Cleveland’s Towpath Trail  Scranton Flats

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Cleveland, Ohio
Cuyahoga River
Cuyahoga River
Towpath Trail Connectivity Plan
Current and Future Connections

Stage 4: Estimated Completion: 2018
Stage 3: Estimated Completion: 2017
Stage 2: Completed
Stage 1: Estimated Completion: 2019

Downtown Cleveland
Future Canal Basin Park
Carter Rd.
Scammel Rd.
Kenilworth Ave.
W. 14th Ave.
Quigley Connector
Jennings Rd.
Harvard Ave.
Initial Collaboration

- Cuyahoga River in Cleveland is EPA AOC

- Four-party Towpath Group collaborated with a larger stakeholder group to expand scope of project

- Worked with Cuyahoga River RAP to secure $3.1M Great Lakes Regional Initiative (USEPA) grant
Cuyahoga River
Urban Habitat Restoration

This project was funded through the American Recovery and Reinvestment Act and the Great Lakes Restoration Initiative with support from the following partners:
Project Goals

- 3,000 feet of river bank and fish habitat restoration
- 4.75 acres upland restoration
- 0.8 mile Towpath Trail
OPTION 2 | Vehicular Separation

**ADVANTAGES**
- Multiple habitat areas undisturbed by pavement
- Minimizes roadway-related pavement (6' wide)
- Off-street bikeway
- Pedestrian experience in restoration area

**DISADVANTAGES**
- No continuous water access for pedestrians (could access at points or overlooks)
- Utility relocation required
- Bicycle conflict at junctions
- No choice of pedestrian experience

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NOTE: EXISTING UTILITY POLE LOCATIONS ARE APPROXIMATE

SCRANTON ROAD CONCEPTS
CUYAHOGA AOC URBAN RIPARIAN RESTORATION

SEE RESTORATION AREA DRAWINGS
CUY-AOC
Site Regeneration

- POSSIBLE INTERMEDIATE WETLAND
  - 25' + wide
  - 1.5' - 5' deep
  - aquatic plants

- FISH ZONE
  - 25' +/- wide
  - 0-1.5' deep
  - emergent plants

- WETLAND
  - 25' +/- wide
  - 2.5:1 max slope
  - upland saturated to moist

- TRANSITION
  - upland dry

- PRAIRIE
  - Width varies
  - 4:1 max. slope
  - TREES: Bur Oak, White Oak

- TOW-PATH
  - 14-16' w., including seeded (fescue) shoulders
  - stormwater seed mix

- RIGHT OF WAY
  - TREES: Black Willow, Bald Cypress, River Birch

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'
Bioretention Cells
Stormwater

Bioretention Cells
Stormwater

Bioretention Cells
Walworth Run
Lessons in Water Management

Walworth Run is west side a tributary of the Cuyahoga River. In the late 19th century, industry and populations increased. Walworth Run became a polluted discharge point for industrial and slaughterhouse waste. The City decided to construct a combined sewer, literally putting this polluted stream into a divided pipe along with sewage flowing directly to the Cuyahoga River and Lake Erie.

A 10.5-mile sewer pipe was constructed between 1897 and 1963, encapsulating Walworth Run and separately, sewage water. Today, that water goes to a treatment plant before flowing into the river. In high rainfall events, raw sewage, storm water and Walworth Run water overflow in the pipe and combine. The Walworth Run CSOs, Cleveland’s largest on the east side, discharges 1.26 million gallons of combined sewer overflow per year.

Modern Water Issues
Causes and Solutions

Like Walworth Run, Greater Cleveland areas are “combined”? They are industrial waste, and storm water. The water goes to treatment plant before discharge into the river. In rainfall events, water flowing into the river, parking lots, browns, and roadways. With increased developer years, the flow during heavy rainwater treatment plants can flow and stormwater collection and flow around. This is called a combined sewer.

Under the Clean Water Act, the Regional Sewer District is responsible and through the combined sewer overflow control program. The District’s combined sewer overflow control program is to dramatically reduce the number of combined sewer overflows.

See features to follow along planning act changes and fixes.
Stormwater

Interpretive Signing

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A 10” diameter brick combined sewer pipe was constructed between 1897 and 1963, encapsulating Walworth Run and separately, sewage water. Today, that water goes to a treatment plant before flowing into the river. But in high rain events, raw sewage, storm water and Walworth Run water overflow in the pipe and combine. The Walworth Run CSOs, Cuyahoga’s largest, on the east side, discharging 326 million gallons of combined sewer overflow per year.

Modern Water Issues
Causes and Solutions

Like Walworth Run, Greater Cleveland sewer systems were “combined”. They collected rainwater and storm water. The water goes to treatment plants before discharge into the river in rain events, water flowing over elevated, putting in fields, forests, and wet areas. With increased development, the flow during heavier rainfall events, can cause overflows and what counts as combined sewer overflow. This is called a “combined CSO.”

Under the Clean Water Act, the Regional Sewer District is required to upgrade and construct a combined control program. The Storm Water Overflow Control Program is a £2.5 billion dollar needed for the repair of combined sewer overflows.

See beard wrap to follow region draining into bay and lakes.
Bulkheads
Bulkheads

Cutoff Failed Bulkhead
Excavation + Embankment

- Hotspot Removal of Contaminated Soil 7,000 C.Y.
- Reuse remaining soils on-site 33,000 C.Y.
- 1’ clean fill cover (“Natural Embankment”) 12,000 C.Y.
Construction Phasing

- Clearing
- Demolition of marina building and docks
- Dredging
- Contaminated soils removal
- Site grading and fill
- Drainage + bioretention
- Importation of clean cover
- Fine grading
- Trail placement
- Planting (seasonal challenges)
- Observation deck + site furnishings
Clearing + Demolition

- Demolition Permits
- Utility Disconnects
Starting the Transformation

- Dredging
- Contaminated Soils Removal
Sculpting the Landscape

- Fill + Grading
- Drainage + Trail Layout
Paving + Hardscape
Ribbon Cutting
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Thank you

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