

Cleveland Metroparks / Zoo

Partners in Big Creek Stewardship



Mission Statements

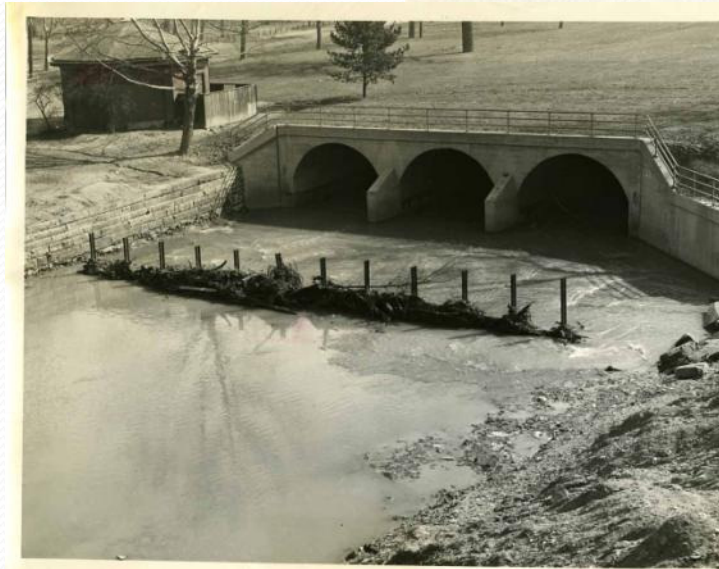
Friends of Big Creek : To **conserve**, enhance, and bring recognition to the **natural** and historic **resources** of the Big Creek Watershed and develop a **recreational** trail network that **joins** these **resources** to each other and the **community**.

Cleveland Metroparks: Cleveland Metroparks will **conserve** significant **natural resources** and enhance **people's** lives by providing safe, high-quality outdoor education, **recreation**, and zoological opportunities..

Cleveland Metroparks Zoo: We create compelling experiences that connect **people** with wildlife and inspire personal responsibility for **conserving** the **natural** world.

In the Big Creek Watershed







Back to the drawing
board....



New Stormwater Retrofit at the Zoo



Surface Water Improvement Fund
Completed 2012

Retrofit Ranking Project



Existing Conditions		
Drainage Acres	50.8	TN Load (lbs/year)
Impervious Acres	15.2	TP Load (lbs/year)
Flood / Water Quality Treatment	0 / 0 %	TSS Load (lbs/year)

General Finding: 36 inch pipe enters directly into Big Creek just downstream of the bridge. There is a manhole on private property that would provide access to the pipe.

Proposed Conditions		
Existing Storage Volume (ac-ft)	0	Pretreatment Cell (SF)
Proposed Storage Volume (ac-ft)	0.77	Wetland (SF)
Proposed Ohio EPA Water Quality Volume Met (%)	100%	TSS Load Reduction (lbs/year)
Additional Flood Control Volume (ac-ft)	0.06	TN Load Reduction (lbs/year)
		TP Load Reduction (lbs/year)

Retrofit Description
Runoff associated with small storm events will be diverted from an existing pipe into a pretreatment cell, which will allow sediment to fall out of suspension. Water will then meander through a constructed wetland, whose depth will be maintained by a flow control structure that empties into the existing stormwater pipe. Vehicle access will be provided to ensure ease of maintenance.

Planning Level Cost Estimate*		
	Lower Range	Upper Range
Total Cost	\$192,000	\$304,000
Cost per Square Foot	\$5.73	\$9.08

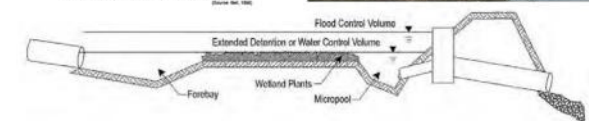
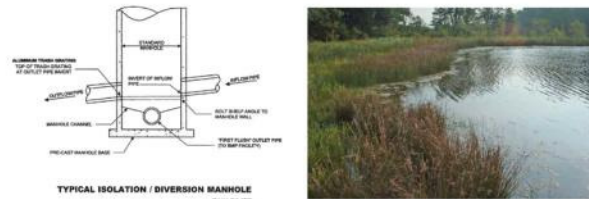
*Includes probable construction costs, design, survey, permitting, sediment testing, and a 25% contingency.



View of the site from trail.



Manhole leading to the underground pipe that will be diverted to treatment areas.



Friends of Big Creek: Big Creek Watershed Stormwater Retrofit and Ranking Project
Conceptual Plan
Site 113 (Cleveland Metroparks Upper Fern Hill - West Bank): Constructed Wetland



Conceptual Plans: Completed March 2012
Upper Fern Hill – Big Creek Parkway

Water Quality Monitoring with FOBC



Watershed Education: Urban Watershed Academy



CMZoo Sponsored Stewardship Events



CMZoo Sponsored Stewardship Events

**BUILD AND FLOAT
YOUR PLASTIC BOAT!**



For the past three years, boats made out of recyclable materials have floated on Lake Erie during this unique event. Join us again this year with your own plastic boat!

Winners will be recognized in four categories:

- Fastest Boat
- Best Use of Recyclable Materials
- Most Artistic Style
- Lil' Sailors

The winner of *Best Use of Recyclable Materials* will have their boat recycled by Polyflow.

The
FOURTH ANNUAL **Great Lake Erie BOAT FLOAT**

**Saturday,
September 8, 2012**

Lower Edgewater
State Park Beach
Cleveland, Ohio
Boat Launch • 10 a.m.

**SPECTATORS
WELCOME!**



Photo Credit: Margaret Brown



CMZoo Sponsored Stewardship Events



Rain Barrel Workshops



Participation at FOBC Events: Watershed Tours





Watershed Stewards Needed!

Watershed Volunteer Program

West Creek Watershed
Stewardship Center

- Certificate Program

Contact: Jennifer Grieser Cleveland
Metroparks

jmg2@clevelandmetroparks.com

ReLEAF Forest Forum

Ordinance Workshop

Brecksville Community Center

Weds. Oct 3 2012

Contact: Cathi Lehn Cuyahoga
River Community Planning Org.

lehnc@crcpo.org

Thank you!

