

Lead by Example Project Case Study:

Using Green Boat Cleaners at Water Patrol

Environmentally preferable cleaning is a comprehensive approach to cleaning that combines chemicals, equipment, tools, disposables, and, most importantly, processes, training, and communication to produce an effective and safe cleaning program. Environmentally preferable cleaning does *not* mean accepting a lower standard of cleanliness— even when cleaning boats!

The active ingredients of several of the products that were replaced contained strong acids, such as, muriatic acid. A number of specialty cleaners being used were also a safety concern as employees purchased various cleaning products from local stores.

During the summer and fall of 2007, the Hennepin County Sheriff's Office Water Patrol Unit performed a pilot using environmentally preferable boat cleaning products. Caption John's Boat Brite Products were used because they meet the EPA's National Clean Marina Guidelines. The products are preferable because they contain no volatile organic compounds, no acids, no Methyl Ethyl Ketone, are non-caustic and non-toxic. The friendlier products were used on boats, trailers, ATV's and other equipment to compare them with the harmful products that had been used in the past.

Aquatic Protection

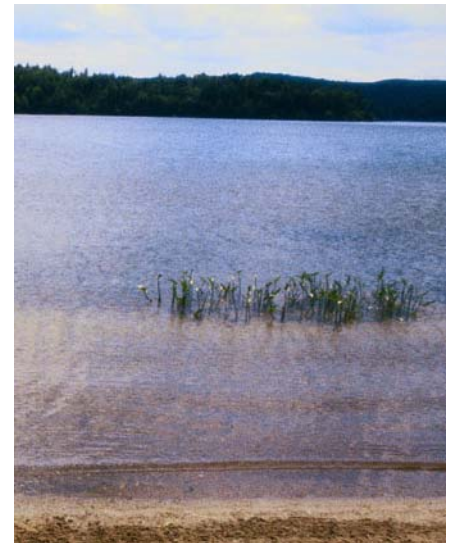
A large percentage of boats and trailers are usually cleaned near landings or shores because of the easy access of water to clean the boats and equipment. The switch to safer cleaning products was an opportunity for the Water Patrol Unit to reduce the amount of harmful chemicals that end up in lakes and rivers after cleaning the boats, trailers, ATV's, etc.

Project Plan

1. Researched and ordered cleaning products to use for pilot.
2. Demonstration provided by the sales representative, providing hands-on instructional demonstration on product application/ directions.
3. Boats, ATV's and other equipment were cleaned using the products, appropriate cleaning methods, and product directions.
4. To test the effectiveness of the new products, staff cleaned half of a piece of equipment with the old cleaners and half with the new cleaners – observations then were made.



Nestled next to Lake Minnetonka, the Hennepin County Sheriff's Water Patrol Building now uses green boat cleaners.



Boaters are required to check their boats and trailers to remove any aquatic weeds before leaving the shore or boat launch. Because of this, boat cleaning, using chemicals is often done near the shore. Using green boat cleaners also helps protect water quality.

Quick Snapshot

Who

Hennepin County Sheriff's Office-Water Patrol Unit

What

Purchased chemicals to facilitate switching to green cleaning practices on boats, trailers, ATV's, etc.

Benefits

- *Reduced employee exposure to harmful chemicals*
- *Reduced aquatic toxicity*
- *Streamlined cleaner use and purchasing*
- *Improved employee experience*

Grant Amount

\$1,302.14

- Continues on back-



Product Performance

- The amount of product used and the impact to the environment both have been reduced because of the products used.
- The use of these products allow Water Patrol staff to quickly clean the equipment in a responsible manor and continue with other duties.
- Several of the products were used at the I-35W bridge collapse to clean boats and other equipment which were used in the dirt and mud of the Mississippi River. The river environment provided an excellent testing ground for the products. Mississippi River dirt and mud are more difficult to clean than a lake's mud and water.



A Water Patrol boat, cleaned with environmentally preferable cleaners, zips across Lake Minnetonka!

Project Testimonials

Product Performance

"I have worked at Water Patrol for over 6 years and have cleaned lots of equipment and boats. I would rate the products used as "good" to "very good" with no complaints. In comparison to the products that Water Patrol had been using, the new products worked as well or better. Water Patrol staff maintains the equipment with regular cleaning to prevent the need for frequent use of harsh chemicals."

Cleaning Hull Stains or Deposits

"The only concern that I had about the new products was the ability to clean the hulls of patrol boats that had been left in the water for extended periods of time. To clean the hulls we have been using a very harsh chemical "Zing". This product works very well but is not listed as an "Environmentally Friendly" product. I believe that if Water Patrol installs HOT Water and a High Pressure washing system in the Water Patrol shop we can achieve our cleaning goals [using the environmentally preferable cleaners for stubborn hull deposits.]"

— *Deputy John Piper, Water Patrol Unit,
Hennepin County Sheriff's Department*

About Water Patrol

Based on the shore of Lake Minnetonka in Spring Park, the Water Patrol Unit patrols the 48 square miles of water in Hennepin County, including 104 named lakes and three major rivers.

The Water Patrol Unit is known across the state and nation for its professional expertise and specialized equipment. The Water Patrol Unit has one lieutenant, one sergeant, five licensed deputies and 25 volunteer special deputies. The volunteers logged 6,764.5 hours of service to the citizens of Hennepin County in 2006. The unit also provides specialty services such as ice rescue, swift water rescue, under-water recovery and airborne rescue. The unit has many specialized pieces of equipment including watercraft, snowmobiles, side scan and stationary sonar, ATV and cold water emersion suites.

Online Resources

The Brite Group, LLC (Captain John's Boat Brite Products)
www.captainjohnsboatbrite.com

EPA National Clean Marina Guidelines
www.epa.gov/NE/marinas/index.html

EPA Design for the Environment (DfE)
(Third Party Certification Agency for various products)
www.epa.gov/dfe/index.htm (search Marine Cleaning Products)

*For more information on Hennepin County's Environmentally Preferable Purchasing Program or the Lead by Example Incentive Fund, please contact:
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