City of Toledo

Final Design and Project Background–
November 2024

Collins Park Stream Restoration

Intent of Outreach

Share project background and purpose

Inform everyone of project progress

Share final design plans

Background

Overview

Great Lakes Restoration Initiative (GLRI) Funding

- Funding from NOAA through a Regional Partnership with GLC
- ~$200,000 for Feasibility Study (2021-2023)
- ~$175,100 for Design & Permitting (2024-2025)

Managed locally by the City of Toledo

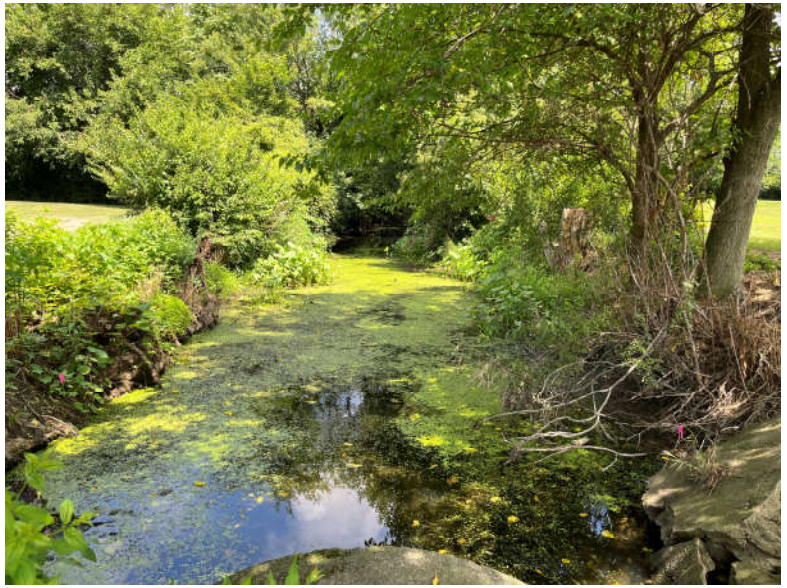
Project Team

Project Area

Current Conditions

Duck Creek

- ~2,760 linear feet of stream
- Channelized – straightened and not able to overflow as frequently as it would in its natural state
- Mostly flows through culverts (pipes) – not connected to floodplain and does not provide good habitat
- Impaired (not healthy) for fish habitat, fish communities and benthic communities (bugs that live on the bottom of the creek)



Feasibility Study

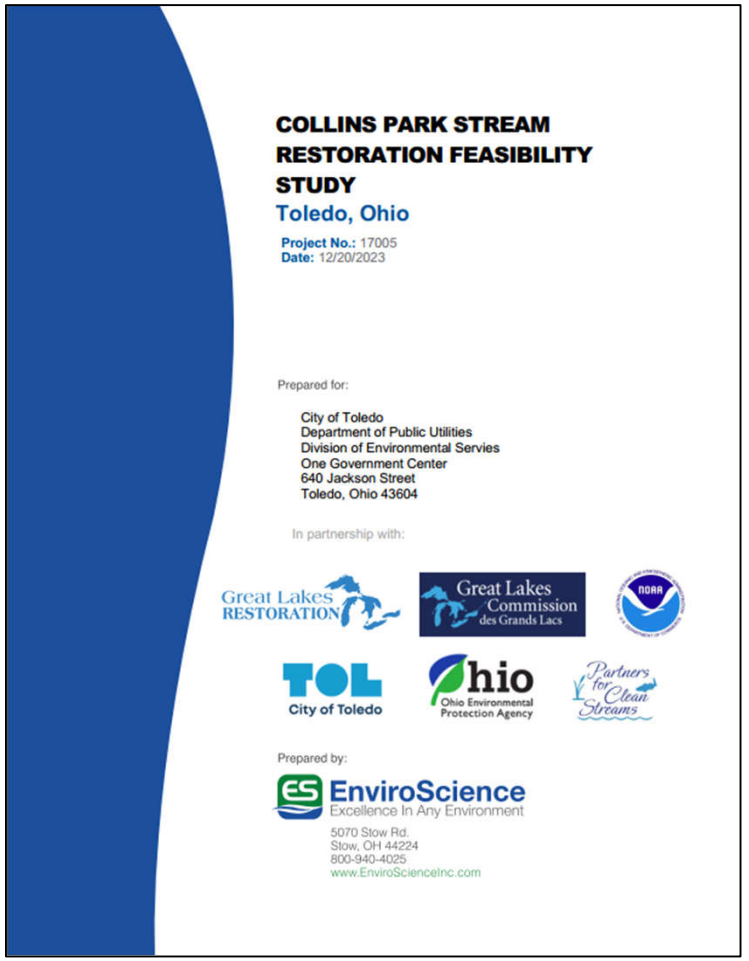
Feasibility Study Overview

Completed Fall 2021 – Spring 2023

Consultant: EnviroScience

Activities:

- Site Characterization
- Design Alternatives (develop and explore different approaches)
- Public Outreach



Site Characterization

Activity	Findings/Takeaway
Environmental Characterization	No detectable amounts of contaminants
Geotechnical Exploration	Subsurface conditions generally suitable for proposed work
Survey	Collected necessary topographic (terrain/elevation) and bathymetric (underwater terrain/elevation) data to support design and modelling
Surface Water & Ecological Evaluation	Obtained baseline habitat conditions
Existing Conditions Hydraulic Model	Obtained baseline hydraulic conditions to understand how water is moving through the system

Restoration Options

Feasibility Study evaluated 3 restoration options

- Minimal Site Restoration
- Partial Site Restoration (keep the golf course)
- Full Site Restoration (lose the golf course)

Considered anticipated costs, benefits, and performance

Public Outreach

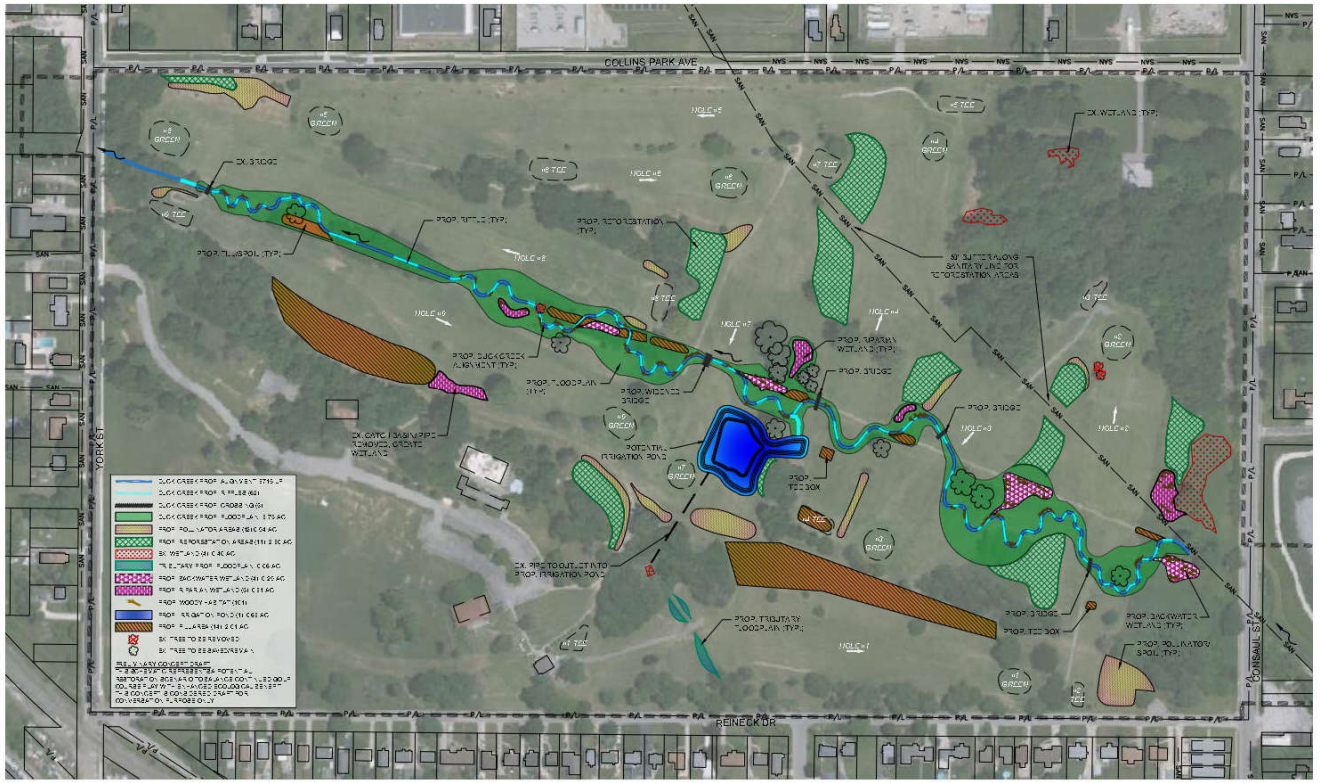
Community meetings during Feasibility Study phase

- March 21, 2023
- September 23, 2023

Written and online survey questionnaire

Overall Takeaway: Desirable to maintain the golf course

Feasibility Study Recommendation



Partial site restoration to maintain golf course and maximize improvements

Design

Overview

Started Spring 2024

Consultant: Verdantas

Activities:

- Site Characterization – review/verification
- Engineering & Planting Design
- Permitting
- Public Outreach

Site Characterization

- Review existing conditions
- Verify existing infrastructure
- Confirm no significant changes from feasibility study

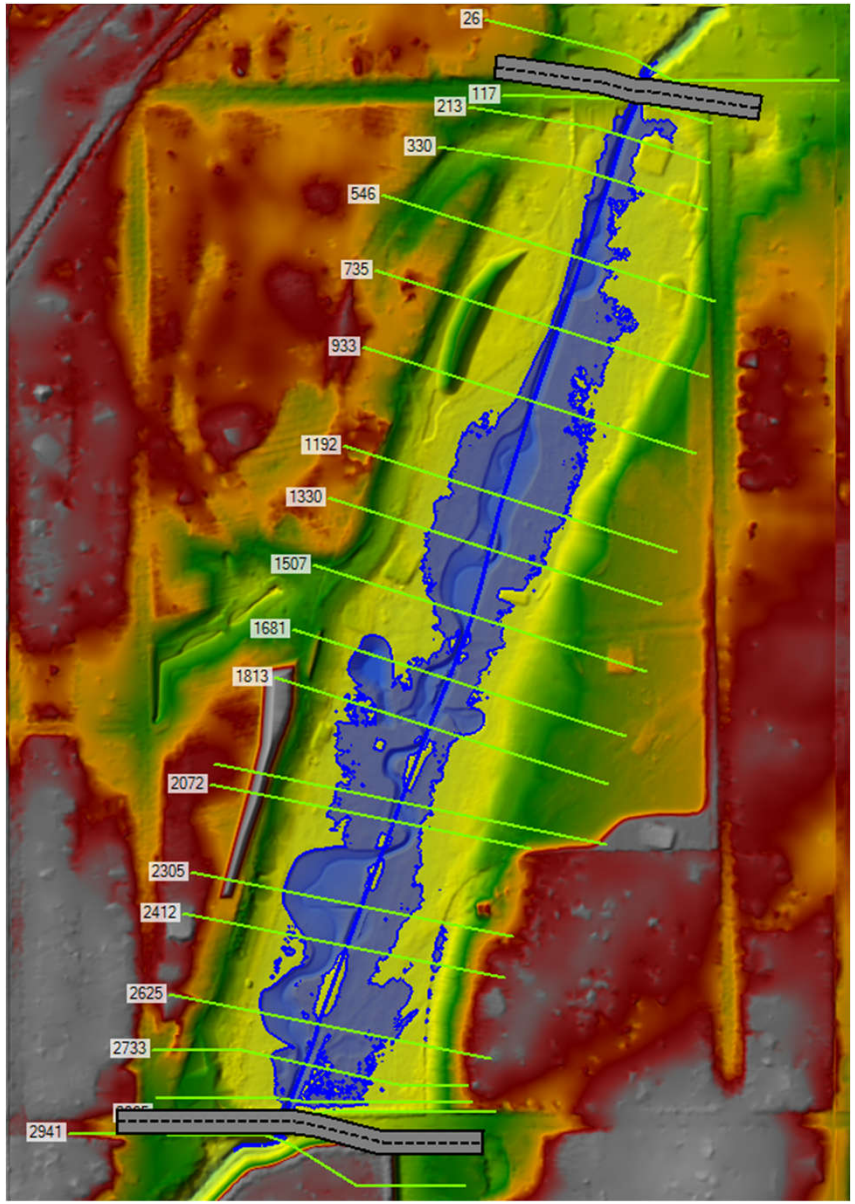
Design

Reviewed proposed site features

Refined proposed stream alignment

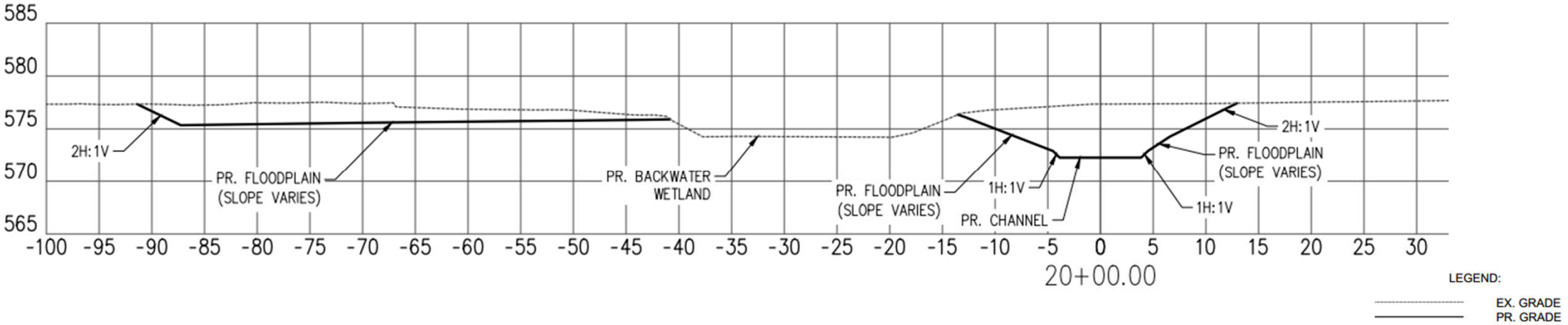
Designed natural channel

Conducted modeling to understand how water is anticipated to move through the proposed system

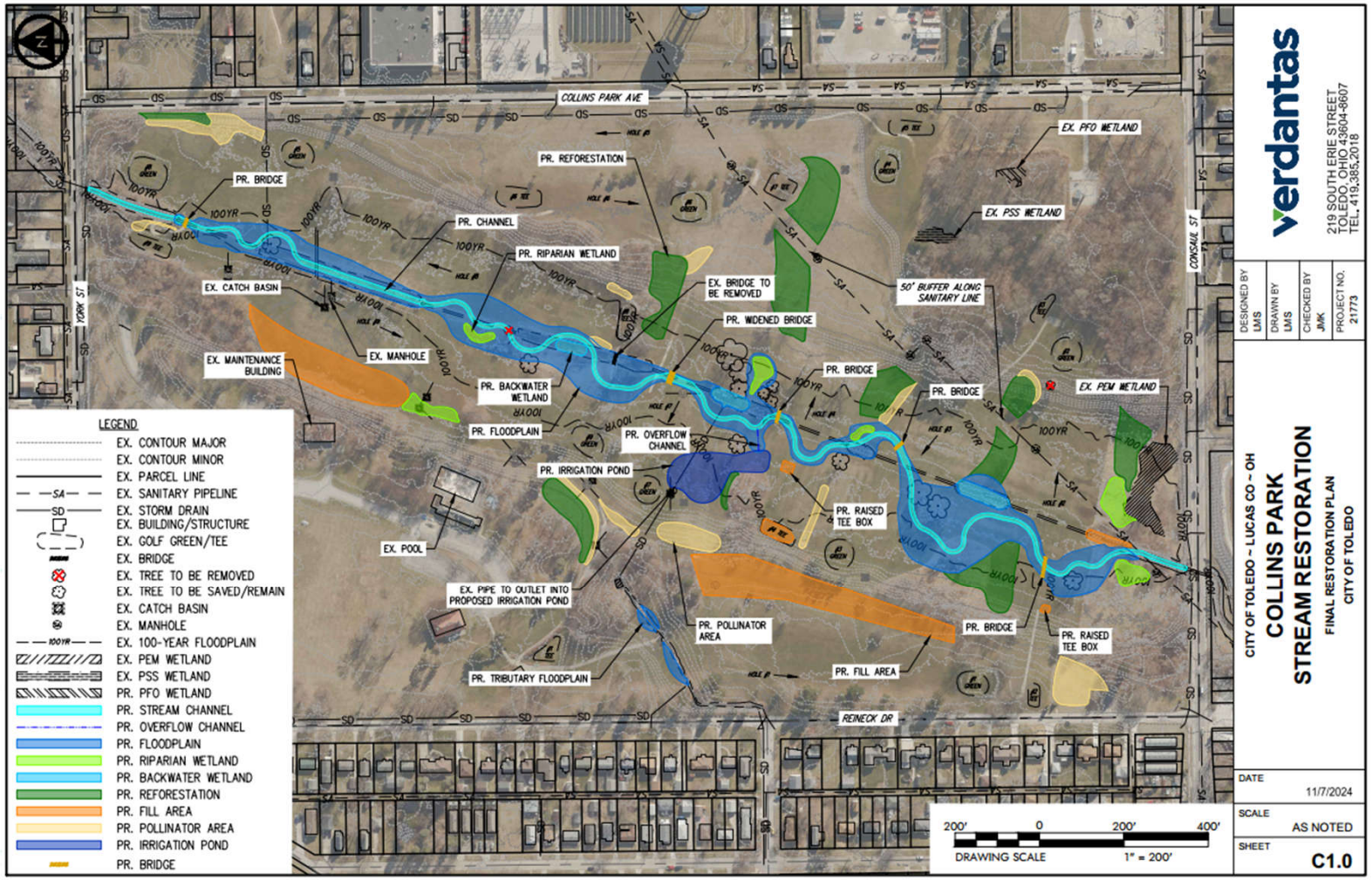


Restoration Features

- Stream Channel Realignment
- Floodplain Expansion
- Backwater and Riparian (Streamside) Wetland Creation
- Irrigation Pond/Open Water Habitat Creation
- Riparian (Streamside) Enhancement with Reforestation and Pollinator Habitat Areas



Final Restoration Plans



Project Benefits

Environmental	• New fish and wildlife habitat • Reduced sedimentation through stream channel, floodplain, and wetland areas
Economic	• Enhanced opportunities for public recreation with new features on golf course • Improved fishery
Community	• Improved urban nature space • Improved water quality and ecosystem health

Restoration Metrics

- 3,300 feet of naturalized stream
- 4.2 acres of riparian (streamside) and floodplain habitat
- 2.3 acres of reforestation
- 0.94 acres of pollinator habitat

Anticipated Schedule

November 12, 2024:	Public session to share final designs
December 2024:	Design finalized with construction drawings prepared and permits requested
January – March 2025:	Construction Contractor procurement/acquisition
Fall 2025:	Construction of eligible, permitted project*

*Funding for implementation is in process of being pursued/secured.

Project Team Liaison

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City of Toledo

Thank you

- toledo.oh.gov/residents/sustainability/collins-park-stream-restoration