Green Infrastructure:
A Truly Public Utility

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Serving EPA Region 2
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Save the Rain

Cisterns have been around for a long time…

What is old is new again…

But this is not your grandma's rain barrel…

Syracuse: A case study

History

- 1988 – Atlantic States Legal Foundation files lawsuit against County
- 1989 – Litigation settled through METRO consent judgment
- 1998 – METRO consent judgment replaced with Amended Consent Judgment (ACJ)
- 1st ACJ amendment May 1998
- 2006 ACJ Amended to include consolidation of ammonia and phosphorus treatment and Harbor Brook conveyances and RTF
- 3rd Amendment April 2008 (Extension)
- 2009 ACJ amended to authorize use of Gray and Green infrastructure

Onondaga Lake Facts

Watershed: 285 Square Miles

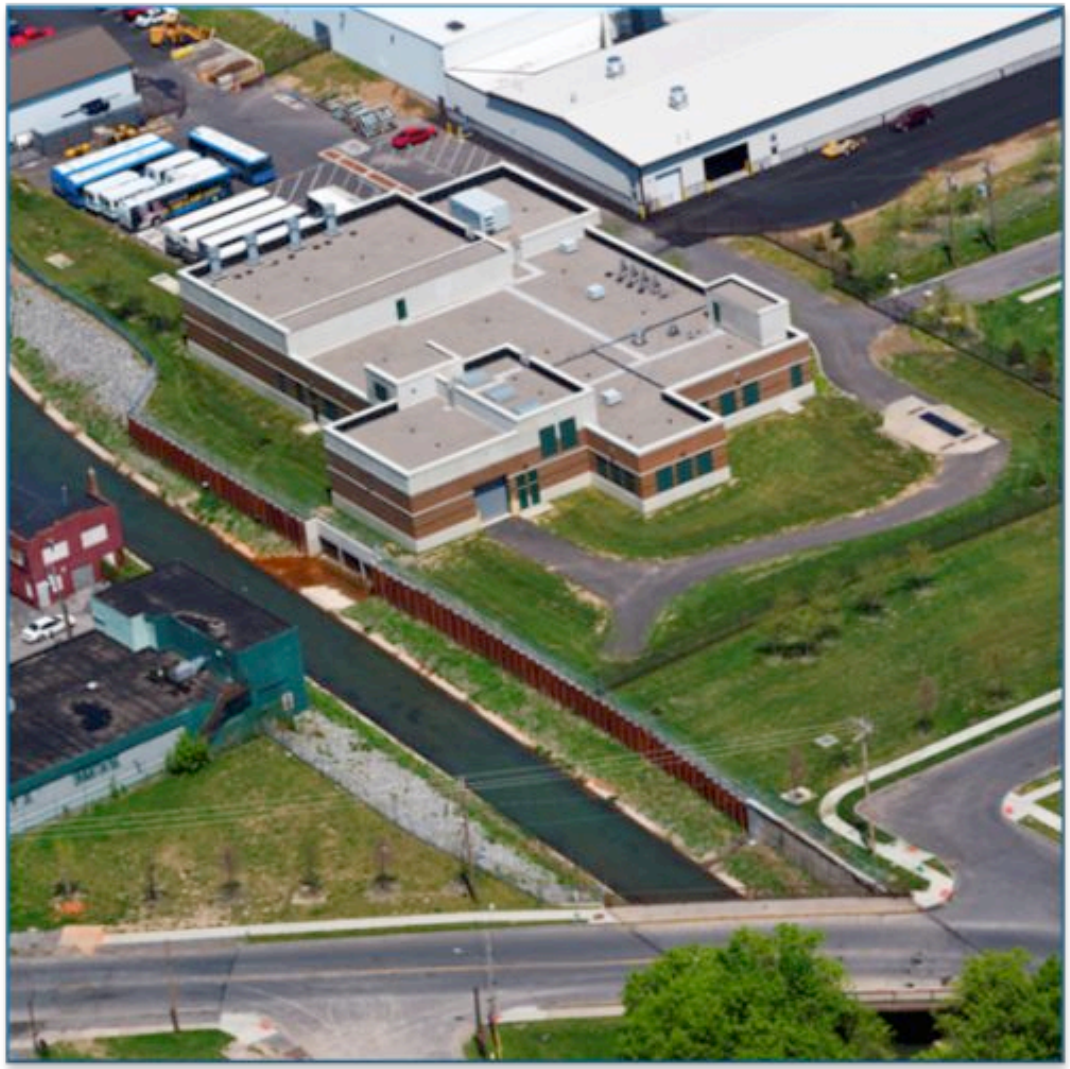
1 Mile Wide – 4.6 Miles Long

Average Depth: 35 feet

Max Depth: 63 feet

1940 – Swimming Banned

1970 – Fishing Banned



Midland Ave RTF

CSO Storage, Treatment and Conveyance Project

Conveyance project under construction through south side neighborhood causing significant disruption

Large diameter conveyance pipeline dwarfs front end loader and operator

CSO 020 and 021

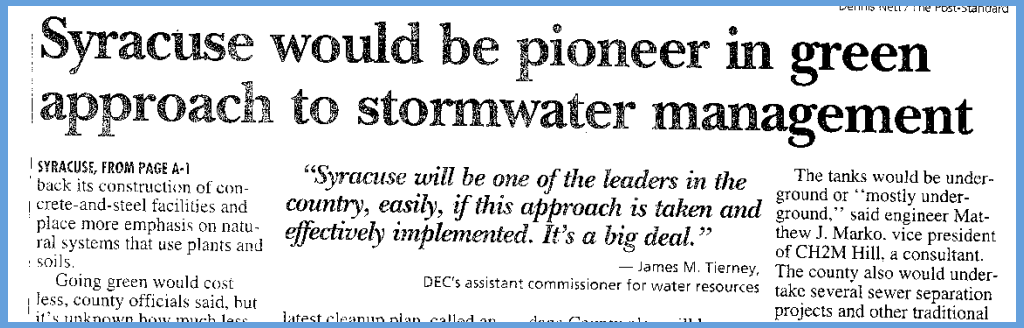
Sewer Separation

Environmental Justice

Green Infrastructure means…

- *Injustice of Midland plant will not be repeated*
- *Onondaga Creek & Harbor Brook will be cleaner*
- *Community investment and beautification instead of further disruption*

Green Infrastructure



Syracuse would be pioneer in green approach to stormwater management

SYRACUSE, FROM PAGE A-1

back its construction of concrete-and-steel facilities and place more emphasis on natural systems that use plants and soils.

Going green would cost less, county officials said, but it's unknown how much less

"Syracuse will be one of the leaders in the country, easily, if this approach is taken and effectively implemented. It's a big deal."

— James M. Tierney, DEC's assistant commissioner for water resources

The tanks would be underground or "mostly underground," said engineer Matthew J. Marko, vice president of CH2M Hill, a consultant. The county also would undertake several sewer separation projects and other traditional

- Solution to capacity problems with underground storage – reduce the rain!
- Proposed by Onondaga Nation

Victory!! *Onondaga County Scraps Sewage Plants in Favor of Green Infrastructure*

Lindsay Speer

Change is in the air, and it smells sweet. Onondaga County Executive Joanne Mahoney announced on May 2, 2008 that the County will not award construction bids for the proposed Clinton Regional Treatment Facility (RTF) in Armory Square. Instead, it will explore more environmentally and economically sound options with the State of New York, Atlantic States Legal Foundation, City of Syracuse, and, for the first time, the Onondaga Nation and other community stakeholders.

Persistence Pays Off

Syracuse has an antiquated combined sewer system, in which stormwater runoff is directed into the sanitary sewers. Heavy rainfall results in Combined Sewer Overflows (CSOs), dumping sewage directly into Onondaga Creek. Onondaga County's previous solution was to treat the sewage

existed year-round, not just after storms, calling into serious question the effectiveness of the RTFs' end-of-pipe solution.

Going Green

In January 2008, the federal Environmental Protection Agency released a report urging municipalities to use green infrastructure, such as rain barrels, green roofs, and other methods to keep stormwater out of the sewer system. These developments combined with new County and State leadership this year to create a perfect storm for revisiting the mandates of the Amended Consent Judgment (ACJ), which dictates the cleanup of sewer pollution in Onondaga Creek and Harbor Brook.

On June 18th, the Partnership for Onondaga Creek gave a presentation to Onondaga County and the NYS Department of Environmental Conservation to outline alternatives to the remaining phase of the Midland plant: a $57 Million, 12

Rain barrels are a simple solution activists recommend for protecting Onondaga Creek and other waterways. Photo: gadogo/Flickr.com

to capture water using residential rainbarrels and green roof installation on commercial

Partnership for Onondaga Creek
2010 - lspeer@mrss.com

Catch the Rain:

A new strategy for clean waterways in Syracuse

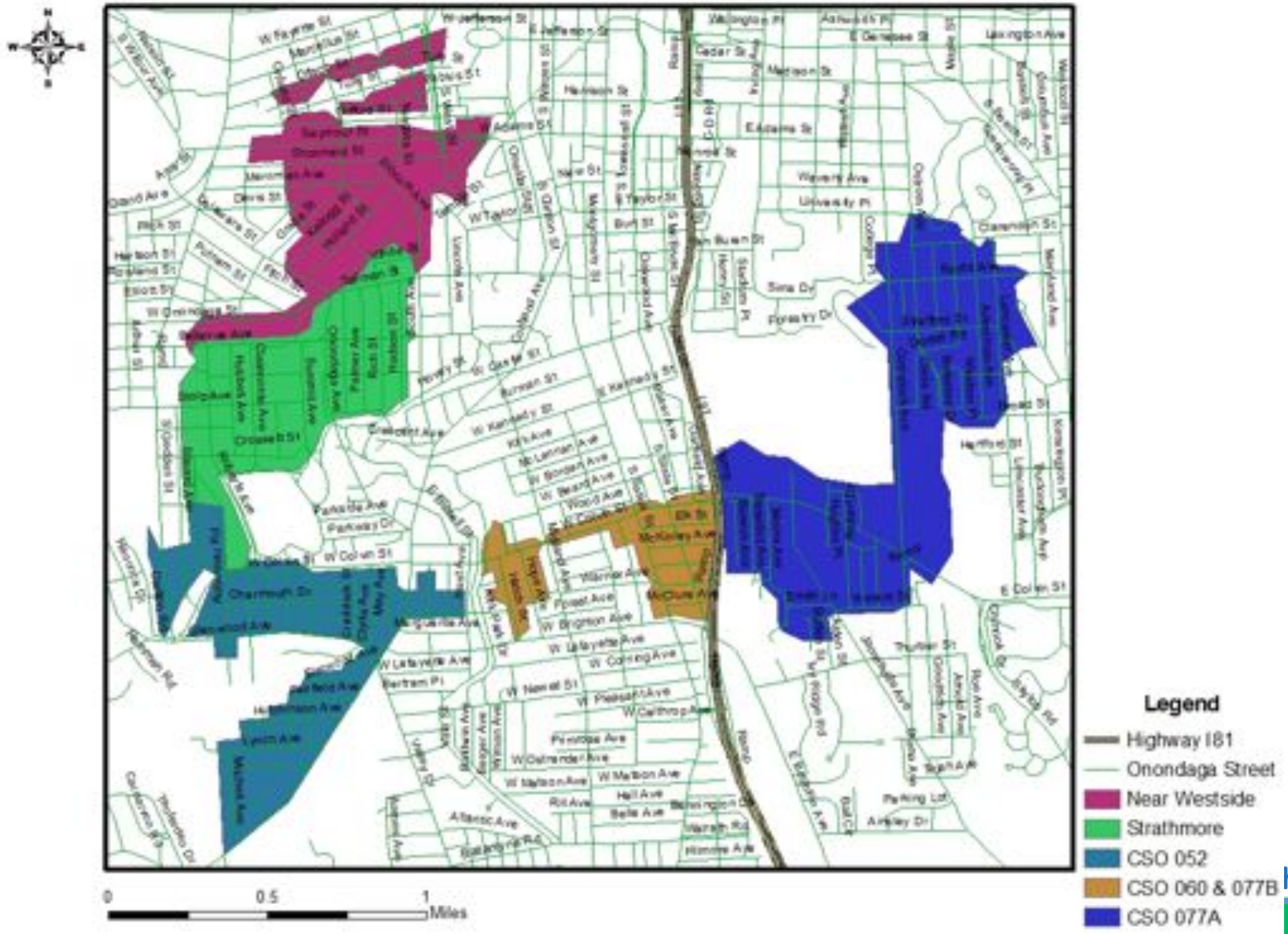
Communication and Education Plan Recommendations for the management of stormwater and combined sewer overflows (CSOs) in Onondaga County, New York

December 2008

This document was developed through a collaborative process by the Green Infrastructure Communications and Education Committee. It is intended to provide a guide or road map for Onondaga County and the many others who are collaborating in this effort on how to inform and educate elected officials, local residents and other stakeholders on: 1) what is being done; 2) why it is being done; and 3) who has what role in carrying it out.

Khris Dodson, Committee Chair, on behalf of the Atlantic States Legal Foundation
David Coburn, Onondaga County Executive's Office
Sarah Eckel, Citizens Campaign for the Environment
Christa Glazier, Office of Congressman Walsh
Stephanie Harrington, New York State Department of Environmental Conservation
Jean Kessner, AIDS Community Resources
Lionel Logan, Partnership for Onondaga Creek
Andy Maxwell, Community Development, City of Syracuse
Amy Samuels, Cornell Cooperative Extension
Lindsay Speer, Environmental Consultant for the Onondaga Nation
Bruno Takahashi, SUNY ESF/ Atlantic States Legal Foundation
Melissa Young, Environmental Finance Center, EPA Region 2

- During 2008 and 2009 the POC, Syracuse University and SUNY-ESF cooperated to obtain over 200 surveys among five neighborhoods of the Midland and Clinton Sewershed to assess public attitudes toward Green Infrastructure (GI) Implementation



And, the survey says…

- People really aren't that into trees!
- Maintenance of rain gardens is a significant barrier
- Education needed on effective rainbarrel use
- If it's free (or less than $25) than count me in! Otherwise, I'm not so sure why I'd want to do this

Education & Outreach

Save the Rain

…being enthusiastic!

Bringing people together…

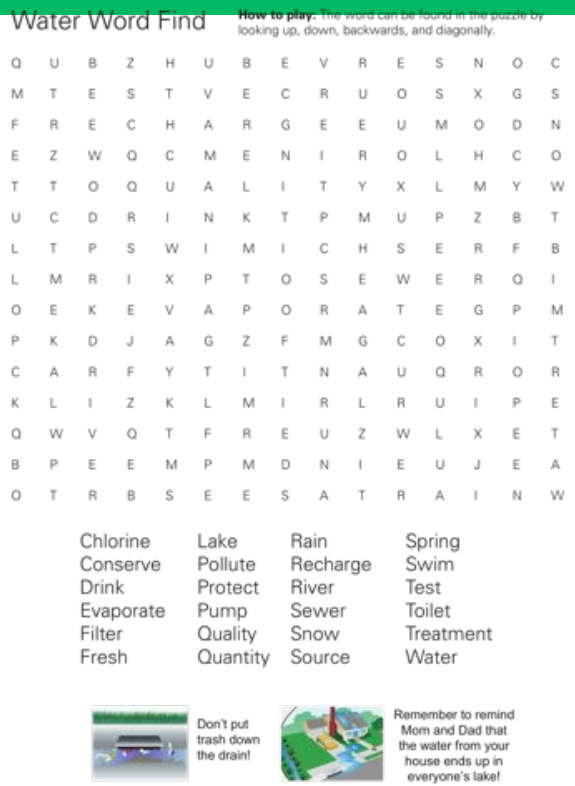
Save the Rain Programs

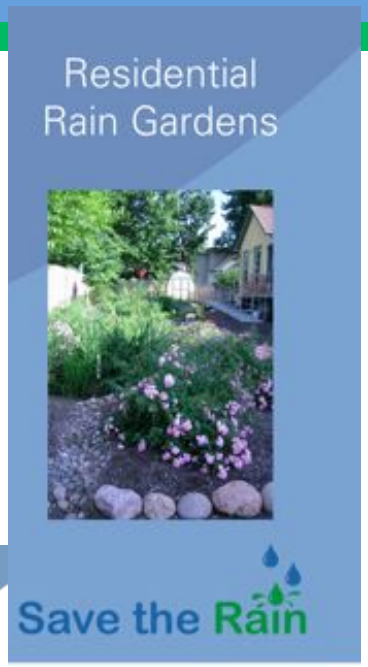
- Workshops
  - Intro to GI for Businesses
  - GI for New Homeowners
  - Community Workshop
  - Rain Barrel
  - Landscape Professionals
  - Pervious Products
  - GI for Youth
  - GI and Art for Children
  - Nature in the City
  - High school classrooms
  - Exhibiting at Events

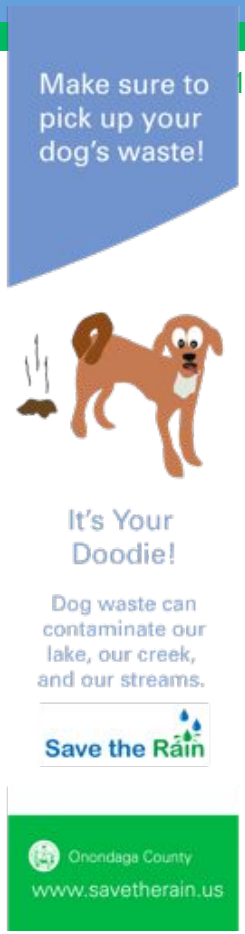
Design Charettes

Demonstration Projects

Brochures, activity books, bookmarks, and a board game: “Raindrop Run”







Save the Rain


Save
The Rain
Clean
The Lake
Every drop counts.
We can all make a difference.
Save the Rain
www.savetherain.us
LAMAR

Our many project partners include…

Environmental Finance Center
Syracuse University

Baltimore Woods Nature Center
Nature in your hands

ESF
State University of New York
College of Environmental Science and Forestry

Onondaga Earth Corps

The Partnership for Onondaga Creek
www.onondagacreek.org

Onondaga Environmental Institute

Looking Forward and Beyond

- Moving from CSOs to suburban MS4s
- Demonstration Projects
- Participating in NYS Great Lakes Green Infrastructure communities; soon expanding to additional upstate communities
- Inter-government collaboration; sharing between communites; stormwater coalitions
- New EPA stormwater rule

Contact me:

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Savetherain.us