



Friends of Big Creek

*A community-based
greenway advocacy and
watershed stewardship organization*

P.O. Box 609272 • Cleveland, Ohio 44109

www.friendsofbigcreek.org

a 501(c)(3) nonprofit organization

Friends of Big Creek

MISSION

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.

Formed in 2005.



Friends of Big Creek

VISION

- Build a continuous greenway and trail network to link the Ohio & Erie Canal Towpath Trail to the Cleveland Metroparks Zoo, and the Big Creek Reservation.
- Improve the quality of Big Creek and the natural environment throughout the watershed.
- Expand public access to and awareness of natural areas in the watershed through enhanced recreational and educational opportunities.
- Showcase the natural and cultural heritage of the Big Creek watershed and promote stewardship of its natural, historic, and recreational resources.

Friends of Big Creek

ORGANIZATIONAL STRUCTURE

Members • Board of Trustees • Advisory Committee

PARTNERS / ADVISORS

Bellaire-Puritas Development Corporation
Brooklyn City Council & Zoning Board Representatives
Cleveland City Planning
Cleveland City Council Representatives
Cleveland Division of Water Pollution Control
Cleveland Metroparks Zoo
Cuyahoga County Board of Health
Cuyahoga County Planning Commission
Cuyahoga River Remedial Action Plan(CRCPO/RAP)
Cuyahoga Soil and Water Conservation District
National Park Service - Rivers, Trails and Conservation Assistance
Northeast Ohio Areawide Coordinating Agency
Northeast Ohio Regional Sewer District
Parma City Council
Parma Heights City Council
West Creek Preservation Committee

FOBC is proud to receive its 3rd year of operating support from the
Northeast Ohio Regional Sewer District's Watershed Grants Program, October 2011-September 2012



Big Creek Watershed Plan

Balancing Growth and Watershed Stewardship



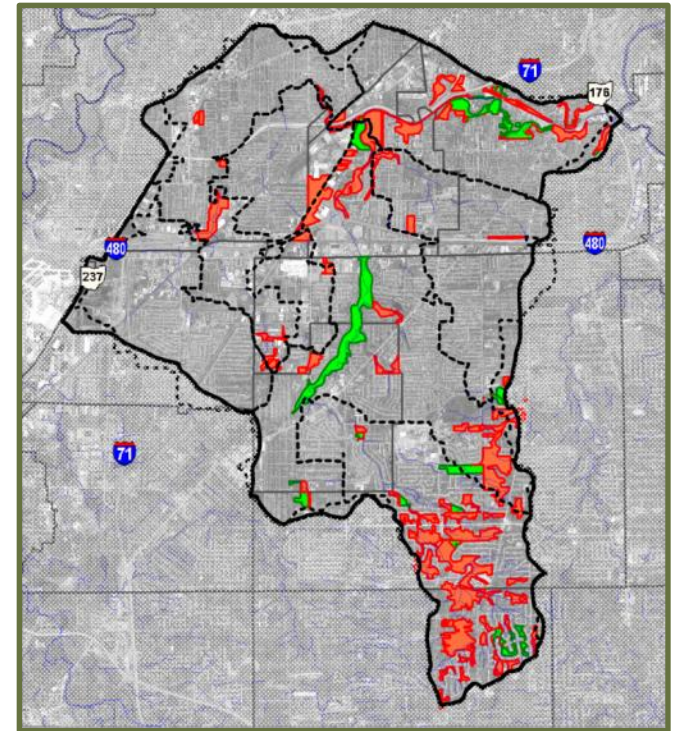
GOALS of the Big Creek Balanced Growth Initiative

1. Preserve, Restore & Enhance existing watershed features.
2. Promote Development & Redevelopment that balances economic growth and watershed function.
3. Recommend Best Land Use Practices to avoid or minimize impacts from development.

PCA

PRIORITY CONSERVATION AREAS

are locations where land use change is predicted to have a large impact on the watershed in terms of flooding, erosion and water quality, based on analysis of criteria that the watershed planning partners determined were priorities.



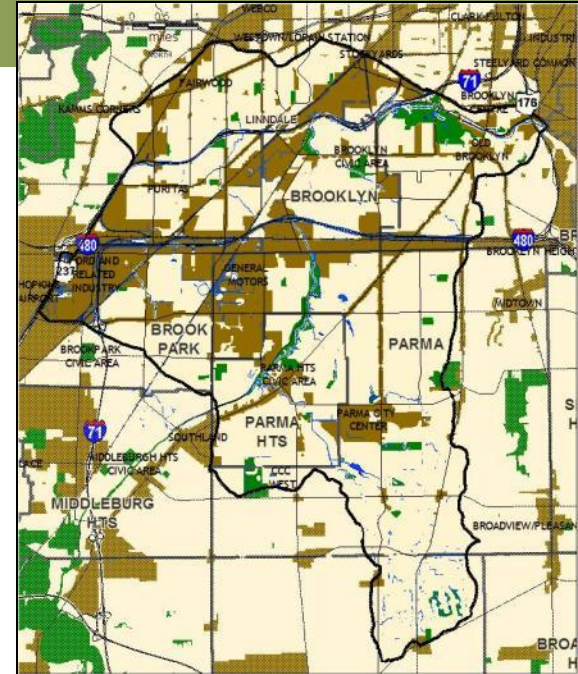
PDA

PRIORITY DEVELOPMENT AREAS

are locations where land use change is predicted to have minimal impact on the watershed and where conditions suggest that additional development would be appropriate.

Characteristics include:

- High Density Zoning
- Highway Interchanges
- Vacant Parcels
- Without Critical Watershed Features



IMPLEMENTATION STRATEGIES

Stormwater Retrofits

A category of strategies to restore sites not normally considered as PCAs but which, considering the heavily urban nature of Big Creek, can treat nonpoint source pollution, minimize channel erosion, and help restore stream hydrology.

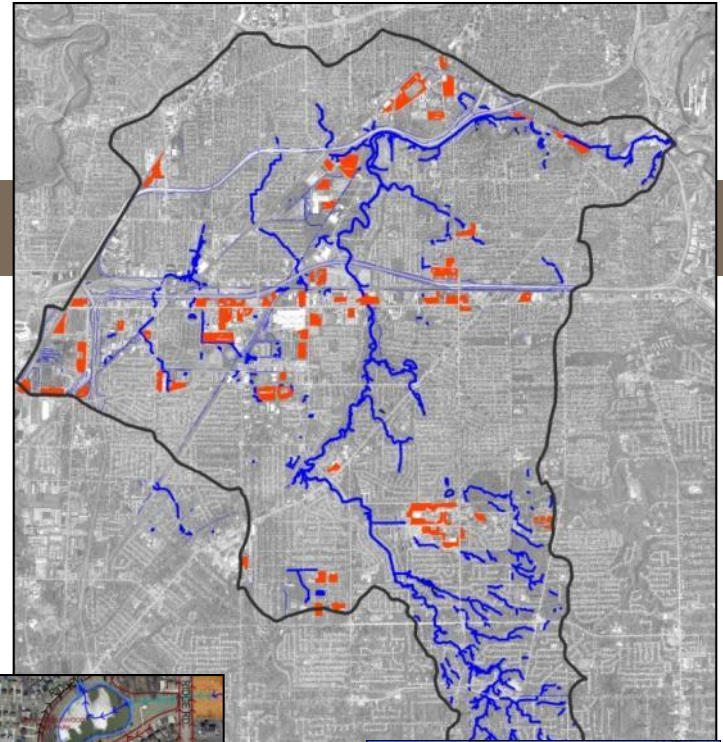


IMPLEMENTATION STRATEGIES

Stormwater Retrofits

LARGE PARKING LOTS

- Wetland Extended Detention Basin
- Bio-retention
- Porous Pavement
- Infiltration Trench

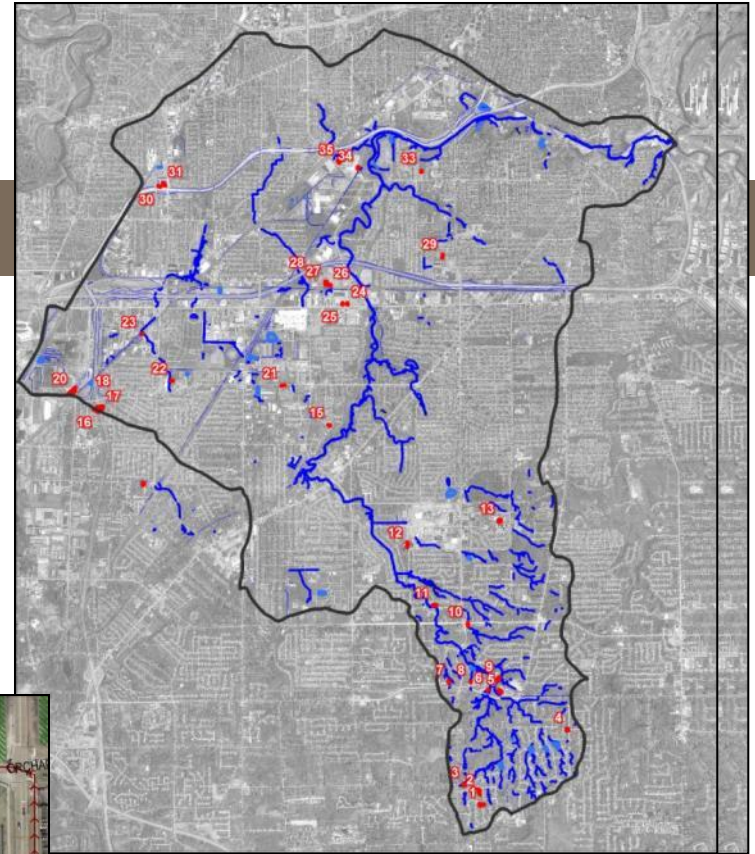


IMPLEMENTATION STRATEGIES

Stormwater Retrofits

MODIFY EXISTING DRY BASINS

Upgrade to a Wetland Extended Detention Basin



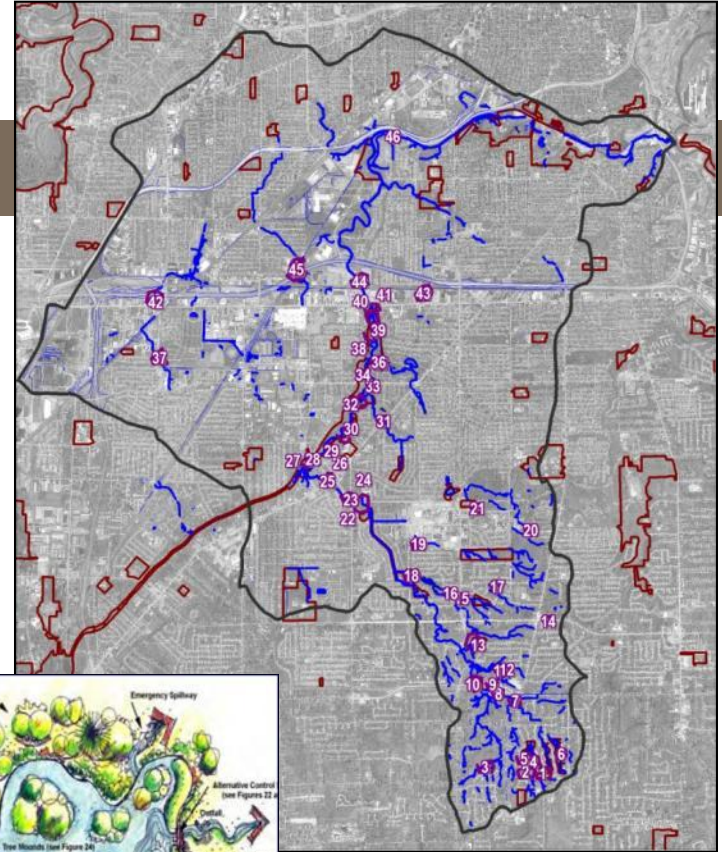
Big Creek Watershed Balanced Growth Plan

IMPLEMENTATION STRATEGIES

Stormwater Retrofits

NEW STORAGE AT OUTFALLS

Create pocket wetlands or bio-retention cells to extend capacity

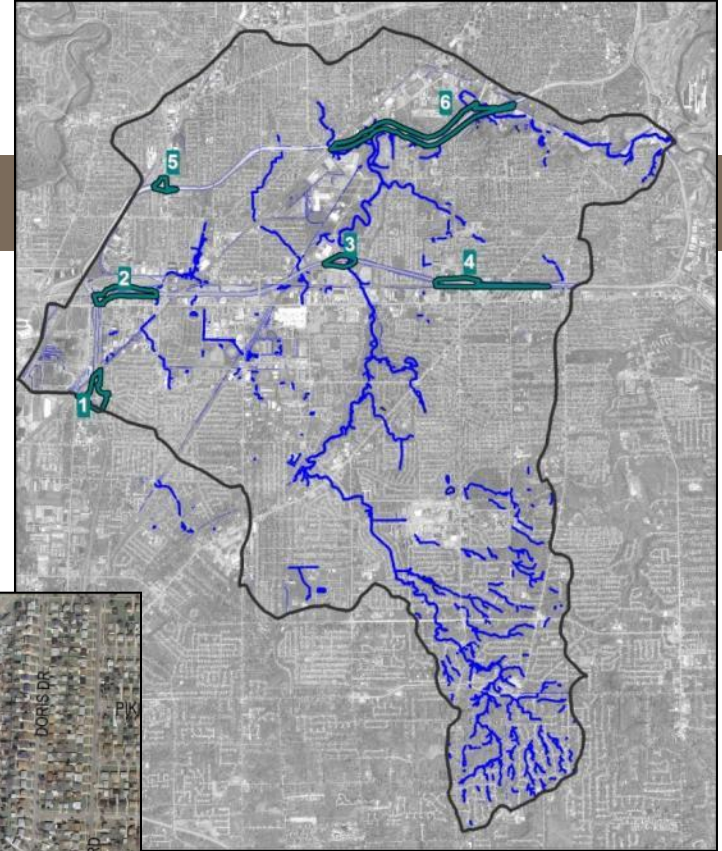


IMPLEMENTATION STRATEGIES

Stormwater Retrofits

STORAGE at HIGHWAY INTERCHANGES

- Wetland Extended Detention
- Linear Bioretention Cells & Swales

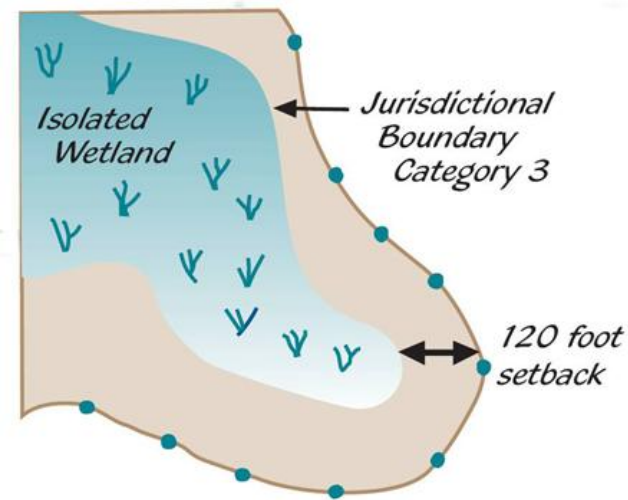


Big Creek Watershed Balanced Growth Plan

LAND USE TOOLS & PRACTICES



- Adopt Watershed Map for Community Guidance
- Conserve Streams and Riparian Corridors
- Conserve Wetlands and Setbacks
- Avoid Floodplains
- Avoid Steep Slopes
- Minimize Development on Critical Soils
- Low Impact Development
- Conservation Development
- Woodland / Tree Canopy Protection



Big Creek Watershed Balanced Growth Plan



ENDORSEMENT

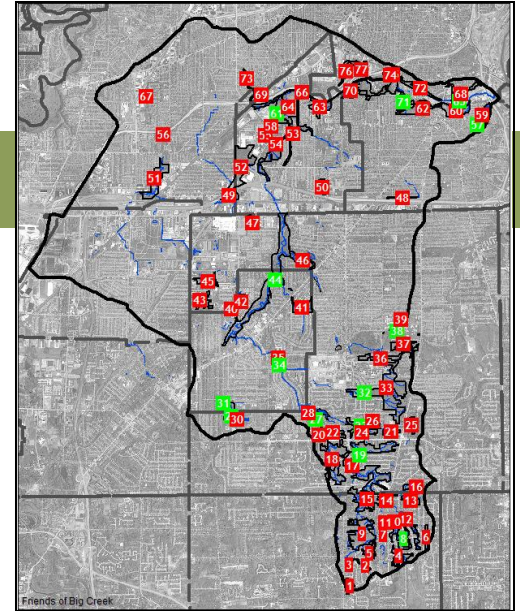
Watershed communities (Brooklyn, Cleveland, Parma, Parma Heights, Brook Park) adopted resolutions formally recognizing the Big Creek Balanced Growth Plan outlining the relationship and obligations of the jurisdictions.

BGI PLAN received formal State endorsement by the Ohio Lake Erie Commission in June 2011. November 2011 certificates/recognition of the five Big Creek watershed cities of the Partnership as an Ohio Balanced Growth Community.

Big Creek Watershed Balanced Growth Plan

STORMWATER RETROFIT RANKING PROJECT

- Further evaluates sites identified in the Plan through desktop and field analysis
- Establishes an evaluation and ranking system
- Develops several conceptual plans and cost estimates that can be taken to the funding stage



Technical Advisory Committee established.
TetraTech hired as consultant.
Intern hired.

Funded by:
Northeast Ohio Regional Sewer District
Ohio Lake Erie Commission
Freshwater Future

STORMWATER RETROFIT RANKING PROJECT

Big Creek Watershed Project Site	OwnType	Balanced Growth Initiative Retrofit SITE ID	Owner Description	Drainage Area (ac)	Impervious Area (ac)	TSS (lbs/yr)	Treatment Area (ac)	Treatment Area (2:1 pkg lot)	Rank Drainage Area	Rank Impervious Area	Rank TSS	Rank Treatment Area	Rank Scenario 1 (DA, IA, TSS, TA)	Rank Scenario 2 (IA, TSS, TA)
1	Public	BAS_16	CLEVELAND CITY OF	2.8	0.0	10	0.2	0.19	129	133	131	129	135	135
2	Public	BAS_15	CLEVELAND CITY OF	3.3	0.0	10	1.2	1.18	126	135	132	93	134	134
3	Public	BAS_23	BROOKLYN VILLAGE OF	32.0	0.0	32,910	2.6	2.61	27	132	10	68	66	69
4	Private	OUT_16-PRK_1	KMART CORPORATION	21.4	17.0	21,390	13.7	8.96	36	20	13	20	19	16
5	Private	OUT_4	CHURCH PARMA PARK REFORMED	4.7	0.7	3,941	0.8	0.78	116	120	82	98	120	128
6	Public	OUT_16	PARMA CITY OF	83.6	22.0	2,093	1.3	1.29	7	14	98	88	51	82
7	Public	BAS_20	PARMA CITY OF	36.6	8.5	309	2.4	2.39	22	57	115	70	78	105
8	Public	PRK_37	BD OF EDUCATION PARMA SCHOOL	9.8	7.6	9,719	4.4	2.60	76	64	38	67	67	66
9	Private	PRK_67	MAY STORES SEVENTY FOUR CORP	44.2	42.6	44,014	49.9	29.24	17	5	6	2	4	4
10	Private	PRK_66	GE DAY DRIVE, LP	16.1	14.6	16,096	15.6	9.53	50	27	16	17	21	16
11	Private	PRK_16	DAYTON HUDSON CORP	9.3	8.9	9,341	10.4	6.87	82	52	37	30	47	36
12	Private	PRK_38	RIDGE AND DAY PLAZA, LTD.	3.4	3.2	3,364	5.1	3.39	125	102	87	66	112	102
13	Public	BAS_55	PARMA CITY OF	10.1	5.3	9,337	0.9	0.94	73	80	38	85	78	81
14	Public	PRK_6-OUT_32	PARMA CITY OF	10.4	6.1	9,030	7.2	4.27	71	72	44	44	59	58
15	Public	BAS_21	PARMA CITY OF	663.3	150.2	105,980	8.3	8.25	2	3	4	33	5	9
16	Private	BAS_4-BAS_39	Big Creek Apt I, L.L.C.	17.2	11.2	7,215	0.2	0.21	47	35	57	110	63	76
17	Private	BAS_3	Big Creek Apts Ltd	11.5	7.0	4,935	0.1	0.12	67	67	70	117	94	106
18	Private	BAS_1	BARDOT'S LTD.	72.8	0.6	8,309	0.7	0.69	9	121	50	92	72	110
19	Public	PRK_39	CUYAHOGA COMMUNITY COLLEGE	9.2	6.4	9,159	12.1	8.01	83	70	42	24	53	43
20	Public	PRK_40	CUYAHOGA COMMUNITY COLLEGE	6.9	4.5	6,907	9.2	6.28	97	90	59	31	73	64
21	Public	BAS_42	CUYAHOGA COMMUNITY COLLEGE	7.8	0.4	7,818	5.9	5.94	92	126	52	32	80	77
22	Public	PRK_17	PARMA HEIGHTS LAND DEVELOPMEN	8.4	8.0	8,419	7	4.19	87	62	49	42	58	52
23	Private	PRK_12-BAS_6	T C PINNACLE PROP INC	9.0	8.0	8,953	9.7	5.72	85	61	45	33	53	45
24	Public	BAS_7	UNKNOWN - HIGHWAY	5.4	1.4	0	2	1.99	109	114	134	62	108	110
25	Public	BAS_59	UNKNOWN - HIGHWAY	2.4	1.1	0	0.4	0.41	130	117	134	92	111	111
26	Private	PRK_10	FORD MOTOR CO.	15.4	14.6	7,678	13.5	7.94	52	28	55	24	33	33
27	Private	PRK_63-BAS_12	NATIONAL CITY BANK	12.6	10.9	12,516	10.6	5.29	61	37	25	25	32	30
28	Private	PRK_9	FORD MOTOR CO FOUNDRY	26.8	23.2	13,386	29.7	19.76	28	12	23	6	9	9
29	Private	PRK_29	5160 W.161 LLC	6.8	5.4	3,413	5.4	2.96	98	78	86	50	79	75
30	Private	BAS_62	T C PINNACLE CORP	0.7	0.4	355	0.6	0.64	135	123	112	82	106	106
31	Private	PRK_59	T C PINNACLE CORP	5.4	5.1	2,802	5.6	3.35	109	82	91	46	84	76
32	Public	BAS_26	BROOKLYN VILLAGE OF	24.1	0.4	24,218	0.2	0.23	32	124	12	94	63	79
33	Private	BAS_11-BAS_14	ARAMS FAMILY PROP LLC	95.7	42.3	47,821	0.9	0.85	6	6	5	74	16	25
34	Private	PRK_49	AMERICAN GREETING CORP	14.4	6.2	7,773	10.4	6.63	63	62	42	77	10	41
35	Private	PRK_48	AMERICAN GREETING CO											
36	Private	PRK_31	GATEWAY PARK											
37	Private	BAS_13-PRK_32a	U.S.F. HOLLAND INC											
38	Private	PRK_15	CLINTON RD PARTNERSH											
39	Private	PRK_60-PRK_61	WESTON PROPERTY INVESTM											
40	Private	PRK_4	BURTON SULTZMAN P & R RI											
41	Private	PRK_14	CLEVELAND ILLUMINATING											
42	Public	PRK_18	BOARD OF EDUCATION											
43	Public	PRK_21	CLEVELAND METROPARKS DE											
44	Public	BAS_22	BD OF PARK COMM											
45	Public	PRK_19	BD OF PARK COMM											
46	Public	PRK_20	CLEVELAND BD OF PARK											
47	Private	PRK_5	BIDDULPH RIDGE EXTENSIO											
48	Private	BAS_32	Terraces At Northridge Lt											
49	Private	PRK_3	RIDGE PARK SQUARE LL											
50	Private	PRK_35-BAS_10	NORTHCLIFF SHOPPING CE											
51	Private	PRK_33	MSF BROOKLYN OH LLC											
52	Private	PRK_34	M&G EQUITIES , A NEW YC											
53	Private	PRK_56	GERZENY, DOROTHY NALLE T											
54	Private	PRK_57	IDEAL BLDGS SUPPLY & FUE											
55	Private	PRK_2a	BETCO PROPERTIES, LL											
56	Private	PRK_2b	ZORN, ERIC S. TRUSTEEI											

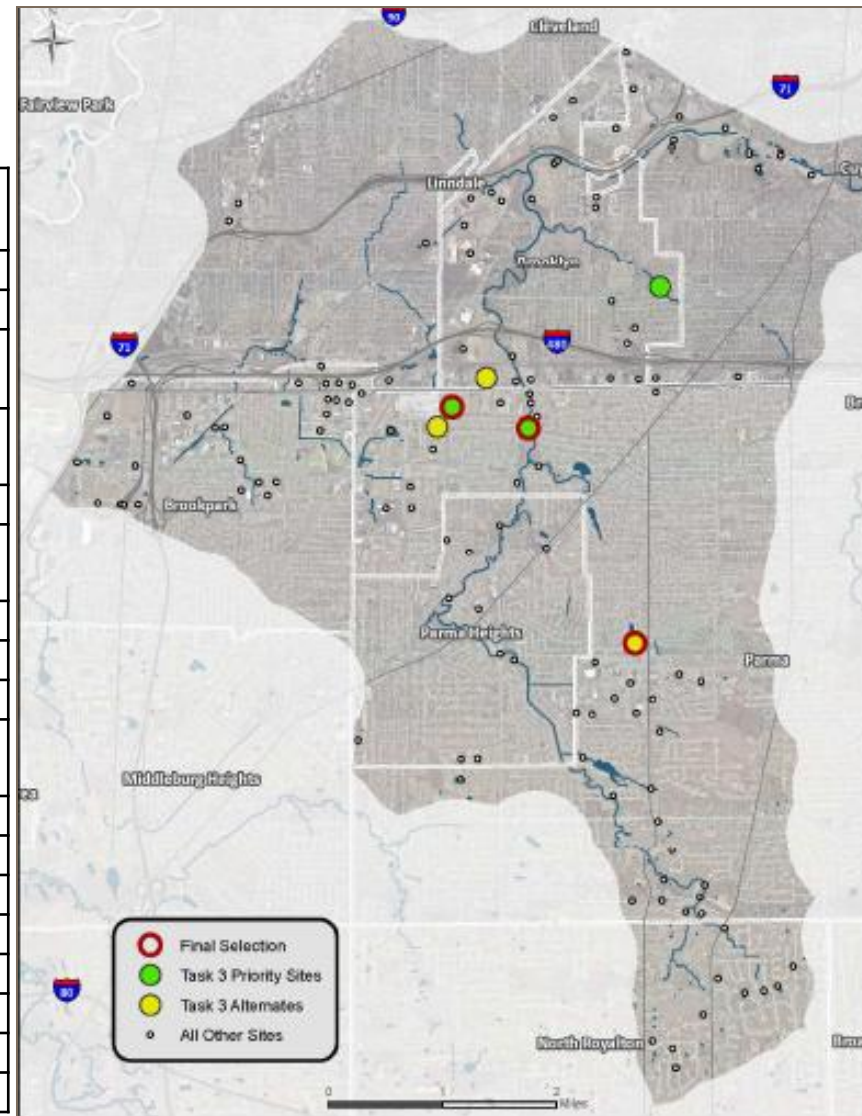
Criteria used for analysis included:

- Drainage Area
- Impervious Area
- Estimated Annual Total Suspended Solids (TSS) Loads - estimated pollutant load
- Treatment Area - area that can be used to treat from the contributing drainage area

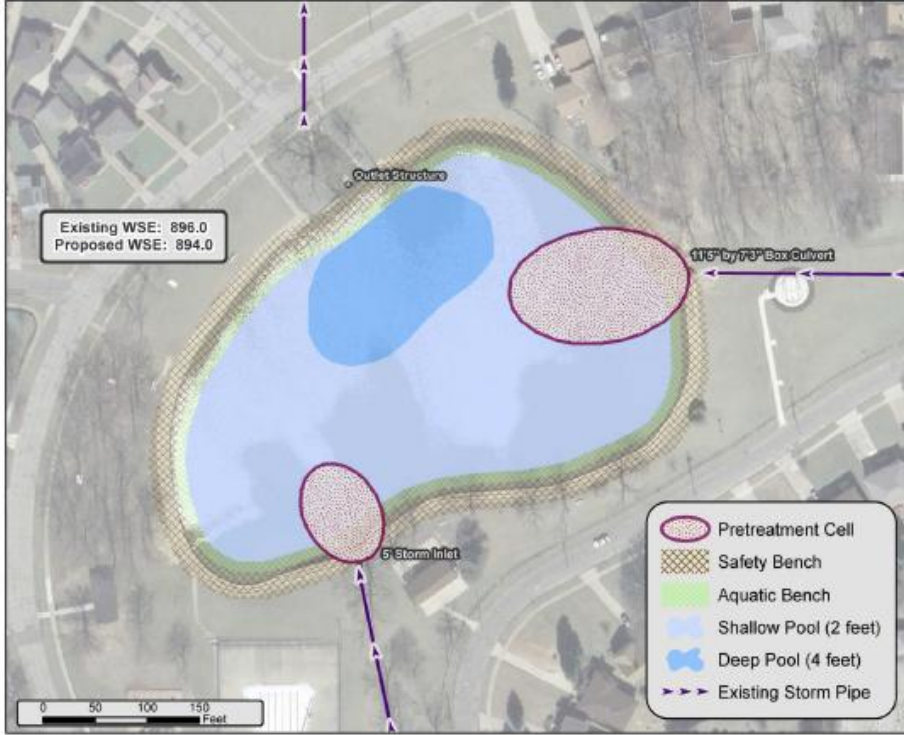
STORMWATER RETROFIT RANKING PROJECT

- Desktop analysis of 150+ sites
- Field analysis of 16 locations (27 potential sites)

Site ID	Name	Municipality	Prioritization
47	Biddulph Plaza	Brooklyn	Primary
65	GM Parking (East Lot)	Parma	Primary
116	Cleveland Metroparks (Fernhill West Bank)	Parma	Primary
15	Upper Ridgewood Lakes	Parma	Alternate
57	Home Depot	Brooklyn	Alternate
64	GM Parking (South Lot)	Parma	Alternate
4	Kmart	Brooklyn	Fair
50	Lowe's	Brooklyn	Fair
58	Value City	Parma	Fair
60	ConWay Transportation	Parma	Fair
28	Ford	Brookpark	Limited
37	USF Holland	Brooklyn	Limited
56	Wal-Mart	Brooklyn	Limited
79	GLS Leasco	Brookpark	Limited
82	Giant Eagle	Brookpark	Limited
90	Brooklyn Fire Station	Brooklyn	Limited
99	Royal Valley Basin	No. Royalton	Limited
126	GM Reservoir	Parma	Limited



STORMWATER RETROFIT RANKING PROJECT



Existing Conditions			
Drainage Acres	683.3	TN Load (lbs/year)	1,238.4
Impervious Acres	150.2	TP Load (lbs/year)	184.8
Flood / Water Quality Treatment	33 / 95 %	TSS Load (lbs/year)	110,173

General Finding: The pond receives a massive amount of water from a box culvert and 60" pipe. The reservoir appears to hold most of the drainage and has several feet of additional storage, but does overflow during exceptional storm events.

Proposed Conditions			
Existing Storage Volume (ac-ft)	10.6	Pretreatment Cells (SF)	4,566
Proposed Storage Volume (ac-ft)	16.1	Pool Area (SF)	115,527
Proposed Ohio EPA Water Quality Volume Met (%)	100%	Aquatic Bench (SF)	13,649
Additional Flood Control Volume (ac-ft)	5.2	Safety Bench (SF)	36,897
		TSS Load Reduction (lbs/year)	11,017
		in addition to current treatment conditions	

Retrofit Description
Two large inlets that feed into the detention pond will enter pretreatment cells, which will allow sediment to settle and provide vehicle access for targeted maintenance areas. The concrete steps that line the pond will be replaced with a smooth, earthen gradient, leading to an aquatic bench supporting various types of wetland vegetation. The pond will be excavated and the outlet structure modified to lower the permanent pond elevation, while providing 2 to 4 feet of depth and preserving the functionality of the overflow spillway.

Planning Level Cost Estimate*		
	Lower Range	Upper Range
Total Cost	\$1.1 million	\$1.9 million
Sediment Removal Only	\$430,000	\$860,000
Cost per Square Foot	\$9.13	\$16.11

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

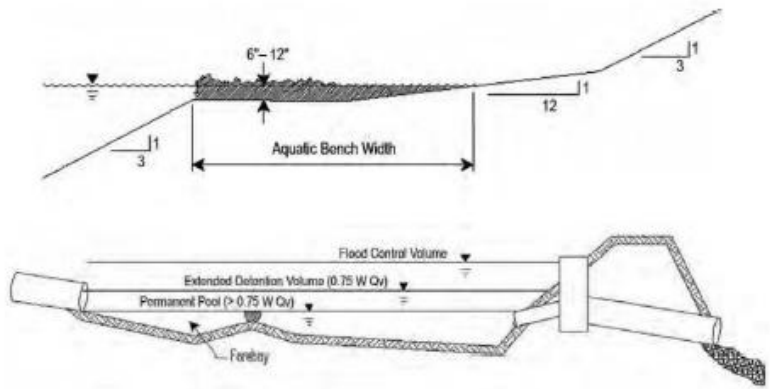


View of basin from western edge.



Overflow structure.

Assumed Existing (Proposed) Control Structure Elevations:
 - Emergency Spillway: 899.5 (899.5) msl
 - Secondary Spillway: 898.5 (898.5) msl
 - Primary Outlet (15" RCP): 896.0 (894.0) msl



Friends of Big Creek: Big Creek Watershed Stormwater Retrofit and Ranking Project
 Conceptual Plan
 Site 15 (Ridgewood Lake): Wet Extended Detention Basin and Aquatic Bench



STORMWATER RETROFIT RANKING PROJECT



Existing Conditions			
Drainage Acres	24.3	TN Load (lbs/year)	114.0
Impervious Acres	20.3	TP Load (lbs/year)	31.5
Flood / Water Quality Treatment	0 / 0 %	TSS Load (lbs/year)	12,124
General Finding: Parking lot receives no treatment.			
Proposed Conditions			
Existing Storage Volume (ac-ft)	0	Bioswale/Bioretenion (SF)	104,973
Proposed Storage Volume (ac-ft)	2.41	Green Paver (SF)	105,131
Proposed Ohio EPA Water Quality Volume Met (%)	100%	Parking Spaces (SF)	149,275
Additional Flood Control Volume (ac-ft)	1.75	TSS Load Reduction (lbs/year)	10,973
		TN Load Reduction (lbs/year)	59.7
		TP Load Reduction (lbs/year)	20.5

Retrofit Description
 The parking spaces will be aligned to improve safety for workers as they enter the facility. Bioswales, lined with trees and located between parking spaces, will guide stormwater runoff into numerous bioretention areas. The rear section of the parking lot will be surfaced with green pavers, allowing water to percolate directly into the ground. The proposed site includes over 800 parking spaces.

Planning Level Cost Estimate*		
	Lower Range	Upper Range
Total Cost	\$5.5 million	\$7.0 million
Cost per Square Foot	\$6.21	\$7.96

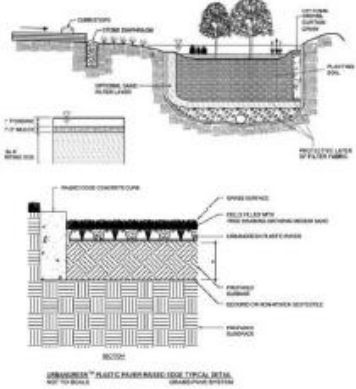
*Includes probable construction costs, design, survey, permitting, sediment testing, and a 25% contingency.



View of parking lot from east side, looking at employee entrance.



View of parking lot from east side, looking toward the back of the lot.



Friends of Big Creek: Big Creek Watershed Stormwater Retrofit and Ranking Project
 Conceptual Plan
 Site 65 (General Motors Employee Parking Lot): Bioswales/Bioretenion and Green Pavers
 **TERRATECH**
Friends of Big Creek

STORMWATER RETROFIT RANKING PROJECT



Existing Conditions			
Drainage Acres	50.8	TN Load (lbs/year)	136.1
Impervious Acres	15.2	TP Load (lbs/year)	20.2
Flood / Water Quality Treatment	0 / 0 %	TSS Load (lbs/year)	12,945

Proposed Conditions			
Existing Storage Volume (ac-ft)	0	Pretreatment Cell (SF)	5,701
Proposed Storage Volume (ac-ft)	0.77	Wetland (SF)	27,807
Proposed Ohio EPA Water Quality Volume Met (%)	100%	TSS Load Reduction (lbs/year)	10,744
Additional Flood Control Volume (ac-ft)	0.06	TN Load Reduction (lbs/year)	35.4
		TP Load Reduction (lbs/year)	8.7

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

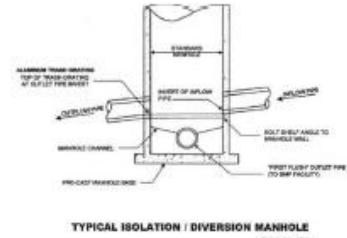
*Includes probable construction costs, design, survey, permitting, sediment testing, and a 25% contingency.



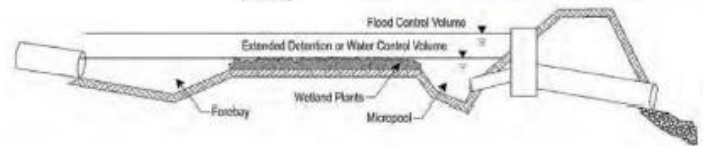
View of the site from trail.



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



TYPICAL ISOLATION / DIVERSION MANHOLE (Source: Tetra Tech, 2010)



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



LAND CONSERVATION / PROPERTY ACQUISITION

- Assisted in conservation of parcels in the City of Brooklyn through County's Land Bank Program.
- Purchased parcels in the City of Brooklyn - located in East Branch Priority Conservation Area.
- Continuing to seek other property donation/acquisition opportunities



LAND CONSERVATION / PROPERTY ACQUISITION



North Royalton property in Big Creek headwaters area donated to West Creek Preservation Committee by FOBC board member Al Penko.

Mr. Penko agreed to plan in which WCPC will keep a conservation easement on the property's riparian habitat, ensuring its permanent protection as a natural area.



Historic home on property, renovated by FOBC and WCPC volunteers, was sold.

Proceeds funded Priority Conservation Area parcels downstream in the city of Brooklyn.

STEWARDSHIP

Assistance to local governments and land owners on stormwater management practices:

- Helping public officials understand best land use and land management practices and their environmental, economic and social value.
- Working with communities such as Cleveland, Parma and Parma Heights to institute rain barrel and other BMP legislation and programs.
- Assisting property owners directly with understanding flooding and erosion and water quality problems and solutions.



Residential property at "Snake Hill" Ridge Road

STEWARDSHIP



Big-Creek CLEAN-UP
Tuesday, August 9, 2011
5-8:30PM

Friends of Big Creek



Clean-Ups



STEWARDSHIP

Planting



Sunday, February 13 | **Porcelain Berry "Snap"** Brookside Reservation, Cleveland Metroparks



Pulling



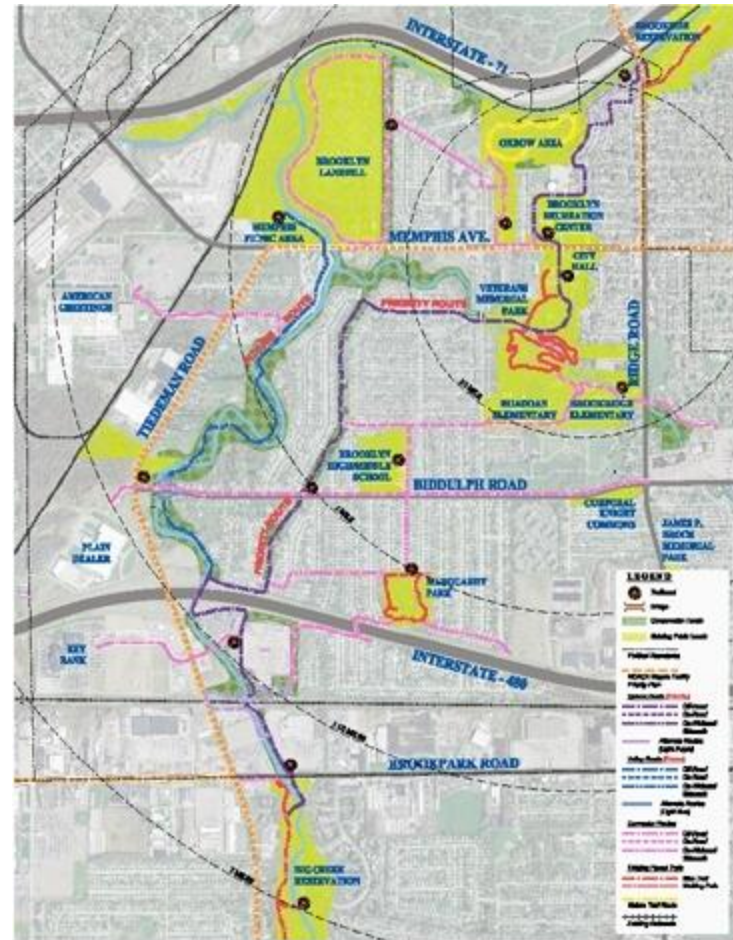
BIG CREEK GREENWAY TRAIL ALIGNMENT AND NEIGHBORHOOD CONNECTOR PLAN

Adopted by the City of Brooklyn.

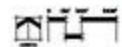
Developed preferred alignments for a 3-mile all-purpose trail expansion through Brooklyn that would connect the Metroparks Zoo and Brookside Reservation to the Big Creek Reservation south of Brookpark Road.

Examines connecting parks, neighborhoods, civic and commercial areas.

Identifies opportunities for interpretive exhibits and ecological restoration and conservation.



Big Creek Greenway Trail Alignment & Neighborhood Connector Plan



Big Creek Greenway Trail Plan

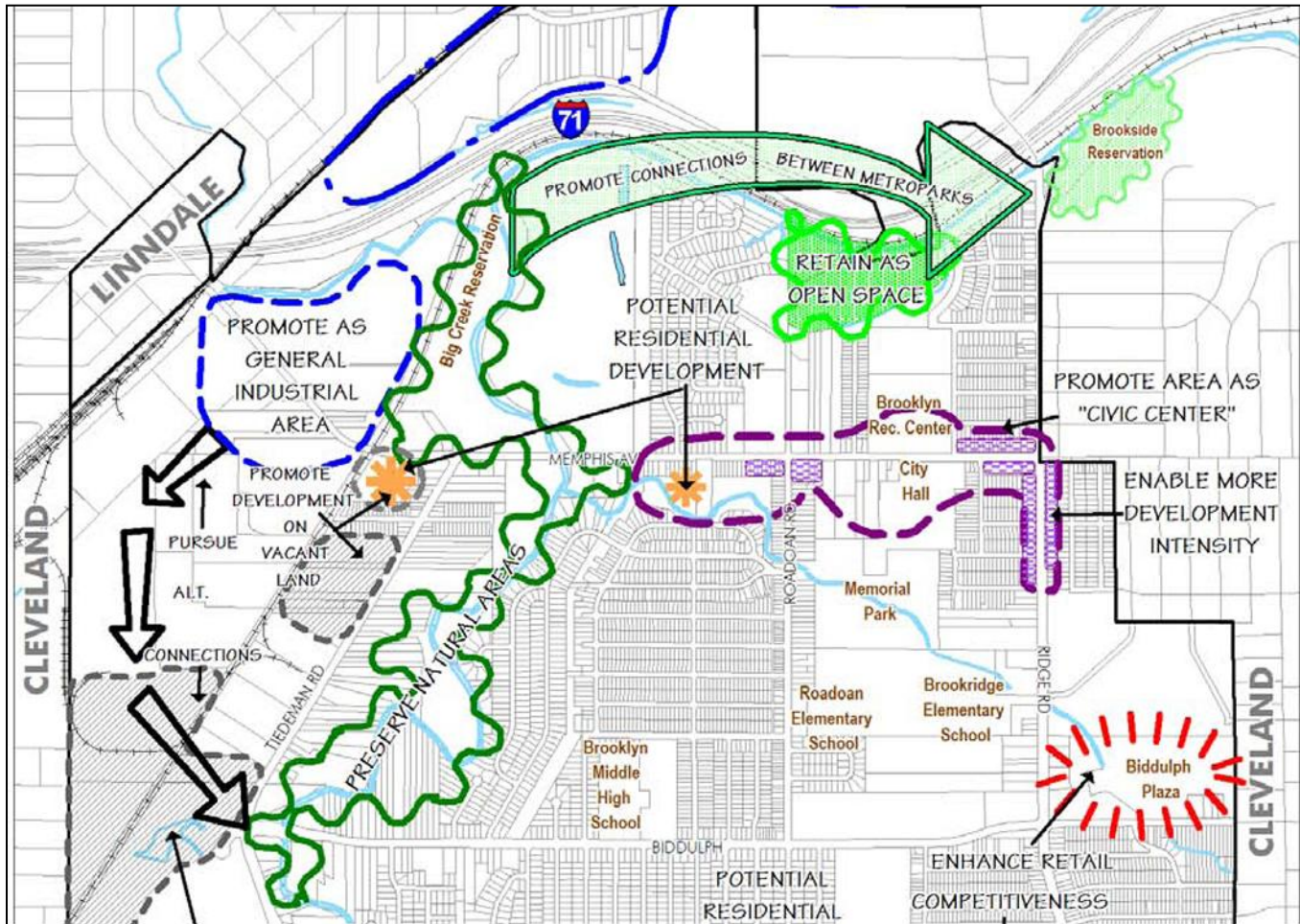


EARLY GREENWAY PLAN

-Stinchcomb (1920)

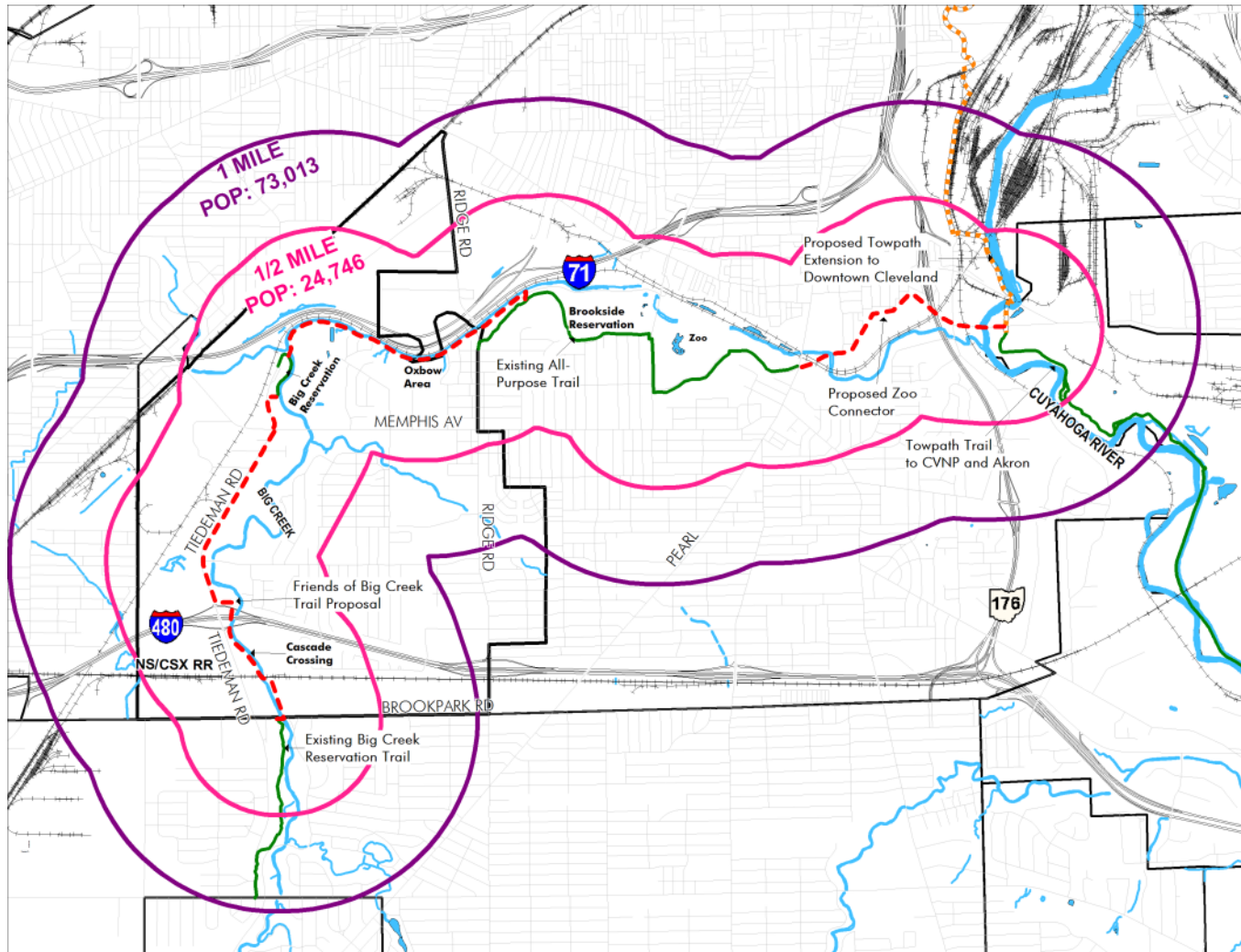
Big Creek Greenway Trail Plan

CITY OF BROOKLYN MASTER PLAN



Big Creek Greenway Trail Plan

POPULATION/PROXIMITY TO TRAIL



Big Creek Greenway Trail Plan

COMMUNITY ASSETS LINKED BY PROPOSED TRAIL



- Canal Towpath / Ohio and Erie Canal Reservation
- Cuyahoga Valley National Park / Cleveland lakefront
- Brooklyn Centre and Old Brooklyn Historic Districts
- Ohio & Erie National Heritage Canalway
- Cleveland Metropark Zoo
- Brookside Reservation
- Proposed Brooklyn Oxbow Preserve
- Proposed Brooklyn Town Center
- Big Creek Reservation / Memphis Picnic Area
- Cascade Crossing Retail Complex (Tiedeman Road)
- Big Creek Reservation / Brookpark Road



EDUCATION & OUTREACH



Public meetings
& workshops

EDUCATION & OUTREACH

Hikes



SUN POST THURSDAY, MAY 5, 2011 B3

SUNLIFE

CLEVELAND.COM/SUN

Hikers explore Parma conservation area

West Creek Committee, city share ownership after purchase from Busch Family

By Mark Holan
mholan@sunnews.com

When a suburban wooded area becomes surrounded by housing, it takes a group with a vision to save it for recreational and environmental purposes.

It's taken a while for the city of Parma and the West Creek Preservation Committee to orchestrate the funding, but the 55-acre area known as the Snake Hill Conservation Area, west of Sandy Hook Park, has been preserved for future generations to enjoy.

Recently, several hikers were given a guided tour of the area by Bob Gardin, project manager for the Friends of Big Creek. Residents of the Sandy Hook neighborhood and other curious citizens got to see the wetland features of the Big Creek tributary just east of the Shiva Vishnu Temple.

WCPC and the city of Parma are co-owners of the area, having purchased a portion of the property from the Busch Family for \$346,000. Funding came from Cleanland Ohio and Land & Conservation funds. Basically, the land is owned by the city of Parma, and the WCPC owns a conservation easement. Gardin and the Friends of Big Creek have championed the preservation of the Big Creek Watershed, which runs through the southwest suburbs before emptying into the Cuyahoga River at Harvard and Jennings roads in Cleveland.

Gardin led the group through the woods and onto



MARK HOLAN/SUN NEWS

Bob Gardin, project manager for the Friends of Big Creek, helps a hiker cross the Big Creek tributary.

See HIKERS, B4

EDUCATION & OUTREACH



Rain barrel workshops

Rain Barrel Workshop

Save the Rain for a Sunny Day!



Sun., November 13, 2011
2:00pm - 3:30pm
Cleveland Metroparks Zoo
3900 Wildlife Way
Cleveland, OH (Windows Room)

Cost: **\$60/full system**
\$20 for extra barrel (diverter not included)

Learn to Harvest Rainwater for all your garden needs and to combat Storm Water Pollution in your community! Each workshop participant will construct a rain barrel to take home. A barrel, downspout diverter and all materials are included.

Workshop Sponsors:

Friends of Big Creek



To Register:

Contact
Amy Roskilly
216/524-6580 x22

Slow it down, spread it out, soak it in!

Community events

EDUCATION & OUTREACH

Friends of Big Creek Big Creek Watershed News & Notes

Friends of Big Creek

Big Creek Watershed News & Notes

Big Creek Watershed a community support balance of 60% by volunteer

The Big Creek Watershed Planning Commission (PCWC) is a community support organization that has been successful in raising funds for the watershed. The PCWC is a 501(c)(3) non-profit organization that was established in 1998. The PCWC is a community support organization that has been successful in raising funds for the watershed. The PCWC is a 501(c)(3) non-profit organization that was established in 1998.

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Friends of Big Creek

Big Creek Watershed News & Notes

Partners understand Big Creek Trail Alignment study through the City of Brimley

The City of Brimley is currently studying the proposed Big Creek Trail Alignment. The study is being conducted by the City of Brimley and the Friends of Big Creek. The study is being conducted by the City of Brimley and the Friends of Big Creek.

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Members of Friends of Big Creek.

Friends of Big Creek

Big Creek Watershed News & Notes

Learn: Big Creek Plan promotes support of GM Brimley's 'local economy'

The City of Brimley is currently studying the proposed Big Creek Trail Alignment. The study is being conducted by the City of Brimley and the Friends of Big Creek. The study is being conducted by the City of Brimley and the Friends of Big Creek.

In Lake residents begin water quality monitoring

Residents in the Lake area are beginning water quality monitoring. The monitoring is being conducted by the Friends of Big Creek. The monitoring is being conducted by the Friends of Big Creek.

Friends of Big Creek

Big Creek Watershed News & Notes

Big Creek Watershed Planning Commission



Members of Friends of Big Creek.

News & Newsletters



Watershed study challenges Big Creek planners

By Bob Sandrick
bsandrick@sunnews.com

PARMA — An environmental study recommends preserving an entire 168-acre tract of green space on the south end of town.

The good news is that 55 acres of that tract — between West Pleasant Valley and West Sprague roads — has already been preserved.

Also, the study urges the preservation of a 134-acre tract between State and Ridge

roads, just east of Stearns Homestead.

That might prove challenging, however, because the tract is divided into 29 parcels with several different owners, the study says.

In addition, the study wants Parmatown Mall to build storm water detention and/or retention areas in its massive parking lot.

The study says Parmatown's is the largest parking lot in the region but the lot does little, if anything, to con-

trol or treat storm water.

The three recommendations are part of the recently completed Big Creek Watershed Plan, which looks at communities from which storm water enters Big Creek.

The communities are Parma, Parma Heights, Brooklynn, Brook Park, Cleveland, Linddale and North Royalton.

The plan's purpose is to stop flooding and stream bank erosion and to improve storm water quality.

That would be done by preserving, restoring and enhancing green space, balancing economic development with watershed protection; and minimizing impact on Big Creek and surrounding areas, the study says.

The watershed plan was prepared by the Cuyahoga River Community Planning Organization, which was formed by the Ohio Environmental Protection Agency.

Also involved was the Big Creek Watershed Planning

Partnership, which contains representatives from each community in the Big Creek watershed.

Other helpers included Friends of Big Creek, a non-profit group, Cleveland Metropolitan parks, and the watershed communities.

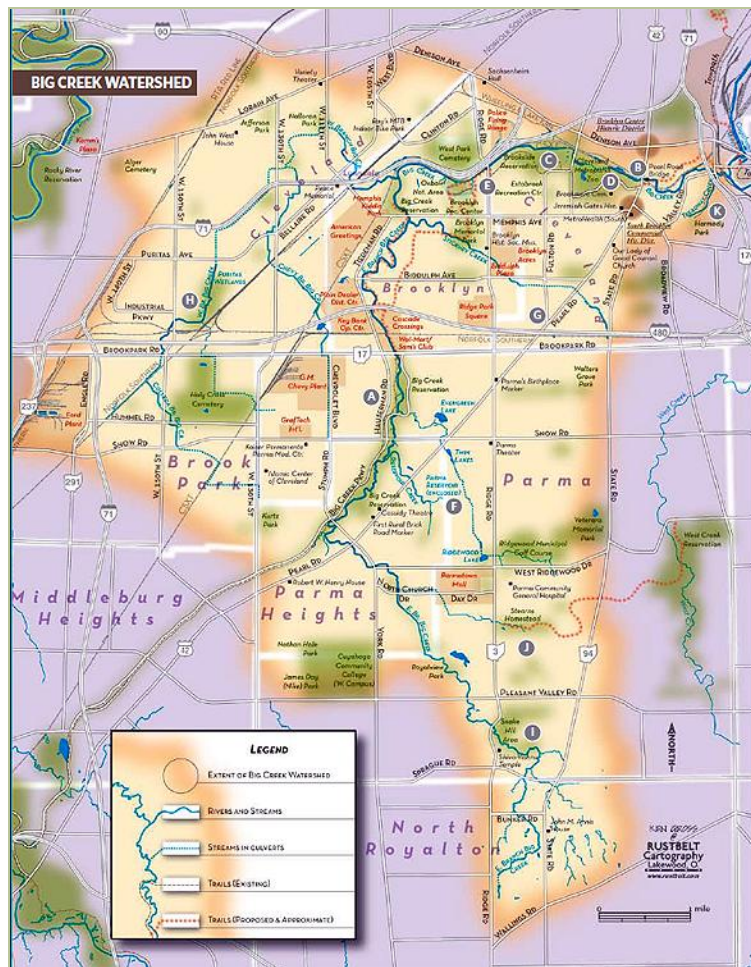
Earlier this month, Parma City Council recognized the plan by unanimously passing a resolution supporting it.

Bob Gardin, project manager with Big Creek, said all

See STUDY, A8

EDUCATION & OUTREACH

Map & Brochure



- A Big Creek Reservation** - This Cleveland Metroparks reservation contains 11 miles of parkway and 714 acres of habitat. The park extends far beyond the Big Creek watershed to join the countywide "Emerald Necklace." But it is only here, within the Big Creek watershed, that the park joins its namesake creek. From the present-day terminus of Big Creek Parkway at Brookpark Road, a northward trail system is being planned to connect with Brookside Reservation, Cleveland Metroparks Zoo, and on to the Ohio & Erie Canal Towpath Trail.
- B Brooklyn Bridge** - Several bridges have carried Pearl Road across Big Creek in the past 200 years. A low wooden span opened circa 1850 at the base of Pearl Road Hill. The northern stone abutment is still visible. An adjacent stone masonry arch was built in 1878. It remains in use and is the oldest county bridge in Cleveland. A high-level steel viaduct built in 1934 featured a magnificent central arch 73 feet above water. Torn down in 1976, the trestle was replaced by a 2,365-foot long concrete bridge composed of 18 arches. That bridge was demolished in 1987, making way for today's "boxed truss" span.
- C Brookside Reservation** - Cleveland acquired 81 acres of Big Creek valley in 1894, soon calling it Brookside Park. An 86-foot bridge over the creek was built here in 1920 - the first concrete arch bridge in the nation. An amphitheater built here drew 15,000 fans to the World American Baseball Championships in 1975, regularly Cleveland's largest baseball turnout ever. Construction of I-71 in the 1960s dewatered Brookside's woodlands and channeled the creek, necessitating a 25-foot tall drop structure to offset loss of the creek's natural meander. Cleveland Metroparks leased the park's 131 acres in 1993, renaming it Brookside Reservation.
- D Cleveland Metroparks Zoo** - Began in 1882 as Wade Park in today's University Circle, the zoo moved to Brookside Park between 1906 and 1916. The park system assumed ownership in 1968. In 1986 the zoo took in most of the Cleveland Aquarium inhabitants from Gordon Park. Today the zoo covers 181 acres and attracts more than 1,000,000 visitors yearly - making it the most popular year-round attraction in northeast Ohio. It houses the largest collection of primate species in North America. The 1884 Wade Hall, one of the oldest zoo buildings in North America, now overlooks the zoo's Waterfall Lake.
- E Oxbow Natural Area** - In 1890, property destined to become Cleveland's West Park Cemetery lost its southern half when the Cleveland Terminal Railroad Co. laid tracks through Big Creek valley. Construction of I-71 channeled this section of creek, further isolating the oxbow feature visible today. Cleveland sold this stranded 24-acre parcel to the City of Brooklyn in 1978. Friends of Big Creek seeks to conserve this area and develop a nature trail to allow public access.
- F Parma Reservoir** - Part of Cleveland's Division of Water, the 1934 Parma Reservoir is a 23-million-gallon earth-covered tank. The inner concrete wall is 34 feet high and over 4 feet thick at its base. Its Gothic facade resembles a 14th-century English castle. The 1920s plan for "Parma Reservoir Park" called for extensive amenities including horse trails, but the Depression forced the city to scale back. The Works Progress Administration provided labor for this public works project. Since 1994, the reservoir has been known as the "Parma Heights Water Facility for the City of Cleveland."
- G Pearl Road** - Pearl Road began as an American Indian trail connecting Lake Erie to present-day Wooster, Ohio and became the area's main conduit for travel and European settlement. New Englanders followed the trail in the 1800s as they moved down from Cleveland into southern Brooklyn Township and Greenbar, as Parma Township was known prior to being organized in 1826. Settlement south of Big Creek began in 1814 near today's Broadview and Pearl roads. By the mid-1800s the route was known as the Cleveland-Columbus turnpike and saw heavy stagecoach use. In the 1890s 4 miles of the pike became the first red-bricked rural road in the nation. Electric streetcars first crossed Big Creek valley from Cleveland into South Brooklyn in 1906, after a trestle had been built. Maps from 1920 depict Pearl as the Threes-C highway. The 260-mile long highway crossed 14 counties and linked Ohio's three largest cities: Cincinnati, Columbus, and Cleveland. When Ohio numbered its routes in 1923, Pearl Road appeared as SR3. It was federally designated as US 42 in 1927 and remained a busy thoroughfare despite completion of I-71 in the 1960s. Though long-distance commuters now take the interstate, Pearl Road remains an essential corridor for commerce and residents.
- H Planters Wetlands** - This preserve is a former water supply for the American Agricultural Chemical Co., which opened a fertilizer plant here in 1874 and closed it in the 1960s. The ponds were excavations on a branch of Big Creek. After decades of abandonment, the ponds transformed naturally into 80 acres of wetland. Cleveland-based Oatey Co. bought the adjacent property in 2004 and called attention to the wetlands. In 2008 the City of Cleveland and Wildlife Habitat Council dedicated it as a wildlife sanctuary.
- I Snake Hill Area** - Nestled between Shiva Vasthu Hindu Temple and Busch Funeral Home & Crematory in Parma are forests, meadows, and wetlands known locally as Snake Hill. The area contains remnants of an abandoned 1920s resort, including the basin of an old boating pond through which the main stem of Big Creek flows. About 60 acres of this green space are now being conserved through the work of West Creek Preservation Committee and the City of Parma.
- J Stearns Homestead** - This was the last working farm in Parma. The 48-acre parcel is operated by the Parma Area Historical Society and was added to the National Register of Historic Places in 1981. The former Gibbs farm raised beef cattle here through the 1970s. The barn was built circa 1850. The Stearns House (1855) and Gibbs House (1920) now serve as museums. About 1000 feet of a Big Creek headwater stream that runs through the property was restored in 2006.
- K Towpath Creek Trail** - The "Towpath Creek Greenway Restoration and Trail" project was completed in 2008. The wooded ravine that empties into Big Creek just before its confluence with the Cuyahoga River now has a scenic 2/3 mile long paved trail linking Harmony Park in Cleveland with the Ohio & Erie Canal Towpath Trail. The 21-acre project cost \$1.3 million to construct and represents the first west side connection to the Towpath Trail.



Visit www.friendsofbigcreek.org or call 216.269.6472 to learn more about the Big Creek watershed and other landmarks.

EDUCATION & OUTREACH

THE NORTHEAST OHIO WATERSHED COUNCIL
PRESENTS


Stormwater Problems Are Real... ...and so are the solutions

Wednesday
March 24, 2010
6:00 - 9:00 PM

Cleveland Metroparks
Canalway Center
East 49th Street Entrance
Ohio & Erie Canal Reservation
Cuyahoga Heights

Free and open to the public


For program details or for more information about the Northeast Ohio Watershed Council call 216-269-6472 or visit www.NEOwatersheds.org



Flooding, erosion, and water quality problems are a reality for our communities. Solving these problems can be difficult since stormwater runoff from one community drains into another; crossing political boundaries. Learn how a comprehensive "watershed approach" to stormwater is the best answer to these challenges, and what is being done in Northeast Ohio.

- **Addressing stormwater impacts through a watershed approach**
Kylie Dreyfuss-Weiss, Manager of Watershed Programs, Northeast Ohio Regional Sewer District
- **Watershed restoration techniques**
Jennifer Zielinski, P.E., Water Resources Engineer, Biohabitats, Inc.
- **Overview of forthcoming spring / summer tours of model restoration projects**
- **Exhibits, refreshments**

Thanks to our program sponsors:



Led development of a marketing program for the Northeast Ohio Watershed Council including Website: www.NEOwatersheds.org.



NORTHEAST OHIO WATERSHED RESTORATION TOURS 2010

Ten one-hour tours of natural and innovative projects designed to address flooding, erosion, and water quality problems in Northeast Ohio.



Greater Cleveland Trails & Greenways



- Initiated and co-chaired the region's first Greater Cleveland Trails & Greenways Conference in 2010 that saw over 200 attendees.
- 2nd Biennial Conference 2012 launched an ongoing Forum to facilitate planning, track progress, promote, and especially drive development of local trails and greenways
- FOBC maintains GCtrails.org website as information clearinghouse.



INVITATION TO HELP US IN OUR WORK

SHARE OUR VISION TO:

- build a greenway and trail network
- improve the quality of Big Creek and the natural environment
- Improve the health and quality of life of our residents
- expand public access to and awareness of natural areas through enhanced recreational and educational opportunities
- showcase the natural and cultural heritage of the Big Creek watershed
- aid economic development and preserve population and property values in our communities

SUPPORT FOBC:

- your tax-deductible membership helps build our capacity for grant-seeking success
- attend a meeting or hike; volunteer your time to help our projects succeed
- recommend FOBC to others; ask your elected officials to support FOBC
- your financial contribution to our conservation fund helps protect, enhance, preserve and restore lands in the Big Creek watershed

Thank you for your interest!



Confluence of Big Creek & Cuyahoga River