

City of Superior, WI Stormwater Education

Description:

The City of Superior has a unique educational program that is geared towards all area fifth and sixth grade students. These students are invited to the Wastewater Treatment Plant to see firsthand how water is treated, visit our rain garden displays and to hear about stormwater pollution and what they can do to prevent it. Area sixth grade teachers are sent an invitation each spring to bring their students to learn about our sewer system and how wastewater is treated during Earth Week. When they are here they get a tour of the plant, just as if they were wastewater going through the treatment process. In the fall, all fifth graders are invited for Pollution Prevention Week to learn about stormwater, and to tour the rain gardens and see rain barrels in action.



To help the schools pay for these day trips, the WWTP covers the cost of the bus and driver and of course provides the cookies and juice.

Background:

Stormwater runoff is not just clean rainwater. Stormwater runoff carries dirt, trash, oil, and other pollutants from streets, driveways, parking lots, and rooftops into the nearest water body. According to the EPA, stormwater run-off is the number one threat to our fresh water supply today. Rainwater is not always as clean as it looks, even before it falls to the earth it can contain toxins like mercury and dioxin and particles of dust and soot.

Wetlands or other green areas naturally store water in a watershed. They help filter sediments and nutrients. When we remove green areas, we increase the volume of surface water and degrade the quality of water. Impervious surfaces, like roads and sidewalks don't let water soak in. More impervious surfaces in a watershed mean more water running off and more pollutants with it.



Rain Gardens:

The WWTP received a grant to plant three-demonstration rain gardens on its grounds in 2003. These were completed in Fall 2003 and “bloomed” in the summer of 2004. These native plants made it through the winter, but so did the weeds. Several hours were required to weed these sites. Results were amazing; in late summer each garden was filled with color that attracted many birds and butterflies. The results of these gardens was so good, we now have five different gardens on the grounds.



Rain Barrels:

A great complement to pollution prevention and water conservation is a rain barrel. Over the summer of 2004, several workshops were offered to and attended by hundreds of area homeowners. These people paid only for the cost of materials and left with a rain barrel they had put together. This project far exceeded our goal of 200; by the end of the summer we had distributed 325 barrels and now have a waiting list for next year.



Composters:

To make our gardens complete and to emphasize recycling, we purchased two composters. We save all the food scraps and coffee grounds from the plant personnel and all vegetation from the grounds to compost. The compost is used as mulch and fertilizer in the gardens.

Beach Sweep

Every spring, City of Superior 6th graders spend a day at Wisconsin Point learning about wetlands, shore habitat and water quality through hands-on activities sponsored by the Superior School District, the University of Wisconsin--Superior, UW-Extension, Lake Superior Research Institute and the City of Superior. Students participate in a beach sweep, picking up trash and litter.

Results:

Teachers have told us that the trip to the WWTP is one of the students' favorite. And it must be one for the teachers too, because some teachers have been here several times and they say they learn something new each time. After each presentation, students can "win" a prize if they can answer a question about stormwater pollution. This activity shows how much they have learned, concepts like watersheds, wetlands, stormwater pollution solutions, impervious surface and runoff are quickly answered. When they

leave they all have a prize that is also a reminder to not pollute or to “Hook into Healthy Fish”.

The weather is always a concern when you are offering outdoor tours to youth groups; on one especially blustery day we quickly developed a Virtual Tour of the plant. This presentation has proved very useful, it is now a tour you can take if you visit our website and it has been given to other groups when being outside is impractical.

To identify plant varieties, stakes with plant names were ordered and set out in the gardens. Then during tours, tour guide and student can easily pick out specific plants and native grasses.

On the 2004 beach sweep, students collected 320 pounds of trash that included 2 tires, a door, a foam mattress pad, a burned up radio and several 5-gallon buckets of broken glass. They also picked up 48 pounds of recyclables. In 2003, students cleaned 212 pounds of trash and 65 pounds of recyclables from the Point. The City provides gloves, trash bags and buckets, hauls the trash to the landfill and recycles the glass, plastic and aluminum.

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