.043	1.5	1.5	0.040	4	4	0.47	0.07	0.119	0.118	-0.001	-1.0	3.82	3.84	0.019	0.5
57	9/12/2013 11:00	9/13/2013 1:30	14.5	0.055	0.5	1	0.130	1.5	1.5	0.080	3	2	0.17	0.09	0.264	0.265	0.001	0.4	4.08	4.16	0.077	1.9
58	9/13/2013 1:45	9/13/2013 6:45	5	0.031	0.5	1	0.015	1.5	1.5	0.000	0	0	0.28	0.11	0.045	0.046	0.001	2.1	3.74	3.62	-0.115	-3.1
59	9/21/2013 20:15	9/23/2013 5:00	32.75	0.029	0.5	1	0.031	1.5	1.5	0.031	4	7	1.26	0.26	0.088	0.091	0.003	3.6	7.97	7.97	0.001	0.0

Statistics comparing sim and obs peak I/I flow for all 49 events

Average error = -0.104 MGD

Standard error = 0.273 MGD

Stats for 42 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.062 MGD

Standard error = 0.099 MGD



PR-B0455 Paul's Run Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 391 acres

Tributary Service Population: 9,369

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	8/14/1999 0:15	8/14/1999 12:15	12	0.018	0.25	2.5	0.008	1.75	4	0.000	0	0	1.92	0.36	0.038	0.026	-0.012	-31.6	6.23	6.29	0.066	1.1
2	8/14/1999 17:45	8/15/1999 7:15	13.5	0.024	0.25	1.25	0.017	1.75	3	0.000	0	0	0.54	0.11	0.039	0.041	0.002	4.6	2.75	2.75	-0.002	-0.1
3	8/20/1999 13:15	8/21/1999 8:45	19.5	0.028	0.25	1.25	0.015	1.75	3	0.000	0	0	0.64	0.10	0.043	0.043	0	0.1	2.97	3.00	0.035	1.2
4	8/25/1999 23:15	8/26/1999 11:30	12.25	0.029	0.25	1	0.005	1.75	3	0.000	0	0	1.17	0.16	0.034	0.034	0	0.5	4.97	4.89	-0.08	-1.6
5	8/26/1999 22:15	8/27/1999 8:00	9.75	0.016	0.25	1.25	0.018	1.75	3.5	0.000	0	0	0.44	0.08	0.034	0.034	0	-0.6	1.16	1.17	0.002	0.2
6	9/7/1999 4:15	9/7/1999 22:45	18.5	0.034	0.25	1.25	0.025	1.75	3.5	0.000	0	0	0.68	0.11	0.057	0.059	0.002	4.0	4.33	4.30	-0.033	-0.8
7	9/9/1999 13:30	9/10/1999 16:00	26.5	0.012	0.25	1.25	0.021	1.75	3.5	0.000	0	0	1.27	0.18	0.033	0.033	0	-1.0	2.43	2.40	-0.036	-1.5
8	9/15/1999 15:45	9/18/1999 2:30	58.75	0.013	0.25	1.25	0.022	1.75	3	0.017	4	8	6.43	0.28	0.053	0.052	-0.001	-2.4	6.65	6.70	0.042	0.6
9	9/21/1999 1:00	9/22/1999 13:30	36.5	0.021	0.25	1.25	0.045	1.75	3.5	0.000	0	0	0.89	0.06	0.067	0.066	-0.001	-1.5	2.21	2.17	-0.04	-1.8
10	9/30/1999 2:30	9/30/1999 14:15	11.75	0.018	0.25	1.25	0.017	1.75	3.5	0.000	0	0	0.60	0.15	0.036	0.035	-0.001	-1.9	2.70	2.69	-0.008	-0.3
11	10/4/1999 7:30	10/4/1999 17:00	9.5	0.009	0.25	1.25	0.024	1.75	3.5	0.000	0	0	0.36	0.17	0.035	0.033	-0.002	-5.1	1.62	1.59	-0.024	-1.5
12	10/4/1999 18:15	10/5/1999 7:15	13	0.037	0.25	1.25	0.010	1.75	3	0.000	0	0	0.69	0.08	0.046	0.047	0.001	1.4	3.22	3.23	0.005	0.2
13	10/10/1999 1:15	10/10/1999 21:30	20.25	0.039	0.25	1.25	0.021	1.75	3.5	0.000	0	0	0.70	0.05	0.058	0.060	0.002	2.8	2.46	2.37	-0.089	-3.6
14	10/17/1999 17:15	10/18/1999 6:15	13	0.052	0.25	1.25	0.020	1.75	3.5	0.000	0	0	0.18	0.02	0.072	0.072	0	0.3	1.24	0.91	-0.327	-26.3
15	10/20/1999 3:00	10/20/1999 22:45	19.75	0.032	0.25	1.25	0.024	1.75	4	0.000	0	0	0.70	0.05	0.054	0.056	0.002	4.1	1.75	1.74	-0.003	-0.2
16	10/22/1999 19:45	10/23/1999 9:45	14	0.025	0.25	1.25	0.024	1.75	3	0.000	0	0	0.42	0.05	0.050	0.049	-0.001	-1.7	1.35	1.30	-0.048	-3.6
17	11/2/1999 9:15	11/3/1999 1:45	16.5	0.022	0.25	1.25	0.017	1.75	3	0.000	0	0	0.96	0.13	0.037	0.039	0.002	4.4	2.96	2.92	-0.04	-1.3
18	11/25/1999 6:45	11/26/1999 4:15	21.5	0.019	0.25	1.25	0.041	1.75	3	0.041	4	4	0.31	0.05	0.103	0.101	-0.002	-1.8	1.55	1.51	-0.033	-2.1
19	11/26/1999 8:15	11/28/1999 0:00	39.75	0.014	0.25	1.25	0.026	1.75	3	0.026	4	4	0.83	0.10	0.069	0.066	-0.003	-4.5	1.35	1.38	0.028	2.1
20	12/6/1999 3:15	12/7/1999 9:45	30.5	0.023	0.25	1.25	0.027	1.75	3	0.027	4	4	0.71	0.07	0.078	0.077	-0.001	-1.0	2.27	2.17	-0.092	-4.1
21	12/10/1999 12:45	12/10/1999 22:30	9.75	0.026	0.25	1.25	0.021	1.75	3.5	0.000	0	0	0.32	0.06	0.047	0.047	0	0.3	1.71	1.67	-0.034	-2.0
22	12/13/1999 12:45	12/15/1999 13:30	48.75	0.027	0.25	1.25	0.021	1.75	4	0.022	4	4	1.60	0.07	0.070	0.070	0	-0.3	2.46	2.47	0.004	0.2
23	12/20/1999 7:45	12/21/1999 14:15	30.5	0.034	0.25	1.25	0.027	1.75	4	0.027	4	4	0.64	0.08	0.084	0.088	0.0036	4.3	3.50	3.35	-0.146	-4.2
24	1/4/2000 16:15	1/5/2000 15:45	23.5	0.022	0.25	1.25	0.013	1.75	3.5	0.013	4	4	0.84	0.11	0.047	0.048	0.001	2.7	2.59	2.52	-0.07	-2.7
25	1/10/2000 10:45	1/11/2000 9:00	22.25	0.034	0.25	1.25	0.023	1.75	3.5	0.023	4	4	0.40	0.06	0.079	0.080	0.001	1.2	1.87	1.85	-0.017	-0.9
26	1/30/2000 21:00	2/1/2000 3:30	30.5	0.016	0.25	1.25	0.038	1.75	3.5	0.038	4	4	0.59	0.07	0.090	0.092	0.002	1.7	1.66	1.69	0.033	2.0
27	2/13/2000 21:15	2/15/2000 4:45	31.5	0.017	0.25	1.25	0.040	1.75	3	0.057	4	4	0.55	0.07	0.114	0.114	0	-0.3	2.34	2.29	-0.041	-1.8
28	2/18/2000 13:45	2/20/2000 7:15	41.5	0.025	0.25	1.25	0.030	1.75	3	0.045	4	4	1.19	0.07	0.099	0.100	0.001	0.8	3.05	2.99	-0.066	-2.2
29	3/11/2000 12:15	3/12/2000 23:15	35	0.018	0.25	1.25	0.024	1.75	3	0.024	4	4	0.96	0.15	0.065	0.066	0.001	1.7	2.65	2.59	-0.06	-2.3
30	3/16/2000 19:15	3/18/2000 1:15	30	0.026	0.25	1.25	0.020	1.75	3.5	0.020	4	4	1.39	0.09	0.064	0.066	0.002	3.2	3.39	3.34	-0.048	-1.4
31	3/21/2000 15:45	3/22/2000 23:00	31.25	0.020	0.25	1.25	0.023	1.75	1.25	0.025	4	4	1.66	0.08	0.068	0.068	0	-0.7	2.97	2.99	0.017	0.6
32	3/27/2000 22:00	3/28/2000 23:15	25.25	0.044	0.25	1.25	0.018	1.75	3	0.018	4	4	0.67	0.07	0.080	0.080	0	-0.2	3.83	3.76	-0.065	-1.7
33	4/8/2000 21:30	4/10/2000 4:00	30.5	0.016	0.25	1.25	0.040	1.75	3	0.040	4	3	0.49	0.08	0.095	0.096	0	0.1	1.42	1.42	-0.002	-0.1
34	4/15/2000 8:30	4/16/2000 15:45	31.25	0.049	0.25	1.25	0.039	1.75	3	0.000	0	0	0.40	0.02	0.088	0.088	0	-0.1	1.19	1.16	-0.035	-3.0
35	4/16/2000 17:30	4/18/2000 9:15	39.75	0.028	0.25	1.25	0.041	1.75	3	0.000	0	0	1.06	0.18	0.069	0.069	0	-0.6	4.82	4.84	0.016	0.3
36	4/21/2000 10:45	4/22/2000 7:30	20.75	0.013	0.25	1.25	0.045	1.75	3	0.000	0	0	0.59	0.14	0.058	0.058	0	0.5	2.32	2.27	-0.049	-2.1

Statistics comparing sim and obs peak I/I flow for all 36 events

Average error = -0.042 MGD

Standard error = 0.121 MGD

Stats for 34 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than

one standard error identified by \* in above table.

Average error = -0.018 MGD

Standard error = 0.047 MGD

PP-B1035 Pennypack Creek Interceptor

Pipe Size: 15" dia.

Tributary Drainage Area: 392 acres

Tributary Service Population: 4,469

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3/12/2013 3:00	3/13/2013 16:15	37.25	0.006	0.5	1	0.005	1.5	2	0.009	4	6	1.06	0.09	0.020	0.019	-0.001	-2.8	0.63	0.64	0.007	1.2
2	3/16/2013 11:00	3/16/2013 20:00	9	0.013	0.5	1	0.020	1.5	2	0.000	0	0	0.14	0.02	0.033	0.033	0	-0.6	0.35	0.35	0.001	0.1
3	3/18/2013 18:15	3/20/2013 4:00	33.75	0.005	0.5	1	0.005	1.5	2	0.010	4	4	0.88	0.06	0.019	0.019	-0.001	-4.2	0.40	0.39	-0.011	-2.7
4	3/25/2013 6:45	3/26/2013 10:30	27.75	0.004	0.5	1	0.004	1.5	2	0.019	4	5	0.56	0.04	0.026	0.027	0.001	2.0	0.38	0.38	-0.006	-1.5
5	3/31/2013 15:30	3/31/2013 23:15	7.75	0.004	0.5	1	0.008	1.5	2	0.000	0	0	0.16	0.03	0.012	0.012	0	-4.0	0.13	0.13	-0.004	-3.3
6	4/10/2013 20:15	4/11/2013 10:00	13.75	0.003	0.5	1	0.002	1.5	2	0.002	4	2	0.58	0.20	0.006	0.007	0.0003	4.8	0.46	0.46	-0.01	-2.1
7	4/12/2013 7:45	4/12/2013 18:00	10.25	0.003	0.5	1	0.005	1.5	2	0.000	0	0	0.71	0.09	0.008	0.008	0	3.4	0.37	0.36	-0.014	-3.7
8	4/12/2013 21:45	4/13/2013 18:00	20.25	0.008	0.5	1	0.005	1.5	2	0.010	4	4	0.27	0.05	0.022	0.022	0	2.2	0.43	0.43	-0.002	-0.6
9	4/19/2013 21:45	4/20/2013 11:00	13.25	0.005	0.5	1	0.004	1.5	2	0.006	4	2	0.49	0.05	0.015	0.015	0	2.9	0.34	0.34	-0.002	-0.7
10	4/29/2013 3:30	4/29/2013 8:30	5	0.008	0.5	1	0.000	0	0	0.000	0	0	0.14	0.02	0.009	0.008	-0.001	-7.9	0.19	0.13	-0.066	-34.7
11	4/29/2013 9:00	4/29/2013 21:30	12.5	0.009	0.5	1	0.003	1.5	2	0.003	4	2	0.27	0.02	0.014	0.014	0	0.7	0.22	0.22	-0.003	-1.6
12	5/7/2013 21:45	5/8/2013 5:00	7.25	0.002	0.5	1	0.008	1.5	2	0.000	0	0	0.14	0.04	0.010	0.010	0	-4.4	0.11	0.11	0.005	5.2
13	5/8/2013 5:15	5/8/2013 10:45	5.5	0.003	0.5	1	0.000	0	0	0.000	0	0	0.28	0.06	0.003	0.003	0	-6.4	0.27	0.12	-0.146	-55.1
14	5/8/2013 17:45	5/8/2013 22:30	4.75	0.004	0.5	1	0.001	1.5	2	0.000	0	0	0.15	0.06	0.006	0.006	0.0001	1.8	0.19	0.18	-0.008	-4.3
15	5/9/2013 3:30	5/9/2013 11:15	7.75	0.005	0.5	1	0.003	1.5	2.5	0.000	0	0	0.58	0.09	0.008	0.008	0	1.0	0.43	0.43	-0.002	-0.5
16	5/10/2013 22:45	5/11/2013 9:15	10.5	0.004	0.5	1	0.005	1.5	2.5	0.000	0	0	0.69	0.10	0.008	0.008	0.0002	2.6	0.40	0.41	0.008	2.0
17	5/18/2013 21:45	5/19/2013 4:15	6.5	0.004	0.5	1	0.006	1.5	2	0.000	0	0	0.20	0.05	0.009	0.010	0	1.0	0.20	0.20	0.002	1.2
18	5/19/2013 5:45	5/19/2013 23:30	17.75	0.021	0.5	1	0.014	1.5	2	0.018	4	2	0.12	0.01	0.052	0.053	0.001	1.1	0.24	0.23	0	-0.1
19	5/23/2013 16:00	5/23/2013 22:15	6.25	0.004	0.5	1	0.015	1.5	2.5	0.000	0	0	0.13	0.10	0.019	0.019	-0.0002	-1.0	0.28	0.27	-0.013	-4.7
20	5/23/2013 23:45	5/24/2013 4:30	4.75	0.003	0.5	1	0.002	1.5	2	0.000	0	0	0.54	0.39	0.006	0.005	0	-2.4	0.78	0.78	-0.004	-0.5
21	5/24/2013 10:30	5/24/2013 19:00	8.5	0.005	0.5	1	0.014	1.5	2	0.000	0	0	0.13	0.04	0.019	0.019	0.001	3.0	0.20	0.20	-0.006	-3.0
22	5/28/2013 10:45	5/29/2013 4:30	17.75	0.005	0.5	1	0.006	1.5	2	0.011	4	3	0.25	0.03	0.022	0.022	0	2.1	0.23	0.22	-0.002	-1.0
23	6/3/2013 0:45	6/3/2013 13:45	13	0.003	0.5	1	0.002	1.5	2	0.002	4	2	1.33	0.50	0.006	0.006	0.0003	5.0	1.05	1.05	-0.003	-0.3
24	6/3/2013 14:30	6/4/2013 10:15	19.75	0.005	0.5	1	0.003	1.5	2	0.017	4	4	0.34	0.20	0.024	0.025	0.0006	2.5	0.78	0.77	-0.01	-1.3
25	6/6/2013 19:30	6/10/2013 0:00	76.5	0.004	0.5	1	0.005	1.5	2	0.020	4	14	3.95	0.23	0.030	0.029	-0.001	-1.9	1.39	1.41	0.014	1.0
26	6/10/2013 7:00	6/12/2013 23:15	64.25	0.006	0.5	1	0.005	1.5	2	0.031	4	12	1.94	0.30	0.042	0.041	-0.001	-3.5	1.40	1.39	-0.013	-0.9
27	6/13/2013 9:15	6/14/2013 5:30	20.25	0.004	0.5	1	0.002	1.5	2	0.009	4	4	0.54	0.19	0.014	0.015	0.0002	1.4	0.61	0.61	0.003	0.5
28	6/18/2013 12:45	6/19/2013 11:15	22.5	0.004	0.5	1	0.011	1.5	2	0.008	4	4	0.31	0.04	0.023	0.023	0	-1.6	0.29	0.29	0.007	2.4
29	6/23/2013 15:45	6/24/2013 3:45	12	0.004	0.5	1	0.007	1.5	2	0.015	4	2	0.14	0.07	0.025	0.026	0.001	3.7	0.24	0.23	-0.01	-4.3
30	6/25/2013 15:45	6/26/2013 1:00	9.25	0.007	0.5	1	0.004	1.5	2	0.008	4	2	0.17	0.07	0.019	0.019	0.0005	2.7	0.37	0.37	0	0.0
31	6/26/2013 20:45	6/27/2013 0:00	3.25	0.003	0.5	1	0.004	1.5	2	0.000	0	0	0.29	0.23	0.006	0.007	0	2.6	0.46	0.46	-0.005	-1.1
32	6/27/2013 18:15	6/28/2013 7:30	13.25	0.005	0.5	1	0.002	1.5	2	0.003	4	2	1.00	0.30	0.009	0.009	0	-0.4	1.13	1.12	-0.013	-1.2
33	6/30/2013 12:45	6/30/2013 17:45	5	0.006	0.5	1	0.002	1.5	1.5	0.000	0	0	0.20	0.02	0.008	0.008	0	1.3	0.24	0.15	-0.087	-36.9
34	7/1/2013 8:30	7/2/2013 1:30	17	0.003	0.5	1	0.003	1.5	2	0.007	4	3	0.47	0.30	0.012	0.012	0	3.6	0.45	0.46	0.009	2.1
35	7/3/2013 22:15	7/4/2013 3:15	5	0.005	0.5	1	0.004	1.5	2	0.000	0	0	0.23	0.13	0.008	0.008	0	1.8	0.44	0.43	-0.007	-1.6
36	7/9/2013 16:30	7/10/2013 4:30	12	0.004	0.5	1	0.008	1.5	2	0.010	4	2	0.20	0.16	0.021	0.022	0.001	2.7	0.43	0.42	-0.014	-3.2
37	7/10/2013 12:30	7/10/2013 23:45	11.25	0.003	0.5	1	0.006	1.5	2	0.014	4	2	0.27	0.26	0.022	0.023	0.001	2.6	0.49	0.49	0.002	0.3
38	7/12/2013 15:30	7/13/2013 9:30	18	0.005	0.4	1	0.002	1.5	2	0.002	4	3	0.86	0.17	0.009	0.009	-0.0004	-4.3	0.72	0.70	-0.017	-2.3
39	7/13/2013 16:15	7/14/2013 6:30	14.25	0.004	0.5	1	0.002	1.5	2	0.003	4	2.5	0.45	0.28	0.009	0.009	0	0.2	0.67	0.67	0.003	0.4
40	7/22/2013 18:45	7/23/2013 0:00	5.25	0.008	0.5	1	0.007	1.5	2	0.000	0	0	0.29	0.13	0.015	0.015	0	3.4	0.75	0.73	-0.013	-1.8
41	7/23/2013 1:15	7/23/2013 22:00	20.75	0.005	0.5	1	0.003	1.5	2	0.013	4	4	0.81	0.29	0.020	0.021	0.0009	4.5	1.10	1.10	0	0.0
42	7/28/2013 15:30	7/29/2013 10:00	18.5	0.005	0.5	1	0.004	1.5	2	0.005	4	2	0.33	0.09	0.013	0.014	0	2.5	0.29	0.28	-0.005	-1.8
43	8/1/2013 6:30	8/2/2013 5:45	23.25	0.006	0.5	1	0.004	1.5	2	0.004	4	3	0.90	0.12	0.013	0.013	0	3.1	0.66	0.65	-0.011	-1.7
44	8/8/2013 0:30	8/8/2013 18:45	18.25	0.004	0.5	1	0.001	1.5	2	0.003	4	3	0.73	0.23	0.007	0.007	0	-1.4	0.68	0.67	-0.014	-2.1

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PP-B1035 Pennypack Creek Interceptor

Pipe Size: 15" dia.

Tributary Drainage Area: 392 acres

Tributary Service Population: 4,469

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
45	8/9/2013 17:00	8/9/2013 20:45	3.75	0.003	0.5	1	0.003	1.5	2	0.000	0	0	0.14	0.11	0.005	0.005	0	-7.1	0.21	0.16	-0.043	-20.9
46	8/13/2013 5:15	8/16/2013 6:00	72.75	0.004	0.5	1	0.003	1.5	2	0.017	4	17	2.24	0.76	0.023	0.024	0	1.1	2.36	2.34	-0.02	-0.8
47	8/22/2013 6:15	8/22/2013 7:15	1	0.001	0.5	1	0.000	0	0	0.000	0	0	0.12	0.12	-0.002	0.001	0.003	0.0	0.21	0.06	-0.147	-70.6
48	8/22/2013 12:30	8/22/2013 18:45	6.25	0.003	0.5	1	0.003	1.5	2	0.000	0	0	0.36	0.24	0.006	0.006	0	2.7	0.51	0.50	-0.007	-1.3
49	8/28/2013 11:30	8/29/2013 6:15	18.75	0.005	0.5	1	0.003	1.5	2	0.003	4	3	0.57	0.14	0.011	0.011	0	1.8	0.65	0.65	0	0.0
50	9/2/2013 10:30	9/5/2013 0:30	62	0.003	0.5	1	0.004	1.5	2	0.016	4	15	1.28	0.78	0.022	0.023	0.0007	3.2	1.47	1.45	-0.023	-1.6
51	9/12/2013 18:45	9/12/2013 22:30	3.75	0.003	0.5	1	0.003	1.5	2	0.000	0	0	0.16	0.09	0.006	0.006	0	-5.0	0.26	0.22	-0.042	-16.2
52	9/13/2013 1:30	9/13/2013 11:00	9.5	0.003	0.5	1	0.003	1.5	2	0.003	4	2	0.31	0.12	0.009	0.009	0	-1.2	0.36	0.35	-0.01	-2.7
53	9/21/2013 20:15	9/23/2013 23:00	50.75	0.003	0.5	1	0.003	1.5	2	0.009	4	12	1.25	0.34	0.014	0.014	0	1.9	0.83	0.83	-0.005	-0.6

Statistics comparing sim and obs peak I/I flow for all 53 events

Average error = -0.015 MGD

Standard error = 0.036 MGD

Stats for 46 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.005 MGD

Standard error = 0.012 MGD

**PP-B1080 Pennypack Interceptor**

Pipe Size: 24" dia.

Tributary Drainage Area: 2,549 acres

Tributary Service Population: 11,596

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2/11/2012 4:45	2/12/2012 10:15	29.5	0.005	0.75	1.5	0.010	3	2.5	0.011	5	4	0.20	0.03	0.025	0.025	0.001	3.4	0.97	0.95	-0.019	-2.0
2	2/16/2012 14:15	2/17/2012 4:00	13.75	0.009	0.75	1.5	0.003	3	2.5	0.000	0	0	0.15	0.02	0.012	0.012	0	4.2	0.94	0.93	-0.007	-0.7
3	2/24/2012 2:30	2/24/2012 16:00	13.5	0.007	0.75	1.5	0.004	3	2.5	0.000	0	0	0.21	0.03	0.011	0.011	0	2.1	1.44	1.40	-0.042	-2.9
4	2/24/2012 17:00	2/25/2012 5:00	12	0.010	0.75	1	0.006	3	2.5	0.000	0	0	0.09	0.02	0.014	0.015	0.0007	4.9	0.98	0.94	-0.035	-3.6
5	2/29/2012 9:45	3/1/2012 9:45	24	0.003	0.75	2	0.008	3	2.5	0.003	5	4	0.96	0.08	0.015	0.015	-0.0002	-1.4	2.19	2.22	0.031	1.4
6	3/2/2012 20:30	3/3/2012 19:30	23	0.006	0.75	1.5	0.010	3	2.5	0.004	5	4	0.34	0.04	0.018	0.017	-0.001	-3.6	1.27	1.27	0.001	0.1

\*

Statistics comparing sim and obs peak I/I flow for all 6 events

Average error = -0.055 MGD

Standard error = 0.092 MGD

Stats for 5 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.032 MGD

Standard error = 0.058 MGD

Site PC-0010 Poquessing Creek Interceptor (2009)

Pipe Size: 60" dia.

Tributary Drainage Area: 10,349 acres

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	8/10/2008 16:15	8/11/2008 0:00	7.75	0.003	1.5	1.5	0.000	0	0	0.000	0	0	0.35	0.07	0.002	0.003	0.001	38.5	1.77	1.84	0.068	3.9
2	8/30/2008 1:15	8/30/2008 14:00	12.75	0.003	1.5	1.5	0.005	3	2.5	0.000	0	0	0.30	0.14	0.007	0.008	0	1.3	4.74	3.92	-0.819	-17.3
3	9/5/2008 23:15	9/6/2008 11:00	11.75	0.004	1.5	1.5	0.005	3	2.5	0.000	0	0	0.17	0.05	0.008	0.009	0	4.1	2.72	2.66	-0.061	-2.3
4	9/6/2008 13:15	9/7/2008 17:45	28.5	0.005	1.5	1.5	0.002	2.5	2	0.002	5	4	2.14	0.20	0.009	0.009	0	4.7	21.54	21.33	-0.213	-1.0
5	9/9/2008 10:30	9/10/2008 19:00	32.5	0.004	1.5	1.5	0.002	3	2.5	0.009	5	5	0.64	0.20	0.015	0.015	0	-1.4	9.25	9.13	-0.114	-1.2
6	9/12/2008 14:15	9/13/2008 20:30	30.25	0.004	1.5	1.5	0.003	3	2.5	0.009	5	4.5	0.74	0.08	0.016	0.016	0	0.0	7.87	8.04	0.176	2.2
7	9/25/2008 20:15	9/28/2008 1:30	53.25	0.003	1.5	1.5	0.003	3	2.5	0.007	5	4	0.72	0.17	0.013	0.013	0	-1.9	5.03	5.00	-0.026	-0.5
8	9/28/2008 5:15	9/30/2008 0:00	42.75	0.009	1.75	1.5	0.003	3	2.5	0.006	5	5	1.23	0.22	0.016	0.017	0.001	4.1	21.84	21.53	-0.302	-1.4
9	9/30/2008 22:45	10/2/2008 16:45	42	0.009	1.5	1.5	0.004	3	2.5	0.013	5	4	0.38	0.11	0.027	0.026	-0.001	-3.1	8.86	9.03	0.165	1.9
10	10/25/2008 10:15	10/26/2008 22:30	36.25	0.005	1.5	1.5	0.003	3	2.5	0.004	5	4.5	0.87	0.33	0.011	0.011	0	-0.4	10.79	10.78	-0.018	-0.2
11	10/27/2008 22:00	10/30/2008 0:00	50	0.007	2	1.5	0.007	3	2.5	0.009	5	5.5	1.74	0.09	0.023	0.023	0	0.8	22.65	22.79	0.135	0.6
12	11/5/2008 18:15	11/7/2008 2:15	32	0.010	1.5	1.5	0.006	3	2.5	0.009	5	4	0.27	0.03	0.024	0.024	0	-0.1	5.59	5.50	-0.092	-1.6
13	11/8/2008 10:15	11/8/2008 21:30	11.25	0.009	1.5	1.5	0.010	3	2.5	0.000	0	0	0.11	0.03	0.019	0.019	0	-0.5	3.61	3.60	-0.004	-0.1
14	11/13/2008 10:45	11/14/2008 23:00	36.25	0.008	1.5	1.5	0.004	3	2.5	0.008	5	4.5	0.75	0.07	0.020	0.020	0	0.7	10.67	10.62	-0.043	-0.4
15	11/15/2008 3:30	11/17/2008 16:15	60.75	0.006	1.5	1.5	0.005	3	2.5	0.021	5	7.5	0.92	0.21	0.032	0.032	-0.001	-1.7	8.79	8.81	0.019	0.2
16	11/24/2008 20:00	11/26/2008 3:15	31.25	0.004	1.5	1.5	0.007	3	2.5	0.012	5	4.5	0.51	0.04	0.022	0.023	0.001	4.4	6.47	6.39	-0.076	-1.2
17	11/30/2008 5:15	12/2/2008 17:00	59.75	0.007	1.5	1.5	0.007	3	2.5	0.012	5	4.5	0.88	0.04	0.026	0.026	0	0.8	10.34	10.41	0.068	0.7
18	12/10/2008 6:00	12/14/2008 3:15	93.25	0.004	2	1.5	0.006	3	2.5	0.014	5	10	3.26	0.13	0.023	0.024	0	0.7	24.75	24.46	-0.291	-1.2
19	12/16/2008 12:15	12/18/2008 0:00	35.75	0.006	1.5	1.5	0.007	3	2.5	0.010	5	4	0.66	0.08	0.023	0.023	0	-0.2	9.44	9.35	-0.089	-0.9
20	12/19/2008 8:15	12/20/2008 22:15	38	0.020	1.5	1.5	0.012	3	2.5	0.012	5	5	0.92	0.06	0.044	0.044	0	0.1	27.96	28.09	0.137	0.5
21	12/21/2008 4:30	12/22/2008 6:15	25.75	0.014	1.5	1.5	0.010	3	2.5	0.013	5	4	0.26	0.03	0.036	0.037	0.001	2.2	9.89	9.66	-0.238	-2.4
22	12/24/2008 0:30	12/25/2008 15:15	38.75	0.011	1.5	1.5	0.010	3	2.5	0.010	5	2	0.28	0.03	0.030	0.031	0.001	4.0	4.83	4.68	-0.149	-3.1
23	1/6/2009 13:45	1/10/2009 11:15	93.5	0.006	1.5	1.5	0.011	3	3	0.021	5	14	1.68	0.06	0.037	0.038	0	0.1	17.24	17.27	0.026	0.2
24	1/27/2009 22:15	1/30/2009 7:30	57.25	0.012	1.5	1.5	0.010	3	2.5	0.012	5	8	0.89	0.04	0.034	0.034	0	0.9	18.63	14.56	-4.066	-21.8
25	3/26/2009 16:30	3/27/2009 18:45	26.25	0.005	1.5	1.5	0.002	3	2.5	0.004	5	4	0.33	0.05	0.013	0.011	-0.003	-19.1	5.84	3.47	-2.374	-40.6
26	3/28/2009 2:00	3/28/2009 20:45	18.75	0.011	1.5	1.5	0.005	3	2.5	0.003	5	2.5	0.17	0.02	0.019	0.019	0	-1.1	4.47	4.40	-0.069	-1.5
27	3/29/2009 2:30	3/30/2009 22:30	44	0.005	1.5	1.5	0.003	3	2.5	0.014	5	4.5	0.53	0.23	0.023	0.022	0	-1.5	7.13	6.94	-0.187	-2.6
28	4/1/2009 14:15	4/2/2009 22:30	32.25	0.008	1.5	1.5	0.004	3	2.5	0.006	5	4	0.20	0.02	0.017	0.018	0.001	4.9	3.00	2.90	-0.1	-3.3
29	4/3/2009 4:45	4/4/2009 22:00	41.25	0.006	1.5	1.5	0.006	3	2.5	0.009	5	5	0.72	0.15	0.020	0.020	0	0.8	9.57	9.28	-0.292	-3.1
30	4/6/2009 6:45	4/7/2009 17:15	34.5	0.003	1.5	1.5	0.005	3	2.5	0.014	5	4	0.46	0.11	0.022	0.022	0	-1.5	5.06	5.11	0.05	1.0
31	4/11/2009 6:45	4/12/2009 7:15	24.5	0.004	1.5	1.5	0.006	3	2.5	0.008	5	4	0.53	0.05	0.017	0.018	0.001	4.8	6.24	6.13	-0.104	-1.7
32	4/13/2009 23:45	4/16/2009 17:45	66	0.009	1.5	1.5	0.010	3	2.5	0.014	5	4.5	1.02	0.03	0.033	0.033	0	1.2	9.68	9.79	0.106	1.1
33	4/20/2009 10:30	4/21/2009 20:15	33.75	0.009	1.5	1.5	0.004	3	2.5	0.006	5	4	0.68	0.08	0.019	0.019	0.0009	4.9	9.35	9.42	0.067	0.7
34	4/21/2009 21:15	4/23/2009 15:30	42.25	0.011	1.5	1.5	0.012	3	2.5	0.018	5	4	0.18	0.03	0.040	0.041	0.001	2.5	5.68	5.83	0.143	2.5
35	5/3/2009 10:30	5/6/2009 18:00	79.5	0.011	1.5	1.5	0.005	3	2.5	0.005	5	4	1.68	0.07	0.020	0.021	0	2.3	10.45	10.26	-0.194	-1.9
36	5/6/2009 20:30	5/8/2009 21:00	48.5	0.004	1.5	1.5	0.007	3	2.5	0.020	5	6	1.22	0.14	0.030	0.030	0	0.9	12.64	12.81	0.176	1.4
37	5/14/2009 23:15	5/15/2009 23:00	23.75	0.007	1.5	1.5	0.004	3	2.5	0.011	5	4.5	0.26	0.16	0.022	0.022	0	2.3	6.86	6.94	0.075	1.1
38	5/24/2009 20:45	5/25/2009 13:45	17	0.006	1.5	1.5	0.002	3	2.5	0.004	5	3	0.19	0.08	0.011	0.011	0	-0.4	4.03	3.99	-0.035	-0.9
39	5/29/2009 2:45	5/30/2009 5:45	27	0.008	1.5	2.5	0.003	3	2.5	0.004	5	4	0.46	0.10	0.015	0.015	0	2.9	7.52	7.57	0.056	0.7
40	6/3/2009 3:30	6/3/2009 20:30	17	0.006	1.5	1.5	0.003	3	2.5	0.003	5	2	0.29	0.10	0.011	0.012	0	3.1	5.37	5.27	-0.105	-1.9

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Site PC-0010 Poquessing Creek Interceptor (2009)

Pipe Size: 60" dia.

Tributary Drainage Area: 10,349 acres

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
41	6/3/2009 22:45	6/5/2009 0:15	25.5	0.006	1.5	1.5	0.004	3	2.5	0.006	5	2	0.51	0.06	0.016	0.016	0	-2.1	6.30	6.10	-0.197	-3.1
42	6/5/2009 0:45	6/6/2009 19:00	42.25	0.008	1.5	1.5	0.010	3	2.5	0.010	5	5	0.85	0.03	0.027	0.028	0	0.1	9.54	9.53	-0.012	-0.1
43	6/9/2009 7:30	6/10/2009 2:30	19	0.006	1.5	1.5	0.006	3	2.5	0.013	5	3	0.20	0.08	0.025	0.025	0	0.3	5.42	5.38	-0.038	-0.7
44	6/11/2009 3:15	6/12/2009 6:45	27.5	0.004	1.5	1.5	0.003	3	2.5	0.006	5	3	0.48	0.19	0.012	0.013	0	0.1	6.57	6.41	-0.164	-2.5
45	6/13/2009 16:00	6/14/2009 21:45	29.75	0.007	1.5	1.5	0.004	3	2.5	0.006	5	4.5	0.63	0.11	0.017	0.017	0	-0.1	11.34	11.52	0.181	1.6
46	6/15/2009 23:30	6/17/2009 6:00	30.5	0.003	1.5	1.5	0.003	3	2.5	0.004	5	4.5	1.01	0.29	0.009	0.010	0	4.8	9.73	9.87	0.145	1.5
47	6/17/2009 21:00	6/19/2009 14:45	41.75	0.012	1.5	1.5	0.004	3	2.5	0.005	5	5	0.54	0.07	0.020	0.021	0	2.4	8.66	8.56	-0.103	-1.2
48	6/20/2009 9:15	6/21/2009 5:15	20	0.007	1.5	1.5	0.003	3	2.5	0.003	5	3	0.41	0.05	0.010	0.012	0.002	21.3	6.15	5.94	-0.213	-3.5
49	6/26/2009 19:30	6/27/2009 11:45	16.25	0.007	1.5	1.5	0.002	3	2.5	0.003	5	3	0.47	0.34	0.012	0.012	0	0.7	11.63	11.56	-0.072	-0.6
50	7/1/2009 16:45	7/3/2009 6:45	38	0.002	1.5	1.5	0.002	3	2.5	0.005	5	4.5	1.08	0.52	0.009	0.009	0	2.2	8.50	8.65	0.141	1.7
51	7/11/2009 22:30	7/12/2009 12:00	13.5	0.007	1.5	1.5	0.002	3	2.5	0.000	0	0	1.14	0.45	0.008	0.009	0.001	8.2	21.05	21.01	-0.045	-0.2
52	7/16/2009 18:45	7/17/2009 5:15	10.5	0.004	1.5	1.5	0.003	3	2.5	0.000	5	4.5	0.20	0.16	0.007	0.007	0	3.9	3.32	3.32	-0.001	0.0
53	7/17/2009 19:45	7/18/2009 6:15	10.5	0.002	1.5	1.5	0.001	3	2.5	0.000	0	0	0.42	0.22	0.003	0.003	1E-04	3.0	3.74	3.64	-0.096	-2.6
54	7/21/2009 4:30	7/22/2009 11:00	30.5	0.006	1.5	1.5	0.003	3	2.5	0.004	5	4.5	0.88	0.08	0.013	0.014	0	0.8	12.49	12.46	-0.028	-0.2
55	7/23/2009 11:00	7/24/2009 1:45	14.75	0.006	1.5	1.5	0.003	3	2.5	0.003	5	2	0.23	0.07	0.010	0.011	0	2.2	3.41	3.41	-0.007	-0.2
56	7/29/2009 12:45	7/30/2009 10:00	21.25	0.012	1.5	1.5	0.002	3	2.5	0.003	5	2	0.41	0.08	0.013	0.017	0.004	27.0	9.00	9.18	0.173	1.9
57	7/31/2009 5:45	8/1/2009 12:15	30.5	0.004	1.5	1.5	0.002	3	2.5	0.002	5	3	1.23	0.25	0.008	0.008	0	4.0	15.16	15.05	-0.113	-0.7
58	8/2/2009 6:30	8/3/2009 17:00	34.5	0.003	1.5	1.5	0.003	3	2.5	0.008	5	5	1.88	0.59	0.013	0.013	0.001	4.2	17.52	17.53	0.009	0.1
59	8/9/2009 5:00	8/10/2009 1:30	20.5	0.008	1.5	1.25	0.005	3	2.5	0.000	0	0	0.37	0.05	0.009	0.013	0.004	44.1	6.76	6.70	-0.059	-0.9
60	8/13/2009 13:00	8/14/2009 16:00	27	0.009	1.5	1.5	0.004	3	2.5	0.010	5	4	0.40	0.09	0.023	0.023	0	-0.4	12.63	12.64	0.013	0.1
61	8/21/2009 15:00	8/25/2009 13:45	94.75	0.005	1.5	1.5	0.004	3	2.5	0.014	5	13	2.40	0.41	0.022	0.023	0.001	3.7	21.24	21.17	-0.074	-0.4
62	8/28/2009 4:15	8/29/2009 12:00	31.75	0.009	1.5	1.5	0.002	3	2.5	0.002	5	4.5	0.41	0.07	0.012	0.012	0	3.5	7.02	6.96	-0.061	-0.9
63	8/29/2009 21:30	8/30/2009 10:30	13	0.014	1.5	1.5	0.009	3	3	0.000	0	0	0.31	0.09	0.017	0.023	0.006	39.3	12.62	12.47	-0.15	-1.2
64	9/10/2009 18:00	9/13/2009 14:30	68.5	0.006	1.5	1.5	0.004	3	2.5	0.014	5	7	1.71	0.10	0.024	0.024	0	1.8	14.40	14.58	0.189	1.3
65	9/16/2009 14:30	9/17/2009 12:45	22.25	0.012	1.5	1.5	0.004	3	2.5	0.011	5	4	0.18	0.03	0.026	0.027	0	0.5	5.55	5.44	-0.11	-2.0
66	9/23/2009 23:45	9/25/2009 3:00	27.25	0.006	1.5	1.5	0.004	3	2.5	0.003	5	4.5	0.91	0.20	0.013	0.013	0.001	4.4	19.62	19.58	-0.035	-0.2
67	9/26/2009 19:45	9/30/2009 5:15	81.5	0.007	1.5	1.5	0.006	3	2.5	0.016	5	7	1.46	0.15	0.029	0.029	0	-0.6	14.00	14.26	0.255	1.8
68	10/15/2009 9:45	10/17/2009 1:15	39.5	0.006	1.5	1.5	0.004	3	2.5	0.009	5	4.5	0.77	0.04	0.018	0.018	0	1.5	7.99	7.89	-0.099	-1.2
69	10/17/2009 6:00	10/19/2009 6:15	48.25	0.005	1.5	1.5	0.006	3	2.5	0.013	5	4.5	0.82	0.05	0.023	0.024	0.001	4.1	8.33	8.33	0.007	0.1
70	10/23/2009 22:00	10/25/2009 21:30	47.5	0.011	1.5	1.5	0.003	3	2.5	0.004	5	4.5	1.76	0.40	0.017	0.017	0.001	3.7	40.56	39.71	-0.85	-2.1
71	10/27/2009 4:30	10/31/2009 1:00	92.5	0.022	1.5	1.5	0.005	3	2.5	0.015	5	13	1.73	0.10	0.040	0.041	0.001	2.5	38.73	38.56	-0.17	-0.4
72	10/31/2009 3:45	11/2/2009 0:15	44.5	0.008	1.5	1.5	0.006	3	2.5	0.021	5	4.5	0.31	0.05	0.034	0.035	0.001	1.7	6.14	5.99	-0.15	-2.4
73	11/12/2009 2:15	11/12/2009 23:30	21.25	0.020	1.5	1.5	0.004	3	2.5	0.000	0	0	0.19	0.01	0.023	0.024	0.001	4.6	4.09	4.03	-0.062	-1.5
74	11/13/2009 19:45	11/14/2009 16:00	20.25	0.013	1.5	1.5	0.014	3	2.5	0.000	0	0	0.14	0.02	0.029	0.027	-0.002	-7.0	4.07	4.19	0.114	2.8
75	11/19/2009 18:30	11/21/2009 6:30	36	0.004	1.5	1.5	0.006	3	2.5	0.013	5	4.5	0.58	0.12	0.022	0.023	0.001	4.3	9.81	9.73	-0.083	-0.9
76	11/23/2009 16:45	11/24/2009 16:30	23.75	0.011	1.5	1.5	0.037	3	3	0.000	0	0	0.10	0.01	0.048	0.047	-0.001	-1.2	4.25	4.30	0.051	1.2
77	11/25/2009 10:45	11/26/2009 8:00	21.25	0.020	1.5	1.5	0.027	3	2.5	0.000	0	0	0.14	0.01	0.046	0.047	0.0013	2.8	6.00	5.90	-0.108	-1.8
78	11/30/2009 10:45	12/1/2009 2:15	15.5	0.007	1.5	1.5	0.011	3	2.5	0.000	0	0	0.30	0.04	0.018	0.018	0	2.6	5.59	5.58	-0.011	-0.2
79	12/2/2009 15:30	12/4/2009 5:00	37.5	0.021	1.5	1.5	0.003	3	2.5	0.008	5	4.5	1.14	0.12	0.031	0.032	0.001	3.5	32.61	32.50	-0.116	-0.4
80	12/5/2009 10:30	12/6/2009 21:30	35	0.010	1.5	1.5	0.006	3	2.5	0.012	5	5	0.41	0.02	0.027	0.028	0.001	3.4	6.61	6.28	-0.331	-5.0

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Site PC-0010 Poquessing Creek Interceptor (2009)

Pipe Size: 60" dia.

Tributary Drainage Area: 10,349 acres

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
81	12/9/2009 0:45	12/11/2009 22:30	69.75	0.008	1.5	1.5	0.005	3	2.5	0.018	5	12	2.09	0.15	0.031	0.031	0	1.0	37.71	37.41	-0.294	-0.8
82	12/13/2009 9:00	12/16/2009 0:15	63.25	0.020	1.5	1.5	0.005	3	2.5	0.018	5	10	1.07	0.09	0.041	0.043	0.002	4.0	34.01	34.04	0.038	0.1
83	12/25/2009 20:00	12/29/2009 22:15	98.25	0.013	1.5	1.5	0.017	3	2.5	0.034	5	14	2.26	0.13	0.064	0.064	0	0.3	38.86	38.71	-0.152	-0.4
84	12/31/2009 19:45	1/1/2010 11:30	15.75	0.017	1.5	1.5	0.014	3	2.5	0.000	0	0	0.17	0.02	0.031	0.031	0	-0.3	6.94	5.98	-0.956	-13.8
85	1/17/2010 10:00	1/19/2010 23:30	61.5	0.024	1.5	1.5	0.004	3	2.5	0.018	5	12	0.86	0.07	0.043	0.045	0.002	3.8	27.69	27.05	-0.636	-2.3
86	1/25/2010 2:30	1/27/2010 23:30	69	0.009	1.5	1.5	0.015	3	2.5	0.017	5	12	1.65	0.15	0.039	0.040	0.001	2.4	41.29	40.41	-0.876	-2.1

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Statistics comparing sim and obs peak I/I flow for all 86 events

Average error = -0.174 MGD

Standard error = 0.570 MGD

Stats for 79 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.056 MGD

Standard error = 0.158 MGD

PC-0010 Poquessing Creek Interceptor (2013)

Pipe Size: 60" dia.

Tributary Drainage Area: 10,349 acres

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4/1/2012 18:15	4/2/2012 22:00	27.75	0.007	1.25	2	0.005	3	3	0.007	5	4	0.19	0.03	0.019	0.019	-0.0002	-1.1	3.05	3.20	0.148	4.8
2	4/21/2012 21:30	4/25/2012 0:00	74.5	0.005	1.25	2	0.004	3	4	0.003	5	9	2.42	0.19	0.011	0.011	0	0.5	18.29	17.94	-0.341	-1.9
3	5/1/2012 3:45	5/2/2012 1:45	22	0.004	1	2	0.001	3	4	0.002	5	4	0.39	0.12	0.007	0.007	0	0.2	4.53	4.56	0.034	0.8
4	5/3/2012 2:15	5/3/2012 23:45	21.5	0.004	1.25	2	0.003	3	4	0.002	5	4	0.14	0.05	0.009	0.009	-0.0002	-2.1	2.12	2.09	-0.03	-1.4
5	5/9/2012 0:45	5/11/2012 6:15	53.5	0.004	1.25	2	0.005	3	4	0.007	5	5	0.49	0.06	0.016	0.016	0	-0.3	4.90	4.92	0.013	0.3
6	5/14/2012 20:15	5/17/2012 21:00	72.75	0.010	1.25	2.25	0.003	3	3	0.003	5	8	1.71	0.12	0.015	0.015	0	2.1	24.69	24.60	-0.086	-0.3
7	5/21/2012 1:15	5/22/2012 0:30	23.25	0.004	1.25	2	0.004	3	4	0.002	5	4	0.24	0.05	0.010	0.010	1E-04	1.0	2.93	2.92	-0.004	-0.1
8	5/22/2012 1:00	5/24/2012 3:15	50.25	0.007	1.25	2	0.005	3	4	0.011	5	8.5	0.19	0.02	0.024	0.024	0.0001	0.4	3.92	3.75	-0.171	-4.4
9	5/24/2012 6:45	5/25/2012 21:45	39	0.004	1.25	2	0.002	3	4	0.002	5	5	0.42	0.09	0.008	0.009	0	0.2	3.97	3.99	0.022	0.5
10	5/27/2012 4:15	5/28/2012 6:45	26.5	0.006	1.25	2	0.001	3	4	0.001	5	4	0.45	0.10	0.007	0.007	0	1.4	7.55	7.53	-0.023	-0.3
11	5/29/2012 20:00	5/30/2012 19:30	23.5	0.002	1.25	2	0.004	3	4	0.005	5	4	0.23	0.06	0.011	0.011	0	-0.4	2.02	1.97	-0.051	-2.5
12	6/1/2012 20:30	6/3/2012 6:45	34.25	0.011	1	1.5	0.003	2.5	4	0.002	5	5	0.39	0.12	0.015	0.015	0.0007	4.8	10.67	10.83	0.169	1.6
13	6/3/2012 14:15	6/4/2012 10:00	19.75	0.010	1	2	0.001	3	4	0.001	5	4	0.13	0.02	0.011	0.011	0	0.4	3.01	2.87	-0.143	-4.8
14	6/12/2012 10:00	6/14/2012 5:30	43.5	0.009	1.25	2	0.003	3	4	0.003	5	6	0.58	0.05	0.014	0.014	0.001	4.9	7.01	6.92	-0.089	-1.3
15	6/22/2012 16:30	6/23/2012 18:45	26.25	0.007	1.25	2	0.001	3	4	0.001	5	4	0.35	0.11	0.009	0.009	0	2.3	4.67	4.64	-0.031	-0.7
16	6/29/2012 5:30	6/30/2012 0:00	18.5	0.003	1.25	2	0.001	3	4	0.001	4.5	4	0.14	0.11	0.005	0.005	0	0.0	1.55	1.50	-0.049	-3.2
17	7/4/2012 23:30	7/6/2012 6:00	30.5	0.006	1.25	2	0.002	3	4	0.005	5	5	0.29	0.13	0.012	0.012	0	0.0	6.06	6.32	0.257	4.2
18	7/14/2012 4:30	7/14/2012 19:00	14.5	0.005	1.25	2	0.002	3	4	0.002	5	4	0.20	0.04	0.009	0.009	0	0.5	3.08	3.08	-0.003	-0.1
19	7/15/2012 21:00	7/17/2012 8:30	35.5	0.006	1.25	2.25	0.001	2.5	2.5	0.004	5	6	0.95	0.39	0.011	0.011	0	0.1	19.61	19.68	0.069	0.4
20	7/20/2012 1:15	7/21/2012 20:30	43.25	0.003	1.25	2	0.003	3	3.5	0.004	5	6.5	0.97	0.22	0.010	0.010	0	-3.6	8.28	8.26	-0.018	-0.2
21	7/26/2012 19:15	7/28/2012 5:00	33.75	0.006	1.25	2	0.002	3	3	0.004	5	6	0.42	0.17	0.012	0.012	0	3.2	6.90	6.84	-0.056	-0.8
22	7/28/2012 12:45	7/30/2012 7:30	42.75	0.004	1.25	2	0.003	3	4	0.004	5	6.5	0.72	0.13	0.011	0.011	0	-0.5	7.71	7.72	0.016	0.2
23	8/1/2012 3:45	8/3/2012 5:15	49.5	0.009	1.5	2	0.003	3	4	0.009	5	6.5	0.30	0.10	0.020	0.020	0	0.2	8.25	8.19	-0.059	-0.7
24	8/4/2012 13:30	8/5/2012 13:00	23.5	0.006	1.25	2	0.003	3	4	0.007	5	4	0.26	0.18	0.015	0.015	0	-1.3	6.69	6.65	-0.048	-0.7
25	8/5/2012 18:00	8/7/2012 14:15	44.25	0.005	1.25	2	0.003	3	3	0.008	5	7	0.70	0.15	0.016	0.015	-0.001	-4.1	8.05	7.97	-0.08	-1.0
26	8/10/2012 10:00	8/11/2012 10:15	24.25	0.005	1.25	2.75	0.004	3	2	0.000	5	4	0.31	0.08	0.009	0.009	-1E-04	-1.2	5.42	5.35	-0.066	-1.2
27	8/11/2012 17:15	8/13/2012 4:30	35.25	0.001	1.25	1.5	0.002	3	3	0.001	5	6	0.84	0.20	0.004	0.004	0	2.3	3.75	3.71	-0.04	-1.1
28	8/14/2012 9:45	8/15/2012 13:45	28	0.008	1.25	2	0.002	2.75	3.5	0.002	5	4	0.51	0.11	0.012	0.012	0	2.7	10.41	10.44	0.033	0.3
29	8/15/2012 15:15	8/16/2012 15:15	24	0.003	1.25	2	0.002	3	4	0.002	5	4	0.15	0.04	0.007	0.007	0.0001	1.4	1.82	1.73	-0.089	-4.9
30	8/17/2012 22:30	8/19/2012 13:00	38.5	0.003	1.25	2	0.003	3	4	0.004	5	6	0.73	0.10	0.010	0.010	0	-2.2	5.92	5.93	0.014	0.2
31	8/27/2012 9:45	8/29/2012 8:15	46.5	0.004	1.25	2	0.004	3	4	0.003	5	4	0.83	0.22	0.011	0.011	0	-0.2	8.54	8.50	-0.04	-0.5
32	9/3/2012 9:45	9/7/2012 2:30	88.75	0.004	1.25	2	0.007	2.75	2.5	0.007	5	10	3.41	0.35	0.018	0.018	0	0.7	24.98	25.15	0.18	0.7
33	9/8/2012 16:30	9/10/2012 1:30	33	0.007	1.25	2	0.002	3	3.5	0.004	5	6	0.27	0.08	0.013	0.013	0	1.4	4.47	4.41	-0.064	-1.4
34	9/18/2012 4:00	9/20/2012 4:15	48.25	0.006	1.5	1.75	0.000	3	4	0.003	5	6	0.98	0.25	0.008	0.009	0.001	7.1	11.36	11.18	-0.174	-1.5
35	9/22/2012 19:30	9/24/2012 0:15	28.75	0.007	1.25	2	0.003	3	3	0.005	5	5	0.20	0.08	0.015	0.015	0	-1.1	4.68	4.67	-0.008	-0.2
36	9/26/2012 23:00	9/28/2012 1:15	26.25	0.008	1.25	2	0.002	3	4	0.002	5	4	0.10	0.03	0.011	0.011	-0.0005	-4.5	1.75	1.75	0.002	0.1
37	10/2/2012 10:45	10/3/2012 13:00	26.25	0.003	1.25	2	0.004	3	3	0.003	5	4	0.20	0.03	0.010	0.010	0.0001	1.0	1.98	2.07	0.093	4.7
38	10/7/2012 11:00	10/9/2012 0:00	37	0.009	1.25	2	0.006	3	3	0.006	5	4	0.19	0.02	0.021	0.020	0	-1.0	3.40	3.37	-0.027	-0.8
39	10/9/2012 5:30	10/10/2012 2:45	21.25	0.008	1.25	2	0.004	3	3	0.006	4.5	4	0.07	0.03	0.018	0.018	0.0002	1.1	2.43	2.32	-0.105	-4.3
40	10/15/2012 13:00	10/16/2012 11:45	22.75	0.004	1.25	2	0.002	2	2.5	0.001	4	4	0.43	0.09	0.007	0.008	0.0003	4.1	6.70	6.64	-0.064	-1.0
41	10/19/2012 9:00	10/21/2012 8:45	47.75	0.004	1.25	2.5	0.002	3	3.5	0.004	5	8	0.98	0.24	0.010	0.010	0	1.2	14.49	14.50	0.019	0.1
42	10/28/2012 15:15	10/29/2012 5:00	13.75	0.007	1.25	2	0.005	2.5	2.5	0.002	4	4	0.14	0.03	0.014	0.014	-1E-04	-0.7	3.64	3.50	-0.138	-3.8
43	10/29/2012 6:45	10/31/2012 18:30	59.75	0.009	1.25	2	0.003	2.5	3.5	0.004	5	8	2.03	0.09	0.015	0.015	0	3.3	22.48	22.44	-0.045	-0.2
44	11/7/2012 11:30	11/9/2012 21:30	58	0.007	1.25	2	0.006	2.5	6	0.005	5	9	0.54	0.03	0.017	0.018	0.001	7.0	5.02	5.00	-0.017	-0.3

PC-0010 Poquessing Creek Interceptor (2013)

Pipe Size: 60" dia.

Tributary Drainage Area: 10,349 acres

Tributary Service Population: 74,868

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
45	11/13/2012 3:15	11/14/2012 0:45	21.5	0.010	1.25	2	0.000	3	3	0.000	4	4	0.16	0.02	0.009	0.010	0.0004	4.3	3.03	2.90	-0.132	-4.4
46	11/27/2012 6:30	11/29/2012 13:15	54.75	0.006	1.25	2	0.006	2.5	4.5	0.005	5	9	0.63	0.02	0.017	0.017	0.001	3.1	7.27	7.26	-0.014	-0.2
47	12/7/2012 22:00	12/9/2012 7:30	33.5	0.005	1.25	2	0.006	3	4	0.010	5	6	0.28	0.05	0.020	0.020	0.001	4.0	5.20	5.37	0.166	3.2
48	12/9/2012 8:45	12/13/2012 10:00	97.25	0.007	1.25	2	0.007	3	4	0.020	5	10	0.44	0.04	0.035	0.035	0	-0.8	4.49	4.50	0.011	0.2
49	12/18/2012 0:00	12/19/2012 2:15	26.25	0.003	1.25	2	0.003	2.5	3	0.004	5	4	0.37	0.13	0.010	0.010	0	0.5	5.01	5.12	0.105	2.1
50	12/20/2012 21:00	12/23/2012 0:30	51.5	0.005	1.25	2	0.006	2.75	4	0.004	5	8	1.84	0.14	0.015	0.015	0	0.5	21.88	21.85	-0.029	-0.1
<del>51</del>	<del>12/24/2012 11:45</del>	<del>12/25/2012 6:45</del>	<del>19</del>	<del>0.000</del>	<del>1.25</del>	<del>2</del>	<del>0.000</del>	<del>3</del>	<del>4</del>	<del>0.000</del>	<del>5</del>	<del>4</del>	<del>0.20</del>	<del>0.02</del>	<del>0.015</del>	<del>0.000</del>	<del>-0.015</del>	<del>-98.0</del>	<del>2.47</del>	<del>0.07</del>	<del>-2.402</del>	<del>-97.3</del>
52	12/26/2012 12:30	12/28/2012 22:30	58	0.009	1.75	2.5	0.006	3	7	0.007	5	9	1.25	0.11	0.022	0.022	0	0.0	19.61	19.65	0.044	0.2
53	12/29/2012 10:45	12/30/2012 9:30	22.75	0.006	1.25	2	0.006	2.5	3.5	0.005	5	6	0.22	0.02	0.017	0.017	0	0.0	4.10	4.15	0.044	1.1
54	1/11/2013 13:15	1/13/2013 7:45	42.5	0.005	1.25	2	0.002	3	4	0.005	5	6.5	0.51	0.05	0.012	0.012	0	-0.3	6.23	6.14	-0.091	-1.5
55	1/14/2013 20:30	1/15/2013 21:15	24.75	0.006	1.22	0	0.005	2.75	3	0.003	5	4	0.35	0.03	0.013	0.014	0.0005	3.8	5.14	5.34	0.204	4.0

Statistics comparing sim and obs peak I/I flow for all 55 events

Average error = -0.069 MGD

Standard error = 0.348 MGD

Stats for 54 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.026 MGD

Standard error = 0.120 MGD

PC-1210 Poquessing Creek Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 732 acres

Tributary Service Population: 6,745

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	8/14/1999 0:30	8/15/1999 8:00	31.5	0.010	0.3	1	0.002	2.5	2	0.004	4	3	2.45	0.36	0.015	0.015	0	0.2	6.34	6.30	-0.039	-0.6
2	8/20/1999 11:00	8/21/1999 7:45	20.75	0.009	0.3	1	0.002	2.5	2	0.000	0	0	0.63	0.10	0.011	0.011	0.001	4.9	1.66	1.58	-0.082	-5.0
3	8/25/1999 23:15	8/27/1999 6:00	30.75	0.009	0.3	1	0.001	2.5	2	0.000	0	0	1.61	0.16	0.009	0.010	0.0004	4.4	2.56	2.43	-0.126	-4.9
4	9/7/1999 4:15	9/8/1999 6:00	25.75	0.013	0.5	1	0.002	2.5	2	0.005	4	3	0.68	0.11	0.019	0.020	0.001	4.6	2.29	2.23	-0.058	-2.5
5	9/9/1999 13:15	9/10/1999 20:30	31.25	0.005	0.3	1	0.004	2.5	2	0.008	4	4	1.29	0.18	0.017	0.017	0.001	4.1	1.62	1.60	-0.024	-1.5
6	9/15/1999 16:30	9/17/1999 21:45	53.25	0.011	0.3	1	0.005	2.5	2	0.007	4	7	6.50	0.28	0.023	0.023	0	0.5	6.63	6.52	-0.11	-1.7
7	9/21/1999 0:45	9/23/1999 0:45	48	0.007	0.3	1	0.004	2.5	2	0.008	5	3	0.96	0.06	0.018	0.019	0.001	6.0	1.00	1.03	0.034	3.4
8	9/30/1999 2:30	9/30/1999 12:00	9.5	0.006	0.3	1	0.005	2.5	2	0.000	0	0	0.60	0.15	0.011	0.011	0	-4.3	1.40	1.44	0.041	2.9
9	10/4/1999 7:45	10/4/1999 15:30	7.75	0.002	0.3	1	0.002	2.5	2	0.000	0	0	0.35	0.17	0.005	0.005	0	0.0	0.61	0.63	0.02	3.3
10	10/4/1999 18:00	10/5/1999 9:15	15.25	0.008	0.3	1	0.007	2.5	2	0.000	0	0	0.71	0.08	0.015	0.015	0	-0.5	1.36	1.34	-0.028	-2.1
11	10/10/1999 1:30	10/10/1999 21:30	20	0.009	0.3	1	0.007	2.5	2	0.000	0	0	0.73	0.05	0.015	0.016	0.001	4.2	1.04	1.01	-0.032	-3.1
12	10/17/1999 18:00	10/18/1999 5:30	11.5	0.011	0.3	1	0.007	2.5	2	0.000	0	0	0.19	0.02	0.018	0.018	0	-0.6	0.54	0.42	-0.125	-23.1
13	10/20/1999 3:30	10/20/1999 20:15	16.75	0.009	0.3	1	0.008	2.5	2	0.000	0	0	0.71	0.05	0.016	0.017	0.001	4.0	0.86	0.86	-0.007	-0.8
14	10/22/1999 19:45	10/23/1999 10:30	14.75	0.009	0.3	1	0.006	2.5	2	0.000	0	0	0.43	0.05	0.014	0.015	0.001	3.8	0.89	0.74	-0.154	-17.2
15	11/2/1999 9:45	11/3/1999 12:00	26.25	0.009	0.3	1	0.004	2.5	2	0.006	5	3	0.99	0.13	0.019	0.019	0.001	4.2	1.83	1.81	-0.025	-1.4
16	11/25/1999 6:30	11/25/1999 18:45	12.25	0.009	0.3	1	0.026	2.5	2.5	0.000	0	0	0.31	0.05	0.034	0.035	0.001	3.3	1.16	1.17	0.009	0.8
17	11/26/1999 8:00	11/27/1999 23:00	39	0.012	0.3	1	0.007	2.5	2	0.008	5	3	0.81	0.10	0.027	0.027	0	0.9	1.72	1.69	-0.023	-1.3
18	12/6/1999 4:30	12/7/1999 5:30	25	0.004	0.3	1	0.021	2.5	2.5	0.000	0	0	0.71	0.07	0.025	0.025	0	-1.1	1.05	1.07	0.019	1.8
19	12/10/1999 12:45	12/10/1999 23:00	10.25	0.009	0.3	1	0.004	2.5	2	0.000	0	0	0.33	0.06	0.013	0.013	0	2.3	1.00	0.87	-0.13	-13.1
20	12/13/1999 13:45	12/15/1999 18:00	52.25	0.007	0.3	1	0.008	2.5	2	0.014	5	4	1.57	0.07	0.028	0.029	0.001	2.9	1.38	1.40	0.016	1.2
21	12/20/1999 7:30	12/21/1999 13:15	29.75	0.015	0.3	1	0.006	2.5	2	0.006	5	3	0.65	0.08	0.026	0.027	0.001	3.2	2.23	2.14	-0.093	-4.2
22	1/4/2000 16:15	1/5/2000 7:45	15.5	0.005	0.3	1	0.010	2.5	2.5	0.000	0	0	0.86	0.11	0.015	0.015	0.001	4.7	1.07	1.07	-0.003	-0.2
23	1/10/2000 11:00	1/11/2000 1:15	14.25	0.009	0.3	1	0.014	2.5	2.5	0.000	0	0	0.41	0.06	0.022	0.023	0.001	2.6	0.82	0.83	0.002	0.3
24	1/30/2000 21:15	1/31/2000 7:45	10.5	0.006	0.3	1	0.010	2.5	2	0.000	0	0	0.53	0.07	0.016	0.016	-0.001	-4.9	0.86	0.87	0.012	1.4
25	2/13/2000 23:00	2/15/2000 9:00	34	0.005	0.3	1	0.016	2.5	2	0.043	5	4	0.52	0.07	0.064	0.064	0	-0.1	1.39	1.39	-0.004	-0.3
26	2/18/2000 13:45	2/21/2000 4:00	62.25	0.013	0.3	1	0.015	2.5	2	0.015	5	7	1.34	0.07	0.042	0.043	0.001	2.6	2.60	2.54	-0.056	-2.2
27	3/11/2000 12:15	3/13/2000 1:00	36.75	0.007	0.3	1	0.006	2.5	2	0.008	5	3	1.03	0.15	0.019	0.020	0.001	4.5	1.32	1.35	0.027	2.1
28	3/16/2000 19:00	3/18/2000 2:30	31.5	0.007	0.3	1	0.008	2.5	2	0.008	5	3	1.45	0.09	0.023	0.023	0	1.0	1.88	1.96	0.088	4.7
29	3/21/2000 11:15	3/23/2000 9:30	46.25	0.009	0.3	1	0.009	2.5	2	0.014	5	5	1.68	0.08	0.031	0.032	0.001	4.3	2.10	2.06	-0.044	-2.1
30	3/27/2000 21:30	3/29/2000 1:00	27.5	0.010	0.3	1	0.007	2.5	2	0.010	5	4	0.68	0.07	0.025	0.026	0.001	2.3	1.60	1.56	-0.038	-2.4
31	4/8/2000 21:30	4/9/2000 22:30	25	0.005	0.3	1	0.023	2.5	2.5	0.000	0	0	0.50	0.08	0.028	0.028	0	0.7	0.69	0.67	-0.018	-2.6
32	4/15/2000 11:45	4/16/2000 15:00	27.25	0.013	0.3	1	0.010	2.5	2	0.000	0	0	0.39	0.02	0.023	0.023	0	2.1	0.73	0.55	-0.178	-24.6
33	4/16/2000 17:45	4/17/2000 5:00	11.25	0.008	0.3	1	0.015	2.5	2.5	0.000	0	0	0.38	0.18	0.022	0.022	0	0.0	1.87	1.90	0.035	1.9
34	4/21/2000 10:30	4/22/2000 6:30	20	0.007	0.3	1	0.015	2.5	2	0.000	0	0	0.60	0.14	0.021	0.021	0	1.1	1.58	1.63	0.054	3.4

Statistics comparing sim and obs peak I/I flow for all 34 events

Average error = -0.033 MGD

Standard error = 0.083 MGD

Stats for 25 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.009 MGD

Standard error = 0.036 MGD



Site: PC-B1330 Poquessing Creek Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 478 acres

Tributary Service Population: 9,427

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2/18/2009 13:00	2/19/2009 1:00	12	0.021	0.33	1.25	0.060	1.5	2.5	0.000	0	0	0.20	0.02	0.080	0.081	0.001	1.6	1.05	1.05	0.003	0.2
2	3/19/2009 12:00	3/19/2009 19:45	7.75	0.020	0.33	1.25	0.045	1.5	3	0.000	0	0	0.13	0.03	0.064	0.065	0.001	0.8	0.75	0.75	-0.005	-0.7
3	3/26/2009 16:00	3/27/2009 4:15	12.25	0.033	0.33	1.25	0.039	1.5	3	0.000	0	0	0.33	0.05	0.071	0.072	0.001	2.1	1.93	1.94	0.008	0.4
4	3/28/2009 2:30	3/28/2009 13:00	10.5	0.045	0.33	1.25	0.051	2	3	0.000	0	0	0.22	0.04	0.099	0.096	-0.0031	-3.1	2.06	2.04	-0.021	-1.0
5	3/29/2009 2:45	3/29/2009 11:15	8.5	0.055	0.33	1.25	0.040	1.5	3	0.000	0	0	0.25	0.07	0.098	0.095	-0.003	-3.0	3.66	3.66	-0.003	-0.1
6	3/29/2009 17:45	3/30/2009 3:45	10	0.018	0.33	1.25	0.040	2	3	0.000	0	0	0.36	0.26	0.059	0.058	-0.001	-2.3	3.32	3.34	0.025	0.7
7	4/1/2009 15:15	4/2/2009 2:00	10.75	0.043	0.33	1.25	0.037	1.5	3	0.000	0	0	0.23	0.03	0.075	0.080	0.005	7.0	1.69	1.76	0.069	4.1
8	4/3/2009 5:15	4/3/2009 21:15	16	0.022	0.33	1.25	0.019	1.5	3.5	0.030	4	4	0.60	0.16	0.074	0.071	-0.0028	-3.8	4.07	4.04	-0.036	-0.9
9	4/6/2009 7:00	4/7/2009 7:45	24.75	0.043	0.33	1.25	0.015	1.5	4	0.022	4	3	0.46	0.08	0.084	0.080	-0.004	-4.5	2.63	2.65	0.016	0.6
10	4/11/2009 6:15	4/11/2009 19:30	13.25	0.037	0.33	1	0.018	1.5	2.5	0.000	0	0	0.55	0.05	0.054	0.055	0.001	1.3	2.35	2.25	-0.107	-4.5
11	4/13/2009 23:45	4/15/2009 0:00	24.25	0.020	0.33	1.25	0.085	2	4	0.000	0	0	0.60	0.03	0.103	0.105	0.002	1.6	1.63	1.62	-0.012	-0.7
12	4/15/2009 0:45	4/15/2009 9:15	8.5	0.030	0.33	1.5	0.048	1.25	3	0.000	0	0	0.36	0.09	0.081	0.078	-0.003	-4.0	3.53	3.56	0.027	0.8
13	4/15/2009 10:00	4/16/2009 8:15	22.25	0.048	0.33	1.25	0.071	1.5	3	0.050	4	3.5	0.30	0.03	0.172	0.169	-0.003	-2.0	1.85	1.81	-0.033	-1.8
14	4/20/2009 11:00	4/20/2009 14:15	3.25	0.046	0.33	1.25	0.000	0	0	0.000	0	0	0.22	0.04	0.045	0.046	0.001	2.4	2.10	2.08	-0.023	-1.1
15	4/20/2009 15:00	4/21/2009 5:15	14.25	0.028	0.33	1.25	0.013	1.5	3.5	0.000	0	0	0.50	0.10	0.061	0.041	-0.02	-32.9	2.48	2.47	-0.003	-0.1
16	4/21/2009 21:30	4/22/2009 4:15	6.75	0.032	0.33	1.25	0.025	1.5	3	0.000	0	0	0.18	0.05	0.055	0.057	0.002	2.9	1.57	1.58	0.011	0.7
17	4/29/2009 4:30	4/29/2009 9:30	5	0.024	0.33	1.25	0.024	1	2	0.000	0	0	0.16	0.02	0.045	0.047	0.002	3.8	0.80	0.80	0.001	0.2
18	5/3/2009 6:45	5/3/2009 23:00	16.25	0.041	0.33	1.25	0.036	2	4	0.000	0	0	0.53	0.04	0.079	0.077	-0.002	-1.9	2.15	2.15	-0.003	-0.1
19	5/4/2009 0:45	5/4/2009 15:15	14.5	0.035	0.33	1.25	0.080	1.5	2.5	0.000	0	0	0.39	0.04	0.114	0.115	0.001	0.6	2.05	2.00	-0.052	-2.6
20	5/4/2009 16:00	5/5/2009 16:30	24.5	0.030	0.33	1.25	0.025	1	3.5	0.042	4	3	0.55	0.09	0.097	0.097	0	-0.3	2.78	2.78	0.004	0.2
21	5/5/2009 19:30	5/6/2009 8:00	12.5	0.065	0.33	1.25	0.063	1.5	4.5	0.000	0	0	0.30	0.04	0.128	0.128	0	-0.3	2.39	2.40	0.001	0.1
22	5/6/2009 20:45	5/7/2009 12:15	15.5	0.017	0.33	1.5	0.030	2	3.5	0.000	0	0	1.12	0.27	0.056	0.047	-0.009	-15.4	4.87	4.91	0.039	0.8
23	5/7/2009 14:15	5/7/2009 21:30	7.25	0.039	0.25	1.25	0.035	1.5	3	0.000	0	0	0.11	0.02	0.073	0.074	0.001	2.0	1.25	1.25	0.001	0.1
24	5/14/2009 22:00	5/15/2009 6:45	8.75	0.027	0.33	1.25	0.021	2	3	0.000	0	0	0.36	0.18	0.050	0.048	-0.0024	-4.8	3.82	3.81	-0.012	-0.3
25	5/24/2009 20:45	5/24/2009 23:30	2.75	0.016	0.33	1.25	0.007	1.5	2	0.000	0	0	0.20	0.18	0.023	0.023	0	0.0	1.93	1.94	0.014	0.7
26	5/29/2009 2:45	5/29/2009 10:00	7.25	0.024	0.33	1.25	0.027	1.5	2.5	0.000	0	0	0.50	0.14	0.051	0.051	0	-0.1	3.58	3.51	-0.068	-1.9
27	6/3/2009 3:45	6/3/2009 8:00	4.25	0.025	0.33	1.25	0.004	1.5	2	0.000	0	0	0.39	0.17	0.028	0.029	0	1.0	2.76	2.76	-0.005	-0.2
28	6/3/2009 20:30	6/4/2009 13:15	16.75	0.056	0.33	1.25	0.050	1.5	2.5	0.000	0	0	0.34	0.05	0.102	0.106	0.004	4.0	2.26	2.28	0.028	1.3
29	6/4/2009 15:00	6/4/2009 22:45	7.75	0.055	0.33	1.25	0.045	1.5	2	0.000	0	0	0.10	0.01	0.098	0.100	0.002	2.2	0.86	0.83	-0.026	-3.0
30	6/5/2009 0:45	6/6/2009 3:15	26.5	0.046	0.33	1.25	0.046	1.5	4	0.019	4	4	0.82	0.03	0.116	0.111	-0.0047	-4.1	2.31	2.33	0.021	0.9
31	6/9/2009 7:30	6/9/2009 12:45	5.25	0.030	0.33	1.5	0.008	1.5	2	0.000	0	0	0.24	0.07	0.040	0.038	-0.002	-4.4	2.12	2.11	-0.008	-0.4
32	6/11/2009 3:45	6/11/2009 7:45	4	0.036	0.33	1.5	0.030	1.25	2.5	0.000	0	0	0.20	0.10	0.066	0.066	0	-0.5	2.72	2.73	0.014	0.5
33	6/13/2009 17:15	6/14/2009 5:00	11.75	0.037	0.33	1.25	0.044	1.25	2.5	0.000	0	0	0.33	0.06	0.084	0.081	-0.003	-3.2	2.74	2.77	0.032	1.2
34	6/16/2009 1:15	6/16/2009 9:45	8.5	0.027	0.33	1.25	0.034	1.25	2.5	0.000	0	0	0.60	0.15	0.061	0.061	0	-0.5	4.48	4.46	-0.023	-0.5
35	6/20/2009 9:45	6/21/2009 3:15	17.5	0.036	0.33	1.25	0.027	1.25	2.5	0.032	4	3	0.34	0.06	0.095	0.095	0	0.5	2.48	2.47	-0.009	-0.4
36	6/26/2009 19:15	6/27/2009 0:00	4.75	0.010	0.33	1.25	0.002	1.25	2.5	0.000	0	0	0.99	0.70	0.011	0.012	0.001	4.9	5.04	5.02	-0.012	-0.2
37	7/2/2009 1:45	7/2/2009 6:30	4.75	0.016	0.33	1.5	0.014	1.25	2.5	0.000	0	0	0.64	0.37	0.030	0.030	0	-0.6	5.74	5.65	-0.089	-1.5
38	7/11/2009 22:30	7/12/2009 6:30	8	0.008	0.33	1.25	0.002	1.25	2.5	0.000	0	0	1.41	0.56	0.010	0.010	-0.0007	-6.7	2.98	2.96	-0.02	-0.7
39	7/17/2009 19:45	7/18/2009 0:45	5	0.040	0.33	1.25	0.026	1.25	2.5	0.000	0	0	0.13	0.06	0.063	0.066	0.003	4.4	2.35	2.34	-0.003	-0.1
40	7/21/2009 3:45	7/22/2009 6:45	27	0.025	0.33	1.5	0.020	1.25	3	0.020	4	5	1.15	0.19	0.067	0.065	-0.002	-2.8	4.19	4.21	0.021	0.5
41	7/23/2009 11:00	7/23/2009 18:30	7.5	0.035	0.33	1.25	0.032	1.5	2.5	0.000	0	0	0.14	0.05	0.066	0.067	0.001	1.4	1.33	1.33	0.003	0.2
42	7/29/2009 16:30	7/30/2009 9:15	16.75	0.024	0.33	1.25	0.007	1.25	2.5	0.014	4	3	0.70	0.25	0.045	0.045	0	0.3	4.63	4.60	-0.023	-0.5
43	7/31/2009 6:00	7/31/2009 10:15	4.25	0.014	0.25	1.25	0.011	1.25	2.5	0.000	0	0	0.24	0.20	0.025	0.024	-0.001	-2.6	3.04	3.05	0.008	0.3
44	7/31/2009 16:30	7/31/2009 22:15	5.75	0.018	0.33	1.5	0.011	1.25	2.5	0.000	0	0	0.75	0.30	0.030	0.029	-0.001	-4.6	6.00	6.15	0.143	2.4
45	8/2/2009 7:30	8/2/2009 15:45	8.25	0.013	0.33	1.5	0.034	1.25	1.75	0.000	0	0	1.19	0.50	0.047	0.047	0	-0.1	7.41	7.37	-0.043	-0.6

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Site: PC-B1330 Poquessing Creek Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 478 acres

Tributary Service Population: 9,427

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
46	8/6/2009 7:15	8/6/2009 13:45	6.5	0.017	0.33	1.5	0.018	1.25	2	0.000	0	0	0.23	0.08	0.034	0.034	0	-0.5	1.41	1.42	0.009	0.6
47	8/9/2009 2:00	8/10/2009 10:30	32.5	0.028	0.33	1.5	0.022	1.5	3.5	0.058	4	4	0.50	0.09	0.112	0.108	-0.004	-3.4	3.01	2.98	-0.023	-0.8
48	8/13/2009 8:45	8/14/2009 5:30	20.75	0.015	0.33	1.5	0.006	1.25	2.5	0.012	4	3	1.01	0.44	0.035	0.033	-0.002	-4.5	5.96	5.93	-0.032	-0.5
49	8/21/2009 22:45	8/23/2009 6:30	31.75	0.010	0.33	1.25	0.010	1.25	2.5	0.010	4	43	2.50	0.55	0.003	0.030	0.027	772.1	5.72	5.78	0.053	0.9
50	8/28/2009 15:45	8/28/2009 19:15	3.5	0.027	0.25	1.25	0.000	0	0	0.000	0	0	0.34	0.07	0.028	0.027	-0.001	-3.1	2.42	2.40	-0.012	-0.5
51	8/29/2009 21:45	8/30/2009 14:45	17	0.018	0.33	1.5	0.029	1.25	2.5	0.013	4	3.5	0.59	0.21	0.058	0.060	0.002	3.1	3.68	3.62	-0.057	-1.6
52	9/10/2009 23:30	9/11/2009 11:30	12	0.027	0.33	1.5	0.075	1.25	2	0.000	0	0	1.21	0.13	0.106	0.101	-0.004	-3.9	5.78	5.93	0.157	2.7
53	9/11/2009 12:00	9/12/2009 20:15	32.25	0.040	0.33	1.5	0.080	1.25	2.5	0.060	4	3.5	0.58	0.06	0.180	0.180	0	0.2	3.68	3.69	0.003	0.1
54	9/16/2009 13:00	9/17/2009 10:15	21.25	0.028	0.33	1.5	0.050	1.5	3	0.033	4	4	0.38	0.11	0.111	0.111	0	-0.2	3.08	3.04	-0.042	-1.4
55	9/24/2009 0:30	9/24/2009 6:15	5.75	0.011	0.25	1.25	0.006	1.25	2.5	0.000	0	0	1.22	0.39	0.013	0.017	0.003	25.7	5.74	5.70	-0.035	-0.6
56	9/26/2009 20:15	9/27/2009 20:45	24.5	0.035	0.33	1.25	0.065	1.25	2.5	0.000	0	0	1.13	0.05	0.102	0.100	-0.002	-2.0	4.08	4.13	0.048	1.2
57	9/28/2009 17:30	9/28/2009 22:30	5	0.028	0.33	1.5	0.028	1.25	2.5	0.000	0	0	0.36	0.23	0.058	0.056	-0.002	-3.8	4.64	4.63	-0.002	-0.1
58	10/15/2009 10:15	10/16/2009 8:30	22.25	0.055	0.33	1.25	0.057	1.25	2.5	0.031	4	3	0.74	0.05	0.143	0.143	0	-0.1	4.29	4.32	0.029	0.7
59	10/17/2009 4:15	10/17/2009 14:45	10.5	0.049	0.33	1.5	0.054	1.25	2.5	0.000	0	0	0.43	0.07	0.108	0.103	-0.005	-4.4	4.16	4.19	0.024	0.6
60	10/17/2009 16:15	10/18/2009 15:30	23.25	0.090	0.33	1.5	0.058	1.25	3	0.000	0	0	0.36	0.04	0.153	0.148	-0.005	-3.0	3.59	3.54	-0.046	-1.3
61	10/23/2009 18:45	10/24/2009 6:45	12	0.044	0.33	1.5	0.053	1.25	2.5	0.000	0	0	0.32	0.07	0.094	0.097	0.003	3.3	2.69	2.71	0.014	0.5
62	10/24/2009 10:00	10/25/2009 15:15	29.25	0.013	0.33	1.5	0.023	1.25	2.5	0.017	4	4	1.57	0.62	0.054	0.053	-0.002	-3.1	6.19	6.20	0.012	0.2
63	10/27/2009 4:45	10/29/2009 8:00	51.25	0.040	0.33	1.5	0.025	1.25	2.5	0.045	4	5	1.79	0.15	0.111	0.110	-0.001	-0.8	6.29	6.28	-0.017	-0.3
64	10/31/2009 19:00	11/1/2009 3:30	8.5	0.037	0.33	1.5	0.034	1.5	3	0.034	4	4	0.24	0.14	0.098	0.105	0.007	7.2	3.56	3.62	0.057	1.6
65	11/12/2009 0:45	11/13/2009 5:15	28.5	0.130	0.33	1.25	0.083	1.25	3	0.020	4	3	0.25	0.01	0.222	0.233	0.011	4.9	2.05	2.03	-0.019	-0.9
66	11/13/2009 20:45	11/15/2009 6:00	33.25	0.082	0.33	1.25	0.080	1.25	2.5	0.142	4	5	0.19	0.02	0.319	0.304	-0.015	-4.8	2.64	2.63	-0.003	-0.1
67	11/20/2009 1:15	11/20/2009 21:30	20.25	0.034	0.33	1.5	0.022	1.25	2.5	0.010	4	4	0.61	0.15	0.064	0.066	0.002	2.5	5.41	5.39	-0.012	-0.2
68	11/23/2009 16:30	11/24/2009 10:00	17.5	0.070	0.33	1.25	0.056	1.25	2.5	0.000	0	0	0.15	0.02	0.120	0.126	0.006	4.7	1.36	1.27	-0.087	-6.4
69	11/25/2009 11:45	11/26/2009 1:00	13.25	0.100	0.33	1.25	0.030	1.25	2	0.000	0	0	0.12	0.01	0.127	0.130	0.003	2.0	1.34	1.31	-0.022	-1.7
70	11/30/2009 11:45	11/30/2009 22:15	10.5	0.063	0.33	1.25	0.097	1.33	3	0.000	0	0	0.25	0.03	0.163	0.160	-0.003	-1.6	2.40	2.43	0.025	1.0
71	12/2/2009 16:15	12/3/2009 21:00	28.75	0.038	0.33	1.25	0.043	1.25	3	0.015	4	5	1.14	0.10	0.096	0.096	0	0.2	5.42	5.36	-0.057	-1.0
72	12/5/2009 12:00	12/6/2009 14:30	26.5	0.060	0.33	1.5	0.080	1.25	3	0.085	4	4	0.56	0.02	0.232	0.225	-0.007	-2.9	3.63	3.68	0.043	1.2
73	12/9/2009 1:15	12/10/2009 3:15	26	0.026	0.33	1.25	0.011	1.25	2.5	0.018	4	4	2.07	0.13	0.054	0.055	0.001	2.3	5.26	5.21	-0.05	-0.9
74	12/13/2009 9:30	12/14/2009 14:00	28.5	0.038	0.33	1.25	0.012	1.25	2.5	0.050	4	5	1.16	0.10	0.102	0.100	-0.002	-2.3	4.78	4.72	-0.063	-1.3
75	12/25/2009 20:00	12/27/2009 21:00	49	0.010	0.33	1.5	0.030	1.25	3	0.050	4	5	2.28	0.09	0.099	0.090	-0.009	-9.5	3.38	3.43	0.056	1.6
76	12/31/2009 20:15	1/1/2010 7:30	11.25	0.075	0.33	1.25	0.080	1.25	3	0.000	0	0	0.16	0.01	0.149	0.155	0.006	4.0	1.68	1.63	-0.049	-2.9
77	1/17/2010 10:15	1/18/2010 6:00	19.75	0.013	0.33	1.5	0.042	1.25	3	0.025	4	3	0.89	0.07	0.081	0.080	-0.001	-0.8	2.79	2.78	-0.006	-0.2
78	1/25/2010 4:30	1/25/2010 19:45	15.25	0.028	0.33	1.5	0.030	1.25	2.5	0.000	0	0	1.49	0.12	0.059	0.058	-0.001	-1.8	5.10	5.11	0.015	0.3

Statistics comparing sim and obs peak I/I flow for all 78 events

Average error = -0.003 MGD

Standard error = 0.042 MGD

Stats for 58 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.002 MGD

Standard error = 0.019 MGD

PC-B1360 Poquessing Creek Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 374 acres

Tributary Service Population: 6,435

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3/16/2013 10:00	3/16/2013 21:30	11.5	0.033	0.5	1	0.032	1.5	1.5	0.000	0	0	0.13	0.02	0.064	0.065	0.0007	1.1	0.58	0.56	-0.016	-2.8
2	3/18/2013 17:45	3/20/2013 9:00	39.25	0.022	0.5	1	0.022	1.5	2	0.030	4	6	0.77	0.05	0.076	0.074	-0.002	-3.2	1.31	1.30	-0.003	-0.2
3	3/25/2013 6:45	3/27/2013 6:00	47.25	0.016	0.5	1	0.023	1.5	2	0.057	4	10	0.61	0.05	0.095	0.096	0.001	1.5	1.32	1.32	0.005	0.4
4	3/31/2013 15:30	4/1/2013 7:15	15.75	0.026	0.5	1	0.020	1.5	1.5	0.017	4	3	0.22	0.04	0.062	0.063	0.001	2.2	1.01	1.01	-0.005	-0.5
5	4/10/2013 20:30	4/11/2013 18:15	21.75	0.019	0.5	1	0.009	1.5	1.5	0.012	4	4	0.41	0.20	0.040	0.040	0.0005	1.3	2.37	2.34	-0.03	-1.3
6	4/12/2013 7:00	4/14/2013 0:30	41.5	0.030	0.5	1	0.015	1.5	1.5	0.015	4	6	1.24	0.16	0.059	0.060	0.001	2.3	2.84	2.84	0.002	0.1
7	4/19/2013 21:30	4/20/2013 20:00	22.5	0.042	0.5	1	0.010	1.5	1.5	0.016	4	4	0.43	0.05	0.065	0.068	0.003	4.3	1.69	1.65	-0.036	-2.1
8	4/29/2013 3:30	4/30/2013 2:45	23.25	0.039	0.5	1	0.038	1.5	1.5	0.000	0	0	0.35	0.02	0.076	0.077	0.001	2.0	1.05	0.72	-0.337	-32.0
9	5/8/2013 5:45	5/9/2013 0:45	19	0.023	0.5	1	0.020	1.5	2	0.000	0	0	0.54	0.15	0.044	0.043	-0.001	-2.0	2.61	2.65	0.039	1.5
10	5/9/2013 4:00	5/10/2013 4:00	24	0.034	0.5	1	0.009	1.5	1.5	0.016	4	5	0.39	0.09	0.059	0.059	0	0.4	2.65	2.59	-0.063	-2.4
11	5/10/2013 22:45	5/12/2013 19:00	44.25	0.025	0.5	1	0.012	1.5	1.5	0.028	4	5	0.66	0.08	0.066	0.065	-0.002	-2.4	1.53	1.54	0.018	1.2
12	5/18/2013 17:15	5/20/2013 14:45	45.5	0.030	0.5	1	0.010	1.5	2	0.054	4	6	0.35	0.04	0.093	0.094	0.001	0.5	1.19	1.17	-0.022	-1.8
13	5/23/2013 13:30	5/24/2013 20:00	30.5	0.018	0.5	1	0.010	1.5	1.5	0.013	3	3	0.51	0.20	0.040	0.041	0.001	1.8	2.15	2.12	-0.038	-1.8
14	5/28/2013 9:30	5/29/2013 14:45	29.25	0.028	0.5	1	0.023	1.5	1.5	0.025	4	5	0.31	0.03	0.076	0.076	0	-0.2	1.12	1.10	-0.024	-2.1
15	6/3/2013 1:00	6/4/2013 9:45	32.75	0.011	0.5	1	0.004	1.5	1.5	0.014	4	6	1.20	0.53	0.030	0.029	-0.0011	-3.7	3.47	3.53	0.059	1.7
16	6/6/2013 19:45	6/10/2013 5:00	81.25	0.000	0.5	1.5	0.033	1.5	2.5	0.020	4	14	3.78	0.36	0.058	0.053	-0.005	-9.1	3.58	3.63	0.053	1.5
17	6/10/2013 7:15	6/13/2013 7:15	72	0.016	0.5	1	0.015	1.5	2	0.036	4	16	2.16	0.27	0.071	0.067	-0.004	-5.0	3.87	3.83	-0.039	-1.0
18	6/13/2013 9:30	6/15/2013 16:00	54.5	0.022	0.5	1	0.020	1.5	2	0.046	4	5	0.50	0.17	0.091	0.088	-0.003	-3.6	2.61	2.57	-0.043	-1.6
19	6/18/2013 13:00	6/20/2013 0:00	35	0.032	0.5	1	0.032	1.5	1.5	0.035	4	8	0.30	0.02	0.104	0.099	-0.005	-4.4	1.19	1.14	-0.048	-4.1
20	6/25/2013 16:00	6/25/2013 19:30	3.5	0.019	0.5	1	0.022	1.5	1.5	0.000	0	0	0.09	0.08	0.043	0.041	-0.002	-4.6	0.87	0.88	0.009	1.1
21	6/26/2013 20:30	6/27/2013 2:15	5.75	0.023	0.5	1	0.014	1.5	2	0.000	0	0	0.14	0.10	0.036	0.037	0.001	2.2	1.31	1.32	0.017	1.3
22	6/27/2013 18:30	6/28/2013 14:00	19.5	0.027	0.5	1	0.005	1.5	2	0.007	4	4	0.64	0.16	0.038	0.039	0.001	2.0	2.99	2.97	-0.018	-0.6
23	6/28/2013 17:30	6/29/2013 0:30	7	0.020	0.5	1	0.029	1.5	2	0.000	0	0	0.08	0.02	0.047	0.049	0.0024	5.2	0.46	0.43	-0.032	-7.0
24	6/30/2013 12:00	7/1/2013 5:30	17.5	0.027	0.5	1	0.006	1.5	1.5	0.009	4	3	0.39	0.12	0.041	0.042	0	0.8	2.64	2.62	-0.019	-0.7
25	7/1/2013 8:45	7/2/2013 8:15	23.5	0.032	0.5	1	0.017	1.5	1.5	0.025	4	4	0.31	0.08	0.073	0.074	0.001	1.7	2.02	1.97	-0.05	-2.5
26	7/2/2013 18:15	7/3/2013 2:30	8.25	0.060	0.5	1	0.022	1.5	1.5	0.000	0	0	0.04	0.01	0.203	0.082	-0.121	-59.6	0.71	0.53	-0.177	-25.0
27	7/3/2013 21:30	7/4/2013 4:45	7.25	0.016	0.5	1	0.020	1.5	3.5	0.000	0	0	0.16	0.09	0.037	0.036	-0.001	-2.9	1.02	1.03	0.003	0.3
28	7/9/2013 17:45	7/10/2013 7:30	13.75	0.019	0.5	1	0.006	1.5	1.5	0.007	4	3	0.27	0.13	0.031	0.032	0.001	4.6	1.82	1.81	-0.007	-0.4
29	7/10/2013 12:45	7/11/2013 4:00	15.25	0.020	0.5	1	0.005	1.5	1.5	0.018	4	3	0.22	0.20	0.044	0.043	-0.001	-2.6	2.06	2.08	0.025	1.2
30	7/12/2013 16:00	7/13/2013 14:45	22.75	0.015	0.5	1	0.016	1.5	1.5	0.011	4	4	0.97	0.24	0.041	0.041	0	0.9	3.23	3.20	-0.024	-0.8
31	7/13/2013 15:30	7/15/2013 3:45	36.25	0.010	0.5	1.25	0.007	1.5	2	0.023	4	8	0.88	0.53	0.041	0.040	-0.001	-3.6	3.00	2.98	-0.021	-0.7
32	7/19/2013 15:30	7/19/2013 19:00	3.5	0.023	0.5	1	0.009	1.5	1.5	0.000	0	0	0.15	0.11	0.023	0.032	0.009	36.9	1.57	1.52	-0.048	-3.1
33	7/21/2013 16:15	7/21/2013 23:00	6.75	0.022	0.5	1	0.009	1.5	3	0.000	4	3	0.30	0.16	0.030	0.031	0.001	2.3	2.45	2.43	-0.018	-0.7
34	7/22/2013 18:00	7/24/2013 16:45	46.75	0.006	0.5	1.25	0.009	1.5	1.5	0.010	4	6	1.85	0.62	0.026	0.025	-0.001	-4.4	3.09	3.13	0.042	1.4
35	7/28/2013 16:00	7/29/2013 5:15	13.25	0.026	0.5	1	0.013	1.5	2	0.000	0	0	0.51	0.10	0.039	0.039	0	1.3	2.05	2.00	-0.049	-2.4
36	8/1/2013 6:30	8/2/2013 17:15	34.75	0.038	0.5	1	0.011	1.5	1.5	0.010	4	7	0.95	0.14	0.057	0.059	0.002	3.6	3.74	3.67	-0.071	-1.9

\*

\*

PC-B1360 Poquessing Creek Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 374 acres

Tributary Service Population: 6,435

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
37	8/8/2013 0:15	8/9/2013 11:00	34.75	0.022	0.5	1	0.007	1.5	1.5	0.032	4	8	0.56	0.31	0.061	0.061	0	0.3	4.17	4.11	-0.059	-1.4
38	8/9/2013 15:30	8/10/2013 8:45	17.25	0.034	0.5	1	0.018	1.5	1.5	0.020	4	3	0.12	0.08	0.069	0.072	0.003	3.9	1.43	1.41	-0.024	-1.7
39	8/13/2013 5:00	8/14/2013 5:30	24.5	0.003	0.5	1.5	0.012	1.5	1.5	0.009	4	5	2.09	0.78	0.024	0.024	-0.001	-2.4	2.76	2.79	0.037	1.3
40	8/22/2013 6:15	8/22/2013 9:15	3	0.022	0.5	1	0.004	1.5	1.5	0.000	0	0	0.23	0.15	0.025	0.026	0.001	3.3	2.11	2.07	-0.044	-2.1
41	8/28/2013 9:45	8/28/2013 20:30	10.75	0.042	0.33	1	0.010	1.5	1.5	0.000	0	0	0.53	0.08	0.052	0.052	0	0.8	4.01	3.02	-0.986	-24.6
42	9/2/2013 10:30	9/3/2013 6:00	19.5	0.039	0.5	1	0.005	1.5	1.5	0.014	4	3	0.37	0.06	0.056	0.057	0.001	2.7	2.00	1.96	-0.036	-1.8
43	9/12/2013 19:00	9/12/2013 23:15	4.25	0.007	0.5	1	0.011	1.5	2	0.000	0	0	0.07	0.06	0.018	0.018	-0.0002	-1.1	0.52	0.23	-0.285	-54.9
44	9/13/2013 2:00	9/13/2013 6:15	4.25	0.033	0.5	1	0.003	1.5	1.5	0.000	0	0	0.34	0.12	0.035	0.036	0.001	2.8	3.29	3.26	-0.027	-0.8
45	9/21/2013 20:30	9/22/2013 7:45	11.25	0.032	0.5	1	0.008	1.5	2.5	0.000	0	0	1.14	0.24	0.039	0.040	0.001	2.4	5.06	5.04	-0.023	-0.4

Statistics comparing sim and obs peak I/I flow for all 35 events

Average error = -0.026 MGD

Standard error = 0.073 MGD

Stats for 33 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.012 MGD

Standard error = 0.034 MGD

PC-B1440 Poquessing Creek Interceptor

Pipe Size: 12" dia.

Tributary Drainage Area: 212 acres

Tributary Service Population: 1,894

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	10/19/2004 0:15	10/20/2004 16:30	40.25	0.010	0.5	1.5	0.010	2	3	0.018	4	8	0.73	0.08	0.037	0.038	0.001	2.7	0.37	0.37	-0.001	-0.3
2	10/30/2004 3:15	10/30/2004 8:00	4.75	0.013	0.5	1.5	0.000	0	0	0.000	0	0	0.16	0.03	0.012	0.013	0.0005	4.2	0.15	0.14	-0.007	-4.7
3	11/4/2004 12:00	11/6/2004 5:30	41.5	0.010	0.5	1.5	0.010	2	3	0.015	4	8	1.11	0.10	0.035	0.035	0	-0.6	0.62	0.62	-0.003	-0.5
4	11/12/2004 7:45	11/14/2004 8:00	48.25	0.022	0.5	1.5	0.022	2	3	0.022	4	8	1.10	0.03	0.064	0.066	0.002	2.8	0.88	0.51	-0.367	-41.9
5	11/27/2004 23:00	11/30/2004 2:00	51	0.021	0.5	1.75	0.020	2	2.5	0.032	4	10	1.52	0.23	0.073	0.073	0	0.6	2.38	2.39	0.014	0.6
6	12/1/2004 2:15	12/3/2004 23:45	69.5	0.008	0.5	1.5	0.032	2	4	0.076	4	15	0.77	0.08	0.117	0.116	-0.001	-1.1	0.75	0.77	0.011	1.5
7	12/7/2004 5:30	12/9/2004 12:45	55.25	0.015	0.5	1.5	0.015	2	3	0.060	4	10	0.55	0.04	0.090	0.090	0	-0.2	0.40	0.39	-0.013	-3.1
8	12/9/2004 15:45	12/12/2004 11:30	67.75	0.015	0.5	1.5	0.060	2	3	0.100	4	10	0.77	0.05	0.180	0.175	-0.005	-2.6	0.88	0.88	0.001	0.1
9	12/23/2004 9:45	12/25/2004 11:15	49.5	0.006	0.5	1.5	0.005	2	3	0.041	4	10	0.74	0.18	0.052	0.052	0	0.2	0.42	0.41	-0.005	-1.1
10	1/5/2005 0:30	1/8/2005 5:45	77.25	0.009	0.5	0.5	0.010	2	3	0.062	4	10	0.95	0.05	0.078	0.081	0.003	4.3	0.37	0.36	-0.006	-1.6
11	1/8/2005 6:45	1/10/2005 5:00	46.25	0.019	0.5	1.5	0.020	2	3	0.050	4	10	0.38	0.07	0.089	0.089	0	-0.1	0.70	0.70	0	0.0
12	1/11/2005 17:30	1/13/2005 14:15	44.75	0.019	0.5	1.5	0.020	2	3	0.068	4	10	0.43	0.05	0.109	0.107	-0.002	-1.5	0.51	0.52	0.016	3.1
13	1/13/2005 23:30	1/16/2005 5:15	53.75	0.031	0.5	1.5	0.028	2	3	0.030	4	10	1.75	0.17	0.085	0.089	0.004	4.5	2.25	2.24	-0.004	-0.2
14	2/14/2005 10:30	2/18/2005 1:15	86.75	0.017	0.5	1.5	0.017	2	3	0.060	4	10	1.27	0.05	0.099	0.094	-0.005	-4.6	0.81	0.82	0.011	1.4
15	2/21/2005 12:30	2/23/2005 11:30	47	0.013	0.5	1.5	0.013	2	3	0.045	4	10	0.47	0.03	0.070	0.071	0.001	1.6	0.27	0.27	0	-0.1
16	3/8/2005 5:00	3/10/2005 3:00	46	0.014	0.5	1.5	0.016	2	3	0.056	4	10	0.32	0.03	0.089	0.086	-0.003	-2.9	0.30	0.31	0.004	1.2
17	3/23/2005 6:30	3/25/2005 8:15	49.75	0.012	0.5	1.5	0.015	2	3	0.030	4	10	0.88	0.07	0.057	0.057	0	0.8	0.57	0.58	0.004	0.6
18	3/27/2005 20:30	3/29/2005 20:45	48.25	0.031	0.5	1.5	0.030	2	3	0.010	4	6	1.47	0.10	0.071	0.071	0	-0.6	2.53	1.80	-0.731	-28.9
19	4/1/2005 22:30	4/3/2005 22:15	47.75	0.013	0.5	1.5	0.013	2	3	0.030	4	6	2.95	0.26	0.057	0.056	-0.001	-1.7	2.23	2.24	0.011	0.5
20	4/7/2005 22:45	4/8/2005 20:15	21.5	0.018	0.5	1.5	0.018	2	3	0.000	0	0	0.74	0.07	0.037	0.036	-0.001	-3.7	0.68	0.55	-0.128	-18.8
21	4/30/2005 4:45	5/1/2005 14:15	33.5	0.006	0.5	1.5	0.006	2	3	0.000	0	0	1.21	0.24	0.012	0.012	0	-2.0	0.42	0.41	-0.01	-2.5

Statistics comparing sim and obs peak I/I flow for all 21 events

Average error = -0.058 MGD

Standard error = 0.185 MGD

Stats for 19 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.007 MGD

Standard error = 0.032 MGD

PC-B1530 Poquessing Creek Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 224 acres

Tributary Service Population: 219

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1/6/2009 21:30	1/9/2009 0:15	50.75	0.014	0.33	1.5	0.014	1.25	2.5	0.044	4	8	1.63	0.05	0.073	0.072	-0.001	-1.2	0.98	0.97	-0.006	-0.7
2	1/27/2009 23:00	1/29/2009 9:00	34	0.008	0.33	1.5	0.006	1.25	2.5	0.009	4	4	0.89	0.04	0.022	0.023	0.001	4.0	0.32	0.30	-0.021	-6.5
3	2/3/2009 12:00	2/4/2009 0:15	12.25	0.010	0.33	1.5	0.002	1.25	2.5	0.000	0	0	0.32	0.02	0.012	0.012	0	0.4	0.18	0.13	-0.053	-28.9
4	2/18/2009 12:45	2/19/2009 8:45	20	0.007	0.33	1.5	0.007	1.25	2.5	0.017	4	3	0.22	0.02	0.030	0.031	0.001	1.7	0.13	0.13	-0.001	-0.8
5	3/1/2009 20:45	3/2/2009 16:30	19.75	0.004	0.33	1.25	0.003	1.25	2.5	0.003	4	3	0.47	0.06	0.010	0.010	0	-2.5	0.14	0.14	-0.007	-5.2
6	3/26/2009 17:00	3/27/2009 10:45	17.75	0.008	0.33	1.5	0.008	1.25	2.5	0.007	4	3	0.31	0.05	0.021	0.022	0	2.0	0.22	0.22	-0.003	-1.4
7	3/28/2009 2:00	3/29/2009 0:45	22.75	0.007	0.33	1.5	0.020	1.25	3	0.023	4	4	0.20	0.03	0.050	0.050	0	-0.3	0.25	0.25	0.004	1.6
8	3/29/2009 2:30	3/29/2009 17:00	14.5	0.005	0.33	1.5	0.009	1.25	2.5	0.011	4	3	0.27	0.05	0.024	0.025	0.001	3.6	0.21	0.20	-0.003	-1.6
9	3/29/2009 19:00	3/30/2009 22:00	27	0.004	0.33	1.5	0.012	1.25	2.5	0.044	4	6	0.26	0.24	0.060	0.060	1E-04	0.2	0.37	0.34	-0.027	-7.4
10	4/1/2009 15:00	4/2/2009 12:30	21.5	0.011	0.33	1.5	0.012	1.25	2.5	0.022	4	3	0.21	0.02	0.045	0.045	0	0.0	0.20	0.20	0.002	1.1
11	4/3/2009 5:15	4/4/2009 13:15	32	0.006	0.33	1.5	0.008	1.25	2.5	0.026	4	8	0.56	0.15	0.042	0.040	-0.002	-4.1	0.45	0.44	-0.011	-2.5
12	4/6/2009 10:15	4/7/2009 2:30	16.25	0.015	0.33	1.5	0.012	1.25	4.5	0.000	0	0	0.33	0.04	0.024	0.027	0.003	11.2	0.32	0.32	-0.004	-1.3
13	4/11/2009 6:45	4/12/2009 3:45	21	0.005	0.33	1.5	0.006	1.25	2.5	0.013	4	3	0.53	0.05	0.024	0.024	0	0.6	0.22	0.23	0.006	2.7
14	4/13/2009 23:30	4/16/2009 8:45	57.25	0.007	0.33	1.5	0.009	1.25	2.5	0.018	4	4	1.19	0.07	0.034	0.034	0	0.5	0.36	0.37	0.011	3.2
15	4/20/2009 10:00	4/21/2009 7:15	21.25	0.005	0.33	1.5	0.018	1.25	3	0.000	0	0	0.62	0.06	0.023	0.023	0	1.4	0.28	0.29	0.005	1.6
16	4/21/2009 21:45	4/22/2009 2:45	5	0.016	0.33	1.5	0.012	1.25	2.5	0.000	0	0	0.14	0.05	0.027	0.028	0.001	2.0	0.32	0.32	-0.001	-0.2
17	4/29/2009 4:00	4/29/2009 12:30	8.5	0.010	0.33	1.5	0.012	1.25	2.5	0.000	0	0	0.13	0.02	0.021	0.022	0.001	6.9	0.12	0.11	-0.011	-8.6
18	5/3/2009 6:00	5/6/2009 15:15	81.25	0.016	0.33	1.5	0.010	1.25	2.5	0.026	4	6	1.66	0.06	0.050	0.052	0.002	3.5	0.59	0.59	-0.003	-0.5
19	5/6/2009 20:30	5/8/2009 17:45	45.25	0.005	0.33	1.5	0.006	1.25	3	0.030	4	6	1.10	0.20	0.042	0.041	-0.001	-1.4	0.61	0.62	0.007	1.1
20	5/14/2009 21:45	5/15/2009 18:45	21	0.002	0.33	1.5	0.004	1.25	3	0.018	4	4	0.41	0.19	0.025	0.024	0	-1.1	0.22	0.22	-0.001	-0.5
21	5/24/2009 20:45	5/26/2009 0:00	27.25	0.003	0.33	1.5	0.012	1.25	2	0.029	4	6	0.20	0.13	0.045	0.044	-0.001	-1.3	0.22	0.22	-0.002	-0.9
22	5/29/2009 2:45	5/30/2009 9:15	30.5	0.010	0.33	1.5	0.006	1.25	2.5	0.011	4	3	0.47	0.11	0.026	0.027	0.001	3.0	0.48	0.47	-0.009	-1.8
23	6/3/2009 3:45	6/3/2009 22:00	18.25	0.004	0.33	1.5	0.010	1.25	2.5	0.018	4	4	0.24	0.13	0.032	0.032	0.001	2.5	0.24	0.25	0	0.1
24	6/3/2009 22:45	6/6/2009 13:30	62.75	0.016	0.33	1.5	0.014	1.25	2.5	0.016	4	4	1.26	0.11	0.048	0.046	-0.002	-4.6	0.49	0.48	-0.001	-0.2
25	6/9/2009 7:45	6/10/2009 15:30	31.75	0.011	0.33	1.5	0.024	1.25	2.5	0.054	4	7	0.12	0.04	0.144	0.089	-0.055	-38.0	0.29	0.29	0.001	0.3
26	6/11/2009 3:15	6/11/2009 20:15	17	0.006	0.33	1.5	0.011	1.25	2.5	0.016	4	4	0.24	0.11	0.034	0.033	-0.001	-3.3	0.29	0.27	-0.015	-5.1
27	6/13/2009 13:45	6/14/2009 13:15	23.5	0.004	0.33	1.5	0.008	1.25	2.5	0.016	4	4	0.51	0.18	0.029	0.028	-0.001	-3.1	0.35	0.34	-0.013	-3.6
28	6/16/2009 0:00	6/16/2009 15:15	15.25	0.003	0.33	1.25	0.011	1.25	2.25	0.006	3.5	3	0.77	0.37	0.019	0.020	0.0004	2.1	0.56	0.55	-0.01	-1.9
29	6/18/2009 3:00	6/19/2009 16:30	37.5	0.004	0.33	1.5	0.007	1.25	2.5	0.032	4	7	0.58	0.12	0.045	0.043	-0.001	-3.1	0.27	0.27	0.001	0.4
30	6/20/2009 9:30	6/22/2009 0:00	38.5	0.005	0.33	1.5	0.019	1.25	3	0.047	4	8	0.45	0.09	0.073	0.071	-0.002	-2.5	0.47	0.47	-0.004	-0.8
31	6/26/2009 19:15	6/27/2009 21:00	25.75	0.003	0.33	1.5	0.009	1.25	2.5	0.012	4	6	0.79	0.59	0.024	0.024	0	0.0	0.72	0.72	-0.001	-0.1
32	7/2/2009 1:15	7/2/2009 16:30	15.25	0.002	0.33	1.5	0.004	1.25	2.25	0.008	4	3	0.77	0.46	0.013	0.013	0	0.1	0.37	0.37	-0.006	-1.7
33	7/11/2009 22:45	7/12/2009 20:30	21.75	0.002	0.33	1.5	0.004	1.25	2.25	0.007	4	4	1.16	0.41	0.012	0.012	0	0.0	0.38	0.37	-0.004	-1.1
34	7/16/2009 18:45	7/16/2009 23:00	4.25	0.003	0.33	1.4	0.007	1.25	2.5	0.000	0	0	0.14	0.11	0.009	0.009	0	1.4	0.11	0.10	-0.003	-2.5
35	7/17/2009 19:45	7/18/2009 1:00	5.25	0.002	0.33	1.5	0.006	1.25	2.5	0.000	0	0	0.19	0.11	0.007	0.008	1E-04	1.4	0.09	0.08	-0.006	-6.5
36	7/21/2009 4:30	7/22/2009 9:30	29	0.004	0.33	1.5	0.003	1.25	2.5	0.011	4	6	0.94	0.10	0.018	0.018	0	-1.9	0.31	0.30	-0.004	-1.2
37	7/23/2009 11:15	7/24/2009 1:30	14.25	0.009	0.33	1.5	0.007	1.25	2.5	0.010	4	3	0.14	0.05	0.025	0.026	0.001	2.0	0.18	0.18	0.003	1.4
38	7/29/2009 16:30	7/30/2009 14:30	22	0.004	0.33	1.5	0.006	1.25	3	0.012	4	4	0.63	0.27	0.022	0.022	0	-0.7	0.37	0.37	0.002	0.7
39	7/31/2009 5:45	7/31/2009 12:30	6.75	0.008	0.33	1.5	0.027	1.25	3.5	0.000	0	0	0.10	0.05	0.034	0.035	0	0.7	0.23	0.23	0	-0.1
40	7/31/2009 16:30	8/1/2009 8:15	15.75	0.004	0.33	1.5	0.002	1.25	2.5	0.003	4	3	0.64	0.24	0.009	0.009	0	0.4	0.45	0.44	-0.011	-2.4
41	8/2/2009 7:15	8/3/2009 0:00	16.75	0.004	0.33	1.5	0.005	1.25	3	0.003	4	2	1.23	0.46	0.012	0.012	0	2.5	0.97	0.96	-0.015	-1.6
42	8/9/2009 4:45	8/10/2009 5:45	25	0.006	0.33	1.5	0.004	1.25	2.25	0.009	4	4	0.37	0.05	0.018	0.019	0.001	4.4	0.22	0.21	-0.001	-0.6
43	8/12/2009 15:00	8/12/2009 19:00	4	0.002	0.33	1.25	0.000	0	0	0.000	0	0	0.18	0.11	0.002	0.002	0	-10.7	0.13	0.10	-0.035	-26.6
44	8/13/2009 13:30	8/13/2009 19:30	6	0.010	0.33	1.5	0.003	1.25	3	0.000	0	0	0.45	0.13	0.012	0.013	0	2.8	0.67	0.66	-0.002	-0.3
45	8/18/2009 20:15	8/19/2009 11:15	15	0.007	0.33	1.5	0.005	1.25	2.5	0.015	4	3	0.14	0.03	0.026	0.027	0.001	2.8	0.17	0.10	-0.073	-42.0
46	8/21/2009 15:30	8/22/2009 16:45	25.25	0.004	0.33	1.5	0.006	1.25	2.5	0.010	4	3	1.68	0.45	0.020	0.020	0	-0.1	1.10	1.09	-0.01	-0.9
47	8/22/2009 17:30	8/23/2009 22:30	29	0.018	0.33	1.5	0.007	1.25	3	0.021	4	6	0.70	0.20	0.046	0.046	0	0.3	1.70	1.69	-0.015	-0.9

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PC-B1530 Poquessing Creek Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 224 acres

Tributary Service Population: 219

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
48	8/28/2009 8:00	8/28/2009 13:00	5	0.007	0.33	1.5	0.008	1.25	2.5	0.000	0	0	0.10	0.08	0.016	0.015	0	-1.2	0.21	0.21	-0.003	-1.2
49	8/28/2009 15:45	8/29/2009 2:00	10.25	0.003	0.33	1.5	0.006	1.25	3	0.000	0	0	0.37	0.10	0.009	0.009	0	0.4	0.19	0.19	-0.003	-1.8
50	8/29/2009 21:30	8/30/2009 21:45	24.25	0.005	0.33	1.5	0.011	1.25	2.25	0.019	4	5	0.36	0.14	0.034	0.035	0	1.0	0.32	0.32	0	0.1
51	9/10/2009 18:00	9/13/2009 7:45	61.75	0.003	0.33	1.5	0.003	1.25	2.5	0.015	4	7	1.72	0.11	0.021	0.021	0	-1.2	0.31	0.31	-0.001	-0.3
52	9/16/2009 14:45	9/17/2009 0:15	9.5	0.011	0.33	1.5	0.017	1.25	3.5	0.000	0	0	0.23	0.04	0.027	0.028	0.001	2.1	0.29	0.29	0.003	1.1
53	9/24/2009 0:45	9/24/2009 17:00	16.25	0.004	0.33	1.5	0.003	1.25	3	0.005	4	3	0.70	0.20	0.012	0.012	0	0.2	0.42	0.41	-0.003	-0.7
54	9/26/2009 19:45	9/28/2009 13:45	42	0.002	0.33	1.5	0.007	1.5	3	0.018	4	8	1.14	0.06	0.027	0.027	-0.001	-2.3	0.25	0.26	0.002	0.9
55	9/28/2009 16:45	9/30/2009 1:00	32.25	0.003	0.33	1.5	0.006	1.25	2.25	0.021	4	7	0.37	0.20	0.029	0.030	0.001	2.3	0.23	0.24	0.008	3.5
56	10/15/2009 9:45	10/16/2009 14:45	29	0.003	0.33	1.5	0.003	1.25	2.5	0.020	4	5	0.78	0.07	0.026	0.027	0.001	3.9	0.22	0.22	0.001	0.3
57	10/17/2009 7:30	10/17/2009 15:15	7.75	0.007	0.33	1.5	0.012	1.25	4	0.000	0	0	0.37	0.05	0.022	0.019	-0.004	-16.2	0.24	0.25	0.005	1.9
58	10/17/2009 15:45	10/18/2009 4:30	12.75	0.017	0.33	1.5	0.036	1.25	4	0.000	0	0	0.20	0.01	0.054	0.053	-0.001	-2.1	0.25	0.25	0.006	2.6
59	10/18/2009 5:15	10/19/2009 4:00	22.75	0.012	0.33	1.5	0.017	1.25	2.5	0.060	4	5	0.15	0.03	0.089	0.089	0	0.6	0.25	0.25	0.002	0.8
60	10/23/2009 21:45	10/24/2009 6:30	8.75	0.008	0.33	1.5	0.007	1.25	2.5	0.000	0	0	0.33	0.06	0.009	0.015	0.005	57.9	0.21	0.20	-0.003	-1.4
61	10/24/2009 13:00	10/25/2009 23:30	34.5	0.002	0.33	1.5	0.007	1.25	2.25	0.010	4	6	1.11	0.43	0.019	0.019	0	0.8	0.51	0.51	-0.001	-0.2
62	10/27/2009 4:45	10/27/2009 20:00	15.25	0.010	0.33	1.5	0.010	1.25	2.5	0.006	4	3	0.45	0.06	0.027	0.026	-0.001	-2.0	0.35	0.35	-0.003	-0.8
63	10/27/2009 20:45	10/29/2009 19:00	46.25	0.011	0.33	1.5	0.008	1.25	2.5	0.022	4	8	1.18	0.12	0.041	0.041	0	-0.6	0.75	0.74	-0.012	-1.7
64	10/31/2009 19:15	11/1/2009 1:30	6.25	0.004	0.33	1.25	0.007	1.25	2.5	0.000	0	0	0.17	0.07	0.011	0.011	0	-1.1	0.17	0.17	-0.002	-1.2
65	11/11/2009 23:00	11/13/2009 1:00	26	0.019	0.33	1.5	0.015	1.25	2.5	0.000	0	0	0.26	0.01	0.028	0.034	0.006	23.5	0.14	0.14	-0.002	-1.2
66	11/13/2009 19:45	11/14/2009 23:15	27.5	0.008	0.33	1.5	0.010	1.25	3	0.030	4	4	0.15	0.02	0.054	0.048	-0.006	-10.4	0.13	0.12	-0.013	-9.7
67	11/20/2009 1:45	11/21/2009 1:45	24	0.006	0.33	1.5	0.007	1.25	2.25	0.012	4	5	0.53	0.19	0.024	0.024	0	0.2	0.47	0.47	0.003	0.6
68	11/25/2009 11:45	11/26/2009 1:00	13.25	0.015	0.33	1.5	0.011	1.25	2.5	0.000	0	0	0.13	0.01	0.025	0.026	0.001	3.9	0.11	0.11	-0.009	-7.5
69	11/30/2009 11:15	12/1/2009 8:15	21	0.014	0.33	1.5	0.002	1.25	2.5	0.006	4	4	0.25	0.03	0.022	0.022	0	0.0	0.24	0.21	-0.034	-14.2
70	12/2/2009 15:30	12/4/2009 8:00	40.5	0.005	0.33	1.5	0.004	1.25	2.5	0.011	4	7	1.07	0.08	0.020	0.020	0	-0.5	0.30	0.30	0.002	0.7
71	12/5/2009 10:45	12/7/2009 2:45	40	0.007	0.33	1.5	0.011	1.25	2.5	0.017	4	7	0.48	0.03	0.035	0.035	0	-0.3	0.21	0.21	-0.003	-1.4
72	12/9/2009 0:30	12/10/2009 20:30	44	0.015	0.33	1.5	0.006	1.25	2.25	0.008	4	10	2.18	0.14	0.028	0.029	0.001	3.3	1.49	1.48	-0.004	-0.2
73	12/13/2009 8:45	12/14/2009 9:30	24.75	0.006	0.33	1.5	0.012	1.25	3	0.010	4	4	1.16	0.10	0.027	0.028	0.001	2.2	0.72	0.73	0.009	1.3
74	12/19/2009 6:00	12/20/2009 16:30	34.5	0.003	0.33	1.5	0.003	1.25	3	0.003	4	4	1.18	0.03	0.009	0.009	0	0.1	0.14	0.10	-0.04	-28.5
75	12/25/2009 19:30	12/28/2009 9:15	61.75	0.010	0.33	1.5	0.019	1.25	2.5	0.011	4	9	2.25	0.14	0.039	0.040	0	0.6	1.01	1.01	-0.002	-0.2
76	12/31/2009 20:00	1/2/2010 3:45	31.75	0.006	0.33	1.5	0.006	1.25	2.5	0.056	4	7	0.16	0.02	0.070	0.068	-0.002	-2.3	0.10	0.10	0	0.3

Statistics comparing sim and obs peak I/I flow for all 76 events

Average error = -0.006 MGD

Standard error = 0.015 MGD

Stats for 66 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.002 MGD

Standard error = 0.006 MGD

P090-02-S0090 Sandy Run Interceptor

Pipe Size: 27" dia.

Tributary Drainage Area: 581 acres

Tributary Service Population: 11,971

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	6/3/2013 0:30	6/4/2013 8:45	32.25	0.017	0.5	1	0.007	1.5	2	0.015	4	4	1.57	0.54	0.040	0.039	-0.001	-3.0	9.88	9.77	-0.109	-1.1
2	6/6/2013 19:30	6/8/2013 10:30	39	0.021	0.33	1	0.011	1.5	2	0.011	4	3	4.11	0.38	0.040	0.042	0.001	2.9	11.16	11.00	-0.16	-1.4
3	6/10/2013 7:15	6/11/2013 21:30	38.25	0.022	0.5	1	0.009	1.5	2	0.030	4	6	1.99	0.44	0.063	0.061	-0.002	-3.2	9.86	9.84	-0.029	-0.3
4	6/13/2013 9:30	6/13/2013 15:00	5.5	0.025	0.5	1	0.011	1.5	2.5	0.000	0	0	0.40	0.16	0.034	0.036	0.001	3.4	4.99	4.85	-0.138	-2.8
5	6/18/2013 12:30	6/19/2013 0:00	11.5	0.021	0.5	1	0.027	1.5	2.5	0.000	0	0	0.39	0.06	0.047	0.048	0.001	2.1	1.60	1.57	-0.027	-1.7
6	6/23/2013 15:30	6/23/2013 20:30	5	0.051	0.5	1	0.010	1.5	2.5	0.000	0	0	0.20	0.08	0.048	0.061	0.013	27.6	4.41	4.24	-0.164	-3.7
7	6/25/2013 16:00	6/25/2013 19:45	3.75	0.020	0.4	1	0.017	1.5	1.5	0.000	0	0	0.20	0.12	0.038	0.037	-0.001	-2.8	2.39	2.40	0.009	0.4
8	6/26/2013 20:30	6/27/2013 0:45	4.25	0.018	0.5	1	0.016	1.5	1.5	0.000	0	0	0.28	0.23	0.033	0.034	0.001	3.4	3.67	3.74	0.073	2.0
9	6/27/2013 18:15	6/28/2013 10:45	16.5	0.027	0.5	1	0.004	1.5	1.5	0.007	4	3	0.81	0.20	0.038	0.038	0	-0.1	6.30	6.20	-0.1	-1.6
10	6/30/2013 12:45	6/30/2013 19:30	6.75	0.025	0.5	0.75	0.020	1.5	1.5	0.000	0	0	0.16	0.03	0.044	0.045	0.001	3.4	1.28	1.23	-0.053	-4.1
11	7/1/2013 8:15	7/1/2013 20:00	11.75	0.030	0.5	1	0.030	1.5	2.5	0.000	0	0	0.21	0.04	0.058	0.060	0.002	2.9	1.16	1.12	-0.04	-3.4
12	7/12/2013 15:30	7/13/2013 0:00	8.5	0.040	0.5	1	0.000	0	0	0.000	0	0	0.92	0.17	0.040	0.040	0	-0.1	10.11	10.06	-0.053	-0.5
13	7/13/2013 15:45	7/13/2013 22:15	6.5	0.034	0.5	1	0.005	1.5	1.5	0.000	0	0	0.61	0.12	0.033	0.039	0.006	17.4	5.06	5.00	-0.066	-1.3
14	7/22/2013 18:45	7/23/2013 6:15	11.5	0.020	0.5	1.25	0.003	1.5	1.5	0.000	0	0	1.58	0.61	0.032	0.023	-0.009	-28.4	11.38	11.19	-0.192	-1.7
15	7/28/2013 15:00	7/29/2013 7:30	16.5	0.023	0.5	1	0.031	1.5	3	0.000	0	0	0.54	0.09	0.055	0.054	-0.001	-1.9	2.42	2.48	0.053	2.2
16	8/1/2013 6:30	8/1/2013 19:30	13	0.038	0.33	0.75	0.005	1.5	1.5	0.000	0	0	1.07	0.12	0.043	0.043	0	-0.8	7.50	6.32	-1.178	-15.7
17	8/8/2013 0:15	8/8/2013 5:30	5.25	0.022	0.33	0.75	0.005	1.5	1.5	0.000	0	0	0.59	0.40	0.026	0.027	0.001	3.5	9.06	9.06	0.004	0.0
18	8/13/2013 4:45	8/13/2013 14:15	9.5	0.016	0.5	1	0.013	1.5	2.5	0.000	0	0	1.85	0.59	0.030	0.028	-0.0015	-5.1	12.25	12.20	-0.056	-0.5
19	8/22/2013 6:00	8/22/2013 17:00	11	0.022	0.33	0.75	0.005	1.5	1.5	0.000	0	0	0.58	0.25	0.027	0.027	0	-0.9	5.63	5.57	-0.057	-1.0
20	8/28/2013 11:30	8/28/2013 18:00	6.5	0.027	0.5	1	0.007	1.5	1.5	0.000	0	0	0.60	0.15	0.035	0.034	-0.001	-2.9	5.29	5.18	-0.108	-2.0
21	9/2/2013 10:15	9/2/2013 17:00	6.75	0.000	0	0	0.019	0.5	1	0.008	1.5	2.5	1.29	0.51	0.027	0.027	0	-1.1	11.73	11.61	-0.114	-1.0
22	9/21/2013 20:15	9/22/2013 7:00	10.75	0.029	0.5	1	0.009	1.5	2.5	0.000	0	0	1.25	0.30	0.036	0.038	0.001	3.2	9.62	9.54	-0.083	-0.9

Statistics comparing sim and obs peak I/I flow for all 15 events

Average error = -0.076 MGD

Standard error = 0.111 MGD

Stats for 10 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.036 MGD

Standard error = 0.074 MGD



P090-02-S0590 Sandy Run Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area 635acres

Tributary Service Population: 9,971

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	12/11/2012 4:30	12/11/2012 12:00	7.5	0.059	0.5	1	0.050	1.5	2.5	0.000	0	0	0.09	0.03	0.106	0.109	0.003	3.2	2.48	2.44	-0.038	-1.5
2	12/16/2012 22:00	12/17/2012 4:00	6	0.036	0.5	1	0.047	1.5	2.5	0.000	0	0	0.07	0.02	0.083	0.083	0	-0.2	1.18	1.19	0.001	0.1
3	12/18/2012 1:00	12/18/2012 12:45	11.75	0.030	0.5	1	0.008	1.25	2	0.007	3	3	0.35	0.17	0.051	0.045	-0.006	-12.3	6.76	6.83	0.075	1.1
4	12/18/2012 15:00	12/18/2012 20:30	5.5	0.029	0.5	1	0.030	1.5	2.5	0.000	0	0	0.07	0.04	0.060	0.059	-0.001	-1.5	1.44	1.47	0.035	2.4
5	12/20/2012 21:15	12/22/2012 4:30	31.25	0.033	0.5	1	0.019	1.5	2.5	0.013	4	5	1.77	0.15	0.067	0.065	-0.002	-3.4	8.36	8.24	-0.12	-1.4
6	12/24/2012 17:00	12/25/2012 6:00	13	0.010	0.5	1	0.020	1.5	2.5	0.060	3	2.5	0.21	0.02	0.093	0.090	-0.003	-2.9	1.27	1.26	-0.004	-0.3
7	12/26/2012 13:00	12/28/2012 5:45	40.75	0.041	0.5	1	0.013	1.5	2.5	0.028	4	6	1.27	0.09	0.083	0.082	-0.001	-0.9	7.34	7.31	-0.024	-0.3
8	12/29/2012 10:30	12/30/2012 4:15	17.75	0.039	0.5	1	0.020	1.5	2.5	0.020	3	3	0.22	0.02	0.080	0.079	-0.001	-0.6	1.56	1.55	-0.01	-0.7
9	1/11/2013 13:15	1/12/2013 2:00	12.75	0.041	0.5	1	0.020	1.5	2	0.000	0	0	0.43	0.08	0.060	0.061	0.001	1.4	3.80	3.81	0.008	0.2
10	1/14/2013 21:00	1/15/2013 7:30	10.5	0.041	0.5	1	0.040	1.5	2.5	0.000	0	0	0.36	0.04	0.080	0.081	0.001	1.7	2.98	2.90	-0.079	-2.7
11	1/15/2013 21:30	1/17/2013 1:30	28	0.043	0.5	1	0.020	1.5	2.5	0.024	4	4	1.03	0.07	0.087	0.087	0	0.3	5.76	5.71	-0.05	-0.9
12	1/28/2013 12:45	1/28/2013 22:30	9.75	0.040	0.5	1	0.058	1.5	2.5	0.000	0	0	0.19	0.03	0.097	0.098	0.001	0.8	2.22	2.22	0.002	0.1
13	1/30/2013 18:30	2/1/2013 0:00	29.5	0.023	0.5	1	0.026	1.5	2.5	0.012	4	5	1.24	0.25	0.064	0.061	-0.003	-4.1	8.53	8.47	-0.06	-0.7
14	2/8/2013 6:00	2/9/2013 8:00	26	0.034	0.5	1	0.030	1.5	3	0.000	0	0	0.39	0.02	0.063	0.064	0.001	2.3	1.52	1.24	-0.279	-18.4
15	2/11/2013 4:15	2/12/2013 3:00	22.75	0.036	0.5	1	0.029	1.5	2.25	0.040	4	4	0.37	0.04	0.107	0.105	-0.002	-2.3	3.35	3.33	-0.024	-0.7
16	2/13/2013 18:30	2/14/2013 12:30	18	0.038	0.5	1	0.038	1.5	2.5	0.034	3	4	0.17	0.02	0.110	0.110	0	-0.4	1.23	1.23	0.004	0.3
17	2/19/2013 11:30	2/20/2013 0:00	12.5	0.051	0.5	1	0.049	1.5	2.5	0.000	0	0	0.20	0.02	0.103	0.100	-0.003	-2.7	1.89	1.63	-0.254	-13.5
18	2/23/2013 3:15	2/23/2013 22:00	18.75	0.040	0.5	1	0.038	1.5	2.5	0.000	0	0	0.14	0.01	0.081	0.078	-0.003	-4.0	0.95	0.70	-0.253	-26.5
19	2/26/2013 19:15	2/27/2013 21:30	26.25	0.032	0.5	1	0.020	1.5	2	0.013	4	4	0.67	0.08	0.064	0.065	0.001	2.1	3.78	3.73	-0.045	-1.2
20	3/6/2013 9:00	3/7/2013 2:15	17.25	0.033	0.5	1	0.030	1.5	2.5	0.000	0	0	0.14	0.01	0.063	0.063	0	0.8	1.61	0.79	-0.828	-51.3
21	3/8/2013 7:45	3/8/2013 21:00	13.25	0.007	0.5	1	0.080	1.5	3	0.040	3	3	0.16	0.02	0.128	0.127	-0.001	-1.1	1.33	1.34	0.008	0.6
22	3/12/2013 3:00	3/13/2013 5:45	26.75	0.029	0.5	1	0.029	1.5	2.5	0.012	4	5	0.99	0.08	0.072	0.070	-0.002	-2.1	4.23	4.23	-0.001	0.0
23	3/16/2013 9:30	3/16/2013 22:30	13	0.046	0.5	1	0.040	1.5	2.5	0.000	0	0	0.15	0.02	0.085	0.086	0.001	1.7	2.15	1.64	-0.508	-23.7
24	3/18/2013 18:00	3/20/2013 9:45	39.75	0.036	0.5	1	0.020	1.5	2.5	0.030	4	6	0.85	0.06	0.085	0.086	0.001	1.3	3.40	3.32	-0.072	-2.1
25	3/25/2013 6:00	3/26/2013 7:00	25	0.016	0.5	1	0.016	1.5	2.5	0.063	4	4	0.58	0.04	0.094	0.095	0.001	0.7	2.42	2.41	-0.01	-0.4
26	3/31/2013 15:15	4/1/2013 0:45	9.5	0.037	0.5	1	0.035	1.5	2.5	0.000	0	0	0.17	0.03	0.071	0.072	0.001	1.6	1.79	1.79	0.004	0.2
27	4/10/2013 20:30	4/11/2013 4:00	7.5	0.022	0.5	1	0.020	1.5	2	0.000	0	0	0.37	0.20	0.044	0.042	-0.0016	-3.7	5.13	5.02	-0.106	-2.1
28	4/12/2013 7:00	4/12/2013 21:00	14	0.027	0.5	1	0.020	1.5	2.5	0.000	0	0	0.81	0.10	0.045	0.047	0.001	3.2	4.48	4.36	-0.121	-2.7
29	4/12/2013 21:45	4/13/2013 10:30	12.75	0.033	0.5	1	0.011	1.5	2	0.012	3	3	0.35	0.09	0.056	0.056	0	-0.7	4.13	4.06	-0.07	-1.7
30	4/19/2013 21:15	4/20/2013 7:15	10	0.025	0.5	0.75	0.025	1.5	2	0.000	0	0	0.51	0.05	0.048	0.050	0.002	4.2	3.68	2.82	-0.857	-23.3
31	4/29/2013 1:45	4/30/2013 0:45	23	0.049	0.5	0.75	0.030	1.5	2	0.000	0	0	0.43	0.03	0.078	0.079	0.001	0.7	3.31	2.34	-0.977	-29.5
32	5/7/2013 22:00	5/8/2013 3:45	5.75	0.050	0.5	0.75	0.008	1.5	2	0.000	0	0	0.11	0.04	0.057	0.058	0.0013	2.3	2.22	2.22	0	0.0
33	5/8/2013 5:45	5/8/2013 13:45	8	0.013	0.5	1	0.016	1.5	2	0.000	0	0	0.41	0.17	0.030	0.029	-0.001	-3.3	2.65	2.71	0.057	2.2
34	5/8/2013 17:45	5/8/2013 23:30	5.75	0.031	0.5	1.25	0.015	1.5	2.5	0.000	0	0	0.19	0.06	0.046	0.046	0	-0.3	2.23	2.21	-0.015	-0.7
35	5/9/2013 3:45	5/9/2013 10:30	6.75	0.032	0.5	1.5	0.010	1.5	2	0.000	0	0	0.54	0.09	0.044	0.042	-0.002	-4.3	3.86	3.85	-0.008	-0.2
36	5/10/2013 22:30	5/11/2013 16:15	17.75	0.031	0.5	1	0.011	1.5	2	0.010	4	3	0.69	0.10	0.051	0.052	0.001	1.4	4.41	4.38	-0.031	-0.7
37	5/18/2013 20:15	5/19/2013 5:30	9.25	0.029	0.5	1	0.025	1.5	2	0.000	0	0	0.23	0.04	0.061	0.054	-0.007	-10.9	1.88	1.89	0.008	0.4
38	5/23/2013 16:00	5/24/2013 9:15	17.25	0.027	0.5	1.25	0.009	1.5	2.5	0.005	3	3	0.61	0.30	0.043	0.041	-0.0015	-3.5	7.61	7.63	0.029	0.4
39	5/24/2013 10:30	5/24/2013 18:45	8.25	0.042	0.5	1	0.032	1.5	2.5	0.000	0	0	0.10	0.02	0.073	0.074	0.001	1.2	1.26	1.26	-0.004	-0.3
40	5/28/2013 9:30	5/28/2013 19:45	10.25	0.031	0.5	1	0.029	1.5	2	0.000	0	0	0.29	0.03	0.059	0.060	0.001	1.9	2.18	1.98	-0.198	-9.1
41	6/3/2013 0:15	6/3/2013 12:15	12	0.016	0.5	1.5	0.010	1.5	2.5	0.000	0	0	1.23	0.54	0.034	0.026	-0.009	-26.0	8.87	8.82	-0.05	-0.6
42	6/3/2013 15:30	6/4/2013 5:45	14.25	0.032	0.5	1	0.016	1.5	2.5	0.016	4	3	0.38	0.23	0.065	0.064	-0.001	-1.0	7.77	7.72	-0.052	-0.7
43	6/6/2013 19:30	6/9/2013 1:45	54.25	0.006	0.5	1	0.045	1.5	2.5	0.012	4	6	4.10	0.34	0.065	0.063	-0.002	-3.5	8.29	8.39	0.103	1.2
44	6/10/2013 7:15	6/12/2013 13:45	54.5	0.010	0.5	1	0.034	1.5	2	0.020	4	10	2.02	0.35	0.064	0.064	0	0.6	6.21	6.16	-0.047	-0.8

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P090-02-S0590 Sandy Run Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area 635acres

Tributary Service Population: 9,971

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
45	6/13/2013 9:30	6/14/2013 11:15	25.75	0.023	0.5	1	0.010	1.5	2.5	0.010	4	6	0.53	0.17	0.043	0.043	0	0.8	5.24	5.13	-0.109	-2.1
46	6/18/2013 12:30	6/19/2013 0:00	11.5	0.017	0.5	1	0.036	1.5	2.5	0.000	0	0	0.42	0.10	0.053	0.053	0	0.2	2.02	1.99	-0.029	-1.4
47	6/23/2013 15:30	6/23/2013 20:30	5	0.026	0.5	1	0.010	1.5	2	0.000	0	0	0.16	0.06	0.036	0.036	0	0.3	2.44	2.38	-0.061	-2.5
48	6/25/2013 16:00	6/25/2013 20:45	4.75	0.024	0.5	1	0.011	1.5	2.5	0.000	0	0	0.17	0.10	0.035	0.035	0.0002	0.6	2.67	2.61	-0.06	-2.2
49	6/26/2013 20:30	6/27/2013 2:15	5.75	0.024	0.5	1	0.013	1.5	2.5	0.000	0	0	0.28	0.24	0.037	0.037	0	-0.1	5.46	5.33	-0.131	-2.4
50	6/27/2013 18:15	6/28/2013 11:15	17	0.019	0.5	1.25	0.006	1.5	2.5	0.007	4	3	0.95	0.27	0.033	0.032	-0.001	-3.4	6.28	6.31	0.037	0.6
51	6/30/2013 13:45	6/30/2013 19:00	5.25	0.058	0.5	1	0.014	1.5	2.5	0.000	0	0	0.11	0.03	0.072	0.072	-0.0004	-0.6	2.08	2.00	-0.077	-3.7
52	7/1/2013 7:45	7/1/2013 19:45	12	0.025	0.5	1	0.031	1.5	2.5	0.000	0	0	0.30	0.12	0.057	0.056	-0.001	-1.1	3.00	2.97	-0.024	-0.8
53	7/3/2013 21:45	7/4/2013 4:00	6.25	0.037	0.5	1	0.014	1.5	2.5	0.000	0	0	0.11	0.04	0.049	0.051	0.002	4.5	2.12	2.11	-0.009	-0.4
54	7/10/2013 12:30	7/10/2013 17:15	4.75	0.016	0.5	1	0.006	1.5	2.5	0.000	0	0	0.15	0.14	0.023	0.022	-0.001	-2.5	2.13	1.90	-0.231	-10.8
55	7/12/2013 15:30	7/13/2013 7:15	15.75	0.021	0.5	1	0.023	1.5	2.5	0.000	0	0	0.93	0.18	0.043	0.044	0.001	1.7	6.56	6.48	-0.082	-1.3
56	7/13/2013 16:00	7/14/2013 1:15	9.25	0.028	0.5	1.5	0.010	1.5	3	0.000	0	0	0.67	0.14	0.036	0.038	0.0019	5.3	5.16	4.98	-0.181	-3.5
57	7/22/2013 18:45	7/23/2013 21:45	27	0.013	0.5	1.5	0.012	1.25	2.5	0.006	4	4	1.47	0.49	0.032	0.031	-0.001	-4.2	6.97	7.09	0.126	1.8
58	7/28/2013 15:15	7/29/2013 6:15	15	0.023	0.5	1	0.023	1.5	2.5	0.000	0	0	0.40	0.06	0.046	0.046	0	0.0	1.77	1.81	0.037	2.1
59	8/1/2013 6:30	8/2/2013 8:30	26	0.031	0.5	1	0.009	1.5	2.5	0.010	4	4	1.03	0.12	0.050	0.050	0	0.6	5.82	5.83	0.008	0.1
60	8/8/2013 0:15	8/8/2013 6:45	6.5	0.019	0.5	1	0.012	1.5	2.5	0.000	0	0	0.62	0.41	0.031	0.031	0	1.0	7.56	7.53	-0.035	-0.5
61	8/13/2013 5:00	8/14/2013 10:45	29.75	0.009	0.5	1.5	0.012	1.5	2.5	0.009	4	6	1.88	0.64	0.031	0.030	-0.001	-2.8	7.51	7.53	0.021	0.3
62	8/28/2013 11:30	8/28/2013 19:45	8.25	0.032	0.5	1	0.009	1.5	2.5	0.000	0	0	0.62	0.11	0.041	0.041	0	1.0	5.82	5.72	-0.109	-1.9
63	9/2/2013 10:15	9/3/2013 5:00	18.75	0.007	0.5	1.5	0.021	1.5	2.5	0.003	4	4	1.40	0.61	0.030	0.031	0.001	3.4	6.37	6.38	0.008	0.1
64	9/12/2013 18:45	9/13/2013 7:15	12.5	0.028	0.5	1	0.015	1.5	2	0.000	0	0	0.57	0.15	0.042	0.043	0.001	3.1	6.51	6.41	-0.097	-1.5

Statistics comparing sim and obs peak I/I flow for all 58 events

Average error = -0.103 MGD

Standard error = 0.239 MGD

Stats for 50 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.035 MGD

Standard error = 0.081 MGD

P090-02-S0715 Sandy Run Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 388 acres

Tributary Service Population: 5,559

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	11/29/2011 14:15	11/30/2011 13:45	23.5	0.039	0.5	1.5	0.013	2	2.5	0.014	4	4	0.73	0.10	0.065	0.066	0.001	1.7	2.44	2.40	-0.041	-1.7
2	12/6/2011 14:15	12/7/2011 0:15	10	0.046	0.5	1.5	0.035	2	2.5	0.000	0	0	0.12	0.03	0.082	0.081	-0.001	-0.9	1.01	1.00	-0.002	-0.2
3	12/7/2011 3:30	12/9/2011 21:00	65.5	0.032	0.5	1.5	0.025	2	2.5	0.020	4	12	2.52	0.22	0.079	0.077	-0.002	-2.2	5.56	5.70	0.138	2.5
4	12/20/2011 13:00	12/21/2011 9:45	20.75	0.040	0.5	1.5	0.047	2	2.5	0.020	4	4	0.11	0.01	0.105	0.107	0.002	1.8	0.69	0.67	-0.014	-2.0
5	12/21/2011 14:45	12/22/2011 15:15	24.5	0.029	0.5	1.5	0.015	2	2.5	0.043	4	4	0.17	0.11	0.091	0.087	-0.004	-4.2	1.39	1.42	0.026	1.9
6	12/22/2011 21:45	12/24/2011 3:00	29.25	0.035	0.5	1.5	0.010	2	2.5	0.015	4	5	1.35	0.14	0.062	0.060	-0.002	-3.8	4.64	4.63	-0.007	-0.2
7	12/27/2011 13:15	12/28/2011 8:00	18.75	0.039	0.5	1.5	0.010	2	2.5	0.019	4	4	0.59	0.07	0.071	0.068	-0.003	-4.4	2.22	2.22	0.004	0.2
8	1/11/2012 19:45	1/13/2012 1:30	29.75	0.037	0.5	1.5	0.007	2	2.5	0.012	4	4	1.55	0.14	0.057	0.056	-0.001	-2.4	4.71	4.68	-0.029	-0.6
9	1/16/2012 22:45	1/18/2012 7:30	32.75	0.042	0.5	1.5	0.018	2	2.5	0.030	4	4	0.33	0.04	0.093	0.090	-0.003	-3.3	1.41	1.38	-0.032	-2.3
10	1/23/2012 9:30	1/24/2012 11:15	25.75	0.050	0.5	1.5	0.040	2	3	0.040	4	4	0.30	0.04	0.187	0.130	-0.057	-30.5	2.10	2.20	0.1	4.8
11	1/26/2012 19:00	1/28/2012 5:30	34.5	0.058	0.5	1	0.010	2	2.5	0.015	4	4	0.43	0.11	0.079	0.083	0.004	4.7	4.51	4.44	-0.065	-1.4
12	2/11/2012 4:30	2/12/2012 4:45	24.25	0.015	0.5	1.5	0.045	2.5	2	0.045	4	4	0.19	0.04	0.109	0.105	-0.004	-3.7	0.69	0.70	0.015	2.2
13	2/16/2012 11:30	2/17/2012 1:15	13.75	0.036	0.5	1.5	0.030	2	2.5	0.000	0	0	0.16	0.02	0.065	0.066	0.0006	0.9	0.76	0.72	-0.037	-4.9
14	2/24/2012 2:45	2/25/2012 1:30	22.75	0.037	0.5	1.5	0.026	2	2.5	0.000	0	0	0.31	0.06	0.060	0.063	0.003	4.5	1.60	1.55	-0.05	-3.1
15	2/29/2012 10:15	3/1/2012 8:45	22.5	0.038	0.5	1.5	0.018	2	2.5	0.000	0	0	0.97	0.08	0.055	0.056	0.001	1.0	2.34	2.35	0.013	0.5
16	3/2/2012 20:30	3/3/2012 16:00	19.5	0.044	0.5	1.5	0.024	2	2.5	0.000	0	0	0.34	0.05	0.067	0.068	0.001	0.8	1.33	1.31	-0.018	-1.4
17	3/13/2012 3:45	3/13/2012 13:15	9.5	0.035	0.5	1.5	0.020	2	2.5	0.000	0	0	0.09	0.02	0.055	0.055	0	-0.8	0.93	0.66	-0.269	-28.9
18	3/31/2012 0:45	3/31/2012 23:15	22.5	0.028	0.5	1.5	0.008	2	2.5	0.018	4	4	0.33	0.05	0.054	0.054	0	0.7	1.45	1.47	0.024	1.7
19	4/1/2012 18:30	4/2/2012 23:15	28.75	0.044	0.5	1.5	0.015	2	2.5	0.035	4	5	0.19	0.05	0.095	0.094	-0.001	-0.7	1.48	1.48	-0.002	-0.1
20	4/21/2012 21:15	4/22/2012 1:15	4	0.011	0.5	1.5	0.011	1	2.5	0.000	0	0	0.17	0.13	0.023	0.022	-0.0005	-2.2	0.79	0.82	0.035	4.5
21	4/22/2012 8:45	4/24/2012 0:00	39.25	0.036	0.5	1.25	0.014	2	3	0.008	4	5	2.07	0.12	0.056	0.058	0.002	4.2	4.57	4.53	-0.044	-1.0
22	5/1/2012 4:00	5/1/2012 13:45	9.75	0.028	0.5	1.5	0.020	2	2.5	0.000	0	0	0.25	0.09	0.050	0.048	-0.002	-3.3	1.38	1.33	-0.055	-4.0
23	5/3/2012 2:15	5/3/2012 10:15	8	0.037	0.5	1.75	0.030	2	2.5	0.000	0	0	0.11	0.03	0.068	0.067	-0.001	-0.9	0.94	0.94	-0.002	-0.2
24	5/4/2012 21:45	5/5/2012 4:30	6.75	0.017	0.5	2	0.012	1.75	2.5	0.000	0	0	0.28	0.15	0.029	0.029	0	-0.3	1.25	1.22	-0.036	-2.9
25	5/9/2012 0:00	5/9/2012 14:00	14	0.039	0.5	1.75	0.020	2	3	0.000	0	0	0.36	0.07	0.061	0.059	-0.002	-3.3	2.42	2.43	0.009	0.4
26	5/9/2012 21:30	5/10/2012 12:15	14.75	0.050	0.5	1.75	0.048	2	3	0.000	0	0	0.20	0.02	0.100	0.098	-0.002	-2.1	0.92	0.94	0.014	1.5
27	5/15/2012 8:45	5/17/2012 0:45	40	0.030	0.5	1.5	0.005	2	2.5	0.007	4	5	2.82	0.46	0.042	0.042	-0.0002	-0.5	7.64	7.50	-0.144	-1.9
28	5/21/2012 1:30	5/21/2012 11:45	10.25	0.032	0.5	1.5	0.015	2	2.5	0.000	0	0	0.23	0.09	0.047	0.047	0	0.3	1.59	1.30	-0.293	-18.4
29	5/21/2012 21:00	5/22/2012 12:00	15	0.043	0.5	1.5	0.038	2	2.5	0.000	0	0	0.26	0.03	0.080	0.081	0.001	0.6	0.97	0.96	-0.012	-1.2
30	5/24/2012 7:45	5/25/2012 0:00	16.25	0.034	0.5	1.5	0.023	2	3.5	0.000	0	0	0.26	0.16	0.056	0.057	0.001	1.4	2.98	2.94	-0.038	-1.3
31	5/27/2012 4:15	5/27/2012 13:15	9	0.037	0.5	1.5	0.008	2	2.5	0.000	0	0	0.68	0.23	0.044	0.045	0.001	1.2	6.82	5.06	-1.759	-25.8
32	5/29/2012 20:00	5/30/2012 5:00	9	0.042	0.5	1.5	0.012	2	2.5	0.000	0	0	0.37	0.23	0.052	0.054	0.002	3.9	4.15	4.03	-0.127	-3.1
33	6/1/2012 20:15	6/2/2012 8:00	11.75	0.048	0.5	1.5	0.009	2	2.5	0.000	0	0	0.25	0.05	0.055	0.057	0.002	2.9	1.90	1.87	-0.037	-1.9
34	6/12/2012 9:45	6/13/2012 16:00	30.25	0.049	0.5	1.25	0.009	2	2.5	0.009	4	4	0.73	0.06	0.064	0.067	0.003	4.6	2.98	2.85	-0.13	-4.4
35	6/22/2012 18:30	6/23/2012 17:15	22.75	0.027	0.5	1.75	0.006	2	2.5	0.012	4	4	0.55	0.19	0.045	0.045	0	-0.9	2.46	2.45	-0.014	-0.6
36	6/29/2012 5:30	6/29/2012 14:00	8.5	0.031	0.5	1.5	0.021	2	3	0.000	0	0	0.10	0.09	0.054	0.052	-0.002	-3.5	1.29	1.22	-0.069	-5.3
37	7/14/2012 4:00	7/14/2012 15:15	11.25	0.038	0.5	1.5	0.014	2	2.5	0.000	0	0	0.24	0.04	0.053	0.052	-0.001	-1.5	1.10	1.05	-0.058	-5.2
38	7/15/2012 21:30	7/16/2012 6:45	9.25	0.028	0.5	1.75	0.008	2	3	0.000	0	0	0.98	0.44	0.037	0.036	-0.0005	-1.4	6.91	6.90	-0.01	-0.1
39	7/20/2012 1:15	7/20/2012 16:15	15	0.028	0.5	1.5	0.016	2	2.5	0.000	0	0	1.13	0.46	0.045	0.044	-0.0012	-2.7	6.52	6.50	-0.018	-0.3
40	7/26/2012 19:30	7/27/2012 6:00	10.5	0.032	0.5	1.5	0.014	2	2.5	0.000	0	0	0.38	0.16	0.045	0.046	0.001	3.2	2.52	2.45	-0.067	-2.7
41	7/28/2012 13:00	7/28/2012 21:45	8.75	0.013	0.5	1.5	0.007	2	2.5	0.000	0	0	0.35	0.25	0.024	0.020	-0.005	-19.3	1.44	1.45	0.014	1.0
42	8/1/2012 16:30	8/2/2012 0:00	7.5	0.010	0.5	1.5	0.005	2	2.5	0.000	0	0	1.29	0.55	0.016	0.015	-0.001	-3.8	6.79	4.06	-2.722	-40.1
43	8/4/2012 13:15	8/4/2012 19:45	6.5	0.022	0.5	1.25	0.004	2	2.5	0.000	0	0	0.48	0.36	0.028	0.026	-0.002	-7.1	5.65	4.20	-1.447	-25.6
44	8/5/2012 18:15	8/6/2012 7:00	12.75	0.025	0.5	1.5	0.020	2	2.5	0.000	0	0	0.86	0.29	0.044	0.045	0.001	1.1	3.21	3.14	-0.069	-2.2

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P090-02-S0715 Sandy Run Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 388 acres

Tributary Service Population: 5,559

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
45	8/10/2012 10:00	8/10/2012 17:45	7.75	0.041	0.5	1.5	0.005	2	2.5	0.000	0	0	0.33	0.08	0.043	0.046	0.003	8.0	2.45	2.36	-0.089	-3.6
46	8/11/2012 17:15	8/11/2012 21:45	4.5	0.022	0.5	1.5	0.003	2	2.5	0.000	0	0	0.29	0.20	0.024	0.025	0.001	3.4	2.39	1.94	-0.449	-18.8
47	8/14/2012 10:00	8/15/2012 6:30	20.5	0.039	0.5	1.5	0.011	2	2.5	0.000	0	0	0.59	0.12	0.049	0.050	0.001	1.8	3.85	3.73	-0.12	-3.1
48	8/17/2012 22:00	8/18/2012 12:15	14.25	0.040	0.5	1.5	0.010	2	2.5	0.000	0	0	0.74	0.15	0.051	0.050	-0.001	-1.2	4.90	4.85	-0.049	-1.0
49	8/27/2012 9:15	8/28/2012 0:00	14.75	0.019	0.5	1.5	0.006	2	2.5	0.000	0	0	0.89	0.34	0.025	0.025	0	0.9	5.18	4.18	-0.998	-19.3
50	8/28/2012 5:15	8/28/2012 13:15	8	0.045	0.5	1.5	0.015	2	2.5	0.000	0	0	0.15	0.04	0.059	0.060	0.001	1.9	1.59	1.16	-0.429	-27.0
51	9/3/2012 9:30	9/3/2012 21:00	11.5	0.031	0.5	1.5	0.008	2	2.5	0.000	0	0	1.49	0.26	0.039	0.039	0	-0.8	6.75	6.63	-0.12	-1.8
52	9/4/2012 1:45	9/6/2012 1:00	47.25	0.019	0.5	1.75	0.009	2	3	0.012	4	4	3.68	0.74	0.049	0.040	-0.009	-18.8	9.72	7.69	-2.025	-20.8
53	9/8/2012 16:45	9/9/2012 1:45	9	0.064	0.5	1.5	0.020	2	2.5	0.000	0	0	0.24	0.04	0.084	0.084	0	0.2	2.02	1.95	-0.07	-3.5
54	9/18/2012 2:30	9/19/2012 4:45	26.25	0.031	0.5	1.25	0.018	2	2	0.000	0	0	0.98	0.21	0.050	0.049	-0.0008	-1.6	4.27	4.30	0.028	0.7
55	9/22/2012 19:30	9/23/2012 4:45	9.25	0.042	0.5	1.5	0.023	2	2	0.000	0	0	0.31	0.15	0.065	0.065	0	0.4	3.41	3.33	-0.075	-2.2
56	9/26/2012 23:30	9/27/2012 13:00	13.5	0.046	0.5	1.5	0.023	2	2.5	0.000	0	0	0.17	0.07	0.070	0.069	-0.001	-1.1	1.54	1.53	-0.01	-0.6
57	9/28/2012 1:15	9/28/2012 14:30	13.25	0.045	0.5	1.25	0.018	2	2.5	0.000	0	0	0.16	0.10	0.062	0.063	0.001	1.2	2.51	2.47	-0.037	-1.5
58	10/2/2012 10:30	10/2/2012 22:30	12	0.054	0.5	1.5	0.026	2	3.5	0.000	0	0	0.13	0.03	0.080	0.080	0	0.5	1.07	1.06	-0.007	-0.7
59	10/7/2012 10:45	10/8/2012 5:15	18.5	0.074	0.5	1.5	0.018	2	3.5	0.000	0	0	0.21	0.03	0.089	0.092	0.003	3.0	1.46	1.42	-0.041	-2.8
60	10/9/2012 4:45	10/9/2012 12:30	7.75	0.041	0.5	1.5	0.010	2	2.5	0.000	0	0	0.13	0.03	0.051	0.051	0	0.7	1.18	0.86	-0.315	-26.7
61	10/15/2012 11:15	10/16/2012 0:00	12.75	0.039	0.5	1.75	0.026	2	2.5	0.000	0	0	0.25	0.12	0.069	0.065	-0.004	-5.8	1.98	1.95	-0.03	-1.5
62	10/19/2012 9:30	10/19/2012 20:30	11	0.035	0.5	1.25	0.010	2	2.5	0.000	0	0	0.81	0.20	0.045	0.045	0	0.1	5.74	5.60	-0.144	-2.5
63	10/28/2012 15:45	10/28/2012 21:45	6	0.068	0.5	1.75	0.010	2	2.5	0.000	0	0	0.13	0.03	0.078	0.078	0	0.0	1.18	1.17	-0.013	-1.1
64	10/29/2012 4:30	10/30/2012 6:30	26	0.039	0.5	1.5	0.021	2	3.5	0.000	0	0	2.33	0.16	0.059	0.060	0.001	1.0	5.83	5.87	0.043	0.7
65	11/7/2012 11:15	11/8/2012 18:45	31.5	0.040	0.5	1.5	0.025	2	2.5	0.025	4	4	0.52	0.03	0.086	0.090	0.004	5.0	1.22	1.16	-0.054	-4.5
66	11/13/2012 2:45	11/14/2012 5:00	26.25	0.039	0.5	1.5	0.025	2	3.5	0.025	4	4	0.24	0.06	0.092	0.089	-0.003	-3.1	1.18	1.20	0.021	1.8
67	11/27/2012 6:15	11/28/2012 11:30	29.25	0.041	0.5	1.5	0.015	2	2.5	0.015	4	4.5	0.63	0.02	0.072	0.071	-0.001	-1.6	1.41	1.39	-0.026	-1.9

Statistics comparing sim and obs peak I/I flow for all 67 events

Average error = -0.237 MGD

Standard error = 0.590 MGD

Stats for 60 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than

one standard error identified by \* in above table.

Average error = -0.074 MGD

Standard error = 0.153 MGD

T088-01-S0050 Tacony High Level Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 497 acres

Tributary Service Population: 12,452

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	10/27/2011 5:30	10/28/2011 12:30	31	0.045	0.75	1.5	0.005	3	2	0.020	5	3	0.33	0.05	0.070	0.070	0.0002	0.3	1.75	1.75	-0.004	-0.2
2	10/29/2011 6:15	10/30/2011 7:15	25	0.019	0.75	1.5	0.009	3	2	0.045	5	4	1.17	0.07	0.073	0.073	0	-0.5	1.94	1.95	0.009	0.5
3	11/16/2011 1:30	11/17/2011 13:00	35.5	0.031	0.75	1	0.022	3	2	0.030	5	3	0.59	0.07	0.084	0.083	-0.001	-1.5	1.85	1.85	-0.001	-0.1
4	11/20/2011 22:15	11/21/2011 9:15	11	0.061	0.75	1.5	0.010	3	2	0.000	0	0	0.15	0.02	0.071	0.071	0	0.2	1.50	0.96	-0.545	-36.3
5	11/21/2011 23:00	11/27/2011 5:00	126	0.014	0.75	1.5	0.020	3	2	0.046	5	18	2.32	0.18	0.080	0.080	0	-0.2	2.55	2.54	-0.016	-0.6
6	11/29/2011 0:00	12/1/2011 0:45	48.75	0.027	0.75	1.5	0.006	3	2	0.026	5	5	0.79	0.06	0.059	0.059	0	0.4	1.76	1.76	-0.002	-0.1
7	12/6/2011 13:30	12/14/2011 2:30	181	0.009	0.75	1.5	0.010	3	2.5	0.050	5	30	2.69	0.14	0.084	0.069	-0.015	-17.9	1.88	1.87	-0.009	-0.5
8	12/20/2011 12:45	12/20/2011 23:00	10.25	0.043	0.75	1.5	0.022	3	2	0.000	0	0	0.11	0.01	0.063	0.065	0.002	3.7	0.68	0.66	-0.021	-3.1
9	12/21/2011 14:45	12/22/2011 1:30	10.75	0.035	0.75	1.5	0.013	3	2	0.000	0	0	0.18	0.10	0.049	0.048	-0.001	-1.1	1.41	1.40	-0.009	-0.6
10	12/22/2011 21:15	12/25/2011 4:00	54.75	0.018	0.75	1.5	0.005	3	2	0.027	5	10	1.27	0.14	0.050	0.050	0	-0.4	2.76	2.76	0	0.0
11	12/27/2011 13:15	12/28/2011 6:15	17	0.029	0.75	1.5	0.009	3	3	0.000	0	0	0.63	0.15	0.055	0.038	-0.017	-30.7	1.88	1.85	-0.023	-1.2
12	1/11/2012 19:30	1/14/2012 11:00	63.5	0.026	0.75	1.5	0.008	3	2	0.025	5	10	1.55	0.12	0.059	0.059	0	-0.3	3.14	3.15	0.009	0.3
13	1/16/2012 22:30	1/18/2012 5:00	30.5	0.051	0.75	1.5	0.019	3	2	0.021	5	3	0.34	0.03	0.091	0.091	0	0.5	2.03	2.01	-0.021	-1.0
14	1/21/2012 2:15	1/22/2012 2:45	24.5	0.007	0.75	1.5	0.014	3	2	0.000	0	0	0.32	0.03	0.021	0.021	0	-0.9	0.34	0.35	0.005	1.4
15	1/23/2012 3:00	1/24/2012 23:30	44.5	0.080	0.75	1.5	0.060	3	2	0.050	5	8	0.33	0.05	0.276	0.190	-0.086	-31.2	4.10	4.10	-0.004	-0.1
16	1/27/2012 5:45	1/27/2012 20:30	14.75	0.040	0.75	1.5	0.008	3	2	0.000	0	0	0.53	0.17	0.068	0.048	-0.02	-29.0	3.49	3.50	0.008	0.2
17	2/11/2012 5:15	2/12/2012 1:45	20.5	0.060	0.75	1.5	0.130	3	2	0.000	0	0	0.28	0.05	0.155	0.190	0.035	22.6	2.22	2.28	0.056	2.5
18	2/16/2012 10:15	2/17/2012 2:30	16.25	0.107	0.75	1.5	0.010	3	2	0.000	0	0	0.16	0.02	0.112	0.117	0.005	4.7	2.12	2.09	-0.031	-1.5
19	2/24/2012 2:30	2/24/2012 21:15	18.75	0.098	0.75	1.5	0.020	3	2	0.000	0	0	0.29	0.05	0.119	0.118	-0.001	-0.7	3.96	3.90	-0.051	-1.3
20	2/29/2012 10:00	3/2/2012 4:45	42.75	0.072	0.75	1.5	0.010	3	2	0.026	5	6	0.96	0.07	0.107	0.108	0.001	0.5	4.39	4.41	0.019	0.4
21	3/2/2012 20:15	3/3/2012 21:45	25.5	0.114	0.75	1.5	0.006	3	3	0.024	5	3	0.34	0.05	0.140	0.144	0.004	2.6	3.31	3.28	-0.03	-0.9
22	3/13/2012 3:00	3/13/2012 17:00	14	0.145	0.5	1.25	0.010	3	2	0.000	0	0	0.09	0.02	0.155	0.155	0	0.0	3.09	3.04	-0.049	-1.6
23	3/24/2012 18:00	3/25/2012 2:45	8.75	0.112	0.5	1.25	0.015	2	2	0.000	0	0	0.06	0.02	0.123	0.127	0.004	3.3	2.43	2.39	-0.038	-1.6
24	3/31/2012 0:45	3/31/2012 17:00	16.25	0.076	0.75	1.5	0.006	3	2	0.013	5	3	0.31	0.05	0.094	0.095	0.001	1.0	4.02	4.01	-0.012	-0.3
25	4/1/2012 18:00	4/2/2012 10:30	16.5	0.130	0.75	1.5	0.010	3	2	0.000	0	0	0.18	0.04	0.136	0.140	0.004	3.2	3.76	3.72	-0.033	-0.9
26	4/21/2012 21:00	4/22/2012 0:30	3.5	0.220	0.75	1.5	0.000	0	0	0.000	0	0	0.05	0.03	0.220	0.220	0	0.0	3.08	3.04	-0.044	-1.4
27	4/22/2012 8:15	4/24/2012 0:30	40.25	0.025	0.75	1.5	0.020	3	2	0.020	5	4	2.19	0.12	0.082	0.065	-0.017	-20.6	4.64	4.67	0.023	0.5
28	5/1/2012 3:45	5/1/2012 14:15	10.5	0.095	0.75	1.25	0.010	3	2	0.000	0	0	0.23	0.07	0.103	0.105	0.002	2.3	3.59	3.57	-0.02	-0.6
29	5/3/2012 2:15	5/3/2012 11:30	9.25	0.126	0.75	1.25	0.014	3	2	0.000	0	0	0.11	0.03	0.135	0.140	0.005	4.1	3.27	3.25	-0.028	-0.8
30	5/4/2012 21:30	5/5/2012 20:15	22.75	0.044	0.75	1.5	0.005	3	2	0.020	5	4	0.38	0.19	0.069	0.069	0	0.0	4.53	4.53	-0.001	0.0
31	5/8/2012 16:15	5/10/2012 20:15	52	0.056	0.75	1.5	0.010	3	2	0.027	5	3	0.54	0.07	0.093	0.093	0	-0.5	3.87	3.84	-0.028	-0.7
32	5/14/2012 20:00	5/17/2012 12:15	64.25	0.021	0.75	1.75	0.005	3	2	0.019	5	6	2.96	0.45	0.045	0.045	-0.001	-1.3	8.02	8.00	-0.023	-0.3
33	5/21/2012 1:45	5/21/2012 12:30	10.75	0.045	0.5	1.25	0.010	3	2	0.000	0	0	0.15	0.05	0.052	0.055	0.003	6.8	2.39	1.93	-0.452	-19.0
34	5/21/2012 21:15	5/22/2012 14:00	16.75	0.083	0.75	1.5	0.010	3	2	0.000	0	0	0.21	0.02	0.095	0.093	-0.002	-2.4	1.68	1.60	-0.076	-4.5
35	5/23/2012 17:15	5/24/2012 17:45	24.5	0.027	0.65	1	0.000	0	0	0.000	0	0	0.60	0.23	0.026	0.027	0	0.0	3.77	3.78	0.007	0.2
36	5/27/2012 4:15	5/27/2012 17:00	12.75	0.030	0.75	1.5	0.005	3	2.5	0.000	0	0	0.55	0.17	0.034	0.035	0.001	3.0	4.27	4.26	-0.003	-0.1
37	5/29/2012 20:00	5/30/2012 8:30	12.5	0.036	0.75	1.75	0.009	3	2.5	0.000	0	0	0.53	0.28	0.046	0.045	-0.001	-2.4	4.28	4.26	-0.017	-0.4
38	6/1/2012 20:15	6/2/2012 8:30	12.25	0.060	0.75	1	0.005	3	2	0.000	0	0	0.53	0.11	0.064	0.065	0.001	2.0	4.97	4.92	-0.048	-1.0
39	6/4/2012 13:00	6/5/2012 0:45	11.75	0.107	0.5	1.25	0.006	3	2.5	0.000	0	0	0.15	0.04	0.112	0.113	0.001	0.5	3.24	3.23	-0.002	-0.1
40	6/12/2012 9:30	6/13/2012 8:15	22.75	0.070	0.75	1.25	0.013	3	2.5	0.000	0	0	0.77	0.06	0.083	0.083	0	0.0	4.08	4.08	-0.005	-0.1
41	6/22/2012 17:00	6/23/2012 1:45	8.75	0.021	0.75	1.5	0.002	3	2	0.000	0	0	1.05	0.37	0.033	0.023	-0.01	-29.6	4.43	4.42	-0.019	-0.4
42	6/29/2012 5:00	6/29/2012 7:15	2.25	0.047	0.5	1.25	0.000	0	0	0.000	0	0	0.25	0.15	0.049	0.047	-0.002	-4.1	5.15	5.40	0.255	5.0
43	7/14/2012 3:45	7/14/2012 10:00	6.25	0.064	0.5	1.5	0.000	0	0	0.000	0	0	0.26	0.04	0.065	0.064	-0.001	-0.9	2.43	2.15	-0.278	-11.5
44	7/15/2012 21:30	7/16/2012 5:45	8.25	0.023	0.75	2.5	0.003	3	2	0.000	0	0	0.93	0.55	0.026	0.026	0	-0.9	4.00	4.05	0.05	1.3
45	7/20/2012 1:00	7/20/2012 19:15	18.25	0.017	0.75	1.5	0.010	3	2	0.000	0	0	1.21	0.61	0.036	0.027	-0.01	-27.2	4.31	4.26	-0.046	-1.1

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T088-01-S0050 Tacony High Level Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 497 acres

Tributary Service Population: 12,452

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
46	7/26/2012 19:30	7/27/2012 4:45	9.25	0.046	0.75	1.25	0.004	3	2	0.000	0	0	0.29	0.12	0.048	0.050	0.002	3.9	2.59	2.55	-0.035	-1.4
47	<del>7/28/2012 14:45</del>	<del>7/29/2012 1:45</del>	<del>11</del>	<del>0.016</del>	<del>0.75</del>	<del>1.25</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.17</del>	<del>0.03</del>	<del>0.015</del>	<del>0.016</del>	<del>0.001</del>	<del>6.3</del>	<del>0.96</del>	<del>0.40</del>	<del>-0.554</del>	<del>-57.8</del>
48	8/5/2012 18:30	8/6/2012 5:30	11	0.049	0.75	1.25	0.000	0	0	0.000	0	0	0.65	0.13	0.050	0.049	-0.001	-1.7	2.99	2.98	-0.009	-0.3
49	8/10/2012 10:00	8/10/2012 17:15	7.25	0.044	0.75	1.25	0.000	0	0	0.000	0	0	0.47	0.17	0.045	0.044	-0.001	-2.4	4.38	4.39	0.014	0.3
50	8/11/2012 17:30	8/11/2012 22:15	4.75	0.019	0.75	1.5	0.000	0	0	0.000	0	0	0.75	0.25	0.019	0.019	0	0.0	2.71	2.69	-0.023	-0.8
51	8/14/2012 9:45	8/15/2012 4:45	19	0.023	0.75	1.5	0.007	3	2	0.000	0	0	0.82	0.26	0.031	0.030	-0.001	-4.4	3.24	3.24	-0.001	0.0
52	<del>8/17/2012 22:00</del>	<del>8/18/2012 13:00</del>	<del>15</del>	<del>0.028</del>	<del>0.75</del>	<del>1.5</del>	<del>0.008</del>	<del>3</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.68</del>	<del>0.19</del>	<del>0.053</del>	<del>0.036</del>	<del>-0.017</del>	<del>-32.0</del>	<del>3.11</del>	<del>3.02</del>	<del>-0.09</del>	<del>-2.9</del>
53	8/27/2012 8:00	8/27/2012 18:15	10.25	0.028	0.75	1.5	0.005	3	2	0.000	0	0	0.54	0.19	0.033	0.033	0	-0.4	3.17	3.20	0.028	0.9
54	8/28/2012 5:30	8/28/2012 9:00	3.5	0.064	0.5	1.25	0.000	0	0	0.000	0	0	0.15	0.03	0.066	0.064	-0.002	-3.6	2.29	2.18	-0.11	-4.8
55	<del>9/3/2012 9:30</del>	<del>9/3/2012 20:15</del>	<del>10.75</del>	<del>0.024</del>	<del>0.75</del>	<del>2</del>	<del>0.005</del>	<del>3</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.95</del>	<del>0.32</del>	<del>0.044</del>	<del>0.029</del>	<del>-0.015</del>	<del>-34.7</del>	<del>3.84</del>	<del>3.82</del>	<del>-0.026</del>	<del>-0.7</del>
56	9/4/2012 3:15	9/5/2012 6:15	27	0.025	0.75	1.5	0.002	3	2	0.010	5	3	1.04	0.29	0.038	0.037	-0.001	-3.4	4.06	4.12	0.06	1.5
57	9/8/2012 16:45	9/9/2012 7:45	15	0.070	0.75	1.5	0.006	3	2.5	0.000	0	0	0.28	0.04	0.079	0.076	-0.003	-4.1	2.76	2.73	-0.03	-1.1
58	<del>9/18/2012 2:15</del>	<del>9/19/2012 0:00</del>	<del>21.75</del>	<del>0.036</del>	<del>0.75</del>	<del>1.75</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>1.03</del>	<del>0.27</del>	<del>0.049</del>	<del>0.036</del>	<del>-0.013</del>	<del>-26.5</del>	<del>4.28</del>	<del>4.23</del>	<del>-0.055</del>	<del>-1.3</del>
59	9/22/2012 19:15	9/23/2012 4:15	9	0.043	0.75	1.25	0.005	3	2	0.000	0	0	0.27	0.11	0.048	0.048	0	0.7	3.23	3.26	0.034	1.1
60	9/26/2012 23:30	9/27/2012 10:00	10.5	0.052	0.5	1.25	0.012	3	2	0.000	0	0	0.19	0.09	0.067	0.064	-0.003	-3.8	2.80	2.90	0.108	3.9
61	9/28/2012 1:15	9/28/2012 4:15	3	0.045	0.5	1.25	0.009	3	2	0.000	0	0	0.13	0.11	0.054	0.054	0	-0.7	3.04	3.09	0.05	1.6
62	10/2/2012 10:15	10/2/2012 18:30	8.25	0.054	0.5	1.25	0.000	0	0	0.000	0	0	0.21	0.06	0.054	0.054	0	-0.5	2.62	2.55	-0.075	-2.8
63	10/3/2012 7:30	10/3/2012 10:00	2.5	0.067	0.5	1.25	0.000	0	0	0.000	0	0	0.07	0.05	0.070	0.067	-0.003	-3.8	2.18	2.22	0.04	1.8
64	10/7/2012 10:30	10/8/2012 5:45	19.25	0.053	0.5	1.25	0.016	3	2	0.000	0	0	0.22	0.03	0.069	0.069	0	-0.6	1.51	1.50	-0.006	-0.4
65	10/9/2012 4:45	10/9/2012 9:15	4.5	0.051	0.5	1.25	0.000	0	0	0.000	0	0	0.09	0.03	0.049	0.051	0.0017	3.4	1.18	1.05	-0.125	-10.6
66	<del>10/15/2012 11:00</del>	<del>10/16/2012 2:45</del>	<del>15.75</del>	<del>0.069</del>	<del>0.5</del>	<del>1.25</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.20</del>	<del>0.02</del>	<del>0.068</del>	<del>0.069</del>	<del>0.001</del>	<del>0.9</del>	<del>2.00</del>	<del>1.55</del>	<del>-0.446</del>	<del>-22.3</del>
67	10/19/2012 5:30	10/19/2012 15:30	10	0.040	0.75	1.25	0.006	3	2	0.000	0	0	0.54	0.14	0.046	0.046	0	1.0	4.17	4.16	-0.019	-0.4
68	10/29/2012 4:45	10/31/2012 12:30	55.75	0.022	0.75	1.5	0.015	3	2	0.035	5	3	2.69	0.15	0.074	0.072	-0.002	-2.4	5.19	5.42	0.233	4.5
69	<del>11/7/2012 11:30</del>	<del>11/8/2012 7:45</del>	<del>20.25</del>	<del>0.060</del>	<del>0.5</del>	<del>1.25</del>	<del>0.007</del>	<del>3</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.44</del>	<del>0.02</del>	<del>0.068</del>	<del>0.067</del>	<del>-0.001</del>	<del>-1.5</del>	<del>1.97</del>	<del>1.51</del>	<del>-0.466</del>	<del>-23.6</del>
70	<del>11/13/2012 2:30</del>	<del>11/14/2012 6:45</del>	<del>28.25</del>	<del>0.065</del>	<del>0.5</del>	<del>1.25</del>	<del>0.010</del>	<del>3</del>	<del>2</del>	<del>0.020</del>	<del>5</del>	<del>4</del>	<del>0.25</del>	<del>0.03</del>	<del>0.095</del>	<del>0.095</del>	<del>0</del>	<del>-0.4</del>	<del>3.32</del>	<del>2.16</del>	<del>-1.159</del>	<del>-34.9</del>
71	11/27/2012 6:00	11/27/2012 23:30	17.5	0.110	0.5	1.25	0.010	3	2	0.000	0	0	0.63	0.02	0.115	0.120	0.005	4.1	3.71	3.71	-0.001	0.0

Statistics comparing sim and obs peak I/I flow for all 71 events

Average error = -0.064 MGD

Standard error = 0.200 MGD

Stats for 63 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.014 MGD

Standard error = 0.042 MGD

T-088-01-S0155 Tacony High Level Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 380 acres

Tributary Service Population: 9,816

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	8/14/1999 0:00	8/15/1999 7:45	31.75	0.008	0.75	1	390.006	1.5	3	0.005	5	3	1.90	0.68	0.025	0.019	-0.0061	-24.8	3.87	3.90	0.027	0.7
2	8/20/1999 9:00	8/21/1999 7:30	22.5	0.019	0.5	1	0.010	2	2	0.000	0	0	0.74	0.19	0.033	0.029	-0.003	-10.5	3.37	3.34	-0.026	-0.8
3	8/25/1999 22:15	8/27/1999 21:15	47	0.011	0.5	1	0.004	2	2	0.011	5	3	2.61	0.24	0.026	0.026	0	-0.2	3.55	3.63	0.081	2.3
4	9/7/1999 2:15	9/8/1999 5:15	27	0.017	0.5	1	0.002	2	2	0.005	5	3	1.23	0.22	0.024	0.024	0	0.9	3.63	3.64	0.005	0.1
5	9/9/1999 14:45	9/10/1999 22:00	31.25	0.012	0.5	1	0.002	2	2	0.002	5	3	1.48	0.23	0.016	0.016	0	-2.4	2.46	2.47	0.012	0.5
6	9/15/1999 16:00	9/20/1999 6:15	110.25	0.004	0.5	2	0.011	2	3.5	0.018	5	16	6.93	0.28	0.034	0.033	-0.001	-2.9	3.69	3.72	0.03	0.8
7	9/21/1999 1:15	9/22/1999 12:00	34.75	0.030	0.5	1	0.004	2	2	0.000	0	0	0.96	0.06	0.033	0.034	0	1.0	2.14	2.12	-0.011	-0.5
8	9/30/1999 2:00	10/1/1999 0:00	22	0.017	0.5	1	0.004	2	2	0.005	5	3	0.73	0.19	0.026	0.026	0	0.2	2.82	2.82	0	0.0
9	10/4/1999 8:00	10/5/1999 10:45	26.75	0.023	0.5	1	0.005	2	2	0.000	0	0	0.87	0.09	0.027	0.028	0	0.8	2.40	2.40	0	0.0
10	10/10/1999 1:30	10/11/1999 5:45	28.25	0.025	0.5	1	0.004	2	2	0.005	5	3	0.69	0.04	0.033	0.034	0.001	1.9	1.29	1.26	-0.028	-2.2
11	10/17/1999 18:00	10/18/1999 5:00	11	0.024	0.5	1	0.000	0	0	0.000	0	0	0.15	0.02	0.024	0.024	0	1.5	0.46	0.47	0.003	0.7
12	10/20/1999 3:15	10/21/1999 5:45	26.5	0.021	0.5	1	0.005	2	2	0.006	5	3	0.73	0.05	0.031	0.032	0.001	4.1	1.09	1.08	-0.01	-1.0
13	10/22/1999 20:00	10/23/1999 15:15	19.25	0.020	0.5	1	0.004	2	2	0.011	5	3	0.37	0.06	0.036	0.035	-0.001	-1.4	1.05	1.06	0.015	1.4
14	11/2/1999 10:30	11/3/1999 10:15	23.75	0.022	0.5	1	0.003	2	2	0.003	5	3	0.74	0.07	0.027	0.028	0.001	4.0	1.83	1.78	-0.048	-2.6
15	11/25/1999 7:15	11/25/1999 17:30	10.25	0.038	0.5	1	0.037	2	2	0.000	0	0	0.24	0.04	0.077	0.075	-0.002	-2.9	1.87	1.89	0.019	1.0
16	11/26/1999 19:00	11/27/1999 7:00	12	0.023	0.5	1	0.000	0	0	0.000	0	0	0.82	0.08	0.023	0.023	0	1.8	2.39	2.01	-0.376	-15.8
17	12/6/1999 5:30	12/7/1999 8:30	27	0.030	0.5	1	0.005	2	2	0.007	5	3	0.58	0.07	0.042	0.042	0	0.0	2.09	2.18	0.099	4.7
18	12/10/1999 12:45	12/10/1999 17:45	5	0.026	0.5	1	0.000	0	0	0.000	0	0	0.31	0.05	0.025	0.025	0	0.0	1.57	1.57	-0.004	-0.3
19	12/13/1999 13:30	12/15/1999 12:15	46.75	0.023	0.5	1	0.008	2	2	0.010	5	3	1.48	0.08	0.041	0.041	0	0.1	1.90	1.88	-0.023	-1.2
20	12/20/1999 7:30	12/21/1999 3:15	19.75	0.021	0.5	1	0.017	2	2	0.000	0	0	0.45	0.06	0.038	0.038	0	-0.5	1.44	1.42	-0.025	-1.7
21	1/4/2000 16:30	1/5/2000 5:30	13	0.013	0.5	1	0.011	2	2	0.000	0	0	0.98	0.21	0.023	0.023	0	0.1	2.28	2.27	-0.005	-0.2
22	1/10/2000 11:00	1/11/2000 10:15	23.25	0.017	0.5	1	0.006	2	2	0.008	5	3	0.49	0.07	0.031	0.031	0	1.5	1.19	1.19	-0.007	-0.6
23	1/30/2000 22:45	1/31/2000 6:45	8	0.017	0.5	1	0.035	2	2.5	0.000	0	0	0.28	0.07	0.056	0.052	-0.004	-7.9	1.34	1.36	0.021	1.6
24	2/13/2000 21:00	2/15/2000 10:15	37.25	0.013	0.5	1	0.008	2	2	0.030	5	5	0.70	0.15	0.052	0.051	-0.001	-2.5	2.17	2.21	0.037	1.7
25	2/18/2000 16:45	2/19/2000 20:00	27.25	0.021	0.5	1	0.003	2	2	0.003	5	3	1.28	0.08	0.026	0.026	0.0003	1.2	1.89	1.80	-0.088	-4.7
26	3/11/2000 12:00	3/12/2000 12:45	24.75	0.017	0.5	1	0.010	2	2	0.000	0	0	0.98	0.14	0.026	0.027	0.001	4.2	2.47	2.32	-0.142	-5.8
27	3/16/2000 19:30	3/17/2000 15:00	19.5	0.014	0.5	1	0.014	2	2	0.000	0	0	1.53	0.14	0.027	0.027	0	0.1	2.56	2.58	0.025	1.0
28	3/21/2000 3:00	3/24/2000 20:30	89.5	0.015	0.5	1	0.005	2	2	0.020	5	12	2.53	0.10	0.042	0.040	-0.002	-4.4	2.30	2.32	0.019	0.8
29	3/27/2000 20:00	3/29/2000 1:30	29.5	0.020	0.5	1	0.005	2	2	0.005	5	4	0.96	0.07	0.029	0.030	0.001	1.8	2.18	1.72	-0.463	-21.2
30	4/8/2000 21:15	4/9/2000 22:00	24.75	0.010	0.5	1	0.030	2	2	0.000	0	0	0.45	0.04	0.052	0.040	-0.012	-23.5	0.92	0.89	-0.037	-4.0
31	4/15/2000 13:00	4/16/2000 13:15	24.25	0.027	0.5	1	0.000	0	0	0.000	0	0	0.35	0.02	0.027	0.027	-0.0004	-1.5	0.69	0.65	-0.035	-5.1
32	4/16/2000 18:15	4/17/2000 1:15	7	0.012	0.5	1.5	0.006	2	2	0.000	0	0	0.39	0.26	0.018	0.018	-0.0001	-0.6	1.98	1.95	-0.032	-1.6
33	4/17/2000 7:45	4/18/2000 6:15	22.5	0.021	0.5	1	0.014	2	2	0.000	0	0	0.65	0.04	0.035	0.035	0	0.9	0.93	0.92	-0.007	-0.8
34	4/21/2000 10:45	4/22/2000 4:45	18	0.011	0.5	1	0.021	2	2	0.000	0	0	0.53	0.24	0.032	0.032	0	-0.3	2.12	2.11	-0.004	-0.2
35	5/10/2000 18:30	5/11/2000 2:30	8	0.008	0.5	1	0.006	1.5	2	0.000	0	0	0.47	0.22	0.014	0.014	-0.0003	-2.1	1.41	1.42	0.012	0.8

\*



**T-088-01-S0155 Tacony High Level Interceptor**

Pipe Size: 18" dia.

Tributary Drainage Area: 380 acres

Tributary Service Population: 9,816

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
36	5/19/2000 8:00	5/19/2000 19:30	11.5	0.012	0.5	1	0.009	2	2.5	0.000	0	0	0.67	0.30	0.028	0.021	-0.0073	-25.8	2.79	2.73	-0.056	-2.0
37	5/20/2000 6:30	5/20/2000 20:15	13.75	0.015	0.5	1	0.015	2	2	0.000	0	0	0.25	0.05	0.029	0.030	0.001	1.8	0.80	0.78	-0.027	-3.3
38	5/23/2000 23:45	5/24/2000 8:00	8.25	0.010	0.5	1	0.020	2	2	0.000	0	0	0.31	0.06	0.030	0.030	0	0.2	0.85	0.87	0.023	2.7
39	5/24/2000 21:00	5/25/2000 1:15	4.25	0.013	0.5	1	0.003	2	2	0.000	0	0	0.26	0.25	0.016	0.016	0	1.9	2.17	2.17	-0.003	-0.1
40	6/6/2000 5:45	6/7/2000 3:30	21.75	0.012	0.5	1	0.005	2	2	0.015	5	3	0.46	0.08	0.031	0.032	0.001	2.4	1.13	1.11	-0.016	-1.4

Statistics comparing sim and obs peak I/I flow for all 40 events

Average error = 1502.925 MGD

Standard error = 9626.892 MGD

Stats for 39 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.075 MGD

Standard error = 0.324 MGD



P083-03-S0050 (2012) Upper Delaware Low Level Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 270 acres

Tributary Service Population: 4,775

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	10/12/2011 20:00	10/13/2011 6:45	10.75	0.037	0.5	1	0.019	1.5	2.5	0.034	4	3	0.17	0.09	0.089	0.090	0.001	0.6	1.65	1.64	-0.011	-0.7
2	10/19/2011 4:45	10/20/2011 16:15	35.5	0.048	0.33	0.75	0.018	1.25	2.5	0.012	4	4	0.98	0.07	0.075	0.078	0.003	3.7	2.13	2.11	-0.023	-1.1
3	10/27/2011 5:45	10/28/2011 13:15	31.5	0.045	0.33	1	0.018	1.25	2.5	0.015	4	4	0.35	0.04	0.076	0.078	0.002	2.6	1.20	1.18	-0.012	-1.0
4	10/29/2011 6:15	10/30/2011 15:15	33	0.039	0.33	1	0.019	1.25	2.5	0.033	4	5	1.53	0.07	0.089	0.091	0.002	2.4	2.58	2.54	-0.043	-1.7
5	11/16/2011 1:45	11/17/2011 14:15	36.5	0.040	0.33	1	0.030	1.25	2.5	0.020	4	4	0.58	0.06	0.090	0.090	0	-0.4	1.52	1.50	-0.024	-1.6
6	11/20/2011 22:30	11/21/2011 12:00	13.5	0.074	0.33	0.75	0.020	1.25	2.5	0.000	0	0	0.13	0.02	0.093	0.094	0.001	1.0	0.99	0.83	-0.161	-16.3
7	11/21/2011 23:00	11/23/2011 23:45	48.75	0.025	0.33	1	0.024	1.25	2.5	0.020	4	4	2.18	0.12	0.070	0.069	-0.001	-2.1	2.49	2.50	0.01	0.4
8	11/29/2011 0:15	11/30/2011 18:45	42.5	0.032	0.33	1	0.032	1.25	2.5	0.021	4	5	0.61	0.07	0.085	0.084	-0.0008	-0.9	1.53	1.52	-0.01	-0.7
9	12/6/2011 14:15	12/6/2011 21:15	7	0.056	0.33	1	0.024	1.25	2.5	0.000	0	0	0.12	0.03	0.078	0.080	0.002	3.1	0.91	0.88	-0.029	-3.2
10	12/7/2011 3:45	12/8/2011 21:45	42	0.030	0.33	1	0.025	1.25	2.5	0.011	4	5	2.33	0.12	0.065	0.066	0.001	1.9	3.05	3.02	-0.032	-1.1
11	12/21/2011 14:45	12/22/2011 3:30	12.75	0.031	0.33	1	0.025	1.25	3	0.000	0	0	0.19	0.10	0.055	0.056	0.001	1.2	1.74	1.68	-0.052	-3.0
12	12/22/2011 21:30	12/23/2011 21:45	24.25	0.035	0.33	0.75	0.010	1.25	2.25	0.005	4	4	1.45	0.15	0.048	0.050	0.002	3.7	3.34	3.29	-0.051	-1.5
13	12/27/2011 13:30	12/28/2011 17:15	27.75	0.054	0.33	1	0.020	1.25	2.25	0.016	4	5	0.55	0.09	0.090	0.090	0	-0.2	2.70	2.68	-0.019	-0.7
14	1/11/2012 19:45	1/12/2012 22:00	26.25	0.020	0.33	1.25	0.021	1.25	2.5	0.011	4	4	1.63	0.22	0.053	0.052	-0.001	-2.7	3.05	3.04	-0.011	-0.4
15	1/17/2012 10:15	1/18/2012 9:00	22.75	0.052	0.33	0.75	0.020	1.25	2.5	0.011	4	5	0.26	0.03	0.080	0.082	0.002	2.6	1.21	1.19	-0.021	-1.7
16	1/21/2012 2:15	1/21/2012 16:30	14.25	0.010	0.33	1	0.010	1.25	2.5	0.000	0	0	0.30	0.02	0.020	0.020	0	-2.0	0.25	0.20	-0.049	-19.5
17	1/23/2012 9:15	1/24/2012 6:45	21.5	0.030	0.33	1	0.030	1.25	2.5	0.100	4	7	0.27	0.05	0.185	0.160	-0.025	-13.3	1.23	1.22	-0.008	-0.6
18	1/27/2012 6:00	1/28/2012 8:45	26.75	0.056	0.33	1	0.010	1.25	2.5	0.026	4	5	0.33	0.06	0.090	0.092	0.002	1.8	1.75	1.73	-0.014	-0.8
19	2/11/2012 3:45	2/11/2012 13:00	9.25	0.020	0.33	1	0.033	1.25	2.5	0.000	0	0	0.19	0.03	0.056	0.053	-0.003	-5.7	0.42	0.43	0.003	0.8
20	2/16/2012 14:15	2/17/2012 0:15	10	0.040	0.33	1	0.014	1.25	2.5	0.000	0	0	0.13	0.02	0.051	0.051	0	1.0	0.71	0.49	-0.211	-30.0
21	2/24/2012 3:00	2/25/2012 14:00	35	0.031	0.33	1	0.020	1.25	3	0.012	4	4	0.33	0.06	0.062	0.063	0	0.4	1.01	1.00	-0.011	-1.1
22	2/29/2012 10:15	3/1/2012 15:15	29	0.044	0.33	1	0.010	1.25	2.25	0.010	4	4	0.98	0.06	0.062	0.064	0.002	3.0	2.17	1.82	-0.351	-16.1
23	3/2/2012 20:30	3/3/2012 12:15	15.75	0.046	0.33	1	0.038	1.25	2.5	0.000	0	0	0.34	0.04	0.087	0.084	-0.003	-3.7	1.26	1.27	0.01	0.8
24	3/31/2012 0:45	3/31/2012 7:30	6.75	0.035	0.33	1.25	0.015	1.25	2.25	0.000	0	0	0.35	0.05	0.052	0.050	-0.002	-3.5	1.28	1.30	0.021	1.6
25	4/1/2012 19:00	4/2/2012 6:30	11.5	0.036	0.33	1.5	0.033	1.25	2.5	0.000	0	0	0.19	0.05	0.067	0.069	0.002	2.8	1.12	1.12	-0.002	-0.2
26	4/22/2012 10:00	4/24/2012 0:15	38.25	0.032	0.33	1	0.008	1.25	2.5	0.014	4	6	2.06	0.13	0.052	0.054	0.002	3.2	3.06	3.05	-0.015	-0.5
27	5/1/2012 4:15	5/1/2012 11:45	7.5	0.017	0.33	1	0.017	1.25	3	0.000	0	0	0.33	0.20	0.034	0.034	0	-1.0	1.48	1.48	0.001	0.1
28	5/4/2012 22:15	5/5/2012 3:45	5.5	0.044	0.33	1.5	0.019	1.25	3	0.000	0	0	0.15	0.07	0.063	0.063	0	-0.2	1.33	1.33	0.002	0.1
29	5/9/2012 2:15	5/9/2012 10:45	8.5	0.034	0.33	1	0.030	1.25	2.5	0.000	0	0	0.27	0.05	0.064	0.064	0	0.0	1.17	1.17	0.006	0.5
30	5/9/2012 21:45	5/10/2012 10:15	12.5	0.030	0.33	1	0.060	1.25	4	0.000	0	0	0.22	0.02	0.103	0.090	-0.013	-12.6	0.67	0.70	0.03	4.5
31	5/15/2012 8:30	5/15/2012 23:15	14.75	0.040	0.33	1	0.013	1.25	2.5	0.000	0	0	0.70	0.09	0.052	0.053	0.001	2.2	2.59	2.55	-0.046	-1.8
32	5/16/2012 0:45	5/17/2012 0:00	23.25	0.038	0.33	1	0.005	1.25	2.5	0.009	4	5	1.20	0.27	0.051	0.052	0.001	2.0	6.13	5.36	-0.763	-12.5
33	5/21/2012 1:15	5/21/2012 14:15	13	0.021	0.33	1	0.029	1.25	2.5	0.000	0	0	0.30	0.11	0.050	0.050	0	0.1	1.07	1.06	-0.017	-1.6
34	5/22/2012 0:15	5/22/2012 11:15	11	0.040	0.33	1	0.047	1.25	3	0.000	0	0	0.19	0.02	0.089	0.087	-0.0016	-1.8	0.77	0.76	-0.003	-0.4
35	5/27/2012 4:30	5/28/2012 4:45	24.25	0.034	0.33	1	0.010	1.25	2.25	0.013	4	5	0.48	0.10	0.055	0.057	0.001	2.6	1.96	1.93	-0.031	-1.6
36	6/1/2012 20:30	6/2/2012 9:45	13.25	0.042	0.33	0.75	0.010	1.25	2.5	0.000	0	0	0.60	0.17	0.051	0.052	0.001	2.3	4.95	4.85	-0.096	-1.9
37	6/12/2012 9:45	6/13/2012 16:30	30.75	0.046	0.33	1	0.015	1.25	2.5	0.019	4	4	0.64	0.07	0.078	0.080	0.002	2.4	2.11	2.06	-0.047	-2.2
38	6/22/2012 18:45	6/23/2012 19:15	24.5	0.026	0.33	1	0.013	1.25	2.5	0.017	4	5	0.59	0.17	0.056	0.056	0	0.1	2.80	2.75	-0.048	-1.7
39	7/14/2012 4:15	7/14/2012 19:00	14.75	0.029	0.33	1	0.010	1.25	2.5	0.015	4	3	0.30	0.05	0.054	0.054	0	-0.4	0.86	0.88	0.023	2.6
40	7/15/2012 21:45	7/17/2012 0:00	26.25	0.028	0.33	1	0.007	1.25	2	0.012	4	6	0.82	0.52	0.047	0.047	0	1.0	6.18	6.20	0.021	0.3
41	7/20/2012 1:15	7/20/2012 16:45	15.5	0.027	0.33	1.02	0.006	1.25	2.5	0.010	4	3	0.55	0.16	0.043	0.043	0	0.1	2.65	2.61	-0.045	-1.7
42	7/26/2012 19:45	7/27/2012 17:45	22	0.025	0.33	1	0.027	1.25	2.5	0.025	4	4	0.37	0.16	0.075	0.077	0.002	2.7	1.77	1.73	-0.041	-2.3
43	7/28/2012 13:00	7/29/2012 10:45	21.75	0.022	0.33	1	0.020	1.25	2.5	0.021	4	4	0.45	0.16	0.065	0.063	-0.0029	-4.4	1.58	1.57	-0.007	-0.4
44	8/1/2012 17:00	8/1/2012 22:30	5.5	0.055	0.33	1	0.032	1.25	3	0.000	0	0	0.14	0.11	0.086	0.087	0.001	0.7	2.52	2.53	0.007	0.3

\*

**P083-03-S0050 (2012) Upper Delaware Low Level Interceptor**

Pipe Size: 24" dia.

Tributary Drainage Area: 270 acres

Tributary Service Population: 4,775

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
45	8/4/2012 13:30	8/5/2012 8:00	18.5	0.032	0.33	0.75	0.005	1.25	2	0.008	4	4	0.66	0.43	0.043	0.045	0.002	3.9	7.93	7.86	-0.061	-0.8
46	8/5/2012 18:45	8/6/2012 22:30	27.75	0.035	0.33	1	0.020	1.25	2.5	0.029	4	5	0.53	0.07	0.085	0.084	-0.001	-0.7	1.73	1.73	-0.002	-0.1
47	8/10/2012 10:45	8/10/2012 17:45	7	0.041	0.33	1	0.010	1.25	2.5	0.000	0	0	0.27	0.07	0.050	0.051	0.001	2.5	1.97	1.70	-0.263	-13.4
48	8/14/2012 10:00	8/15/2012 15:00	29	0.029	0.33	1	0.019	1.25	3.5	0.007	4	4	0.63	0.10	0.055	0.055	0	-0.5	1.83	1.82	-0.014	-0.8
49	8/17/2012 22:15	8/18/2012 18:30	20.25	0.022	0.33	1	0.020	1.25	3.5	0.012	4	3	0.55	0.12	0.054	0.054	0	-0.3	1.60	1.60	0.006	0.4
50	8/27/2012 9:45	8/28/2012 3:00	17.25	0.035	0.33	1	0.010	1.25	2.5	0.040	4	4	0.23	0.10	0.084	0.085	0.001	1.6	2.08	2.03	-0.052	-2.5
51	8/28/2012 5:15	8/29/2012 4:15	23	0.032	0.33	1	0.025	1.25	2.5	0.080	4	5	0.18	0.04	0.138	0.137	-0.001	-0.5	0.98	0.98	0.003	0.3
52	9/3/2012 9:30	9/4/2012 1:15	15.75	0.024	0.33	1	0.010	1.25	2.5	0.015	4	4	1.04	0.26	0.050	0.049	-0.001	-1.4	3.92	3.91	-0.018	-0.4
53	9/4/2012 3:45	9/6/2012 4:15	48.5	0.033	0.33	1	0.005	1.25	2.5	0.008	4	4	3.00	0.38	0.046	0.046	0	0.4	10.09	6.21	-3.88	-38.5
54	9/8/2012 17:30	9/9/2012 13:00	19.5	0.031	0.33	1	0.023	1.25	2.5	0.016	4	4	0.22	0.06	0.070	0.070	0	0.4	0.92	0.91	-0.01	-1.1
55	9/18/2012 2:45	9/19/2012 14:45	36	0.014	0.33	1	0.026	1.25	2.25	0.014	4	4	0.84	0.19	0.054	0.054	0	-0.5	1.80	1.77	-0.027	-1.5
56	9/22/2012 19:45	9/23/2012 15:00	19.25	0.021	0.33	1	0.009	1.25	2.5	0.009	4	4	0.74	0.38	0.039	0.039	-0.001	-1.8	3.54	3.50	-0.038	-1.1
57	9/26/2012 23:45	9/27/2012 11:15	11.5	0.030	0.33	1.25	0.025	1.25	2.25	0.000	0	0	0.21	0.08	0.057	0.055	-0.002	-3.7	1.12	1.10	-0.02	-1.8

Statistics comparing sim and obs peak I/I flow for all 57 events

Average error = -0.115 MGD

Standard error = 0.534 MGD

Stats for 55 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.035 MGD

Standard error = 0.076 MGD

P083-03-S0050 (2013) Upper Delaware Low Level Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 270 acres

Tributary Service Population: 4,775

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	10/2/2012 10:45	10/2/2012 22:00	11.25	0.046	0.5	1	0.044	1.5	4	0.000	0	0	0.12	0.03	0.091	0.090	-0.001	-1.6	0.79	0.79	-0.003	-0.3
2	10/7/2012 11:00	10/8/2012 3:15	16.25	0.043	0.5	1	0.030	1.5	3	0.000	0	0	0.15	0.02	0.070	0.073	0.003	3.6	0.48	0.46	-0.019	-4.0
3	10/15/2012 11:30	10/16/2012 0:15	12.75	0.036	0.33	1	0.011	1.5	3	0.000	0	0	0.37	0.15	0.046	0.047	0.001	1.1	3.23	3.25	0.022	0.7
4	10/19/2012 9:30	10/19/2012 18:00	8.5	0.028	0.5	1	0.012	1.5	3.5	0.000	0	0	0.81	0.23	0.042	0.040	-0.002	-4.9	3.88	3.99	0.105	2.7
5	10/28/2012 15:30	10/28/2012 22:15	6.75	0.038	0.5	1	0.030	1.5	2.5	0.000	0	0	0.13	0.03	0.066	0.068	0.002	3.2	0.63	0.60	-0.026	-4.1
6	10/29/2012 4:30	10/31/2012 0:15	43.75	0.025	0.5	1	0.019	1.5	2.5	0.016	4	7	2.30	0.13	0.059	0.060	0.001	1.9	3.12	3.07	-0.054	-1.7
7	11/7/2012 11:45	11/8/2012 10:30	22.75	0.035	0.5	1	0.020	1.5	2.5	0.025	4	3	0.58	0.03	0.079	0.080	0.001	0.7	1.14	0.85	-0.292	-25.6
8	11/13/2012 3:00	11/13/2012 13:45	10.75	0.048	0.5	1	0.019	1.5	2.5	0.000	0	0	0.17	0.03	0.064	0.067	0.0027	4.2	0.78	0.75	-0.034	-4.4
9	11/27/2012 6:15	11/28/2012 5:00	22.75	0.050	0.5	1.5	0.008	1.5	2.5	0.010	4	3	0.64	0.02	0.065	0.068	0.0029	4.5	1.08	1.03	-0.049	-4.6
10	12/7/2012 22:00	12/8/2012 7:30	9.5	0.043	0.5	1	0.022	1.5	3	0.000	0	0	0.34	0.08	0.066	0.065	-0.001	-1.8	2.12	2.13	0.007	0.3
11	12/9/2012 6:45	12/9/2012 16:45	10	0.041	0.5	1	0.030	1.5	2.5	0.000	0	0	0.19	0.02	0.071	0.071	0	0.7	1.06	0.70	-0.364	-34.4
12	12/9/2012 19:00	12/10/2012 16:30	21.5	0.023	0.5	1	0.023	1.5	2.5	0.075	4	4	0.20	0.05	0.125	0.121	-0.004	-3.3	0.67	0.70	0.022	3.3
13	12/18/2012 1:00	12/18/2012 8:15	7.25	0.024	0.5	1.5	0.017	1.5	3.5	0.000	0	0	0.30	0.13	0.044	0.041	-0.003	-7.3	1.61	1.60	-0.007	-0.4
14	12/20/2012 21:15	12/21/2012 21:15	24	0.039	0.5	1	0.011	1.5	2.5	0.005	4	3	1.46	0.11	0.053	0.055	0.002	4.3	2.63	2.54	-0.097	-3.7
15	12/24/2012 16:45	12/25/2012 4:45	12	0.026	0.5	1	0.036	1.5	4	0.000	0	0	0.19	0.02	0.062	0.062	0.0005	0.8	0.49	0.48	-0.008	-1.6
16	12/26/2012 13:15	12/27/2012 19:00	29.75	0.025	0.5	1	0.015	1.5	2.5	0.012	4	5	1.40	0.12	0.052	0.052	0	0.7	2.58	2.59	0.014	0.5
17	12/29/2012 10:30	12/29/2012 18:45	8.25	0.030	0.5	1	0.025	1.5	2.5	0.000	0	0	0.23	0.02	0.055	0.055	0	0.0	0.91	0.55	-0.368	-40.3
18	1/11/2013 16:15	1/12/2013 1:00	8.75	0.041	0.33	1	0.010	1.5	2.5	0.000	0	0	0.45	0.06	0.049	0.051	0.002	5.1	1.54	1.51	-0.03	-2.0
19	1/14/2013 21:30	1/15/2013 6:30	9	0.042	0.5	1	0.037	1.5	2.5	0.000	0	0	0.33	0.03	0.077	0.079	0.002	2.2	1.20	1.18	-0.022	-1.8
20	1/15/2013 21:30	1/17/2013 6:45	33.25	0.035	0.5	1	0.016	1.5	2.5	0.020	4	6	1.01	0.06	0.071	0.071	0	-0.6	1.91	1.92	0.002	0.1
21	1/28/2013 12:30	1/28/2013 22:00	9.5	0.050	0.5	1	0.024	1.5	3	0.000	0	0	0.15	0.02	0.072	0.074	0.002	2.2	0.78	0.74	-0.033	-4.3
22	1/30/2013 21:45	1/31/2013 18:45	21	0.033	0.5	1	0.032	1.5	2.5	0.011	4	3	1.02	0.19	0.078	0.076	-0.002	-2.9	3.97	4.03	0.053	1.3
23	2/19/2013 11:30	2/19/2013 21:45	10.25	0.034	0.5	1	0.030	1.5	2.5	0.000	0	0	0.19	0.02	0.063	0.064	0.001	1.0	0.47	0.47	-0.005	-1.1
24	2/26/2013 19:15	2/27/2013 23:15	28	0.029	0.5	1	0.016	1.5	2.5	0.016	4	5	0.68	0.07	0.060	0.061	0.001	1.3	1.33	1.34	0.005	0.4
25	3/8/2013 9:00	3/8/2013 18:30	9.5	0.012	0.5	1	0.052	1.5	3	0.000	0	0	0.16	0.03	0.064	0.064	0	0.7	0.41	0.42	0.001	0.4
26	3/12/2013 3:15	3/12/2013 19:45	16.5	0.033	0.33	1	0.014	1.5	2.5	0.000	0	0	0.95	0.07	0.047	0.047	0	-0.4	1.79	1.76	-0.034	-1.9
27	3/16/2013 12:00	3/16/2013 22:45	10.75	0.029	0.5	1	0.028	1.5	3	0.000	0	0	0.13	0.03	0.055	0.057	0.002	3.0	0.46	0.46	-0.003	-0.6
28	3/18/2013 18:15	3/20/2013 3:30	33.25	0.020	0.5	1	0.020	1.5	2.5	0.022	4	5	0.78	0.05	0.066	0.062	-0.003	-4.1	0.95	0.97	0.02	2.1
29	3/25/2013 6:30	3/26/2013 7:45	25.25	0.018	0.5	1	0.018	1.5	2.5	0.020	4	5	0.59	0.04	0.055	0.056	0.001	0.9	0.85	0.83	-0.013	-1.6
30	3/31/2013 15:30	4/1/2013 0:00	8.5	0.026	0.5	1	0.019	1.5	2.5	0.000	0	0	0.20	0.04	0.044	0.045	0.001	2.2	0.69	0.69	0.005	0.8
31	4/10/2013 20:30	4/11/2013 3:00	6.5	0.017	0.5	1	0.010	1.5	2.5	0.000	0	0	0.37	0.16	0.028	0.027	-0.0013	-4.6	1.39	1.38	-0.009	-0.6
32	4/12/2013 7:15	4/12/2013 19:45	12.5	0.020	0.5	1	0.015	1.5	3.5	0.000	0	0	0.92	0.10	0.035	0.035	0	0.2	1.48	1.48	0.001	0.0
33	4/12/2013 21:45	4/13/2013 15:00	17.25	0.013	0.5	1	0.009	1.5	2.5	0.011	4	4	0.56	0.22	0.034	0.033	-0.001	-3.8	1.57	1.55	-0.018	-1.2
34	4/19/2013 21:30	4/20/2013 7:15	9.75	0.029	0.5	1	0.020	1.5	3	0.000	0	0	0.46	0.04	0.047	0.049	0.001	3.2	0.93	0.91	-0.018	-1.9
35	4/29/2013 3:15	4/30/2013 6:30	27.25	0.012	0.5	1	0.049	1.5	2.5	0.000	0	0	0.36	0.02	0.062	0.061	-0.001	-2.2	0.44	0.45	0.007	1.6
36	5/7/2013 22:15	5/8/2013 22:30	24.25	0.032	0.5	1	0.026	1.5	2.5	0.000	0	0	0.21	0.04	0.057	0.058	0.001	1.5	0.50	0.50	-0.008	-1.7
37	5/9/2013 4:00	5/9/2013 10:15	6.25	0.024	0.5	1	0.007	1.5	2.5	0.000	0	0	0.52	0.09	0.031	0.031	0	-0.4	1.48	1.42	-0.06	-4.0
38	5/10/2013 22:45	5/11/2013 19:00	20.25	0.015	0.5	1.5	0.015	1.5	3	0.013	4	4	0.49	0.18	0.046	0.043	-0.003	-6.7	0.88	0.92	0.048	5.5
39	5/18/2013 16:15	5/19/2013 12:00	19.75	0.014	0.5	1	0.033	1.5	2.5	0.000	0	0	0.38	0.07	0.049	0.047	-0.002	-4.4	0.77	0.76	-0.011	-1.4
40	5/23/2013 15:45	5/23/2013 21:45	6	0.021	0.5	1	0.018	1.5	3	0.000	0	0	0.14	0.08	0.040	0.039	-0.001	-1.6	0.85	0.86	0.004	0.5
41	5/23/2013 23:30	5/24/2013 5:15	5.75	0.018	0.5	1	0.020	1.5	2.5	0.000	0	0	0.17	0.10	0.038	0.038	0	0.2	0.81	0.82	0.015	1.8
42	5/28/2013 9:30	5/28/2013 23:00	13.5	0.026	0.5	1	0.030	1.5	4	0.000	0	0	0.26	0.04	0.055	0.056	0.001	1.5	0.72	0.71	-0.017	-2.3
43	6/3/2013 0:45	6/4/2013 2:45	26	0.024	0.33	0.75	0.009	1.5	0	0.009	3	3	1.24	0.24	0.040	0.042	0.002	4.5	2.97	2.90	-0.062	-2.1

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P083-03-S0050 (2013) Upper Delaware Low Level Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 270 acres

Tributary Service Population: 4,775

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
44	6/6/2013 19:30	6/9/2013 3:30	56	0.024	0.5	1	0.008	1.5	2.5	0.008	4	8	3.73	0.39	0.040	0.040	0	-0.8	5.12	5.10	-0.022	-0.4
45	6/10/2013 7:15	6/11/2013 14:30	31.25	0.025	0.33	0.75	0.008	1.5	2.5	0.010	4	5	2.28	0.35	0.042	0.043	0.001	2.5	4.62	4.53	-0.087	-1.9
46	6/13/2013 9:15	6/13/2013 23:30	14.25	0.018	0.5	1	0.007	1.5	2.5	0.013	4	4	0.35	0.15	0.038	0.038	0	0.2	1.27	1.27	-0.007	-0.6
47	6/14/2013 18:30	6/15/2013 0:30	6	0.022	0.5	1	0.010	1.5	3	0.000	0	0	0.14	0.09	0.032	0.032	0	0.5	0.95	0.95	-0.004	-0.4
48	6/18/2013 12:45	6/18/2013 23:45	11	0.033	0.33	0.75	0.018	1.5	2.5	0.000	0	0	0.31	0.04	0.049	0.051	0.002	3.2	0.81	0.70	-0.112	-13.9
49	6/25/2013 16:00	6/25/2013 19:45	3.75	0.027	0.5	1	0.009	1.25	2	0.000	0	0	0.24	0.15	0.036	0.036	0	1.0	1.70	1.69	-0.013	-0.8
50	6/26/2013 20:45	6/27/2013 2:00	5.25	0.018	0.5	1	0.009	1.5	2.5	0.000	0	0	0.23	0.13	0.025	0.027	0.001	4.6	1.14	1.13	-0.003	-0.3
51	6/27/2013 18:30	6/28/2013 2:30	8	0.027	0.5	1	0.009	1.5	3	0.000	0	0	0.43	0.12	0.035	0.036	0.001	2.2	1.68	1.65	-0.03	-1.8
52	6/30/2013 13:00	6/30/2013 18:15	5.25	0.029	0.5	1	0.012	1.5	2.5	0.000	0	0	0.14	0.03	0.040	0.041	0.001	3.4	0.61	0.61	0.001	0.2
53	7/1/2013 8:30	7/1/2013 20:45	12.25	0.040	0.33	0.75	0.024	1.5	3	0.000	0	0	0.31	0.06	0.062	0.064	0.0017	2.7	1.57	1.52	-0.045	-2.9
54	7/12/2013 15:45	7/13/2013 5:15	13.5	0.015	0.5	1	0.014	1.5	3.5	0.000	0	0	0.84	0.18	0.028	0.029	0.001	5.0	1.84	1.80	-0.035	-1.9
55	7/13/2013 15:30	7/14/2013 3:00	11.5	0.031	0.5	1	0.011	1.5	4	0.000	0	0	0.59	0.28	0.042	0.042	0	0.9	4.11	4.12	0.012	0.3
56	7/23/2013 1:00	7/24/2013 0:45	23.75	0.016	0.33	0.75	0.002	1.5	2.5	0.005	4	5	1.71	0.64	0.022	0.023	0.001	4.6	7.12	6.21	-0.908	-12.8
57	7/28/2013 16:00	7/29/2013 6:00	14	0.029	0.5	1	0.019	1.5	2.5	0.000	0	0	1.08	0.16	0.047	0.048	0.001	2.9	2.96	2.96	-0.002	-0.1
58	8/1/2013 6:30	8/2/2013 7:45	25.25	0.029	0.5	1	0.004	1.5	2.5	0.014	4	4	1.12	0.19	0.046	0.047	0.001	2.1	3.53	3.49	-0.037	-1.0
59	8/6/2013 16:00	8/6/2013 21:15	5.25	0.011	0.5	1	0.025	1.5	2.5	0.000	0	0	0.12	0.12	0.034	0.036	0.0015	4.4	0.54	0.53	-0.014	-2.6
60	8/8/2013 0:15	8/8/2013 9:30	9.25	0.024	0.5	1	0.025	1.5	2.5	0.000	0	0	0.33	0.12	0.049	0.049	-0.0002	-0.4	1.62	1.60	-0.02	-1.3
61	8/9/2013 15:15	8/9/2013 22:15	7	0.034	0.5	1	0.027	1.5	2.5	0.000	0	0	0.13	0.05	0.060	0.061	0.001	1.7	0.83	0.81	-0.023	-2.7
62	8/13/2013 5:00	8/14/2013 2:30	21.5	0.021	0.5	1	0.005	1.5	2.5	0.008	4	4	1.37	0.50	0.034	0.034	0	1.2	5.41	5.33	-0.081	-1.5
63	8/22/2013 6:15	8/23/2013 5:15	23	0.024	0.5	1	0.015	1.5	2.5	0.015	4	3	0.25	0.08	0.054	0.054	0.0005	0.9	0.98	0.96	-0.029	-2.9
64	8/28/2013 9:45	8/29/2013 1:45	16	0.046	0.33	0.75	0.003	1.5	2.5	0.010	4	2	0.71	0.16	0.057	0.059	0.002	3.4	5.09	4.67	-0.422	-8.3
65	9/2/2013 10:15	9/3/2013 3:00	16.75	0.026	0.5	1	0.020	1.5	2.5	0.053	4	3	0.26	0.09	0.099	0.099	0	-0.3	1.28	1.25	-0.026	-2.0
66	9/12/2013 19:00	9/13/2013 0:30	5.5	0.007	0.5	1	0.019	1.5	2.5	0.000	0	0	0.08	0.07	0.026	0.026	1E-04	0.4	0.50	0.22	-0.285	-56.7
67	9/13/2013 1:45	9/13/2013 20:45	19	0.040	0.5	1	0.010	1.5	2.5	0.026	4	4	0.25	0.10	0.074	0.076	0.0023	3.1	2.56	2.51	-0.043	-1.7
68	9/21/2013 20:30	9/23/2013 1:45	29.25	0.031	0.5	1	0.010	1.5	2.5	0.010	4	6	1.15	0.22	0.049	0.051	0.002	4.1	3.44	3.40	-0.04	-1.2

Statistics comparing sim and obs peak I/I flow for all 57 events

Average error = -0.046 MGD

Standard error = 0.150 MGD

Stats for 53 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than

one standard error identified by \* in above table.

Average error = -0.013 MGD

Standard error = 0.038 MGD

**USE-0365 (2010) Upper Schuylkill East Side Interceptor**

Pipe Size: 48" dia.

Tributary Drainage Area: 773 acres

Tributary Service Population: 13,233

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	5/3/2010 3:45	5/3/2010 15:45	12	0.028	0.75	0.75	0.006	2.5	2	0.000	0	0	0.97	0.17	0.033	0.034	0.001	1.8	7.97	8.04	0.068	0.9
2	5/11/2010 18:45	5/12/2010 9:15	14.5	0.036	0.75	0.75	0.008	2.5	2	0.000	0	0	0.57	0.10	0.044	0.044	0	0.8	4.98	4.90	-0.084	-1.7
3	5/18/2010 1:00	5/18/2010 16:30	15.5	0.054	0.75	0.75	0.000	0	0	0.000	0	0	0.59	0.04	0.055	0.054	-0.001	-2.0	3.51	3.45	-0.064	-1.8
4	5/30/2010 0:45	5/30/2010 5:15	4.5	0.029	0.75	0.75	0.000	0	0	0.000	0	0	0.17	0.07	0.029	0.029	0	0.0	2.47	2.44	-0.03	-1.2
5	6/1/2010 12:00	6/1/2010 20:00	8	0.034	0.75	0.75	0.000	0	0	0.000	0	0	0.25	0.13	0.034	0.034	0	1.4	5.11	4.96	-0.146	-2.9
6	6/9/2010 11:30	6/9/2010 23:00	11.5	0.047	0.75	0.75	0.000	0	0	0.000	0	0	0.52	0.05	0.046	0.047	0.0013	2.8	3.59	3.42	-0.166	-4.6
7	6/13/2010 14:00	6/14/2010 1:30	11.5	0.026	0.75	0.75	0.019	2.5	2	0.000	0	0	0.49	0.18	0.045	0.045	0	-1.0	6.55	6.59	0.037	0.6
8	6/24/2010 15:30	6/24/2010 22:30	7	0.026	0.75	0.75	0.015	2.5	2	0.000	0	0	0.42	0.22	0.041	0.041	0	-0.7	6.57	6.62	0.056	0.8
9	<del>6/28/2010 15:45</del>	<del>6/28/2010 17:00</del>	<del>1.25</del>	<del>0.020</del>	<del>0.75</del>	<del>0.75</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.15</del>	<del>0.14</del>	<del>0.020</del>	<del>0.020</del>	<del>0</del>	<del>-1.1</del>	<del>3.27</del>	<del>2.27</del>	<del>-0.998</del>	<del>-30.6</del>
10	<del>7/9/2010 14:15</del>	<del>7/10/2010 4:15</del>	<del>14</del>	<del>0.024</del>	<del>0.75</del>	<del>0.75</del>	<del>0.015</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>1.53</del>	<del>0.25</del>	<del>0.054</del>	<del>0.039</del>	<del>-0.015</del>	<del>-28.2</del>	<del>9.12</del>	<del>9.01</del>	<del>-0.111</del>	<del>-1.2</del>
11	7/10/2010 8:00	7/11/2010 11:15	27.25	0.036	0.75	0.75	0.020	2.5	2	0.042	5	4	1.12	0.19	0.098	0.098	0	-0.3	10.22	10.22	-0.003	0.0
12	7/12/2010 19:00	7/14/2010 18:15	47.25	0.020	0.75	0.75	0.015	2.5	2	0.036	5	4	3.78	0.56	0.073	0.071	-0.002	-2.7	16.72	16.71	-0.006	0.0
13	7/19/2010 18:45	7/20/2010 2:30	7.75	0.018	0.75	0.75	0.017	2.5	2	0.000	0	0	0.36	0.26	0.034	0.035	0.001	1.6	4.77	4.67	-0.101	-2.1
14	7/21/2010 23:15	7/22/2010 3:45	4.5	0.030	0.75	0.75	0.022	2.5	2	0.000	0	0	0.32	0.24	0.053	0.052	-0.001	-1.1	6.98	7.00	0.02	0.3
15	<del>7/25/2010 14:45</del>	<del>7/26/2010 3:45</del>	<del>13</del>	<del>0.022</del>	<del>0.75</del>	<del>0.75</del>	<del>0.010</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.92</del>	<del>0.45</del>	<del>0.046</del>	<del>0.032</del>	<del>-0.014</del>	<del>-30.7</del>	<del>14.51</del>	<del>11.79</del>	<del>-2.714</del>	<del>-18.7</del>
16	<del>8/22/2010 8:00</del>	<del>8/22/2010 23:30</del>	<del>15.5</del>	<del>0.023</del>	<del>0.75</del>	<del>0.75</del>	<del>0.010</del>	<del>2.5</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.67</del>	<del>0.27</del>	<del>0.048</del>	<del>0.033</del>	<del>-0.015</del>	<del>-31.3</del>	<del>7.07</del>	<del>6.96</del>	<del>-0.113</del>	<del>-1.6</del>

Statistics comparing sim and obs peak I/I flow for all 16 events

Average error = -0.272 MGD

Standard error = 0.751 MGD

Stats for 14 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.046 MGD

Standard error = 0.090 MGD



**USE-0365 2012 flows Upper Schuykill East Side Interceptor**

Pipe Size: 48" dia.

Tributary Drainage Area: 773 acres

Tributary Service Population: 13,233

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
44	11/27/2012 5:45	11/27/2012 22:45	17	0.090	0.75	0.75	0.010	2.5	2	0.000	0	0	0.61	0.02	0.097	0.100	0.003	3.6	4.90	4.79	-0.109	-2.2
45	12/7/2012 21:45	12/8/2012 23:45	26	0.056	0.75	0.75	0.030	2.5	2	0.050	5	4	0.22	0.04	0.139	0.136	-0.003	-1.9	4.25	4.24	-0.013	-0.3
46	12/9/2012 8:15	12/10/2012 19:15	35	0.060	0.75	0.75	0.040	2.5	2	0.050	5	4	0.29	0.04	0.151	0.150	-0.001	-0.4	2.80	2.78	-0.026	-0.9
47	12/11/2012 4:15	12/11/2012 12:15	8	0.061	0.75	0.75	0.039	2.5	2	0.000	0	0	0.10	0.03	0.098	0.100	0.002	1.5	2.68	2.70	0.02	0.7
48	12/18/2012 0:30	12/18/2012 9:00	8.5	0.057	0.75	0.75	0.037	2.5	2	0.000	0	0	0.16	0.08	0.093	0.094	0.001	1.3	5.63	5.54	-0.081	-1.4
49	12/20/2012 20:45	12/22/2012 7:15	34.5	0.058	0.75	0.75	0.013	2.5	2	0.029	5	4	2.31	0.20	0.100	0.100	0	0.4	17.83	17.72	-0.114	-0.6
50	12/26/2012 13:00	12/27/2012 21:15	32.25	0.045	0.75	0.75	0.014	2.5	2	0.023	5	4	1.19	0.10	0.082	0.082	0	0.2	8.75	8.87	0.128	1.5

Statistics comparing sim and obs peak I/I flow for all 50 events

Average error = -0.107 MGD

Standard error = 0.299 MGD

Stats for 44 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.026 MGD

Standard error = 0.091 MGD

**USE-0500 Upper Schuykill East Side Interceptor**

Pipe Size: 43" w x 34" h

Tributary Drainage Area: 397 acres

Tributary Service Population: 3,193

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4/21/2012 20:45	4/22/2012 1:15	4.5	0.028	0.5	1	0.031	1.25	2	0.000	0	0	0.13	0.08	0.061	0.059	-0.002	-2.6	1.56	1.60	0.034	2.1
2	4/22/2012 8:45	4/23/2012 17:00	32.25	0.025	0.75	1	0.007	1.25	2	0.007	4	4	2.34	0.11	0.037	0.039	0.0018	4.8	3.51	3.43	-0.08	-2.3
3	5/1/2012 4:00	5/1/2012 8:30	4.5	0.018	0.5	1	0.004	1.25	1.25	0.000	0	0	0.13	0.03	0.029	0.021	-0.008	-26.0	0.62	0.57	-0.05	-8.0
4	5/3/2012 2:15	5/3/2012 7:45	5.5	0.020	0.5	1	0.008	1.25	1.5	0.000	0	0	0.23	0.08	0.027	0.028	0.001	4.7	0.92	0.87	-0.046	-5.0
5	5/4/2012 21:30	5/5/2012 1:45	4.25	0.016	0.5	1	0.016	1.25	1.5	0.000	0	0	0.25	0.12	0.033	0.032	-0.001	-2.6	1.30	1.28	-0.012	-1.0
6	5/9/2012 4:15	5/9/2012 8:30	4.25	0.017	0.5	1	0.012	1.25	1.5	0.000	0	0	0.32	0.08	0.029	0.029	0	0.0	1.50	1.49	-0.007	-0.5
7	5/9/2012 22:15	5/10/2012 5:45	7.5	0.040	0.5	1	0.010	1.25	2	0.000	0	0	0.24	0.03	0.050	0.050	0	1.0	1.81	0.89	-0.921	-50.8
8	5/15/2012 8:15	5/15/2012 13:45	5.5	0.034	0.5	1	0.010	1.25	2	0.000	0	0	0.71	0.13	0.043	0.044	0.001	2.5	5.05	4.28	-0.768	-15.2
9	5/16/2012 0:30	5/16/2012 20:00	19.5	0.024	0.5	1	0.014	1.25	2	0.029	4	4	1.04	0.42	0.067	0.067	0	-0.5	7.75	7.66	-0.082	-1.1
10	5/22/2012 2:30	5/22/2012 6:45	4.25	0.018	0.33	1	0.000	0	0	0.000	0	0	0.14	0.02	0.021	0.018	-0.003	-15.5	0.77	0.28	-0.49	-63.9
11	5/24/2012 14:15	5/24/2012 21:45	7.5	0.019	0.5	1	0.019	1.5	4	0.000	0	0	0.47	0.25	0.036	0.037	0.001	3.1	3.43	3.42	-0.009	-0.3
12	5/27/2012 3:45	5/28/2012 0:45	21	0.015	0.5	1	0.013	1.25	2	0.028	4	4	0.77	0.19	0.055	0.056	0.001	2.2	3.57	3.54	-0.03	-0.8
13	6/1/2012 20:00	6/2/2012 3:00	7	0.022	0.33	1	0.006	1.25	2	0.000	0	0	0.93	0.38	0.027	0.028	0.0013	4.9	5.92	5.87	-0.05	-0.8
14	6/3/2012 19:45	6/3/2012 21:45	2	0.011	0.33	1	0.000	0	0	0.000	0	0	0.03	0.03	0.052	0.011	-0.041	-79.0	0.83	0.21	-0.623	-74.9
15	6/4/2012 11:30	6/4/2012 15:15	3.75	0.022	0.5	1.25	0.000	0	0	0.000	0	0	0.15	0.08	0.022	0.022	0	-0.9	0.84	0.87	0.03	3.6
16	6/12/2012 9:15	6/13/2012 2:15	17	0.019	0.5	1	0.005	1.25	2	0.000	0	0	0.80	0.06	0.023	0.024	0.001	3.5	1.33	1.11	-0.215	-16.2
17	6/22/2012 18:15	6/23/2012 3:45	9.5	0.024	0.5	0.75	0.006	1.25	4	0.000	0	0	0.79	0.19	0.029	0.030	0.001	3.4	4.59	4.51	-0.073	-1.6

Statistics comparing sim and obs peak I/I flow for all 17 events

Average error = -0.200 MGD

Standard error = 0.366 MGD

Stats for 13 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.046 MGD

Standard error = 0.079 MGD



USE-0660 Upper Schuylkill East Side Interceptor

Pipe Size: 31" dia.

Tributary Drainage Area: 246 acres

Tributary Service Population: 1,627

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	7/14/2012 3:45	7/14/2012 13:45	10	0.013	0.33	1.5	0.005	1	2.5	0.000	0	0	0.37	0.05	0.018	0.018	0	1.1	0.33	0.35	0.011	3.4
2	7/15/2012 21:15	7/16/2012 1:30	4.25	0.055	0.33	1.5	0.002	1	2.5	0.000	0	0	0.91	0.56	0.049	0.057	0.008	17.0	11.21	10.45	-0.762	-6.8
3	7/19/2012 23:45	7/20/2012 11:30	11.75	0.054	0.33	1.5	0.008	1	2.5	0.000	0	0	1.36	0.52	0.045	0.062	0.017	36.8	12.59	12.51	-0.081	-0.6
4	7/26/2012 19:30	7/26/2012 21:15	1.75	0.036	0.33	1.5	0.000	0	0	0.000	0	0	0.28	0.19	0.022	0.036	0.014	64.0	2.80	2.78	-0.023	-0.8
5	7/28/2012 21:45	7/29/2012 1:30	3.75	0.040	0.5	1.5	0.008	1	2.5	0.000	0	0	0.14	0.11	0.033	0.048	0.015	47.5	1.39	1.36	-0.023	-1.6
6	8/5/2012 18:30	8/6/2012 5:45	11.25	0.089	0.33	1.25	0.010	1	2.5	0.000	0	0	0.58	0.16	0.043	0.099	0.056	130.2	4.87	4.80	-0.066	-1.4
7	8/10/2012 7:30	8/10/2012 14:30	7	0.056	0.33	1.5	0.005	1	2.5	0.000	0	0	1.03	0.36	0.038	0.061	0.0233	61.8	9.79	9.60	-0.191	-2.0
8	8/11/2012 18:00	8/11/2012 23:00	5	0.072	0.33	1.5	0.008	1	2.5	0.000	0	0	0.72	0.32	0.062	0.080	0.018	29.0	11.32	11.20	-0.119	-1.1
9	8/14/2012 9:15	8/14/2012 14:15	5	0.056	0.33	1.5	0.009	1	2	0.000	0	0	0.68	0.48	0.057	0.065	0.008	13.2	10.40	10.28	-0.123	-1.2
10	8/17/2012 21:45	8/18/2012 8:30	10.75	0.020	0.33	1.5	0.007	1	2.5	0.000	0	0	0.84	0.17	0.027	0.027	0	-0.5	1.97	1.93	-0.038	-2.0
11	8/27/2012 8:00	8/27/2012 14:45	6.75	0.025	0.33	1.5	0.007	1	2.5	0.000	0	0	0.49	0.15	0.024	0.032	0.007	29.3	2.04	2.02	-0.014	-0.7
12	8/28/2012 5:30	8/28/2012 10:30	5	0.016	0.33	1.5	0.013	1	2.5	0.000	0	0	0.14	0.03	0.031	0.029	-0.002	-6.5	0.34	0.34	-0.002	-0.6
13	9/3/2012 9:15	9/4/2012 1:00	15.75	0.017	0.5	1.5	0.016	1	2.5	0.018	3	3	0.40	0.13	0.043	0.051	0.008	18.4	0.94	0.93	-0.01	-1.1
14	9/4/2012 1:30	9/4/2012 21:15	19.75	0.016	0.5	1.5	0.024	1	2.5	0.000	0	0	0.33	0.05	0.042	0.040	-0.002	-5.0	0.48	0.48	0.001	0.3
15	9/8/2012 16:30	9/8/2012 23:30	7	0.024	0.33	1.5	0.003	1	2.5	0.000	0	0	0.34	0.06	0.013	0.027	0.014	100.8	0.73	0.71	-0.017	-2.4
16	9/18/2012 2:15	9/18/2012 8:45	6.5	0.014	0.33	1.5	0.015	1	2.5	0.000	0	0	0.29	0.08	0.030	0.039	0.009	30.0	0.76	0.75	-0.005	-0.7
17	9/18/2012 17:00	9/18/2012 23:45	6.75	0.033	0.33	1.5	0.006	1	2.5	0.000	0	0	0.85	0.23	0.026	0.039	0.007	27.5	3.82	3.80	-0.018	-0.5
18	9/22/2012 19:15	9/22/2012 22:00	2.75	0.028	0.5	1.5	0.000	0	0	0.000	0	0	0.24	0.10	0.021	0.028	0.007	33.2	1.25	1.22	-0.032	-2.6
19	10/7/2012 10:30	10/7/2012 23:00	12.5	0.016	0.33	1.5	0.018	1	2.5	0.000	0	0	0.23	0.04	0.035	0.034	-0.001	-4.0	0.35	0.35	0.005	1.3
20	10/15/2012 11:45	10/15/2012 21:30	9.75	0.021	0.33	1.5	0.011	1	2.5	0.000	0	0	0.37	0.11	0.030	0.032	0.002	5.8	1.39	1.38	-0.014	-1.0
21	10/19/2012 1:45	10/19/2012 13:45	12	0.033	0.33	1.5	0.006	1	2.5	0.000	0	0	0.66	0.18	0.029	0.039	0.01	32.2	3.10	3.09	-0.004	-0.1
22	10/28/2012 15:45	10/30/2012 23:00	55.25	0.077	0.33	1.5	0.020	1	2.5	0.000	0	0	3.67	0.15	0.063	0.097	0.034	54.0	7.92	7.90	-0.024	-0.3
23	11/7/2012 12:00	11/8/2012 0:45	12.75	0.013	0.33	1.5	0.011	1	2.5	0.000	0	0	0.36	0.02	0.020	0.024	0.004	23.0	0.22	0.21	-0.004	-1.6
24	11/27/2012 5:45	11/28/2012 1:00	19.25	0.029	0.33	1.5	0.006	1	2.5	0.015	3	3	0.61	0.02	0.036	0.050	0.014	38.5	0.63	0.64	0.001	0.2
25	12/7/2012 21:30	12/8/2012 5:15	7.75	0.013	0.33	1.5	0.012	1	3	0.000	0	0	0.22	0.05	0.023	0.025	0.002	9.0	0.38	0.39	0.007	1.8
26	12/9/2012 8:15	12/10/2012 10:45	26.5	0.013	0.33	1.5	0.013	1	2.5	0.044	3	3.5	0.29	0.04	0.069	0.070	0.001	1.2	0.31	0.31	0.002	0.6
27	12/18/2012 0:30	12/18/2012 4:30	4	0.010	0.33	1.5	0.010	1	2.5	0.000	0	0	0.13	0.06	0.020	0.020	0	2.0	0.33	0.33	-0.004	-1.3
28	12/20/2012 20:45	12/22/2012 1:45	29	0.039	0.33	1.5	0.038	1	2.5	0.022	3	6	2.43	0.20	0.077	0.099	0.022	28.6	6.32	6.35	0.033	0.5
29	12/26/2012 13:15	12/27/2012 17:00	27.75	0.028	0.33	1.5	0.028	1	3.5	0.015	3	6	1.13	0.10	0.055	0.071	0.016	29.7	2.54	2.56	0.013	0.5
30	1/11/2013 16:00	1/11/2013 23:45	7.75	0.012	0.33	1.5	0.003	1	2.5	0.000	0	0	0.36	0.04	0.008	0.015	0.007	97.0	0.32	0.32	0.002	0.6
31	1/14/2013 20:00	1/15/2013 17:30	21.5	0.007	0.33	1.5	0.006	1	2.5	0.013	3	6	0.39	0.04	0.026	0.026	0	0.4	0.23	0.23	0.002	0.9
32	5/18/2013 16:00	5/19/2013 19:00	27	0.020	0.33	1.5	0.015	1	2.5	0.000	0	0	0.36	0.04	0.036	0.035	-0.001	-2.5	0.34	0.35	0.001	0.4
33	5/28/2013 8:45	5/28/2013 17:00	8.25	0.014	0.33	1.5	0.004	1	2.5	0.000	0	0	0.28	0.03	0.016	0.018	0.002	9.5	0.25	0.24	-0.005	-2.1
34	6/2/2013 23:30	6/3/2013 20:30	21	0.005	0.33	1.5	0.005	1	2.5	0.000	0	0	0.74	0.21	0.016	0.010	-0.006	-37.5	0.56	0.57	0.014	2.5
35	6/6/2013 19:00	6/8/2013 14:00	43	0.020	0.33	1.5	0.020	1	2.5	0.025	3	8	3.70	0.19	0.047	0.065	0.018	38.2	3.72	3.71	-0.017	-0.5
36	6/10/2013 6:45	6/12/2013 22:00	63.25	0.014	0.33	1.5	0.016	1	2.5	0.068	3	16	1.87	0.52	0.098	0.098	0	0.2	3.47	3.44	-0.034	-1.0
37	6/13/2013 9:15	6/15/2013 13:15	52	0.009	0.33	1.5	0.008	1	2.5	0.051	3	14	0.59	0.32	0.066	0.068	0.002	2.5	1.14	1.12	-0.02	-1.8
38	6/18/2013 12:30	6/18/2013 22:45	10.25	0.004	0.33	1.5	0.005	1	2.5	0.000	0	0	0.59	0.13	0.008	0.008	0	3.6	0.29	0.30	0.002	0.8
39	6/25/2013 23:00	6/26/2013 1:30	2.5	0.005	0.33	1.5	0.003	1	2.5	0.000	0	0	0.20	0.16	0.008	0.008	0	-1.9	0.30	0.30	-0.001	-0.2
40	6/26/2013 20:15	6/27/2013 0:15	4	0.008	0.33	1.5	0.004	1	2.5	0.000	0	0	0.49	0.35	0.012	0.011	0	-2.7	1.02	1.02	0.006	0.6
41	6/6/2013 19:00	6/8/2013 14:00	43	0.020	0.33	1.5	0.020	1	2.5	0.025	3	8	3.70	0.19	0.047	0.065	0.018	38.2	3.72	3.71	-0.017	-0.5

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**USE-0660 Upper Schuylkill East Side Interceptor**

Pipe Size: 31" dia.

Tributary Drainage Area: 246 acres

Tributary Service Population: 1,627

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
42	6/30/2013 12:15	7/1/2013 2:30	14.25	0.015	0.33	1.5	0.010	1	2.5	0.000	0	0	0.27	0.06	0.019	0.025	0.006	31.2	0.32	0.33	0.007	2.0
43	7/7/2013 19:45	7/7/2013 22:45	3	0.004	0.33	1.5	0.003	1	2.5	0.000	0	0	0.19	0.13	0.006	0.007	0	5.0	0.23	0.22	-0.01	-4.2
44	7/12/2013 15:00	7/13/2013 1:15	10.25	0.006	0.33	1.5	0.004	1	2.5	0.007	3	6	0.81	0.13	0.017	0.017	0.0003	1.8	0.45	0.45	0.008	1.8
45	7/20/2013 21:45	7/21/2013 1:30	3.75	0.006	0.33	1.5	0.004	1	2.5	0.000	0	0	0.20	0.15	0.010	0.010	0	-0.4	0.37	0.36	-0.01	-2.7
46	7/22/2013 20:00	7/23/2013 7:30	11.5	0.005	0.33	1.5	0.010	1	2.5	0.000	0	0	0.72	0.35	0.015	0.015	0	-2.8	0.96	0.94	-0.014	-1.4

Statistics comparing sim and obs peak I/I flow for all 46 events

Average error = -0.123 MGD

Standard error = 0.360 MGD

Stats for 40 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.011 MGD

Standard error = 0.029 MGD

USE-0760 Upper Schuylkill East Side Interceptor

Pipe Size: 32" dia.

Tributary Drainage Area: 184 acres

Tributary Service Population: 1,310

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	12/2/2007 17:45	12/3/2007 16:15	22.5	0.029	0.25	0.75	0.012	1	2	0.009	3	5	0.85	0.09	0.048	0.050	0.002	3.5	1.70	1.67	-0.03	-1.8
2	12/9/2007 18:45	12/10/2007 15:30	20.75	0.022	0.25	0.75	0.023	1	2	0.038	3	3	0.13	0.05	0.084	0.083	-0.001	-1.2	0.61	0.60	-0.011	-1.8
3	12/13/2007 8:00	12/14/2007 19:00	35	0.024	0.25	0.75	0.025	1	2	0.039	3	8	0.59	0.05	0.088	0.088	0	-0.2	0.93	0.94	0.004	0.4
4	12/16/2007 0:30	12/17/2007 18:00	41.5	0.042	0.33	0.75	0.045	1	2	0.045	3	9	1.09	0.12	0.130	0.132	0.002	1.8	2.56	2.57	0.01	0.4
5	<del>12/23/2007 3:45</del>	<del>12/24/2007 23:00</del>	<del>43.25</del>	<del>0.095</del>	<del>0.25</del>	<del>0.75</del>	<del>0.040</del>	<del>1</del>	<del>2</del>	<del>0.040</del>	<del>3</del>	<del>9</del>	<del>0.50</del>	<del>0.07</del>	<del>0.171</del>	<del>0.175</del>	<del>0.004</del>	<del>2.4</del>	<del>4.68</del>	<del>4.11</del>	<del>-0.566</del>	<del>-12.1</del>
6	<del>12/26/2007 14:45</del>	<del>12/27/2007 5:30</del>	<del>14.75</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.14</del>	<del>0.02</del>	<del>0.508</del>	<del>0.000</del>	<del>-0.508</del>	<del>-100.0</del>	<del>2.27</del>	<del>0.00</del>	<del>-2.271</del>	<del>-100.0</del>
7	12/28/2007 21:45	12/29/2007 16:00	18.25	0.041	0.25	0.75	0.015	1	2.5	0.020	3	4	0.68	0.09	0.073	0.076	0.003	4.2	2.37	2.30	-0.064	-2.7
8	12/30/2007 16:30	12/31/2007 6:15	13.75	0.230	0.25	1	0.050	1	3.5	0.000	0	0	0.43	0.05	0.289	0.280	-0.009	-3.1	5.40	5.36	-0.034	-0.6
9	1/11/2008 0:30	1/11/2008 16:00	15.5	0.014	0.25	0.75	0.015	1	2	0.011	3	3	0.53	0.16	0.040	0.039	0	-0.4	1.34	1.32	-0.021	-1.5
10	<del>1/13/2008 18:45</del>	<del>1/14/2008 2:45</del>	<del>8</del>	<del>0.032</del>	<del>0.33</del>	<del>0.75</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.31</del>	<del>0.03</del>	<del>0.032</del>	<del>0.032</del>	<del>0</del>	<del>0.9</del>	<del>0.48</del>	<del>0.39</del>	<del>-0.09</del>	<del>-18.6</del>
11	1/17/2008 21:00	1/19/2008 20:15	47.25	0.016	0.25	0.75	0.011	1	2	0.034	4	10	0.64	0.05	0.060	0.061	0.001	0.9	0.69	0.69	-0.007	-1.1
12	2/1/2008 7:30	2/3/2008 7:00	47.5	0.038	0.25	0.75	0.028	1	2.5	0.025	3	13	1.61	0.12	0.090	0.091	0.001	0.9	3.16	3.07	-0.087	-2.7
13	2/12/2008 23:45	2/16/2008 6:45	79	0.047	0.25	0.75	0.051	1	2	0.110	3	22	2.16	0.11	0.203	0.208	0.005	2.3	4.68	4.65	-0.028	-0.6
14	2/18/2008 3:00	2/20/2008 3:45	48.75	0.019	0.25	0.75	0.019	1	2	0.139	3	10	0.35	0.07	0.176	0.177	0.001	0.3	0.86	0.86	-0.001	-0.1
15	3/4/2008 20:45	3/7/2008 1:30	52.75	0.032	0.25	0.75	0.016	1	2.5	0.069	3	14	0.72	0.11	0.118	0.117	-0.001	-0.5	2.32	2.32	-0.004	-0.2
16	3/7/2008 14:15	3/11/2008 7:00	88.75	0.046	0.25	0.75	0.035	1	2	0.106	4	16	2.23	0.21	0.181	0.187	0.006	3.2	7.01	6.88	-0.126	-1.8
17	3/18/2008 21:00	3/21/2008 4:30	55.5	0.023	0.25	0.75	0.015	1	2	0.026	3	9	0.82	0.08	0.063	0.064	0.001	2.2	1.23	1.20	-0.03	-2.5
18	<del>4/3/2008 21:15</del>	<del>4/4/2008 8:45</del>	<del>11.5</del>	<del>0.012</del>	<del>0.25</del>	<del>0.75</del>	<del>0.010</del>	<del>1</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.51</del>	<del>0.03</del>	<del>0.020</del>	<del>0.022</del>	<del>0.002</del>	<del>10.2</del>	<del>0.40</del>	<del>0.30</del>	<del>-0.101</del>	<del>-25.4</del>
19	4/11/2008 21:30	4/12/2008 19:15	21.75	0.028	0.25	0.75	0.012	1	2	0.015	3	6	0.47	0.12	0.055	0.055	-0.001	-1.2	1.84	1.83	-0.014	-0.8
20	<del>4/28/2008 0:15</del>	<del>4/28/2008 21:15</del>	<del>21</del>	<del>0.028</del>	<del>0.25</del>	<del>0.75</del>	<del>0.010</del>	<del>1</del>	<del>2</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.70</del>	<del>0.13</del>	<del>0.037</del>	<del>0.038</del>	<del>0.001</del>	<del>2.3</del>	<del>2.65</del>	<del>2.06</del>	<del>-0.595</del>	<del>-22.4</del>
21	<del>5/9/2008 2:30</del>	<del>5/9/2008 17:15</del>	<del>14.75</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>1.43</del>	<del>0.13</del>	<del>0.050</del>	<del>0.000</del>	<del>-0.05</del>	<del>-100.0</del>	<del>3.79</del>	<del>0.00</del>	<del>-3.788</del>	<del>-100.0</del>
22	5/12/2008 10:30	5/13/2008 5:45	19.25	0.018	0.25	0.75	0.020	1	2	0.012	3	3	0.65	0.04	0.050	0.050	0	-0.4	0.62	0.62	0.002	0.3
23	5/16/2008 4:30	5/17/2008 22:15	41.75	0.023	0.25	0.75	0.008	1	2	0.013	3	10	1.05	0.17	0.045	0.044	-0.001	-2.2	2.32	2.31	-0.013	-0.6
24	5/18/2008 13:00	5/19/2008 3:45	14.75	0.024	0.25	0.75	0.008	1	3	0.008	3	3	0.41	0.10	0.040	0.040	0	1.0	1.42	1.39	-0.028	-2.0
25	5/20/2008 12:00	5/21/2008 5:15	17.25	0.024	0.25	1	0.024	1	2	0.007	3	4	0.56	0.13	0.053	0.055	0.002	2.9	1.76	1.73	-0.031	-1.8
26	5/27/2008 19:30	5/27/2008 23:00	3.5	0.027	0.25	0.75	0.010	1	2	0.000	0	0	0.16	0.04	0.037	0.037	0	0.6	0.62	0.62	-0.001	-0.1
27	6/3/2008 21:45	6/4/2008 14:30	16.75	0.025	0.25	0.75	0.004	1	2	0.011	3	3	0.89	0.21	0.040	0.039	-0.001	-1.8	2.94	2.95	0.007	0.2
28	6/4/2008 16:30	6/5/2008 17:00	24.5	0.018	0.25	0.75	0.013	1	2	0.037	3	6	0.26	0.04	0.068	0.068	0	0.1	0.47	0.45	-0.017	-3.6
29	6/27/2008 17:45	6/27/2008 23:45	6	0.027	0.25	1	0.007	1	2	0.000	0	0	0.32	0.18	0.036	0.034	-0.002	-5.9	2.41	2.38	-0.024	-1.0
30	7/5/2008 2:00	7/5/2008 6:45	4.75	0.028	0.25	1	0.009	1	2	0.000	0	0	0.63	0.23	0.038	0.037	-0.001	-2.5	3.14	3.16	0.024	0.8
31	7/7/2008 13:45	7/8/2008 0:45	11	0.050	0.25	0.75	0.012	1	2	0.025	3	3	0.16	0.08	0.086	0.087	0.001	1.8	2.34	2.33	-0.014	-0.6
32	7/9/2008 16:45	7/9/2008 19:30	2.75	0.029	0.25	1	0.012	1	2	0.000	0	0	0.39	0.28	0.041	0.041	0	-1.0	3.94	3.93	-0.016	-0.4
33	7/14/2008 3:15	7/14/2008 17:00	13.75	0.021	0.25	0.75	0.004	1	2	0.004	3	3	0.37	0.06	0.027	0.028	0.001	2.8	0.75	0.73	-0.025	-3.3
34	7/23/2008 0:45	7/23/2008 13:30	12.75	0.008	0.25	0.75	0.015	1	2	0.036	3	3	0.22	0.08	0.058	0.059	0.001	1.5	0.49	0.49	-0.006	-1.2
35	7/23/2008 14:45	7/24/2008 22:45	32	0.019	0.25	0.75	0.008	1	2	0.009	3	5	1.09	0.32	0.036	0.036	0	0.9	3.43	3.44	0.011	0.3
36	7/27/2008 12:45	7/27/2008 17:00	4.25	0.018	0.25	1	0.005	1	2	0.000	0	0	0.29	0.19	0.023	0.023	-0.0007	-3.0	1.64	1.64	0.002	0.1
37	8/6/2008 3:00	8/6/2008 16:45	13.75	0.018	0.25	0.75	0.009	1	2	0.018	3	3	0.17	0.12	0.044	0.045	0.001	1.9	1.19	1.19	-0.003	-0.2
38	<del>8/10/2008 12:00</del>	<del>8/10/2008 21:30</del>	<del>9.5</del>	<del>0.023</del>	<del>0.25</del>	<del>0.75</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.22</del>	<del>0.05</del>	<del>0.022</del>	<del>0.023</del>	<del>0.001</del>	<del>3.3</del>	<del>0.79</del>	<del>0.63</del>	<del>-0.156</del>	<del>-19.8</del>
39	9/5/2008 23:00	9/6/2008 23:45	24.75	0.026	0.25	0.75	0.002	1	2	0.000	0	0	3.20	0.32	0.028	0.028	0	0.3	4.80	4.72	-0.083	-1.7
40	<del>9/9/2008 9:30</del>	<del>9/9/2008 13:30</del>	<del>4</del>	<del>0.019</del>	<del>0.25</del>	<del>0.75</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.51</del>	<del>0.18</del>	<del>0.019</del>	<del>0.019</del>	<del>0</del>	<del>2.2</del>	<del>2.13</del>	<del>1.88</del>	<del>-0.256</del>	<del>-12.0</del>
41	<del>9/12/2008 14:00</del>	<del>9/12/2008 23:30</del>	<del>9.5</del>	<del>0.017</del>	<del>0.25</del>	<del>0.75</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.49</del>	<del>0.06</del>	<del>0.016</del>	<del>0.017</del>	<del>0.001</del>	<del>8.4</del>	<del>0.81</del>	<del>0.56</del>	<del>-0.249</del>	<del>-30.8</del>
42	9/26/2008 23:15	9/27/2008 6:45	7.5	0.025	0.25	0.75	0.012	1	2	0.000	0	0	0.18	0.05	0.036	0.037	0.001	3.3	0.73	0.73	-0.001	-0.2
43	9/28/2008 0:45	9/29/2008 9:45	33	0.019	0.33	1	0.005	1	2	0.010	3	5	1.99	0.62	0.035	0.034	-0.001	-2.7	3.81	3.81	-0.002	-0.1

\*

\*

**USE-0760 Upper Schuykill East Side Interceptor**

Pipe Size: 32" dia.

Tributary Drainage Area: 184 acres

Tributary Service Population: 1,310

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
44	9/30/2008 20:45	10/2/2008 5:00	32.25	0.020	0.25	0.75	0.005	1	3	0.018	3	4	0.37	0.10	0.042	0.043	0	0.6	1.10	1.09	-0.009	-0.8
45	10/25/2008 13:00	10/26/2008 1:45	12.75	0.014	0.25	1	0.019	1	3	0.000	0	0	1.34	0.41	0.035	0.033	-0.002	-5.0	3.03	3.01	-0.018	-0.6
46	10/27/2008 21:15	10/29/2008 6:45	33.5	0.026	0.25	0.75	0.011	1	2	0.011	3	5	1.57	0.08	0.046	0.047	0.001	3.1	1.38	1.35	-0.029	-2.1
47	11/5/2008 17:45	11/6/2008 10:45	17	0.012	0.25	0.75	0.000	0	0	0.000	0	0	0.40	0.05	0.011	0.012	0.001	7.0	0.40	0.33	-0.066	-16.8
48	11/13/2008 10:00	11/14/2008 14:15	28.25	0.011	0.25	0.75	0.008	1	2	0.010	3	5	0.76	0.07	0.028	0.029	0.001	2.8	0.63	0.61	-0.015	-2.4
49	11/15/2008 2:15	11/15/2008 13:00	10.75	0.015	0.25	0.75	0.009	1	2	0.000	0	0	0.36	0.06	0.022	0.023	0.001	2.8	0.55	0.55	0.001	0.2
50	11/15/2008 16:15	11/16/2008 14:30	22.25	0.007	0.25	1	0.016	1	2	0.015	3	4	0.61	0.22	0.037	0.038	0.001	2.8	0.84	0.81	-0.024	-2.8
51	11/24/2008 19:45	11/25/2008 20:15	24.5	0.007	0.25	0.75	0.007	1	2	0.008	3	4	0.46	0.03	0.022	0.022	0	1.8	0.17	0.17	0.002	1.1
52	11/30/2008 4:15	12/1/2008 0:00	19.75	0.000	0	0	0.000	0	0	0.000	0	0	0.76	0.04	0.013	0.000	-0.013	-100.0	0.18	0.00	-0.184	-100.0

Statistics comparing sim and obs peak I/I flow for all 52 events

Average error = -0.175 MGD

Standard error = 0.633 MGD

Stats for 50 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.060 MGD

Standard error = 0.138 MGD

**WHL-0110 (2013) Wissahickon High Level Interceptor**

Pipe Size: 54" dia.

Tributary Drainage Area: 1,834 acres

Tributary Service Population: 13,706

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	6/3/2013 0:00	6/4/2013 6:15	30.25	0.020	0.75	1	0.003	3	2	0.004	4	4	0.89	0.25	0.025	0.027	0.0012	4.7	13.08	12.75	-0.332	-2.5
2	6/6/2013 19:15	6/10/2013 1:30	78.25	0.014	0.75	1.25	0.010	3	2	0.013	4	14	3.53	0.20	0.037	0.037	0	-0.5	14.00	13.98	-0.013	-0.1
3	6/10/2013 7:00	6/12/2013 20:15	61.25	0.013	0.75	1.25	0.010	3	2	0.013	4	12	1.80	0.40	0.036	0.036	0	-0.9	12.18	11.92	-0.264	-2.2
4	6/13/2013 9:30	6/14/2013 9:30	24	0.018	0.75	1.25	0.007	3	2	0.000	0	0	0.62	0.36	0.025	0.025	0	0.0	11.27	11.16	-0.105	-0.9
5	6/18/2013 12:30	6/19/2013 9:45	21.25	0.024	0.75	1	0.003	3	2	0.005	4	4	0.46	0.08	0.031	0.032	0.001	2.6	5.27	5.30	0.03	0.6
6	6/25/2013 23:15	6/26/2013 16:15	17	0.009	0.75	1.25	0.008	3	2	0.014	4	4	0.13	0.11	0.031	0.031	0	-0.1	1.60	1.59	-0.017	-1.1
7	6/26/2013 20:30	6/27/2013 16:00	19.5	0.014	0.75	1	0.003	3	2	0.006	4	4	0.48	0.39	0.023	0.023	-0.0003	-1.3	10.19	10.06	-0.138	-1.4
8	6/27/2013 17:30	6/29/2013 19:45	50.25	0.017	0.75	1	0.004	3	2	0.015	4	7	0.61	0.22	0.036	0.036	0	-0.9	8.30	8.16	-0.139	-1.7
9	6/30/2013 12:45	7/1/2013 5:45	17	0.022	0.75	1	0.004	3	2	0.009	4	3	0.28	0.03	0.034	0.035	0.001	2.1	3.49	2.99	-0.501	-14.4
10	7/1/2013 7:00	7/2/2013 9:15	26.25	0.026	0.75	1	0.015	3	2	0.010	4	5	0.27	0.08	0.051	0.051	0	0.0	5.28	5.10	-0.174	-3.3
11	7/3/2013 22:30	7/4/2013 10:45	12.25	0.009	0.75	1.25	0.013	3	3	0.000	0	0	0.14	0.12	0.023	0.022	-0.0008	-3.5	1.79	1.74	-0.05	-2.8
12	7/7/2013 20:00	7/8/2013 9:00	13	0.009	0.75	1.25	0.013	3	3.5	0.000	0	0	0.17	0.11	0.022	0.022	0	-0.3	2.00	2.01	0.014	0.7
13	7/12/2013 16:15	7/13/2013 15:00	22.75	0.017	0.75	1.25	0.014	3	2	0.004	4	4	0.82	0.12	0.034	0.035	0	0.8	7.10	6.99	-0.111	-1.6
14	7/20/2013 22:00	7/21/2013 17:45	19.75	0.022	0.75	1	0.009	3	2.5	0.000	0	0	0.23	0.20	0.032	0.031	-0.001	-2.6	7.34	7.20	-0.139	-1.9
15	7/22/2013 18:30	7/23/2013 21:45	27.25	0.013	0.75	1.25	0.004	3	2	0.004	4	4	0.84	0.38	0.021	0.021	0	0.1	10.83	10.86	0.028	0.3
16	7/28/2013 15:00	7/29/2013 18:30	27.5	0.022	0.75	1.25	0.013	3	2	0.018	4	4	0.25	0.08	0.052	0.053	0.001	2.1	3.42	3.43	0.011	0.3
17	8/1/2013 6:45	8/2/2013 8:00	25.25	0.023	0.75	1.25	0.012	3	2	0.006	4	5	0.71	0.08	0.040	0.041	0.001	3.7	6.49	6.38	-0.109	-1.7
18	8/8/2013 0:15	8/8/2013 21:00	20.75	0.019	0.75	1.25	0.010	3	2	0.008	4	4	0.26	0.12	0.036	0.037	0	1.1	3.85	3.89	0.037	1.0
19	8/9/2013 17:00	8/10/2013 14:15	21.25	0.015	0.75	1.5	0.018	1.75	1.75	0.021	4	5	0.12	0.06	0.054	0.054	0	0.4	2.50	2.45	-0.057	-2.3
20	8/13/2013 5:15	8/14/2013 15:15	34	0.011	0.75	1.5	0.004	3	2	0.005	4	8	2.41	0.37	0.020	0.020	0	-0.7	14.46	14.87	0.408	2.8
21	8/22/2013 12:45	8/23/2013 5:15	16.5	0.018	0.75	1.25	0.006	3	2	0.006	4	3	0.24	0.18	0.029	0.030	0.001	2.8	5.55	5.49	-0.066	-1.2
22	8/28/2013 9:45	8/30/2013 0:00	38.25	0.009	0.75	1.25	0.011	3	2	0.008	4	8	1.75	0.64	0.028	0.028	0	0.0	14.69	14.89	0.206	1.4
23	9/2/2013 10:30	9/3/2013 15:15	28.75	0.015	0.75	1.25	0.005	3	2	0.008	4	6	0.93	0.36	0.028	0.028	0	0.0	14.65	14.52	-0.131	-0.9
24	9/12/2013 18:45	9/13/2013 20:45	26	0.020	0.75	1.25	0.008	3	2	0.007	4	4	0.51	0.15	0.034	0.035	0.001	3.3	8.17	8.11	-0.064	-0.8
25	9/21/2013 20:00	9/23/2013 2:00	30	0.017	0.75	1.25	0.006	3	2	0.006	4	6	1.16	0.23	0.029	0.029	0	-0.4	10.54	10.58	0.041	0.4

Statistics comparing sim and obs peak I/I flow for all 25 events

Average error = -0.095 MGD

Standard error = 0.254 MGD

Stats for 20 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.040 MGD

Standard error = 0.098 MGD

**W067-01-S0060 Wissahickon High Level Interceptor**

Pipe Size: 15" dia.

Tributary Drainage Area: 257 acres

Tributary Service Population: 3,990

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	6/3/2013 6:00	6/4/2013 8:45	26.75	0.009	0.25	0.75	0.004	1.25	2	0.024	3	8	0.69	0.25	0.038	0.037	-0.0009	-2.4	1.76	1.78	0.015	0.9
2	6/6/2013 19:30	6/9/2013 0:30	53	0.012	0.25	0.75	0.008	1.25	2	0.014	3	12	3.64	0.20	0.035	0.034	-0.001	-4.0	2.25	2.32	0.069	3.1
3	6/10/2013 6:45	6/10/2013 10:45	4	0.011	0.25	1	0.003	1.25	2	0.000	0	0	0.80	0.48	0.014	0.014	0	0.0	3.71	3.73	0.024	0.7
4	6/10/2013 13:00	6/12/2013 3:15	38.25	0.026	0.25	0.75	0.005	1.25	2	0.018	3	10	0.99	0.19	0.049	0.049	0	-0.4	3.89	3.83	-0.059	-1.5
5	6/13/2013 9:15	6/14/2013 9:30	24.25	0.015	0.25	0.75	0.003	1.25	2	0.010	3	6	0.57	0.32	0.028	0.028	0	1.4	3.67	3.70	0.035	1.0
6	6/18/2013 12:30	6/19/2013 6:30	18	0.014	0.25	0.75	0.006	1.25	2	0.012	3	5	0.61	0.12	0.032	0.032	-0.001	-2.1	1.23	1.25	0.02	1.6
7	6/25/2013 23:00	6/26/2013 3:30	4.5	0.001	0.25	0.75	0.012	1.25	2	0.000	0	0	0.18	0.16	0.014	0.013	0	-3.4	0.19	0.20	0.009	4.9
8	6/26/2013 20:30	6/27/2013 7:15	10.75	0.011	0.25	0.75	0.007	1.25	2	0.016	3	4	0.40	0.36	0.035	0.034	-0.0012	-3.5	2.92	2.91	-0.006	-0.2
9	6/27/2013 17:15	6/29/2013 0:00	30.75	0.009	0.25	0.75	0.014	1.25	2	0.040	3	10	0.74	0.34	0.064	0.063	-0.001	-1.8	2.49	2.46	-0.031	-1.3
10	6/30/2013 12:30	7/1/2013 3:00	14.5	0.014	0.25	0.75	0.020	1.25	2	0.027	3	6	0.30	0.06	0.061	0.061	0	-0.4	0.68	0.70	0.017	2.5
11	7/1/2013 7:00	7/2/2013 0:15	17.25	0.021	0.25	0.75	0.020	1.25	2	0.028	3	6	0.26	0.10	0.071	0.069	-0.002	-2.5	1.76	1.79	0.027	1.5
12	7/3/2013 22:15	7/4/2013 7:45	9.5	0.010	0.25	0.75	0.010	1.25	2	0.033	3	4	0.11	0.10	0.053	0.052	-0.001	-2.6	0.73	0.73	-0.007	-0.9
13	7/7/2013 19:45	7/7/2013 23:00	3.25	0.012	0.25	0.75	0.011	1.25	2	0.000	0	0	0.18	0.11	0.023	0.023	0.0002	0.9	1.05	1.02	-0.027	-2.6
14	7/12/2013 15:30	7/13/2013 10:15	18.75	0.010	0.25	0.75	0.010	1.25	2	0.015	3	5	0.84	0.16	0.035	0.035	0	-1.1	1.31	1.30	-0.008	-0.6
15	7/20/2013 21:00	7/21/2013 0:15	3.25	0.016	0.25	1	0.008	1.25	2	0.000	0	0	0.18	0.15	0.023	0.023	0	0.0	1.56	1.56	-0.001	-0.1
16	7/23/2013 0:45	7/23/2013 6:45	6	0.010	0.25	1	0.008	1.25	2	0.000	0	0	0.73	0.38	0.019	0.018	-0.001	-3.5	2.65	2.68	0.023	0.9
17	7/28/2013 14:15	7/29/2013 3:45	13.5	0.015	0.25	0.75	0.041	1.25	2	0.000	0	0	0.22	0.05	0.058	0.056	-0.002	-3.2	0.62	0.63	0.011	1.7
18	8/1/2013 6:15	8/2/2013 5:30	23.25	0.023	0.25	0.75	0.005	1.25	2	0.010	3	5	0.83	0.07	0.039	0.038	-0.001	-3.0	1.43	1.39	-0.042	-2.9
19	8/7/2013 23:00	8/8/2013 4:00	5	0.011	0.25	1	0.012	1.25	2	0.000	0	0	0.30	0.16	0.024	0.023	-0.001	-3.8	1.25	1.24	-0.011	-0.9
20	8/13/2013 4:45	8/15/2013 0:00	43.25	0.014	0.25	0.75	0.005	1.25	2	0.009	3	12	2.33	0.47	0.028	0.027	-0.001	-2.9	5.25	5.21	-0.045	-0.9
21	8/28/2013 9:45	8/29/2013 3:00	17.25	0.013	0.25	0.75	0.004	1.25	2	0.004	3	4	1.48	0.49	0.021	0.021	0	0.9	5.11	4.97	-0.144	-2.8
22	9/2/2013 10:30	9/3/2013 2:45	16.25	0.008	0.25	1	0.003	1.25	2	0.004	3	4	1.52	0.61	0.014	0.015	0.0005	3.6	3.11	3.12	0.003	0.1
23	9/12/2013 18:15	9/13/2013 16:45	22.5	0.017	0.25	1	0.010	1.25	2	0.012	3	4	0.50	0.16	0.038	0.039	0	0.3	1.97	1.93	-0.045	-2.3
24	9/21/2013 19:45	9/22/2013 21:30	25.75	0.010	0.25	1	0.005	1.25	2	0.008	3	6	1.17	0.21	0.023	0.023	0	-0.9	1.48	1.53	0.057	3.8

Statistics comparing sim and obs peak I/I flow for all 24 events

Average error = -0.022 MGD

Standard error = 0.094 MGD

Stats for 22 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = 0.001 MGD

Standard error = 0.033 MGD

WLL-0028 Wissahickon Low Level Interceptor

Pipe Size: 42" w x 28" h

Tributary Drainage Area: 5,639 acres

Tributary Service Population: 37,760

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	8/22/2010 7:30	8/25/2010 23:15	87.75	0.002	1	1	0.006	2	2	0.014	5	12	1.13	0.40	0.022	0.022	0	-2.0	6.94	6.99	0.043	0.6
2	9/12/2010 6:45	9/13/2010 4:30	21.75	0.008	1	1	0.003	2	2	0.015	5	3	0.27	0.04	0.025	0.025	0.001	2.3	4.20	4.21	0.016	0.4
3	9/16/2010 17:00	9/18/2010 6:45	37.75	0.004	1	1	0.003	2	2	0.014	5	6	0.42	0.12	0.020	0.021	0.0007	3.5	4.08	4.04	-0.035	-0.9
4	9/22/2010 20:45	9/23/2010 4:00	7.25	0.002	1	1	0.004	2	2.5	0.000	0	0	0.19	0.07	0.006	0.006	0	2.2	1.30	1.25	-0.054	-4.1
5	9/27/2010 9:00	9/28/2010 2:45	17.75	0.010	0.75	1	0.007	2	2	0.008	4	3	0.12	0.03	0.023	0.024	0.001	2.6	1.92	1.92	-0.006	-0.3
6	9/30/2010 4:00	10/3/2010 19:45	87.75	0.002	1	1.5	0.005	3	2.5	0.011	6	24	6.13	0.63	0.018	0.018	0	-0.9	17.20	17.75	0.546	3.2
7	10/3/2010 21:00	10/9/2010 18:00	141	0.005	1	1.5	0.013	3	2.5	0.024	5	24	0.78	0.05	0.042	0.042	0	-0.5	4.86	4.96	0.094	1.9
8	10/12/2010 2:15	10/12/2010 14:15	12	0.004	1	1	0.003	2	2	0.003	5	4	0.30	0.07	0.010	0.010	0	-1.1	2.69	2.67	-0.018	-0.7
9	10/14/2010 11:15	10/15/2010 22:15	35	0.004	1	1.5	0.006	2	2.5	0.010	5	5	0.73	0.05	0.020	0.020	0	0.8	5.19	5.38	0.197	3.8
10	10/18/2010 23:15	10/20/2010 11:00	35.75	0.005	1	1	0.007	2	2	0.008	5	5	0.56	0.06	0.019	0.019	0	1.0	4.30	4.31	0.005	0.1
11	10/27/2010 2:15	10/29/2010 0:15	46	0.002	1	1	0.007	2	2	0.014	5	6	0.43	0.10	0.023	0.023	0	0.1	2.46	2.44	-0.024	-1.0
12	11/4/2010 2:15	11/6/2010 1:45	47.5	0.003	1	1	0.006	2	2	0.011	5	6	1.31	0.05	0.021	0.020	-0.001	-2.6	5.72	5.69	-0.022	-0.4
13	11/16/2010 1:15	11/19/2010 2:30	73.25	0.003	1	1.5	0.005	2	2.5	0.018	5	9	0.55	0.17	0.026	0.026	0	-1.5	3.31	3.40	0.09	2.7
14	11/25/2010 9:45	11/27/2010 1:45	40	0.006	1	1	0.007	2	2	0.018	5	6	0.34	0.03	0.030	0.031	0	1.2	2.67	2.64	-0.029	-1.1
15	12/1/2010 0:00	12/4/2010 0:15	72.25	0.002	1	1.5	0.009	3	2.5	0.018	5	11	1.43	0.30	0.030	0.029	-0.001	-1.8	8.98	9.28	0.298	3.3
16	12/11/2010 22:45	12/15/2010 12:30	85.75	0.005	1	1	0.005	2	2	0.022	7	8	1.20	0.06	0.031	0.032	0	1.0	5.37	5.51	0.135	2.5
17	12/26/2010 13:00	12/27/2010 6:45	17.75	0.001	1	1	0.001	2	2	0.000	0	0	1.21	0.05	0.002	0.002	0	0.0	0.84	0.82	-0.015	-1.8
18	1/11/2011 18:30	1/12/2011 4:30	10	0.001	0.75	1	0.001	2	2	0.000	0	0	0.50	0.04	0.002	0.002	0	1.5	0.84	0.83	-0.014	-1.7
19	1/17/2011 21:00	1/24/2011 0:15	147.25	0.006	1	1	0.006	2	2	0.024	5	12	1.09	0.05	0.036	0.036	0	0.0	5.78	5.69	-0.092	-1.6
20	1/26/2011 5:15	1/27/2011 7:15	26	0.001	1	1	0.001	2	2	0.000	0	0	1.52	0.07	0.002	0.002	0	0.1	1.74	1.21	-0.531	-30.6
21	2/1/2011 22:45	2/4/2011 19:30	68.75	0.005	1	1	0.006	2	2	0.029	6	10	0.79	0.05	0.039	0.040	0	0.1	5.27	5.35	0.083	1.6
22	2/5/2011 7:30	2/7/2011 9:45	50.25	0.004	1	1	0.004	2	2	0.065	5	9	0.27	0.03	0.075	0.073	-0.002	-3.1	2.60	2.57	-0.039	-1.5
23	2/24/2011 19:30	2/27/2011 2:15	54.75	0.005	1	1	0.005	2.5	2	0.014	6	6	0.93	0.07	0.024	0.024	0	-1.5	4.52	4.50	-0.026	-0.6
24	2/28/2011 2:30	3/1/2011 3:45	25.25	0.005	1	1	0.005	2	2	0.007	4	3	0.24	0.05	0.018	0.018	0	0.0	2.39	2.45	0.061	2.6
25	3/6/2011 6:45	3/10/2011 0:15	89.5	0.004	1.5	2	0.004	3	3	0.029	6	16	2.31	0.16	0.037	0.037	0	0.2	9.59	9.59	-0.009	-0.1
26	3/10/2011 2:00	3/15/2011 23:00	141	0.006	1.5	2	0.007	3	3	0.059	6	18	1.82	0.10	0.072	0.072	0	-0.2	10.48	10.60	0.12	1.1
27	3/16/2011 0:00	3/18/2011 0:15	48.25	0.004	1	1	0.005	2	2	0.014	6	6	0.59	0.08	0.023	0.023	0	-1.2	4.89	4.99	0.102	2.1
28	3/21/2011 2:30	3/22/2011 15:00	36.5	0.003	1	1.5	0.004	2	2	0.011	5	5	0.43	0.06	0.018	0.018	0	0.5	2.66	2.62	-0.041	-1.5
29	3/23/2011 6:00	3/25/2011 9:15	51.25	0.004	1	1	0.004	2	2	0.014	6	6	0.46	0.06	0.021	0.022	0	1.6	2.37	2.40	0.033	1.4
30	3/31/2011 16:30	4/2/2011 11:00	42.5	0.006	1	1	0.006	2	2	0.008	5	4	0.39	0.02	0.020	0.020	0	-0.7	2.34	2.33	-0.011	-0.5
31	4/5/2011 6:15	4/6/2011 10:15	28	0.003	1	1.5	0.004	2	3	0.005	4	5	0.25	0.11	0.013	0.012	-0.0001	-0.8	1.77	1.84	0.07	4.0
32	4/8/2011 10:00	4/10/2011 1:00	39	0.004	1	1	0.004	2	3	0.009	5	6	0.76	0.03	0.017	0.017	0	0.3	3.78	3.82	0.041	1.1
33	4/12/2011 10:30	4/14/2011 22:45	60.25	0.005	1	1	0.005	2	2.5	0.011	5	8	0.84	0.07	0.020	0.021	0.001	4.0	3.83	3.82	-0.005	-0.1
34	4/16/2011 12:00	4/22/2011 12:30	144.5	0.001	1	1.5	0.005	3	3	0.038	6	22	2.76	0.33	0.044	0.044	0	0.6	10.59	10.45	-0.143	-1.3
35	4/23/2011 1:15	4/26/2011 9:00	79.75	0.003	1	1	0.005	2	3	0.018	6	6	0.66	0.08	0.026	0.026	0	-1.6	3.71	3.65	-0.055	-1.5
36	4/28/2011 12:00	4/29/2011 18:45	30.75	0.001	1	1	0.003	2	3	0.011	5	5	0.25	0.11	0.014	0.015	0	3.2	1.45	1.45	0.006	0.4
37	5/4/2011 5:00	5/5/2011 16:30	35.5	0.004	1	1	0.004	2	2.5	0.012	5	5	0.46	0.05	0.019	0.020	0	0.6	2.57	2.50	-0.064	-2.5
38	5/15/2011 0:45	5/15/2011 14:45	14	0.003	1	1	0.003	2	2	0.004	4	3	0.38	0.14	0.009	0.009	0	-0.1	2.72	2.77	0.044	1.6
39	5/15/2011 16:00	5/17/2011 1:00	33	0.002	1	1	0.002	2	2	0.008	5	5	0.58	0.19	0.012	0.012	0	-0.7	3.16	3.15	-0.007	-0.2
40	5/17/2011 4:45	5/18/2011 11:00	30.25	0.003	1	1	0.003	2	2	0.013	5	4	0.31	0.06	0.020	0.019	-0.0002	-1.0	2.50	2.40	-0.101	-4.0
41	5/18/2011 12:45	5/19/2011 11:45	23	0.003	1	1	0.002	2	2	0.011	4	4	0.21	0.06	0.016	0.016	0	-2.1	1.82	1.81	-0.014	-0.8
42	5/19/2011 15:15	5/22/2011 4:00	60.75	0.004	1	1.5	0.004	2	2.5	0.017	6	5	0.77	0.34	0.024	0.024	0	0.7	6.58	6.59	0.012	0.2
43	5/23/2011 0:45	5/23/2011 15:30	14.75	0.003	1	1	0.003	2	2	0.003	4	3	0.20	0.04	0.010	0.010	0	-0.4	1.72	1.70	-0.028	-1.6
44	6/9/2011 20:00	6/10/2011 1:45	5.75	0.004	1	1	0.003	2	2	0.000	0	0	0.10	0.09	0.007	0.007	0	0.7	1.65	1.62	-0.037	-2.2

**WLL-0028 Wissahickon Low Level Interceptor**

Pipe Size: 42" w x 28" h

Tributary Drainage Area: 5,639 acres

Tributary Service Population: 37,760

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
45	6/11/2011 22:30	6/13/2011 17:00	42.5	0.004	1	1	0.004	2	2	0.013	6	6	0.57	0.15	0.020	0.020	0	-0.2	5.58	5.55	-0.038	-0.7
46	6/14/2011 16:30	6/15/2011 12:45	20.25	0.002	1	1	0.003	2	2	0.005	4	4	0.32	0.08	0.009	0.009	0	0.6	2.27	2.27	-0.002	-0.1
47	6/16/2011 21:45	6/17/2011 23:45	26	0.004	1	1	0.004	1.75	2	0.009	4	4	0.86	0.16	0.017	0.017	0	0.1	9.54	9.64	0.104	1.1
48	7/8/2011 13:30	7/9/2011 21:45	32.25	0.006	1	1	0.006	2	2	0.009	5	5	0.49	0.05	0.020	0.020	0	-0.2	4.64	4.70	0.066	1.4
49	7/19/2011 19:30	7/20/2011 1:30	6	0.008	1	1	0.007	1.75	2	0.000	0	0	0.20	0.08	0.016	0.015	-0.0005	-3.2	5.82	5.80	-0.016	-0.3
50	7/25/2011 14:15	7/26/2011 22:15	32	0.003	1	1	0.003	2	2	0.010	5	5	0.68	0.14	0.017	0.016	-0.0007	-4.2	4.96	5.09	0.132	2.7
51	7/29/2011 18:45	7/30/2011 19:45	25	0.002	1	1	0.002	2	2	0.011	5	4	0.21	0.09	0.015	0.015	0	0.1	1.57	1.55	-0.017	-1.1
52	8/1/2011 16:00	8/2/2011 2:45	10.75	0.008	1	1	0.005	2	2	0.006	3	3	0.09	0.03	0.019	0.019	-0.0005	-2.6	2.10	2.08	-0.012	-0.6
53	8/3/2011 14:00	8/5/2011 5:00	39	0.003	1	1	0.003	2	2	0.008	5	5	0.91	0.30	0.014	0.014	0	2.2	8.11	8.07	-0.041	-0.5
54	8/7/2011 0:30	8/8/2011 6:30	30	0.004	1	1	0.004	2	2	0.009	4	3	0.43	0.08	0.018	0.017	0	-2.0	3.21	3.18	-0.035	-1.1
55	8/9/2011 11:45	8/10/2011 14:00	26.25	0.003	1	1	0.003	1.5	2	0.007	5	4	0.92	0.35	0.014	0.014	0	-2.1	10.85	11.01	0.162	1.5

\*

Statistics comparing sim and obs peak I/I flow for all 55 events

Average error = 0.016 MGD

Standard error = 0.133 MGD

Stats for 47 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = 0.009 MGD

Standard error = 0.055 MGD



**WLL-0105 Site 041 Wissahickon Low Level Interceptor**

Pipe Size" 36" dia>

Tributary Drainage Area: 5,626 acres

Tributary Service Population: 37,746

**Note: All of the simulations for these events did not meet quality standards and were deleted. Do not use these analysis results for model refinements.**

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	10/4/2000 20:45	10/6/2000 2:00	29.25	0.004	1.5	1.5	0.002	3	3	0.003	5	5	1.02	0.27	0.008	0.008	0.0003	3.8	4.82	4.86	0.04	0.8
2	11/9/2000 19:45	11/11/2000 8:30	36.75	0.005	1.5	1.5	0.003	3	3	0.004	5	5	0.58	0.12	0.011	0.012	0.001	4.8	2.78	2.67	-0.106	-3.8
3	1/15/2001 0:30	1/16/2001 4:00	27.5	0.005	1.5	1.5	0.005	3	3	0.013	5	5	0.28	0.05	0.022	0.023	0	0.8	2.15	2.04	-0.103	-4.8
4	1/19/2001 3:00	1/22/2001 5:15	74.25	0.002	1.5	1.5	0.002	3	3	0.033	6	5	1.33	0.04	0.038	0.037	-0.001	-2.3	5.15	5.18	0.032	0.6
5	1/30/2001 6:00	2/1/2001 3:45	45.75	0.004	1.5	1.5	0.006	3	3	0.022	5	7	0.79	0.08	0.032	0.032	0	-1.0	5.48	5.57	0.089	1.6
6	2/5/2001 5:15	2/8/2001 3:45	70.5	0.004	1.5	1.5	0.005	3	3	0.020	5	7	1.25	0.06	0.029	0.029	0	-0.8	4.76	4.81	0.055	1.2
7	2/23/2001 11:30	2/24/2001 3:00	15.5	0.004	1.5	1.5	0.004	3	3	0.000	0	0	0.22	0.07	0.005	0.007	0.002	54.3	1.64	1.38	-0.26	-15.9
8	2/25/2001 9:15	2/26/2001 20:15	35	0.006	1.5	1.5	0.015	3	3	0.032	5	5	0.22	0.05	0.053	0.053	0	0.0	3.32	3.23	-0.094	-2.8
9	3/6/2001 12:30	3/7/2001 3:30	15	0.005	1.5	1.5	0.003	3	3	0.003	5	4	0.24	0.02	0.009	0.011	0.001	15.6	1.73	1.42	-0.313	-18.1
10	3/7/2001 9:30	3/8/2001 13:45	28.25	0.004	1.5	1.5	0.005	3	3	0.011	5	5	0.21	0.03	0.020	0.020	0	1.4	1.68	1.69	0.015	0.9
11	3/12/2001 22:45	3/15/2001 0:00	49.25	0.005	1.5	1.5	0.008	3	3	0.015	5	8	0.64	0.06	0.028	0.028	-0.0004	-1.4	4.77	4.82	0.048	1.0
12	3/15/2001 18:30	3/19/2001 2:15	79.75	0.002	1.5	2	0.004	3	3	0.015	5	6	0.89	0.11	0.021	0.021	0	-1.9	2.53	2.47	-0.062	-2.4
13	3/21/2001 10:30	3/24/2001 0:15	61.75	0.005	1.5	2	0.005	3	3	0.028	5	10	0.80	0.07	0.041	0.038	-0.003	-6.7	5.96	5.92	-0.044	-0.7
14	7/9/2001 2:45	7/9/2001 13:30	10.75	0.004	1	1	0.001	3	2.5	0.000	0	0	0.33	0.17	0.005	0.005	0	2.3	3.98	3.97	-0.012	-0.3
15	7/18/2001 4:00	7/18/2001 19:15	15.25	0.010	1.25	1.25	0.007	3	2.5	0.000	0	0	0.13	0.02	0.016	0.017	0.0003	1.9	2.31	2.23	-0.087	-3.8
16	8/10/2001 15:15	8/11/2001 2:30	11.25	0.002	1	1	0.001	3	3	0.000	0	0	0.58	0.37	0.003	0.003	0	0.0	3.96	3.94	-0.017	-0.4
17	8/12/2001 10:45	8/14/2001 9:15	46.5	0.002	1.5	1.5	0.002	3	2.5	0.004	5	7	1.05	0.31	0.009	0.009	0	0.2	3.27	3.28	0.01	0.3
18	8/19/2001 19:15	8/21/2001 0:30	29.25	0.006	1.25	1.25	0.004	3	3	0.006	5	4	0.31	0.28	0.016	0.016	0	0.0	4.84	4.81	-0.027	-0.6
19	9/14/2001 3:15	9/15/2001 6:30	27.25	0.006	1.25	1.25	0.003	3	3	0.002	5	4	0.63	0.14	0.010	0.010	0	0.0	4.42	4.27	-0.155	-3.5
20	9/20/2001 12:00	9/22/2001 7:30	43.5	0.005	1.5	1.5	0.006	3	3	0.010	5	5	0.41	0.06	0.020	0.020	0	-1.0	2.44	2.40	-0.038	-1.5
21	9/24/2001 21:45	9/26/2001 6:15	32.5	0.008	1.25	1.25	0.004	3	3	0.004	5	5	0.46	0.06	0.014	0.015	0	1.7	3.67	3.67	-0.006	-0.2
22	9/30/2001 15:00	10/2/2001 5:00	38	0.009	1.25	1.25	0.006	3	3	0.006	5	4	0.25	0.03	0.020	0.021	0.001	3.4	2.50	2.02	-0.476	-19.0
23	10/6/2001 8:30	10/7/2001 9:30	25	0.005	1.5	1.5	0.005	3	3	0.006	5	4	0.14	0.08	0.016	0.016	0	0.0	1.63	1.61	-0.017	-1.0
24	10/14/2001 22:00	10/16/2001 3:00	29	0.005	1.25	1.25	0.004	3	3	0.004	5	5	0.27	0.08	0.013	0.013	0	0.0	2.38	2.35	-0.036	-1.5

Statistics comparing sim and obs peak I/I flow for all 24 events

Average error = -0.073 MGD

Standard error = 0.162 MGD

Stats for 19 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.030 MGD

Standard error = 0.071 MGD

WLL-0565 Site 040 Wissahickon Low Level Interceptor

Pipe Size: 27.5" dia.

Tributary Drainage Area: 4,214 acres

Tributary Service Population: 19,592

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3/8/2013 7:45	3/9/2013 4:45	21	0.003	1.5	1.5	0.003	3	2	0.004	4	4	0.19	0.04	0.009	0.009	0	-0.6	0.59	0.58	-0.012	-2.0
2	3/12/2013 3:00	3/13/2013 22:00	43	0.004	1.5	1.5	0.004	3	2	0.007	5	6	0.99	0.07	0.015	0.016	0.001	4.6	3.96	3.85	-0.11	-2.8
3	3/16/2013 9:15	3/17/2013 1:00	15.75	0.003	1.5	1.5	0.003	3	2	0.000	0	0	0.20	0.02	0.006	0.006	0	6.3	0.82	0.50	-0.321	-39.1
4	3/18/2013 17:30	3/20/2013 22:45	53.25	0.003	1.5	1.5	0.003	3.5	2	0.011	5	8	0.81	0.06	0.018	0.018	0	-0.4	2.20	2.19	-0.007	-0.3
5	3/25/2013 6:00	3/26/2013 12:00	30	0.002	1.5	1.5	0.002	3.5	2	0.010	5	6	0.55	0.04	0.014	0.014	0	2.7	1.48	1.45	-0.027	-1.9
6	3/31/2013 15:00	3/31/2013 21:30	6.5	0.001	1.5	1.5	0.001	3	2	0.000	0	0	0.14	0.02	0.003	0.002	-0.001	-26.3	0.41	0.13	-0.283	-69.3
7	4/10/2013 19:15	4/11/2013 23:15	28	0.001	1.5	1.5	0.001	3	2	0.004	5	4	0.62	0.18	0.007	0.007	0	-2.0	1.20	1.21	0.006	0.5
8	4/12/2013 5:45	4/14/2013 17:00	59.25	0.002	1.5	1.5	0.002	3	2	0.012	5	8	0.83	0.15	0.016	0.016	0	-0.4	1.60	1.60	0.006	0.4
9	4/19/2013 21:30	4/21/2013 6:00	32.5	0.002	1.5	1.5	0.002	2.5	2	0.010	5	5	0.56	0.06	0.014	0.013	-0.001	-2.7	1.47	1.49	0.016	1.1
10	4/29/2013 5:15	5/1/2013 4:00	46.75	0.003	1.5	1.5	0.003	3	2	0.012	5	6	0.46	0.03	0.017	0.017	0	-0.5	1.24	1.24	0	0.0
11	5/8/2013 4:15	5/9/2013 1:15	21	0.002	1.5	1.5	0.005	3	3	0.000	0	0	0.66	0.18	0.007	0.007	0	0.6	1.61	1.62	0.01	0.6
12	5/9/2013 2:30	5/10/2013 4:45	26.25	0.003	1.5	1.5	0.003	3	2	0.006	5	4	0.47	0.08	0.012	0.012	0	1.7	2.02	1.96	-0.06	-3.0
13	5/10/2013 22:15	5/13/2013 0:15	50	0.002	1.5	1.5	0.002	3	2	0.009	5	8	1.26	0.16	0.013	0.013	0	-2.0	2.76	2.75	-0.014	-0.5
14	5/19/2013 0:00	5/20/2013 0:30	24.5	0.007	1.5	1.5	0.009	3	2	0.000	0	0	0.23	0.03	0.015	0.016	0.001	0.9	1.07	1.02	-0.049	-4.6
15	5/23/2013 16:15	5/25/2013 17:00	48.75	0.001	1.5	1.5	0.002	3	2	0.006	5	5	0.70	0.13	0.009	0.009	0	-1.2	0.98	0.96	-0.019	-2.0
16	5/28/2013 9:00	5/29/2013 13:45	28.75	0.003	1.5	1.5	0.003	3	2	0.008	5	4	0.28	0.03	0.013	0.013	0	1.4	1.00	0.95	-0.046	-4.6
17	6/3/2013 0:30	6/4/2013 23:30	47	0.002	1.5	1.5	0.002	3	2	0.005	5	6	1.15	0.20	0.009	0.009	0	-0.7	2.33	2.35	0.023	1.0
18	6/6/2013 19:30	6/10/2013 0:00	76.5	0.002	1.5	1.5	0.002	3	2	0.013	5	10	3.64	0.18	0.017	0.017	0	-0.4	6.39	6.43	0.039	0.6
19	6/10/2013 6:45	6/12/2013 23:30	64.75	0.004	1.5	1.5	0.004	3	2	0.019	5	9	1.75	0.33	0.027	0.027	0	0.5	5.82	5.79	-0.038	-0.7
20	6/13/2013 9:00	6/15/2013 3:00	42	0.002	1.5	1.5	0.002	3	2	0.013	5	5	0.71	0.34	0.017	0.017	0	-0.7	1.98	1.96	-0.02	-1.0
21	6/18/2013 12:15	6/19/2013 22:00	33.75	0.002	1.5	1.5	0.002	3	2	0.009	5	5	0.34	0.04	0.013	0.013	0	-0.7	0.87	0.85	-0.018	-2.1
22	6/26/2013 20:00	6/27/2013 15:45	19.75	0.001	1.5	1.5	0.001	3	2	0.004	5	4	0.30	0.19	0.006	0.006	0	-3.0	0.61	0.59	-0.017	-2.9
23	6/27/2013 17:15	6/29/2013 17:45	48.5	0.002	1.5	1.5	0.002	3	2	0.007	5	4	0.54	0.26	0.010	0.010	0	-1.8	1.10	1.07	-0.028	-2.5
24	6/30/2013 12:30	7/1/2013 0:15	11.75	0.002	1.5	1.5	0.002	3	2	0.000	0	0	0.28	0.04	0.003	0.003	0	-2.2	0.60	0.44	-0.163	-27.1
25	7/1/2013 7:15	7/2/2013 12:00	28.75	0.002	1.5	1.5	0.003	3	2	0.010	5	4	0.31	0.06	0.014	0.015	0.001	1.7	0.97	0.97	-0.001	-0.1
26	7/7/2013 19:45	7/8/2013 6:30	10.75	0.001	1.5	1.5	0.003	3	2.5	0.000	0	0	0.25	0.17	0.002	0.003	0.001	70.0	0.50	0.48	-0.018	-3.7
27	7/12/2013 15:30	7/13/2013 20:00	28.5	0.001	1.5	1.5	0.001	3	2	0.004	5	4	0.79	0.09	0.006	0.006	0	-0.8	1.08	1.09	0.007	0.6
28	7/22/2013 18:15	7/24/2013 5:45	35.5	0.001	1.5	1.5	0.001	3	2	0.008	5	5	0.84	0.39	0.011	0.011	0.0001	0.9	2.03	2.05	0.024	1.2
29	7/28/2013 15:00	7/30/2013 5:30	38.5	0.003	1.5	1.5	0.003	3	2	0.018	5	5	0.33	0.08	0.025	0.025	0	-0.1	1.70	1.63	-0.065	-3.8
30	8/1/2013 6:45	8/2/2013 16:45	34	0.003	1.5	1.5	0.003	3	2	0.005	5	5	0.76	0.10	0.011	0.011	0	-0.2	2.39	2.40	0.018	0.8
31	8/8/2013 0:30	8/9/2013 1:45	25.25	0.002	1.5	1.5	0.002	3	2	0.007	5	4	0.18	0.07	0.010	0.010	0	0.8	0.49	0.47	-0.01	-2.1
32	8/9/2013 16:00	8/10/2013 15:30	23.5	0.003	1.5	1.5	0.003	3	2	0.013	5	4	0.10	0.05	0.019	0.019	-1E-04	-0.5	0.73	0.53	-0.203	-27.7
33	8/13/2013 5:00	8/15/2013 17:15	60.25	0.001	2	1.5	0.005	7	1	0.004	10	5	3.47	0.56	0.010	0.010	0	-0.6	6.92	7.03	0.107	1.5
34	8/22/2013 6:00	8/23/2013 6:15	24.25	0.001	1.5	1.5	0.001	3	2	0.007	4	4	0.34	0.15	0.009	0.009	0	1.1	0.87	0.86	-0.014	-1.6
35	8/28/2013 9:45	9/1/2013 5:00	91.25	0.002	1.5	1.5	0.002	3	2	0.012	5	18	1.37	0.46	0.015	0.016	0.001	3.6	3.34	3.31	-0.025	-0.7
36	9/2/2013 9:00	9/3/2013 18:45	33.75	0.003	1.25	1.5	0.003	3	2	0.003	5	5	0.90	0.52	0.009	0.009	0	-1.4	4.83	4.79	-0.035	-0.7
37	9/12/2013 18:30	9/13/2013 11:30	17	0.002	1.5	1.5	0.002	3	3	0.000	0	0	0.53	0.17	0.003	0.004	0.001	24.7	3.38	1.09	-2.291	-67.9
38	9/21/2013 20:45	9/23/2013 4:15	31.5	0.002	1.5	1.5	0.002	3	2	0.005	5	5	1.24	0.26	0.009	0.009	0	-2.7	2.86	2.84	-0.023	-0.8

Statistics comparing sim and obs peak I/I flow for all 38 events

Average error = -0.101 MGD

Standard error = 0.388 MGD

Stats for 37 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than

one standard error identified by \* in above table.

Average error = -0.042 MGD

Standard error = 0.096 MGD

\*

WBR-0375 Wooden Bridge Run Interceptor

Pipe Size: 24" dia.

Tributary Drainage Area: 301 acres

Tributary Service Population: 4,310

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1/18/2004 8:30	1/18/2004 21:30	13	0.055	0.5	1.5	0.050	2	3	0.000	0	0	0.34	0.03	0.101	0.105	0.004	4.5	1.35	1.37	0.012	0.9
2	<del>3/30/2004 17:00</del>	<del>3/31/2004 9:45</del>	<del>16.75</del>	<del>0.050</del>	<del>0.5</del>	<del>1.5</del>	<del>0.050</del>	<del>2</del>	<del>4</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.17</del>	<del>0.03</del>	<del>0.106</del>	<del>0.100</del>	<del>-0.006</del>	<del>-5.6</del>	<del>1.27</del>	<del>0.64</del>	<del>-0.622</del>	<del>-49.1</del>
3	4/2/2004 12:30	4/4/2004 3:15	38.75	0.044	0.5	1.5	0.012	2	4	0.012	4	6	0.86	0.03	0.068	0.068	0	-0.5	1.07	1.04	-0.032	-3.0
4	4/4/2004 9:30	4/4/2004 22:15	12.75	0.025	0.5	1.5	0.015	2	3.5	0.000	0	0	0.59	0.07	0.040	0.040	0	-0.5	1.39	1.37	-0.017	-1.2
5	5/3/2004 1:30	5/4/2004 9:15	31.75	0.019	0.5	1.5	0.009	2	4	0.000	0	0	0.88	0.09	0.027	0.028	0.001	4.1	0.74	0.71	-0.027	-3.7
6	5/5/2004 18:30	5/6/2004 3:30	9	0.033	0.5	1.5	0.015	2	4	0.000	0	0	0.11	0.11	0.047	0.048	0.001	1.1	1.17	1.16	-0.016	-1.4
7	<del>5/31/2004 9:15</del>	<del>6/1/2004 9:00</del>	<del>23.75</del>	<del>0.024</del>	<del>0.5</del>	<del>1.5</del>	<del>0.010</del>	<del>2</del>	<del>3.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.61</del>	<del>0.07</del>	<del>0.034</del>	<del>0.034</del>	<del>0</del>	<del>1.0</del>	<del>1.24</del>	<del>0.83</del>	<del>-0.415</del>	<del>-33.4</del>
8	6/1/2004 15:15	6/2/2004 1:00	9.75	0.007	0.5	1.5	0.003	2	4	0.000	0	0	0.35	0.33	0.009	0.010	0	3.0	0.71	0.71	0.001	0.1
9	6/3/2004 3:00	6/3/2004 13:15	10.25	0.030	0.5	1.5	0.026	2	3.5	0.000	0	0	0.10	0.03	0.056	0.056	0	0.8	0.43	0.41	-0.016	-3.7
10	6/5/2004 6:00	6/6/2004 13:45	31.75	0.030	0.5	1.5	0.027	2	4	0.000	0	0	0.39	0.04	0.057	0.057	0	0.7	0.63	0.61	-0.018	-2.8
11	6/14/2004 20:15	6/15/2004 9:30	13.25	0.038	0.5	1.5	0.012	2	4	0.000	0	0	0.14	0.02	0.049	0.050	0.001	3.1	0.53	0.52	-0.009	-1.7
12	6/17/2004 17:45	6/18/2004 7:00	13.25	0.028	0.5	1.5	0.034	2	4	0.000	0	0	0.11	0.04	0.062	0.062	0	0.5	0.64	0.64	0.002	0.3
13	6/22/2004 19:00	6/23/2004 4:30	9.5	0.017	0.5	1.5	0.008	2	4	0.000	0	0	0.15	0.13	0.023	0.024	0.001	4.3	0.75	0.74	-0.017	-2.3
14	6/29/2004 1:30	6/29/2004 11:30	10	0.018	0.5	0.5	0.014	2	4	0.000	0	0	0.25	0.14	0.031	0.031	0	-0.1	1.43	1.41	-0.02	-1.4
15	8/1/2004 8:00	8/1/2004 17:30	9.5	0.008	0.5	1	0.002	2	3	0.000	0	0	2.39	0.55	0.010	0.010	0	-0.5	2.93	2.80	-0.13	-4.4
16	8/3/2004 16:30	8/4/2004 0:45	8.25	0.007	0.5	1.5	0.002	2	3	0.000	0	0	0.54	0.29	0.009	0.009	0	2.6	0.86	0.85	-0.003	-0.4
17	8/4/2004 20:45	8/5/2004 6:45	10	0.017	0.5	1.5	0.024	2	4	0.000	0	0	0.15	0.10	0.040	0.041	0.001	2.6	0.70	0.70	-0.003	-0.4
18	8/14/2004 20:30	8/15/2004 12:15	15.75	0.018	0.5	1.5	0.007	2	3	0.000	0	0	0.52	0.06	0.024	0.025	0.001	3.5	0.74	0.71	-0.032	-4.3
19	8/16/2004 6:30	8/16/2004 16:15	9.75	0.015	0.5	1.5	0.010	2	3.5	0.000	0	0	0.20	0.06	0.024	0.025	0.001	4.2	0.60	0.58	-0.018	-3.0
20	8/21/2004 14:15	8/21/2004 22:30	8.25	0.012	0.5	1.5	0.003	2	3	0.000	0	0	0.74	0.26	0.014	0.015	0.001	3.7	1.24	1.20	-0.045	-3.6
21	8/30/2004 21:45	8/31/2004 10:15	12.5	0.012	0.5	1.5	0.007	2	3	0.000	0	0	0.62	0.19	0.019	0.019	0	1.5	1.35	1.35	0.001	0.1
22	9/8/2004 3:45	9/8/2004 16:30	12.75	0.015	0.5	1.5	0.004	2	3	0.000	0	0	0.49	0.10	0.017	0.018	0.001	4.0	0.80	0.78	-0.018	-2.2
23	9/18/2004 2:15	9/19/2004 1:15	23	0.012	0.5	1.5	0.010	2	5	0.000	0	0	1.31	0.23	0.021	0.021	0	0.5	1.36	1.39	0.024	1.8
24	<del>9/28/2004 0:15</del>	<del>9/29/2004 10:15</del>	<del>34</del>	<del>0.014</del>	<del>0.5</del>	<del>1.5</del>	<del>0.004</del>	<del>2</del>	<del>2.5</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>6.61</del>	<del>0.53</del>	<del>0.017</del>	<del>0.018</del>	<del>0.001</del>	<del>4.7</del>	<del>5.25</del>	<del>4.85</del>	<del>-1.018</del>	<del>-19.4</del>
25	9/30/2004 11:30	10/1/2004 0:00	12.5	0.021	0.5	1.5	0.013	2	3	0.000	0	0	0.21	0.08	0.033	0.034	0.0009	2.7	0.58	0.58	-0.005	-0.8
26	1/11/2005 15:30	1/12/2005 6:45	15.25	0.033	0.5	1.5	0.008	2	3	0.000	0	0	0.42	0.04	0.039	0.041	0.002	4.1	0.94	0.91	-0.029	-3.1
27	1/13/2005 23:30	1/15/2005 13:45	38.25	0.020	0.5	1.5	0.006	2	3	0.007	4	6	1.77	0.18	0.033	0.033	0	0.5	2.01	2.01	-0.006	-0.3
28	2/14/2005 10:15	2/16/2005 0:00	37.75	0.038	0.5	1.5	0.008	2	3	0.009	4	6	1.03	0.05	0.054	0.055	0.001	2.3	1.39	1.36	-0.026	-1.9
29	2/16/2005 14:45	2/16/2005 23:45	9	0.029	0.5	1.5	0.009	2	3	0.000	0	0	0.21	0.05	0.037	0.038	0.001	3.8	0.82	0.79	-0.037	-4.5
30	2/21/2005 9:15	2/22/2005 23:15	38	0.017	0.5	1.5	0.025	2	3	0.025	4	6	0.46	0.03	0.066	0.067	0.001	1.8	0.60	0.61	0.005	0.8
31	3/1/2005 12:00	3/2/2005 0:00	12	0.010	0.5	1.5	0.024	2	4	0.000	0	0	0.33	0.07	0.035	0.034	-0.001	-3.2	0.47	0.47	0.001	0.1
32	3/8/2005 4:30	3/8/2005 20:45	16.25	0.037	0.5	1.5	0.020	2	4	0.000	0	0	0.32	0.03	0.056	0.057	0.001	1.7	0.71	0.68	-0.025	-3.6
33	3/23/2005 6:15	3/24/2005 7:15	25	0.033	0.5	1.5	0.014	2	4	0.000	0	0	0.87	0.05	0.046	0.047	0.001	3.0	1.43	1.37	-0.061	-4.3
34	3/27/2005 22:30	3/29/2005 2:30	28	0.036	0.5	1.5	0.010	2	4	0.000	0	0	1.43	0.10	0.045	0.046	0.001	3.1	2.10	2.08	-0.023	-1.1
35	4/1/2005 22:30	4/4/2005 1:30	51	0.022	0.5	1.5	0.012	2	6	0.013	4	8	2.70	0.18	0.049	0.047	-0.002	-4.9	3.07	3.10	0.027	0.9
36	<del>4/7/2005 22:15</del>	<del>4/8/2005 16:30</del>	<del>18.25</del>	<del>0.027</del>	<del>0.5</del>	<del>1.5</del>	<del>0.010</del>	<del>2</del>	<del>4</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.78</del>	<del>0.05</del>	<del>0.037</del>	<del>0.037</del>	<del>0</del>	<del>0.5</del>	<del>1.25</del>	<del>1.00</del>	<del>-0.247</del>	<del>-19.9</del>
37	4/23/2005 15:15	4/24/2005 8:00	16.75	0.021	0.5	1.5	0.017	2	4	0.000	0	0	0.17	0.06	0.037	0.038	0.001	1.4	0.57	0.56	-0.007	-1.2
38	4/30/2005 4:15	5/1/2005 12:00	31.75	0.024	0.5	1.5	0.008	2	4	0.000	0	0	1.07	0.17	0.033	0.032	-0.001	-3.7	1.84	1.81	-0.037	-2.0
39	5/20/2005 5:00	5/21/2005 0:30	19.5	0.025	0.5	1.5	0.012	2	4	0.000	0	0	0.94	0.04	0.037	0.037	0	1.1	0.87	0.86	-0.011	-1.2
40	6/3/2005 10:30	6/4/2005 9:00	22.5	0.035	0.5	1.5	0.014	2	4	0.000	0	0	0.78	0.05	0.047	0.049	0.002	3.8	1.17	1.15	-0.019	-1.7

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**WBR-0375 Wooden Bridge Run Interceptor**

Pipe Size: 24" dia.

Tributary Drainage Area: 301 acres

Tributary Service Population: 4,310

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
41	6/6/2005 18:15	6/7/2005 7:00	12.75	0.013	0.5	1.5	0.009	2	4	0.000	0	0	1.07	0.65	0.023	0.022	-0.001	-4.3	3.06	3.07	0.011	0.4
<del>42</del>	<del>6/10/2005 12:00</del>	<del>6/11/2005 1:30</del>	<del>13.5</del>	<del>0.018</del>	<del>0.5</del>	<del>1.5</del>	<del>0.004</del>	<del>2</del>	<del>4</del>	<del>0.000</del>	<del>0</del>	<del>0</del>	<del>0.87</del>	<del>0.25</del>	<del>0.022</del>	<del>0.022</del>	<del>0</del>	<del>0.9</del>	<del>2.38</del>	<del>1.80</del>	<del>-0.582</del>	<del>-24.4</del>
43	6/27/2005 9:30	6/28/2005 7:15	21.75	0.026	0.5	1.5	0.005	2	3.5	0.000	0	0	0.94	0.08	0.030	0.031	0.001	2.4	0.98	0.99	0.008	0.8

Statistics comparing sim and obs peak I/I flow for all 43 events

Average error = -0.090 MGD

Standard error = 0.232 MGD

Stats for 37 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.013 MGD

Standard error = 0.023 MGD

\*

WBR-B0585 Wooden Bridge Run Interceptor

Pipe Size: 18" dia.

Tributary Drainage Area: 278 acres

Tributary Service Population: 3,693

Event	Event Start	Event End	Duration (hours)	R1 (ratio)	T1 (hours)	K1 (ratio)	R2 (ratio)	T2 (hours)	K2 (ratio)	R3 (ratio)	T3 (hours)	K3 (ratio)	Rainfall Volume (inches)	Peak 15 Minute Rainfall (inches)	Observed Volume (total R ratio)	Simulated Volume (total R ratio)	Difference (observed minus simulated)	Percent Difference	Observed Peak (mgd)	Simulated Peak (mgd)	Difference (mgd)	Percent Difference
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	11/12/2003 0:45	11/12/2003 21:00	20.25	0.019	0.5	1.5	0.030	2	7	0.000	0	0	0.44	0.03	0.048	0.049	0.001	2.9	0.49	0.49	0.003	0.7
2	12/10/2003 17:00	12/11/2003 22:00	29	0.010	0.5	1.5	0.040	2	5	0.000	0	0	1.56	0.27	0.067	0.050	-0.017	-25.4	2.26	2.27	0.012	0.5
3	12/14/2003 13:00	12/15/2003 13:30	24.5	0.023	0.5	1.5	0.057	2	7	0.000	0	0	0.49	0.04	0.080	0.080	0	-0.6	0.88	0.87	-0.011	-1.2
4	12/17/2003 6:30	12/18/2003 4:00	21.5	0.016	0.5	1.5	0.037	2	5	0.000	0	0	0.41	0.05	0.053	0.053	0	0.9	0.71	0.69	-0.016	-2.3
5	12/24/2003 3:45	12/25/2003 5:45	26	0.018	0.5	1.5	0.024	2	7	0.000	0	0	1.21	0.08	0.043	0.042	-0.001	-1.7	1.09	1.09	-0.002	-0.2
6	1/18/2004 8:30	1/19/2004 5:45	21.25	0.031	0.5	1.5	0.021	2	7	0.000	0	0	0.34	0.03	0.051	0.052	0.0012	2.4	0.60	0.59	-0.008	-1.4
7	3/30/2004 17:00	3/31/2004 10:45	17.75	0.010	0.5	1.5	0.036	2	7	0.000	0	0	0.17	0.03	0.049	0.046	-0.003	-5.9	0.48	0.14	-0.338	-70.2
8	4/2/2004 12:00	4/3/2004 21:00	33	0.026	0.5	1.5	0.012	2	9	0.000	0	0	0.89	0.03	0.037	0.038	0.001	3.7	0.60	0.57	-0.028	-4.7
9	4/4/2004 9:30	4/5/2004 3:15	17.75	0.013	0.5	1.5	0.009	2	7	0.000	0	0	0.59	0.07	0.021	0.022	0.001	4.1	0.65	0.64	-0.004	-0.6
10	4/12/2004 17:15	4/13/2004 5:45	12.5	0.018	0.5	1.5	0.006	2	3	0.000	0	0	1.04	0.07	0.024	0.024	0	0.5	1.01	0.75	-0.264	-26.1
11	4/13/2004 12:30	4/15/2004 9:00	44.5	0.010	0.5	1.5	0.043	2	7	0.000	0	0	2.20	0.34	0.053	0.053	0	-0.7	2.47	2.57	0.098	4.0
12	5/15/2004 22:00	5/16/2004 15:00	17	0.013	0.5	1.5	0.017	2	7	0.000	0	0	0.21	0.08	0.030	0.030	-0.0002	-0.7	0.45	0.44	-0.011	-2.4
13	5/19/2004 13:15	5/20/2004 4:00	14.75	0.015	0.5	1.5	0.007	2	7	0.000	0	0	0.30	0.08	0.022	0.022	0	-0.9	0.71	0.55	-0.16	-22.5
14	5/31/2004 9:00	6/1/2004 9:00	24	0.021	0.5	1.5	0.007	2	6	0.000	0	0	0.61	0.07	0.028	0.028	0	-0.3	1.17	0.62	-0.545	-46.6
15	6/1/2004 15:15	6/2/2004 6:00	14.75	0.010	0.5	1.5	0.011	2	7	0.000	0	0	0.35	0.33	0.020	0.020	0	0.1	0.96	0.96	0.002	0.2
16	6/5/2004 6:15	6/6/2004 12:00	29.75	0.018	0.5	1.5	0.006	2	6	0.000	0	0	0.38	0.04	0.024	0.024	0	-2.0	0.40	0.31	-0.097	-24.0
17	6/14/2004 20:00	6/15/2004 14:15	18.25	0.033	0.5	1.25	0.009	2	7	0.000	0	0	0.14	0.02	0.041	0.042	0.001	3.3	0.44	0.43	-0.014	-3.1
18	6/17/2004 18:00	6/18/2004 12:45	18.75	0.023	0.5	1.5	0.046	2	7	0.000	0	0	0.10	0.04	0.069	0.069	0	-0.2	0.47	0.48	0.006	1.4
19	6/22/2004 17:15	6/23/2004 9:15	16	0.008	0.5	1.5	0.006	2	7	0.000	0	0	0.21	0.13	0.013	0.014	0.001	6.3	0.81	0.43	-0.379	-47.1
20	6/29/2004 1:15	6/29/2004 17:30	16.25	0.014	0.5	1.5	0.010	2	7	0.000	0	0	0.25	0.14	0.024	0.024	0.001	3.2	0.86	0.86	-0.006	-0.7
21	7/5/2004 5:45	7/5/2004 19:15	13.5	0.009	0.5	1.5	0.009	2	7	0.000	0	0	0.35	0.15	0.018	0.018	0	0.0	0.67	0.68	0.002	0.3
22	7/7/2004 18:45	7/8/2004 10:15	15.5	0.012	0.5	1.5	0.024	2	7	0.000	0	0	0.17	0.06	0.034	0.036	0.001	3.9	0.33	0.33	-0.004	-1.3
23	7/27/2004 14:45	7/28/2004 12:30	21.75	0.008	0.5	1.5	0.005	2	7	0.000	0	0	1.99	0.90	0.014	0.013	-0.0006	-4.3	2.18	2.20	0.023	1.1
24	8/1/2004 8:00	8/2/2004 0:45	16.75	0.005	0.5	1.25	1.000	2	7	0.000	0	0	2.39	0.55	0.007	0.007	0	5.4	1.90	1.49	-0.401	-21.2
25	8/3/2004 16:15	8/4/2004 8:15	16	0.003	0.5	1.5	0.007	2	7	0.000	0	0	0.54	0.29	0.010	0.010	0	4.4	0.35	0.37	0.014	4.0
26	8/14/2004 20:45	8/15/2004 16:30	19.75	0.007	0.5	1.5	0.004	2	7	0.000	0	0	0.52	0.06	0.012	0.011	-0.001	-4.8	0.46	0.25	-0.204	-44.8
27	8/16/2004 6:30	8/16/2004 19:15	12.75	0.005	0.5	1.5	0.005	2	7	0.000	0	0	0.20	0.06	0.010	0.010	0	-3.7	0.34	0.18	-0.16	-47.4
28	8/21/2004 14:00	8/22/2004 6:15	16.25	0.006	0.5	1.25	0.002	2	7	0.000	0	0	0.74	0.26	0.008	0.008	0	-5.8	0.76	0.58	-0.182	-23.9
29	8/30/2004 21:45	8/31/2004 19:00	21.25	0.011	0.5	1.5	0.013	2	7.5	0.000	0	0	0.62	0.19	0.022	0.024	0.001	4.5	1.10	1.10	0.001	0.1
30	9/8/2004 4:00	9/8/2004 23:45	19.75	0.010	0.5	1.5	0.003	2	7	0.000	0	0	0.48	0.10	0.012	0.013	0.001	6.7	0.57	0.49	-0.075	-13.3

Statistics comparing sim and obs peak I/I flow for all 30 events

Average error = -0.092 MGD

Standard error = 0.180 MGD

Stats for 23 events excluding outliers

Outliers are those events whose error in peak I/I flow is greater than one standard error identified by \* in above table.

Average error = -0.019 MGD

Standard error = 0.060 MGD