

### CONSTRUCTION & SPECS

The R. E. Roy is a 39-ft, front-end loader, single hull, shallow draft, debris skimming vessel. It is powered by a main diesel engine, Caterpillar Model 3056 205 hp and a four-blade, magnesium bronzed propeller. The vessel is also equipped with a 122-gallon fuel tank, a 150 gpm, 100 psi Water Canon system, and a 5.6 yd<sup>3</sup> hydraulically controlled, grated bucket. Its construction began in June, 2004 and the vessel was delivered in March, 2005



### THE DEDICATION



The dedication took place on July, 16, 2005 where the R. E. Roy was officially commissioned. The skimming vessel is named for Richard E. Roy, a former Water Commissioner who gave more than 30 years of gracious service to the City of Philadelphia and the Philadelphia Water Dept.

### PARTNERS



Philadelphia Water Department  
Office of Watersheds  
Aramark Tower – 4<sup>th</sup> Floor  
1101 Market Street  
Philadelphia, PA 19107



**The R. E. Roy**  
Floatable Skimming Vessel

*Commissioned July, 2005*

## **HISTORY AND BACKGROUND**

The Philadelphia Water Department Office of Watershed's (PWD OOW) vision is to unite the city with its waterways, creating a green legacy for future generations while incorporating a balance between ecology, economics and equity. PWD's Combined Sewer Overflow Long-Term Control Plan (PWD CSO LTCP), completed in 1997, highlights the need to improve public awareness of an individual's contribution to coastal aesthetics, notably in the Delaware and Schuylkill Rivers, and to improve water quality and aesthetics of surrounding parks and recreational areas. As such, the plan recommends the use of a floatables skimming vessel to remove debris from targeted reaches of the Delaware and Schuylkill Rivers. Similar waterfront enhancement programs have been very successful in New York City, Passaic Valley, NJ, Baltimore, MD, and Washington D.C.



## **WHY THE NEED FOR THE VESSEL?**

The Schuylkill and Delaware Rivers are both undergoing a renaissance of development, ranging from hotel and entertainment centers and new housing, to the restoration of museums, greenways, gardens, and open space. The floatable skimming vessel enables the Philadelphia Water Department to monitor and remove floatables that accrue on the City of Philadelphia's waterways. In addition, it demonstrates to our citizens the value that the City of Philadelphia places on its waterways

## **HOW IT WORKS!**

The front-end loader design allows the skimmer to utilize a grated bucket to lift floatables from the water surface into an on-board hold. The vessel collects debris in the bucket through two means. As the vessel drives through a mat of debris, the debris enters the bucket and is held by the grates as water passes through the grates. In addition, the vessel is designed to create a strong suction current that draws water through the vessel hull and the grated bucket, thus, drawing floatables into the bucket. The grated bucket is capable of holding over 5 yd<sup>3</sup> of material. Once the vessel returns to the dock, a



crane lifts the grated bucket from the deck for disposal. The R. E. Roy is scheduled to be operated through

PWD's Flow Control Unit five days per week from March through November each year, with December to February allotted for annual maintenance.



## **PROJECT BENEFITS**

- Address water quality by collecting trash of a wide variety -- identified through the qualitative assessment.
- Directly affect the interface of land and water by educating the public about where to put trash and better managing non-point source pollution in river.
- Improve and expand public access to coastal zone by drawing people to cleaner and more aesthetically pleasing rivers and providing a cleaner tourist destination point.
- Manage and protect coastal natural, historic, cultural or recreational resources.
- Provide a regional model that can serve as an example for similar projects that will address watershed management that directly impacts the Delaware Estuary by serving as a key implementation project in the abatement of trash as a result of non-point and point source pollution.

---

## **CONTACTS**

**Marc Cammarata (215) 685-4948**  
CSO Program Manager  
Philadelphia Water Dept.  
Office of Watersheds

**Lance Butler (215) 685-4947**  
Watershed Protection & Sciences,  
Manager  
Philadelphia Water Dept.  
Office of Watersheds