



The Project:

Stormwater Pollution - Trash Runoff: Metropolitan Water Reclamation District of Greater Chicago (MWRD) Chicago, Illinois

The Problem:

The Metropolitan Water Reclamation District of Greater Chicago (MWRD) is located primarily within the boundaries of Cook County, Illinois. The MWRD serves an 883 square mile area which includes the City of Chicago and 125 suburban communities. The MWRD owns and operates one of the world's largest water reclamation plants and treats an average of 1.4 billion gallons of wastewater each day. The MWRD controls 76.1 miles of the Chicago Areas Waterways (CAWS), which are part of the inland waterway system connecting the Great Lakes with the Gulf of Mexico.

The MWRD receives flow from combined sewer collection systems, which means that wastewater and stormwater flow together in a single pipe. During heavy rain events, stormwater runoff can cause the sewer system to reach maximum capacity and overflow into the waterways. This is called a Combined Sewer Overflow (CSO). Some of the excess water is stored into the MWRD's Tunnel and Reservoir Plan (TARP) system, but too much runoff finds its way to the CAWS – and so does the trash. Floating debris such as Styrofoam, plastic bottles and cigarette butts create health risks, kill marine life and cause flooding.

The Solution:

To help keep the Chicago River and its riverwalks beautiful, Elastec and MWRD worked together to develop two custom trash boats. MWRD requested a simple design, with few moving parts, and easy to operate. The 23 ft. boats, the *Skimmy Dipper* and the *Skim Pickens*, are designed for daily trash skimming in hard to reach areas in and around harbors and small waterways.



Elastec Trash Boats

- 23ft x 8ft6in
- Marine-grade aluminum
- Drop-top canopy
- 8 x 11ft workspace platform with 6 removable panels
- V- bow pontoons to funnel debris into basket pod
- Dual axel galvanized trailer
- Top speed: 8 9 mph (7-8 knots)
- Skimming speed: 2-3 mph (1-2 knots)
- · Console, seat & deck storage
- Quay wheels for skimming near walls
- Trash basket: 99 cu. ft. capacity / electric winch
- Basket easily removed by crane for emptying
- 2 cup holders



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