

# Small Streams Big Accomplishments

The Newsletter of the MWRD's Small Streams Maintenance Program (SSMP) Fall 2011

## Record Setting Storms & Heat

The record-setting heat wave and drought conditions that gripped most of the country during the summer were interrupted briefly by major storms and flooding. On July 23rd, 6.86 inches of rain fell in less than 12 hours, the wettest single day on record dating back to 1870. That is the equivalent to nearly 70 inches of snowfall. The Metropolitan Water Reclamation District (MWRD) works hard to prepare for and manage stormwater: look inside to find out what we all can do to reduce flow of stormwater into sewers.



2011 SSMP  
debris removal  
totals inside

## Stream Bank Stabilization on Cal-Sag Tributary

*A recently completed stream bank stabilization project on a portion of the Cal-Sag Tributary C in Midlothian near the Midlothian Country Club, featuring use of riprap from the Thornton quarry & reservoir.*



# Native Prairies: *Natural Flood Mitigation*

*The native prairie at the MWRD Egan water reclamation plant is full of coreopsis flowers, one of several thriving native species that add to the colorful and ecologically sustainable landscape.*

The MWRD's Native Prairie Landscape (NPL) program began in 2003 and continues to thrive. Located at several MWRD facilities, NPLs are areas set aside for native species to grow undisturbed, and are comprised of native forbs and grasses. Conventional turfgrass landscapes comprised of non-native Eurasian grasses require extensive care and maintenance and are not capable of withstanding high temperatures and extended dry spells, and will absorb less water during heavy storms.

According to the National Resources Conservation Service (NRCS), deep-rooted native species stabilize soil, slow storm-

water runoff, facilitate infiltration and decrease erosion. They eliminate the need for expensive maintenance, chemicals and irrigation, all while providing habitat for wildlife, naturally colorful landscapes and improved soil fertility.

Native vegetation can also provide water quality benefits by removing pollutants from stormwater. This process of water quality improvement occurs via a combination of nutrient uptake, sedimentation, adsorption, precipitation and dissolution, filtration, biochemical interactions, volatilization and infiltration.

**For more information about the MWRD NPL program and to learn how your community can develop and benefit from native prairies, call 312.751.6633**

## Small Streams Crews at Work

Brian Levy, SSMP manager and senior civil engineer, and his crews have been busy at work clearing blockages, stabilizing streambanks and preventing future blockages by removing dead and dying vegetation. Heavy storms often result in debris collecting in waterways, and several major storms in 2011 kept the crews busy. The successful and efficient debris removal

projects wouldn't be possible without cooperation and support from the communities. Various communities have pitched in by assisting with woodchipping and hauling of debris away from the project sites.

If you have waterways with accumulating debris or blockages, call Brian at 708-588-3171 or go to [mwrld.org](http://mwrld.org).



*SSMP manager Brian Levy at a project site in Maywood discussing the methods employed by his crews to secure debris and remove it from a large waterway. Large debris is removed from the SSMP project site near the County Circuit Courthouse in Maywood (I-290 is seen in the background). This project required two days of work and the crew removed approximately 160 cubic yards of debris.*



## Before and After Work at the Summit-Lyons Conduit



*This photo was taken prior to the beginning of the project in January. During and after heavy storms, MWRD staff frequently cleared debris from the drainage structure in the foreground to allow for efficient drainage & flow away from the area.*



*This photo, taken in July, features the same view after completion of the project, including debris removal, seeding and mulching. The SSMP crews maintained the natural appearance of the area while providing a clear drainage pathway.*

SSMP crews did some amazing work on the Summit-Lyons Conduit located in McCook in early 2011. By the end of the massive project they had removed 4,440 Cubic yards of blockage & flood causing debris. After they cleared out the debris, the area was seeded for erosion control and bank stabilization. Several native grass species were used to seed the bank, including big bluestem, switch grass and Virginia wild rye. These species have roots that grow deep into the soil providing good soil stability. Next, the area was hydro-mulched using a machine that pumps a slurry of mulch through a hose and sprayed over the designated area and provides an ideal environment for seed germination. The mulch used in the slurry is made from a combination of an all-natural wood fiber and post consumer recycled newspaper. The drainage grates in the foreground of the photos on the opposite page receive all the water in the ditch. Prior to SSMP work, woody debris would accumulate quickly and cause blockages that required frequent, and sometimes dangerous, maintenance.

### *You Can Help Manage Stormwater*

You and your neighbors and businesses throughout Cook County can assist the stormwater management effort by helping to reduce the amount of rain unnecessarily entering the sewer system.

Disconnect your home's downspouts so they drain onto pervious (absorbent) surfaces instead of into the sewer system.

Install rain barrels and save the rainwater for reuse.

Plant a rain garden using native plant species which thrive in our climate, promote healthy soil and improve water absorption and retention

Replace your driveway and other paved areas on your property with pervious surfaces that can absorb stormwater.

## 2011 Downstream Milestones

Approximately **24,980 cubic yards** of debris have been removed from area small streams so far in 2011.

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**  
6,485 cubic yards

**Cal-Sag**  
3,010 cubic yards

**Lower Des Plaines**  
11,842 cubic yards

**North Branch of the Chicago River**  
2,901 cubic yards

**Poplar Creek**  
182 cubic yards

**Upper Salt Creek**  
560 cubic yards



# Biosolids: *Go Green & Save Some Green*

MWRD Biosolids are a nutrient-rich organic alternative to commercial fertilizers and are available for communities at no cost. Biosolids are produced from the stabilization of municipal sewage sludge and are ideal for landscaping projects, recreational facilities, sports fields, parks, agricultural land and public spaces. The benefits of biosolids application include stronger root systems, decreased or eliminated need for expensive chemical fertilizers and increased soil water absorption and retention.

Biosolids are safe and meet the United States Environmental Protection Agency's (USEPA) most stringent quality standards for land application, and the MWRD handles all necessary permitting.

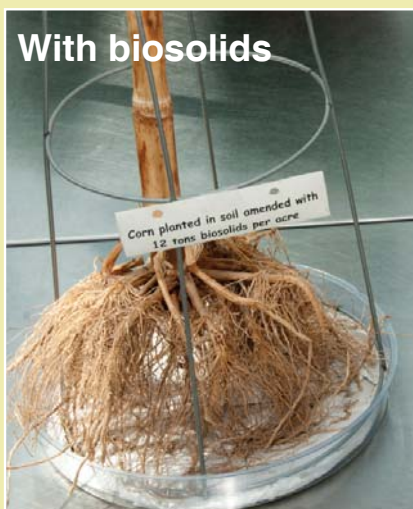
Many communities, farmers and municipalities have been taking advantage of this

valuable resource for many years. At the MWRD's annual Biosolids Field Day in July, MWRD Commissioner Debra Shore and Director of Monitoring and Research Dr. Thomas Granato presented the 2011 Chicago Metro Biosolids User Awards. Each year, an award is given to an individual and an organization for their efforts in the beneficial reuse of biosolids.

This year's individual recipient, Dan Di-nelli, superintendent of the North Shore Country Club, was recognized for ten years of collaborative research and innovative use of biosolids as a fertilizer and for soil amendment on the golf course.

The Blue Island Park District was honored for its continuous commitment to incorporate biosolids in routine turf maintenance in all parks in Blue Island.

## Sample root systems from corn plants grown with biosolids and grown without biosolids



**MWRD Biosolids are a safe alternative to chemical fertilizers and are available for free.**

*They have been utilized throughout the Chicago region for turf building, landscaping, recreational facilities and agriculture.*

*The Blue Island Park District used only biosolids for fertilization at parks such as Hart Park*



*Biosolids were used as soil amendment before placing sod in portions of Ping Tom Park in Chicago*

*The Water's Edge Golf Course in the Village of Worth was built on biosolids-amended soil*



*For more information about MWRD biosolids, call 708.588.4063*

# Frequently Asked Questions

## *Who is the SSMP staff?*

The SSMP staff includes engineers, technicians, laborers and contractors. The key MWRD staff are senior civil engineer Brian Levy, associate civil engineer Michael Venuso and engineering technicians Henry Pycioch, Brian Kalata and Sabrina Ewell

## *What is the most debris removed from a single project site?*

The most debris removed from one single site was 3,000 cubic yards from Thorn Creek in Glenwood.

## *How does the MWRD identify and prioritize SSMP project sites?*

We routinely monitor waterways but also rely on people within the communities for feedback and blockage reports.

## *During what seasons are SSMP crews the most busy?*

The SSMP staff is busy all year, but each season provides unique maintenance opportunities. Winter is ideal to work in sensitive areas; the spring and rainy seasons are good for creek inspections; summer is the best time for blockage removal projects; fall is the time for preventative maintenance, including removal of dead and dying trees.

## Report small stream blockages

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

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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 biannually by MWRD 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