

# Small Streams Big Accomplishments

The Newsletter of the MWRD's Small Streams Maintenance Program (SSMP) Fall 2013

## MWRD Board passes Watershed Management Ordinance

The Metropolitan Water Reclamation District of Greater Chicago (MWRD) Board of Commissioners unanimously approved the Cook County Watershed Management Ordinance (WMO) on October 3. The WMO provides uniform stormwater management regulations for Cook County in order to prevent future commercial, municipal, and residential development and redevelopment projects from exacerbating flooding. Paved roads, parking lots, walkways, and buildings make cities livable, but they also reduce the amount of land on

which water can be absorbed and can lead to increased flooding without sufficient regulation.

The WMO incorporates comments received during both the 2009 and 2013 public review periods, results received from an Economic Impact Study, and input from the WMO Advisory Committee. Numerous changes were made since the original public review period was held in 2009. More information can be found at <http://wmo.mwrdd.org>.

## Record-setting rainfall from April storms

The Chicago area suffered through major storms in 2013. Communities along the Des Plaines River were among the hardest hit in April. The river overflowed its banks

and flooded parks and roads like Fairbank Road in Riverside, pictured below. *More information about the storms and flooding safety tips on page 2.*



# 2013 Storms



An average of five inches of rain fell across the entire Chicago metropolitan region between April 17-18, 2013, prompting Illinois Gov. Pat Quinn to declare a state of emergency in Cook County. As the largest rainfall in Chicago's history for the month of April, the 2.3 billion gallon Tunnel and Reservoir Plan (TARP) system, or "Deep Tunnel," quickly filled to capacity. Major facilities were forced to close - Brookfield Zoo closed for only the third time in its 83-year history; Forest Preserve District properties and schools were closed.

The MWRD's TARP system is designed to reduce such flooding. The McCook Reservoir will provide \$90 million per year in benefits and the Thornton Reservoir will provide \$40 million per year in benefits. To date, the Majewski Reservoir, which has been in service since 1998, has provided over \$250 million in benefits. Once the McCook and Thornton Reservoirs are complete, they will provide an additional 18 billion gallons of storage, significantly improving the flood control capacity.



## **SAFETY IN FLOODED AREAS**

**Do not walk or drive through flooded areas**

**Stay away from power lines and electrical wires**

**Report flooded roadways and parks**

# Debris boats at work

The MWRD handles big debris removal and sidestream cleanup projects along the North Shore Channel, the Cal-Sag Channel and the Chicago Sanitary and Ship Canal using debris boats and pontoon boats. Debris Boat 1 (DB1), at work on the North Shore Channel in the photo below, is a 36-foot pusher boat with a 50 foot barge and hydraulic crane used primarily to pick up large and heavy debris.

DB1 is used to maintain 76 miles of waterways from the Wilmette Pumping station to the ends of the Cal-Sag Channel and the Chicago Sanitary and Ship Canal. In addition to the boat captain and crane operator, DB1 crews include two laborers. In the photo at right, laborer Rich Dudko cuts large branches into smaller pieces.

Though it's effective for channel maintenance, DB1 is slow-moving; a 76 mile trip will last 12 hours with the boat moving at 6.3 miles per hour (5.5 knots). A car traveling at 60 miles per hour would take 1.25 hours to travel the same distance.



**If you notice a blockage or debris in a waterway, call SSMP manager Brian Levy at 708.588.3171.**



# *Help stop the spread of Emerald Ash Borers*

Emerald ash borers (EAB), a type of beetle native to Russia and parts of Asia, are destructive to ash trees and have been spreading throughout North America since 2002. The invasive species has been found in 22 states, including Illinois, and parts of Canada. The borers can kill small trees within two years and large trees within four years. It's important to monitor ash trees in your

community and report any signs of infestation. Look for a thinning canopy of leaves, bark splitting and exit holes in the bark of trees. Removal of the bark of an infested tree will reveal a spaghetti-like pattern of larval feeding paths and waste material.

Increased woodpecker presence and activity is another sign of infestation, as the birds feed on the EAB larvae.

- **Report any trees that appear to be infested. Don't move firewood, logs or potentially infested trees from one area to another.**
- **Trees can be saved if they are healthy and show minimal outward signs of EAB infestation. Consult a professional to learn more about how to treat your tree.**
- **Trees cannot be saved if more than half of the leaves are missing and there are many signs of EAB infestation, such as split bark and woodpecker damage.**
- **For more information call the USDA Emerald Ash Borer Hotline toll-free at 1-866-322-4512, or visit [emeraldashborer.info](http://emeraldashborer.info).**



*External signs of EAB infestation hint at damage under the surface: the photo at left shows the exit holes in the bark, and larvae trails are seen with the bark removed on the right.*

# Community stormwater management: rain garden & native plantings at Haines Elementary School

As students played on nearby mounds of topsoil, water professionals from throughout the United States used their brawn and their brains to construct a rain garden at Haines Elementary School, 247 W. 23rd Pl., in Chicago on Oct. 4.

The service project helped kick off the Water Environment Federation's (WEF's) 86th Annual Technical Exhibition and Conference, WEFTEC 2013, held at McCormick Place. The project consisted of replacing a 1,000 sq. ft. section of pavement with native plantings to help relieve stormwater runoff. In rainy weather, the playground quickly flooded generally due

to the city's lack of elevation. Add in the asphalt, which is an impervious pavement, the water had nowhere to go. With the construction of the rain garden, stormwater will be able to collect in the garden instead of pooling on the grounds, which previously rendered playtime nearly impossible in the hours following a storm.

Each year, dozens of WEFTEC participants arrive to their destinations early to participate in a service project. This year, more than 100 helped, the most since the first rain garden was constructed in 2008.

To learn more about rain gardens and native prairies visit [chicagowilderness.org](http://chicagowilderness.org).



*Haines Elementary students, staff and volunteers from throughout the world stand in the rain garden that will prevent flooding on the playground and serve as a lasting reminder of the Water Environment Federation's (WEF's) 86th Annual Technical Exhibition and Conference, WEFTEC 2013, held at McCormick Place. The rain garden features over 1,500 native plants.*

# Frequently Asked Questions

*How many miles of creeks, streams and canals are there in Cook County?*

There are 456 miles of creeks and streams and 76 miles of canals.

*What is a watershed?*

A watershed is an area of land that drains to one lake, river or major body of water.

*How many watersheds are located within the MWRD service area?*

There are six major watersheds, each named for the body of water receiving its flow: The Little Calumet River Watershed, Cal-Sag Channel Watershed, Lower Des Plaines Watershed, Upper Salt Creek Watershed, Poplar Creek Watershed, North Branch of the Chicago River Watershed and the Lower Des Plaines River Watershed.

*In which watershed is my home located?*

To locate your watershed, visit <http://gis-pub.mwrdr.org/swima>.

*How can I learn more about my watershed and regional stormwater management?*

Attend your local Watershed Planning Council (WPC) meeting. Meetings are held throughout the year for each WPC, and a complete schedule is available at [mwrdr.org](http://mwrdr.org).

*Where does water go once it drains from the creeks and streams in my community?*

Most waterways in the MWRD service area drain to the Chicago Sanitary and Ship Canal, the Cal-Sag Channel and the Des Plaines River, eventually flowing into the Illinois River, the Mississippi River and the Gulf of Mexico.

*How much debris does the SSMP remove from waterways every year?*

On average, 30,000 cubic yards.

*What happens to the woody debris after it is removed from the waterways?*

Most is chipped and processed into mulch.



**Most of the 30,000 cubic yards of debris removed every year by the SSMP becomes mulch.**

## Sustainability Summit

The MWRD hosted its first Sustainability Summit in Midlothian on Sept. 26, bringing together community leaders to build awareness of local, state and federal resources for green infrastructure and sustainability projects. More than 80 officials from the 125 Cook County communities participated in the four hour summit held at the Raday Lodge.

MWRD Commissioner Patrick D. Thompson presented several awards, including the “Biosolids User” awards to the villages of Midlothian and Hinsdale. Both communities successfully used the low-cost, sustainable alternative to chemical fertilizers to revitalize worn-down sports fields.

Commissioner Thompson also presented awards for sustainable landscaping. The first honor went to David Leopold on behalf of the City of Chicago Dept. of Transportation for its Pilsen Sustainable Streetscape project. This endeavor integrated a wide range of innovative technologies to create green infrastructure with smart, efficient capital investment.

The second green landscaping award was given to village planner Martha Glas and Robert Dahlberg for the Village of Lemont’s new Police Station. The new 28,500 sq. ft. facility features many green infrastructure components, including rain gardens, vegetated bio-swales to manage runoff and permeable pavers.

Three honorable mention certificates were presented. The first went to Aaron Durnbaugh, Director of Sustainability for Loyola University on behalf of its Lake Shore Campus sustainable landscaping projects. Josh Ellis, Program Manager at the Metropolitan Planning Council (MPC), accepted the award for MPC’s development of the Milwaukee Ave. Green Development Corridor which tackled stormwater by using green infrastructure to improve downstream water quality. Frank Avino accepted the award on behalf of the Village of Norridge’s volunteer Green Team. The volunteer team was formed to enhance recycling, sustainability, water conservation, and flood control practices within the village.

Contact MWRD Public Affairs to learn more about future Sustainability Summits.



*MWRD Commissioner Patrick D. Thompson presents a Biosolids User award to Gina Hassett, Executive Director of the Hinsdale Park District. Also pictured (L-R): MWRD Commissioner Kari K. Steele, MWRD Vice Pres. Barbara J. McGowan, MWRD Commissioner Debra Shore and MWRD Commissioner Frank Avila during the MWRD’s first Sustainability Summit.*

# 2013 *Downstream Milestones*

Approximately **19,530 cubic yards** of debris were removed from area small streams in 2013.

Thanks to the many cooperating municipalities who provided assistance with the removal of river and stream debris. Here is the breakdown by watershed:

## **Little Calumet**

**5,000** cubic yards

## **Cal-Sag**

**6,400** cubic yards

## **Lower Des Plaines**

**5,100** cubic yards

## **North Branch of the Chicago River**

**2,500** cubic yards

## **Poplar Creek**

**250** cubic yards

## **Upper Salt Creek**

**280** cubic yards

## **Report small stream blockages**

Call Brian Levy at 708.588.3171 or visit [www.mwrdd.org](http://www.mwrdd.org)

### **MWRD Board of Commissioners**

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### **Mission of the Small Streams Maintenance Program**

To reduce flooding in urbanized areas through immediate and relatively simple remedies.



*Small Streams, Big Accomplishments* is published annually by the MWRD Office of Public Affairs as a service to the communities within its Stormwater Management service area.

Contact us:

Public Affairs: 312.751.6633

Waterway Blockage: 708.588.3171

Waterway Emergency: 312.751.5133