

City of
PIQUA

DAM REMOVAL & MODIFICATION
PUBLIC PRESENTATION 4/17/2025



GREAT MIAMI RIVER DAM REMOVAL & MODIFICATION

City of
PIQUA



PROJECT DESIGN TEAM





WHAT HAVE WE BEEN UP TO?

- **Working with stakeholders**
 - Piqua (Recreation and restoration)
 - MCD (Flood control management)
 - OEPA – WRRSP (River restoration)
 - USFWS (Fish passage)
 - OEPA (H2Ohio Funding)
 - Public/Piqua Community
- **Secured Project Funding**
 - OEPA WRRSP Program
 - H2Ohio
 - USFWS Fish Passage
- **Through 60% Design**
 - Currently under review by the MCD
- **Permitting**
 - Working through permits and review by the USACE (NWP 27) and ODNR (Environmental Review)



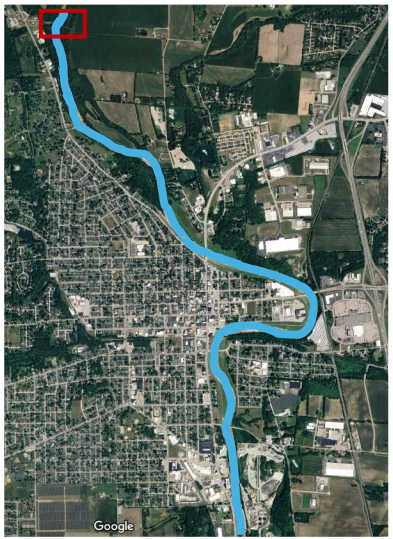
PROJECT GOALS

- Create & maintain recreational access
- Create habitat for aquatic species
- Enhance user experience of trail and river
- Reduce bank erosion

**Everything we are proposing to implement aims
at achieving at least one of these goals**

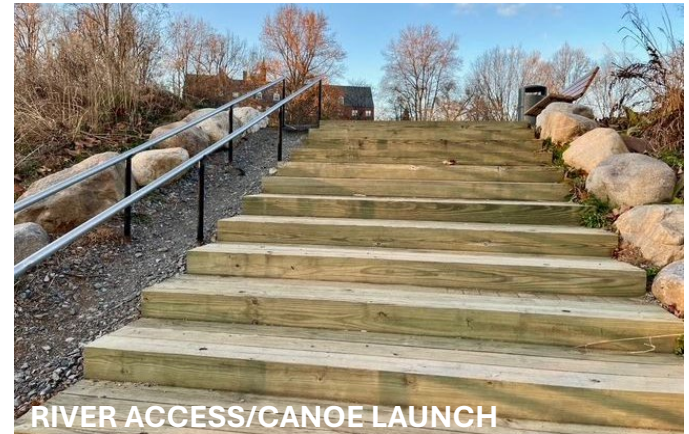
CONSTRUCTED RIFFLE

GREAT MIAMI RIVER



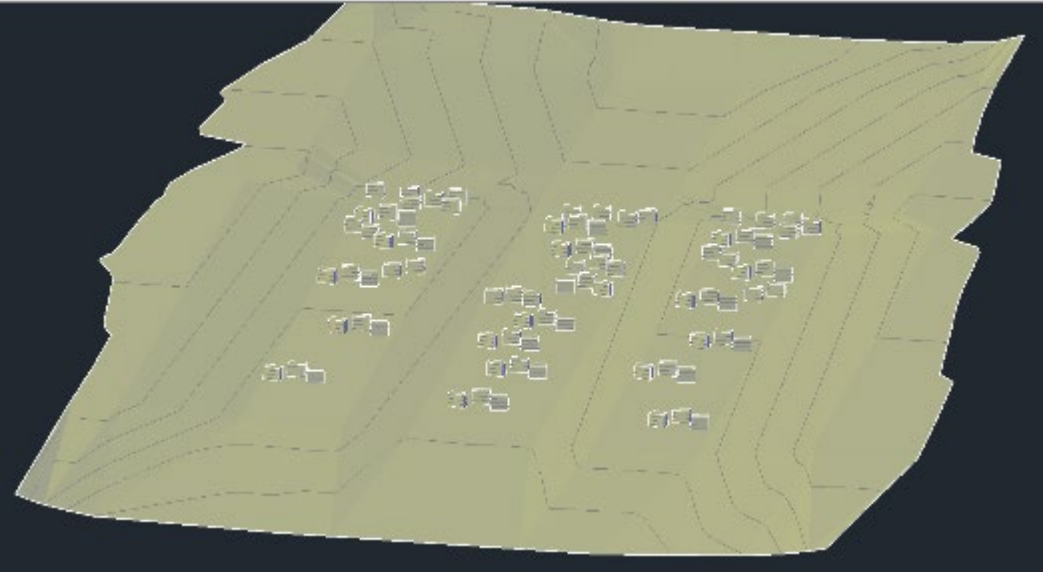
RIVER ACCESS/CANOE LAUNCH

WATER INTAKE DAM



RIVER ACCESS/CANOE LAUNCH

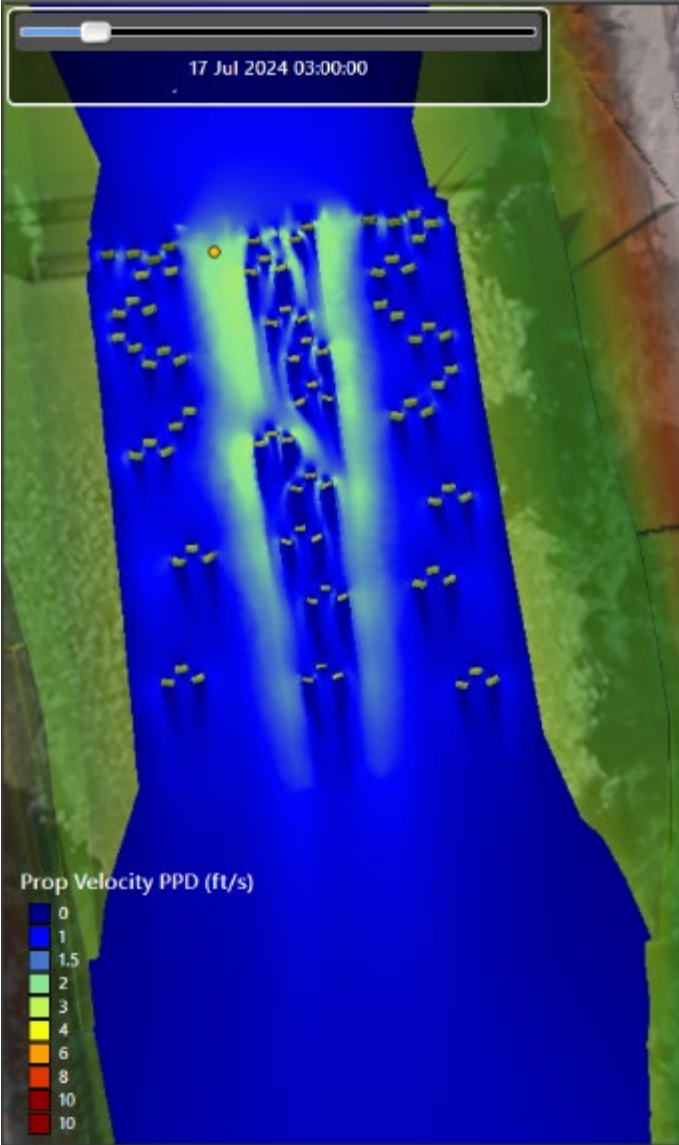
PROPOSED RIFFLES



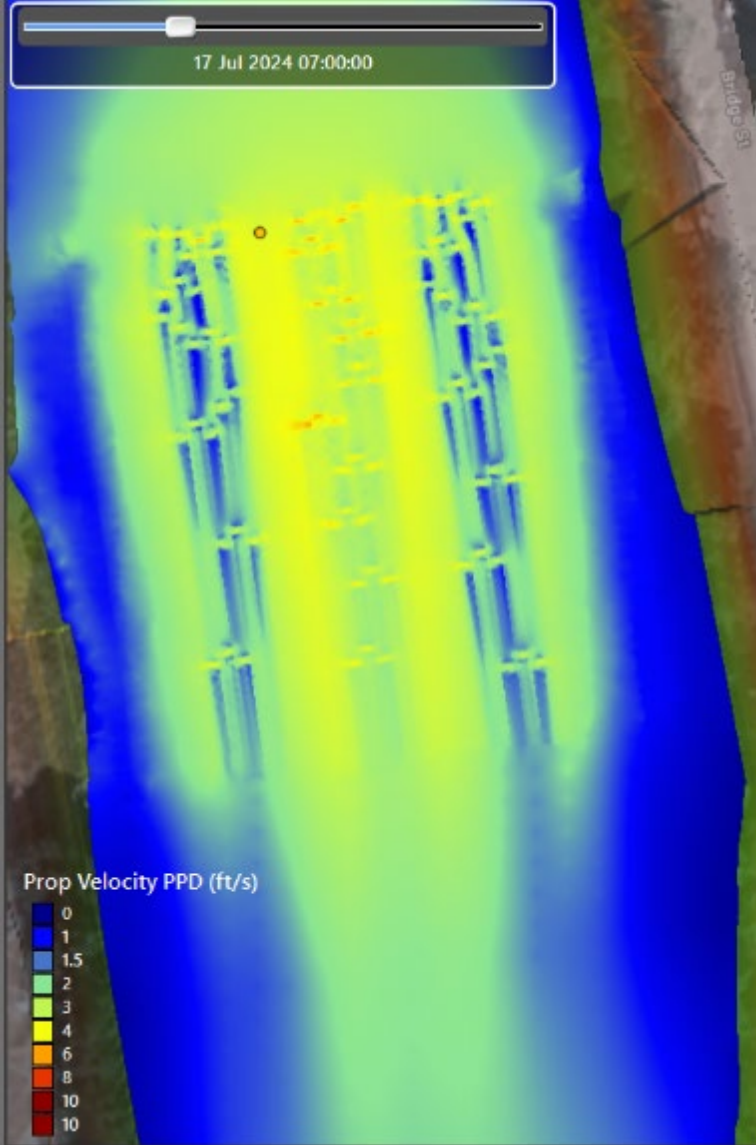
Proposed section has low-flow channel, inner berm and bankfull bench to allow for passage at different stages.

Iterating boulder spacing and configuration to maximize velocity shadows. For 100% stage, will look to grade in pocket-water pools behind boulders.

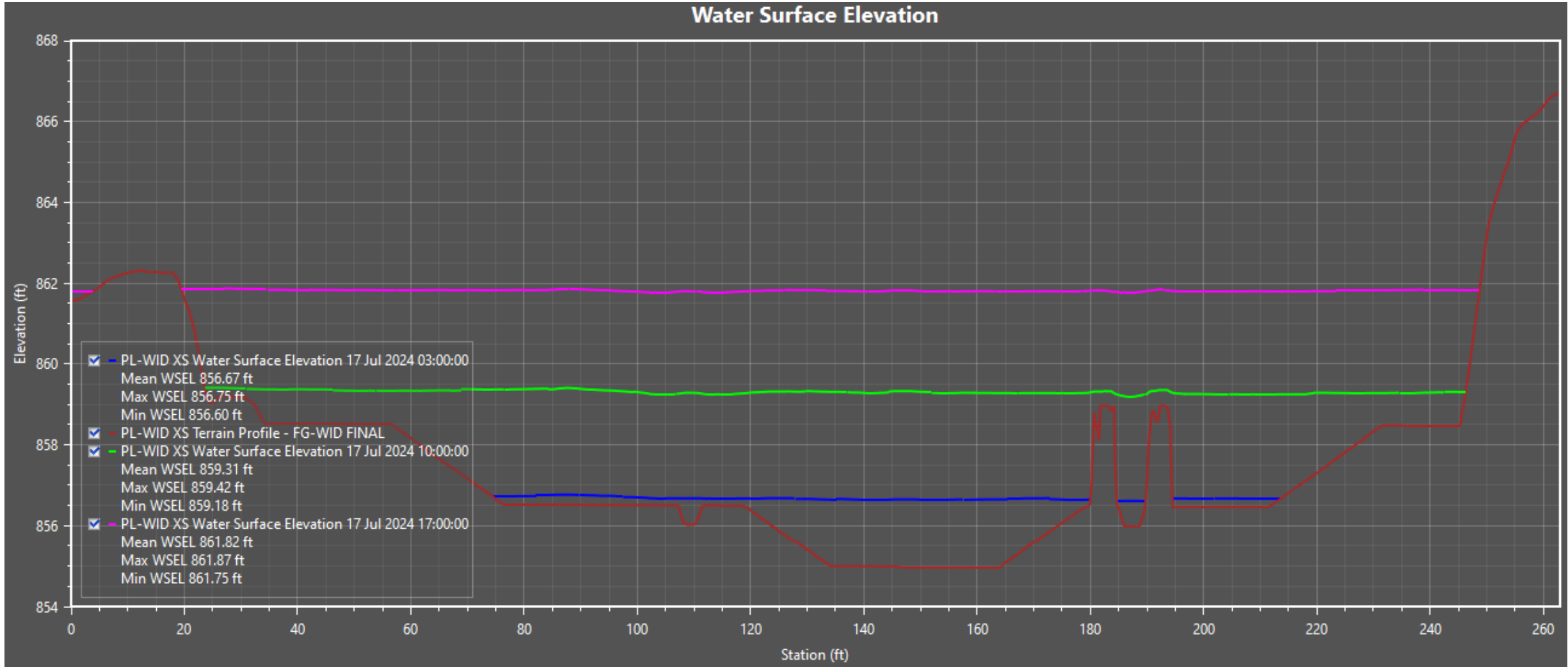
LOW FLOW (95% EXCEEDANCE)
165 CFS



BANKFULL FLOW (19% EXCEEDANCE)
1,782 CFS



WATER INTAKE DAM





PIQUA DAM REMOVAL & MODIFICATION
PIQUA WATERWORKS DAM MODIFICATION



RIVERBANK PLANTINGS

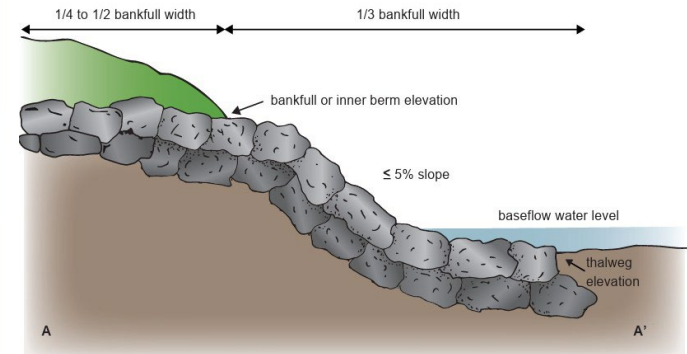
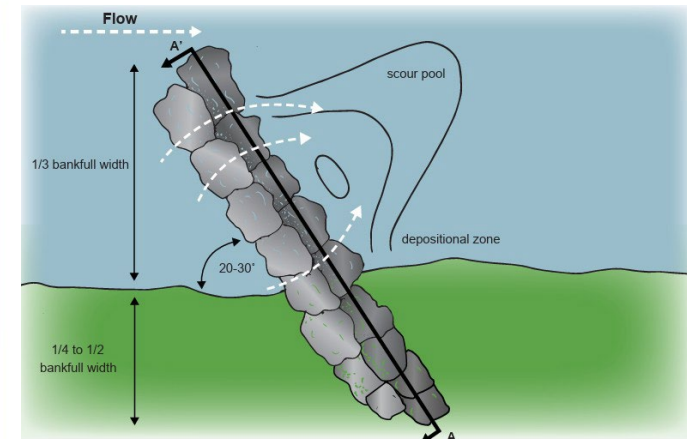
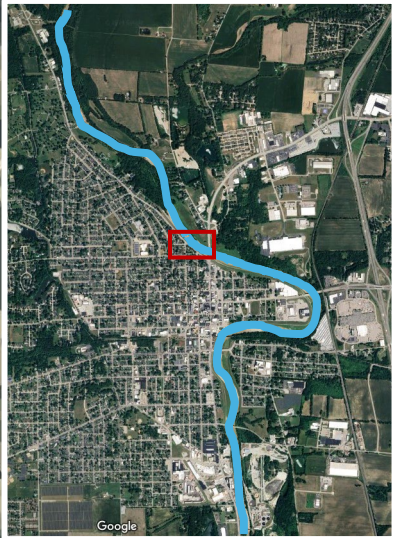


GREAT MIAMI RIVER

VANE ARM

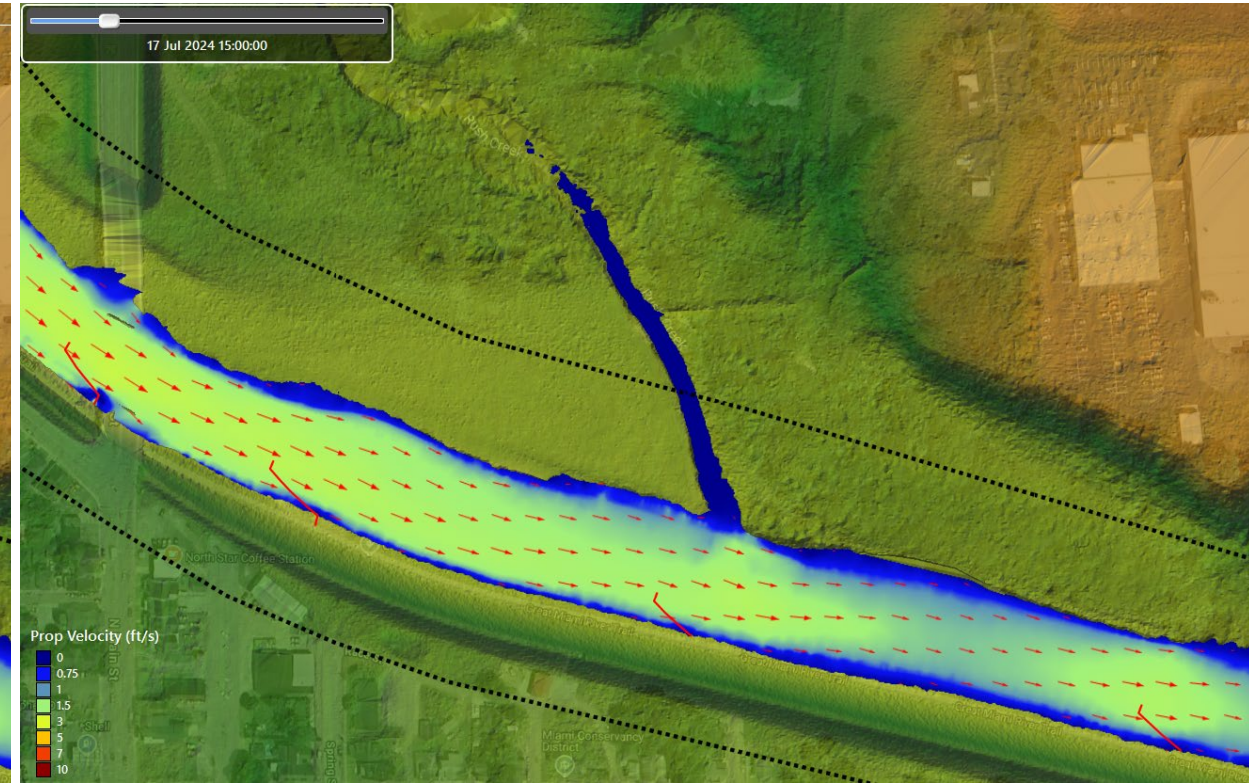
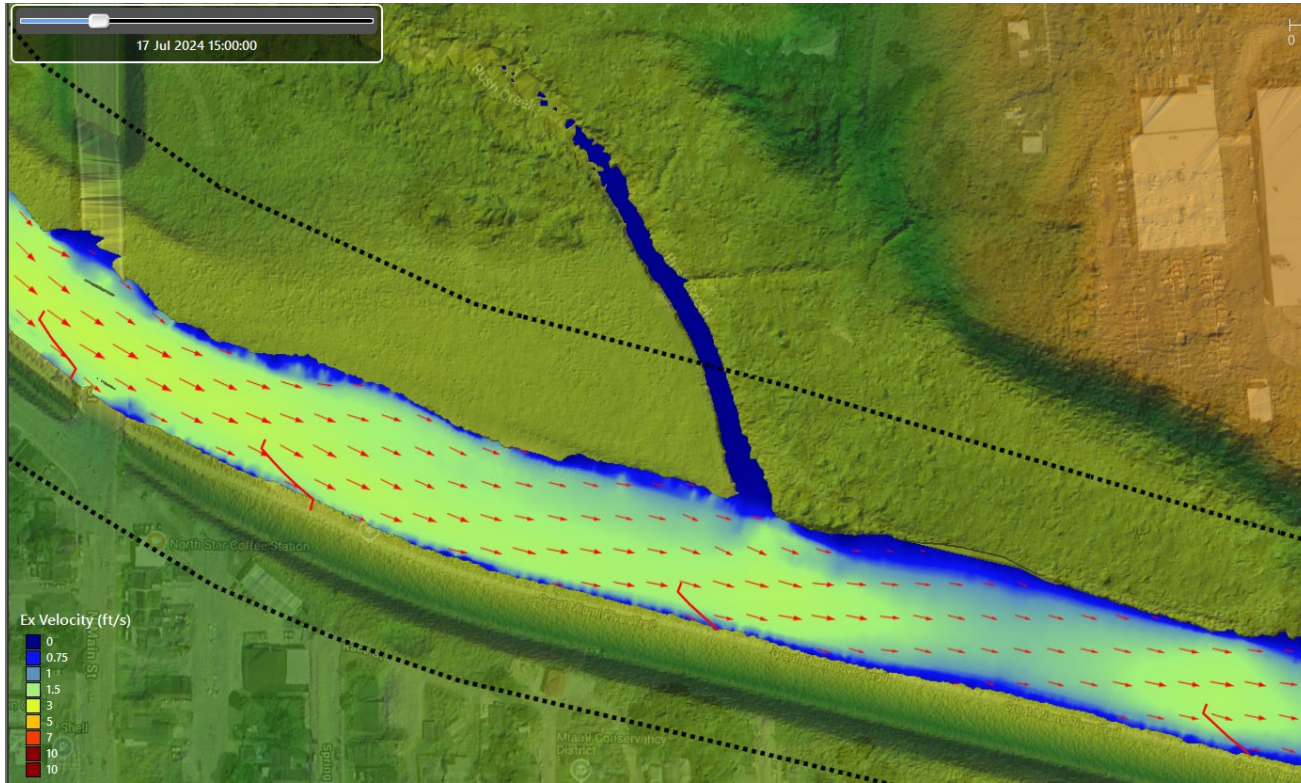


RIVER RESTORATION





PROPOSED RIVER STRUCTURES



Added vane arm upstream of N Main Street to push velocities towards center of channel during bankfull flow (1,782 cfs).

Note decreased velocities along right bank due to vane arms and proposed herbaceous planting.



RUSH CREEK

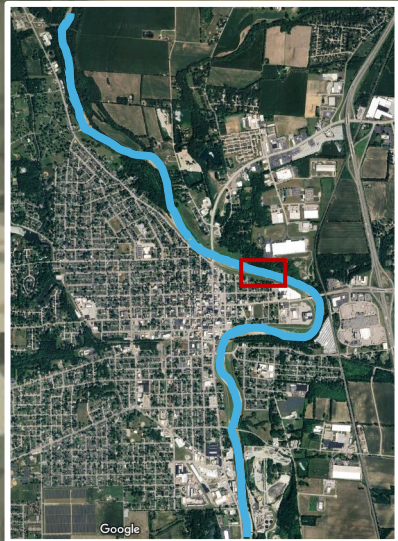
VANE ARM

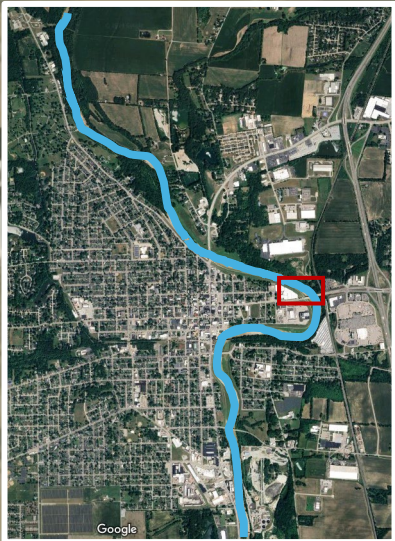
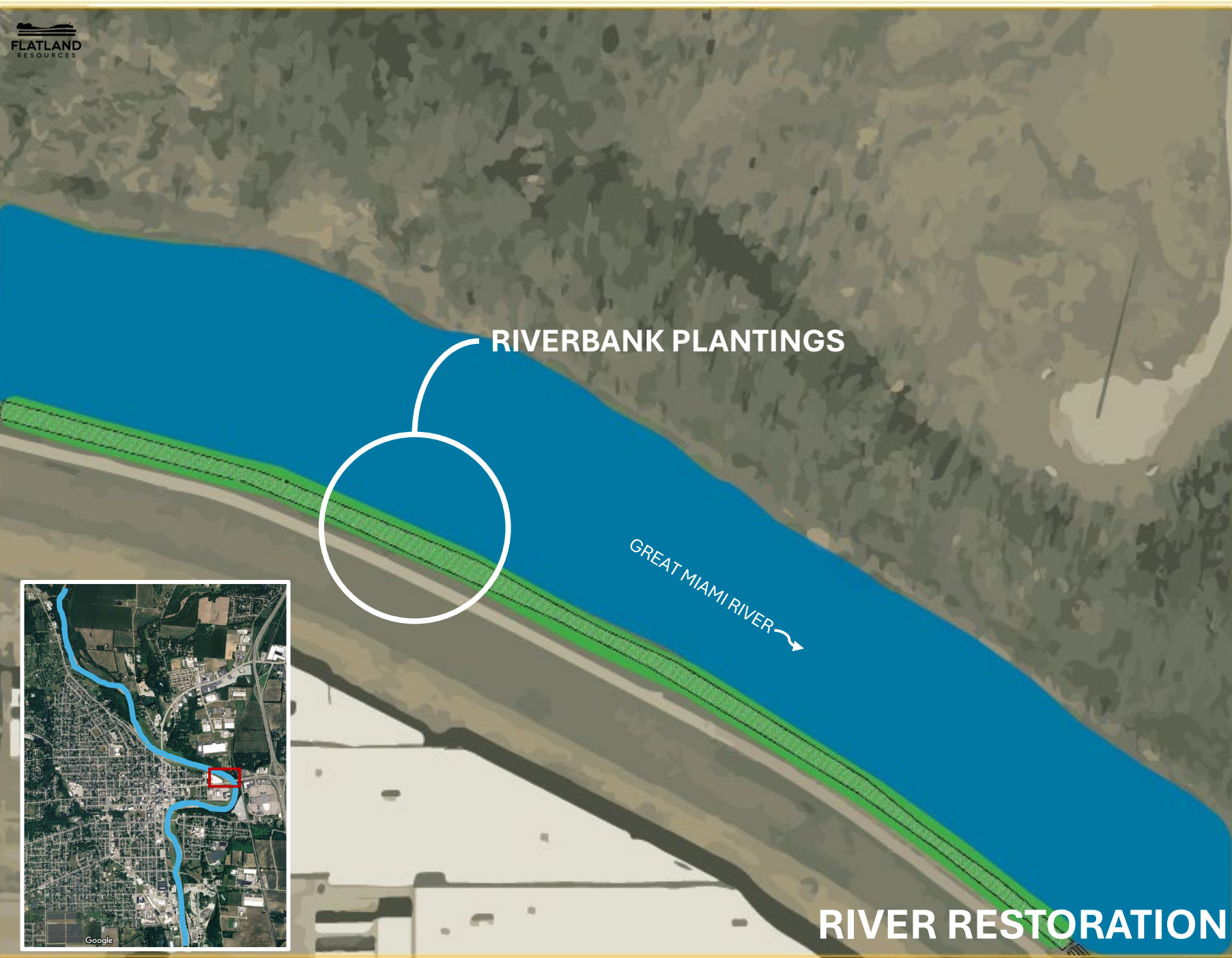
RIVERBANK PLANTINGS

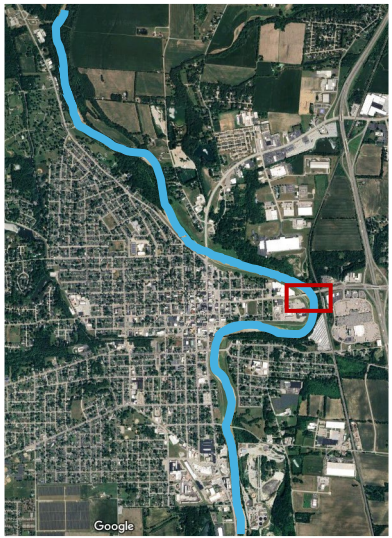
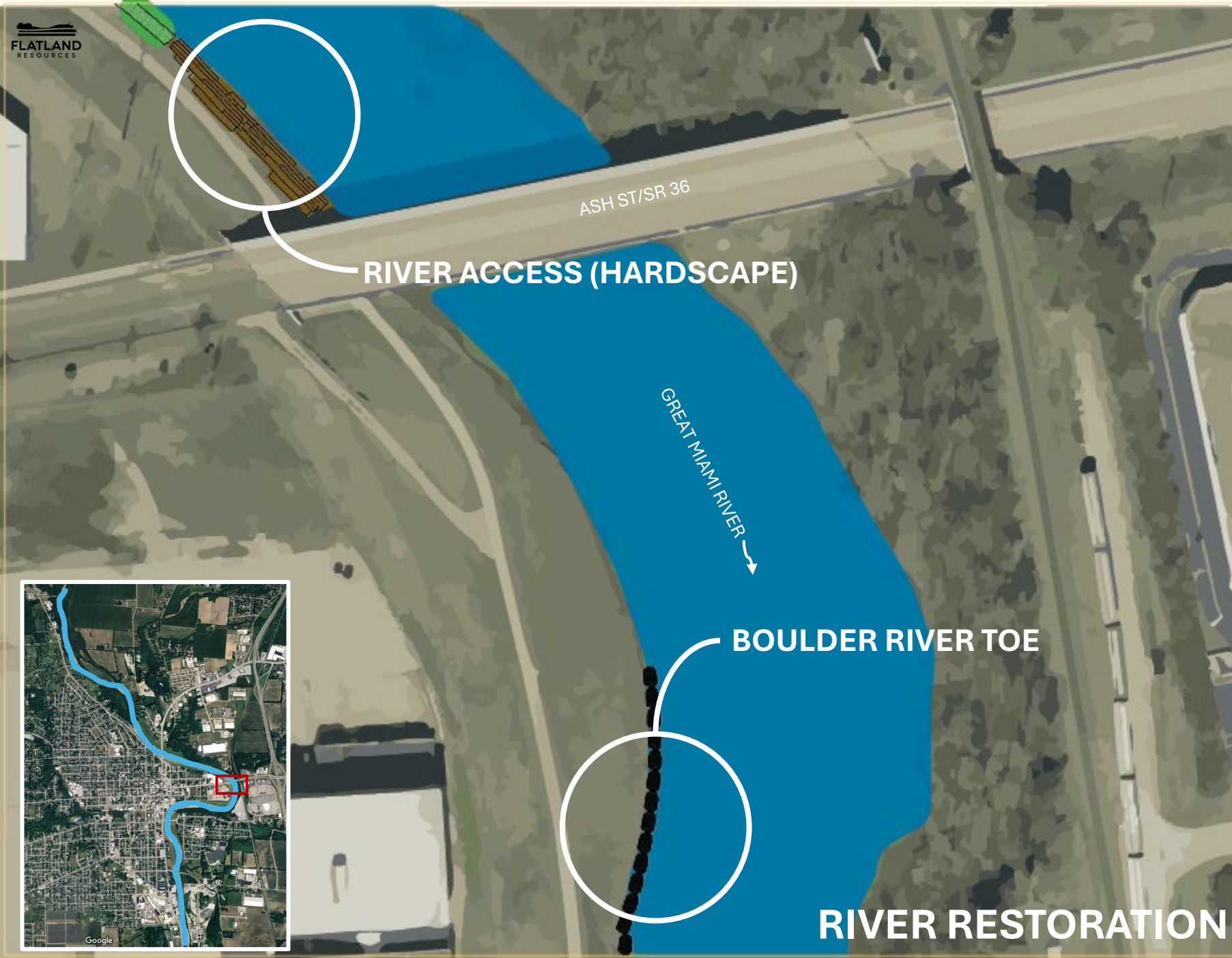
GREAT MIAMI RIVER

TOEWOOD

RIVER RESTORATION





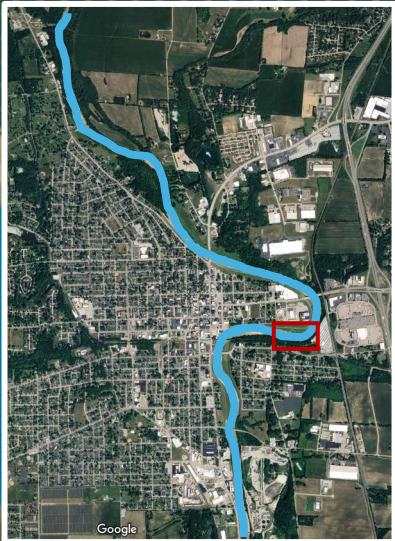


BOULDER RIVER TOE

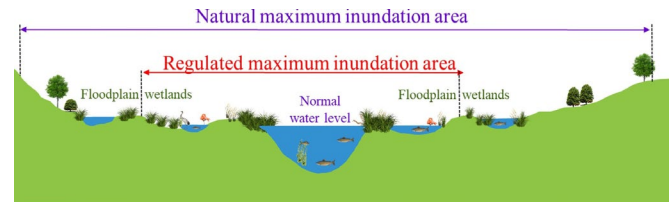
GREAT MIAMI RIVER

FLOODPLAIN BENCH

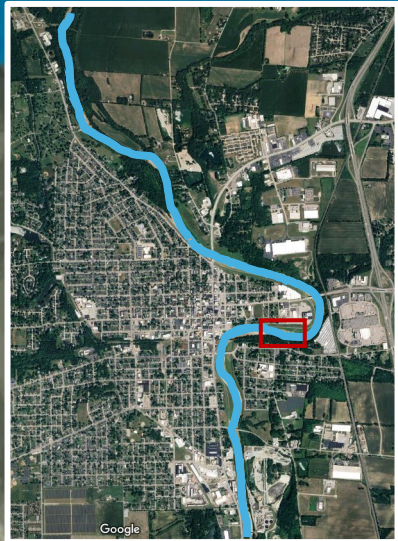
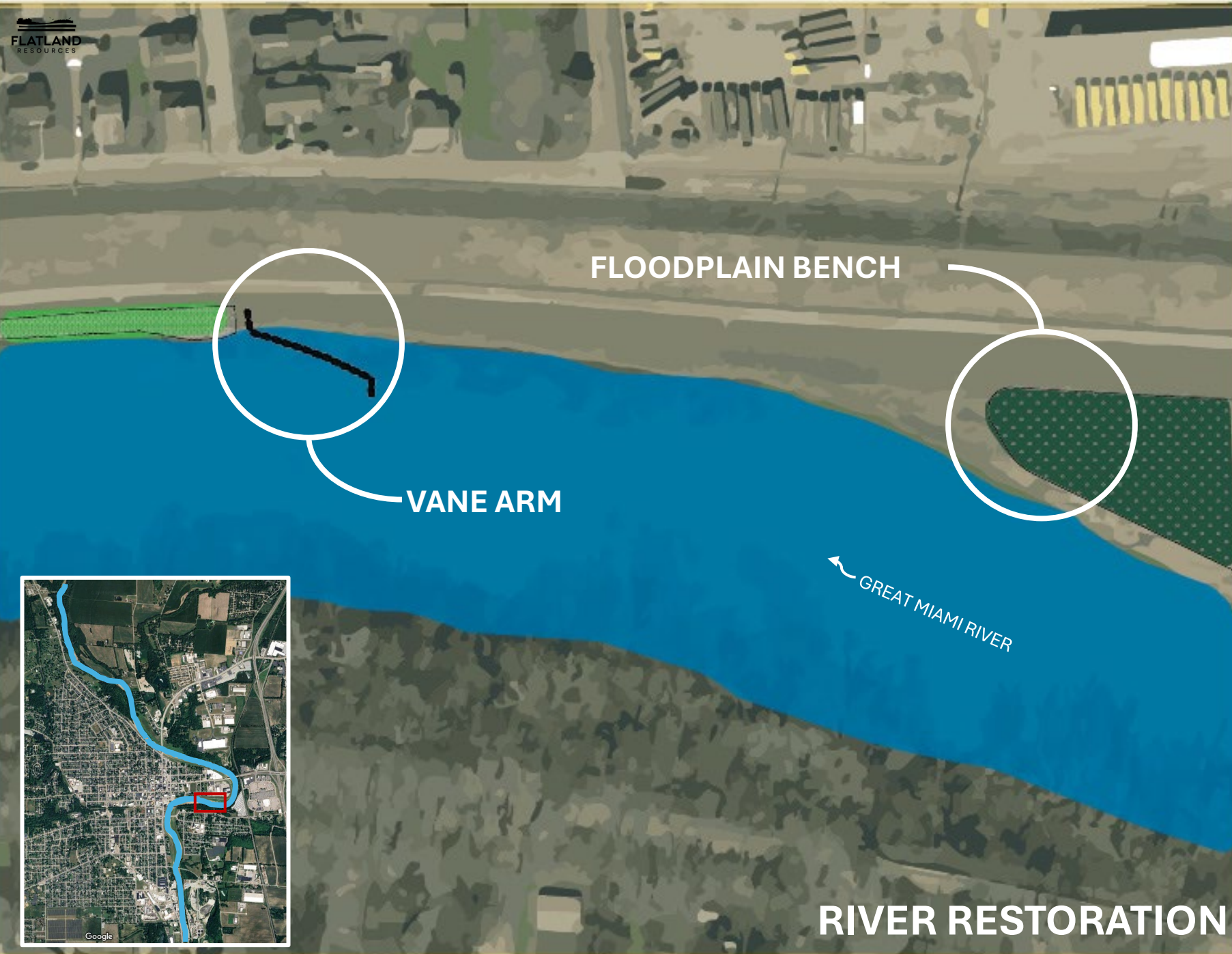
RIVER RESTORATION



BOULDER RIVER TOE



FLOODPLAIN BENCH



FLOODPLAIN BENCH

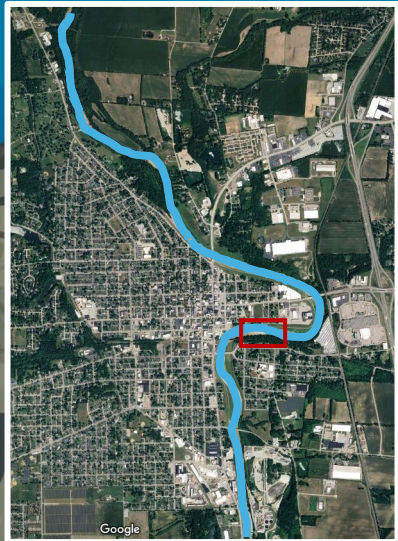
RIVERBANK PLANTINGS

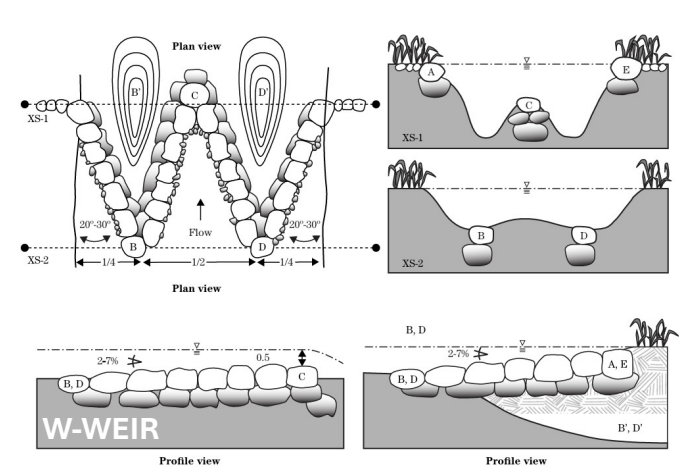
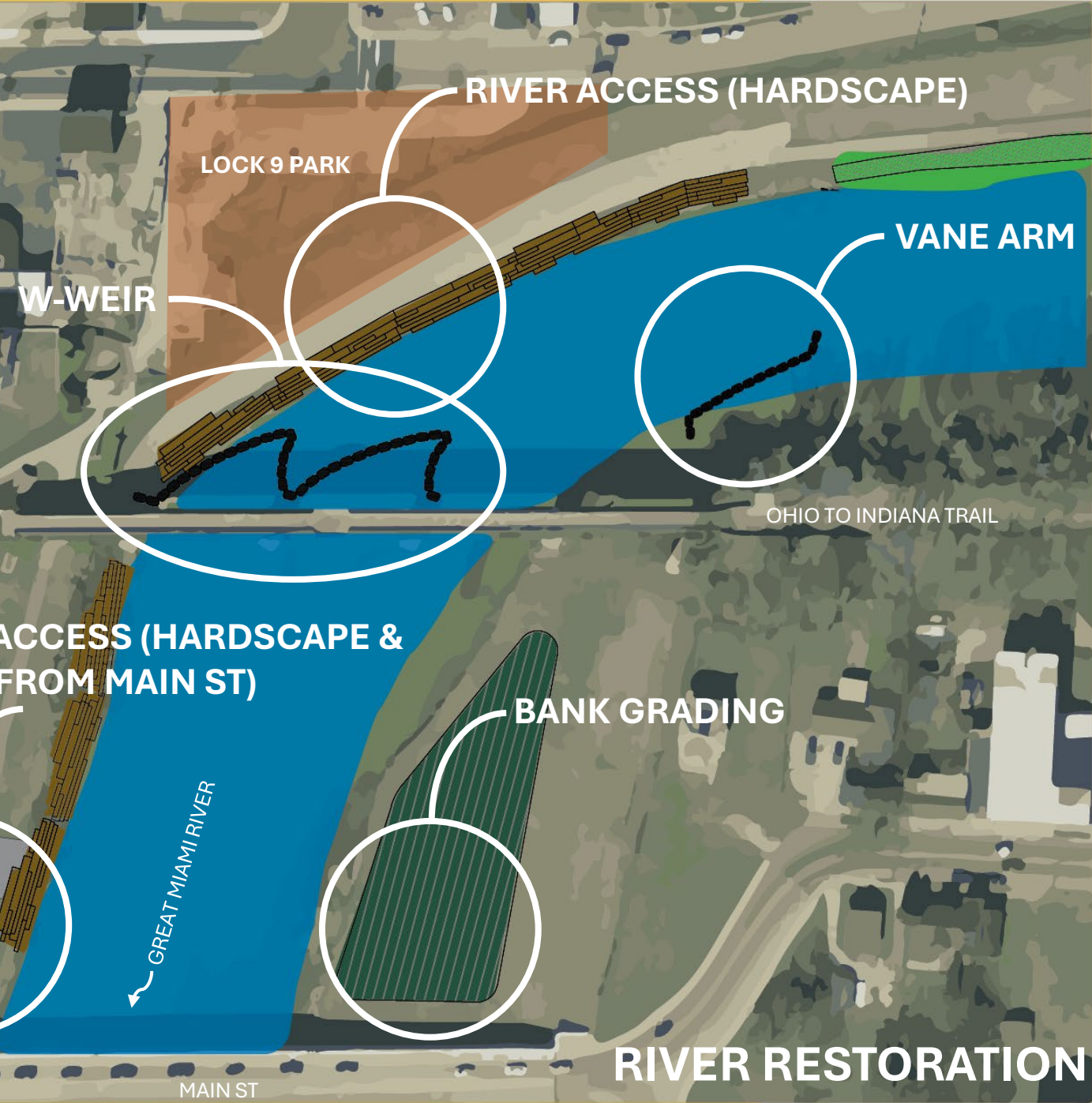
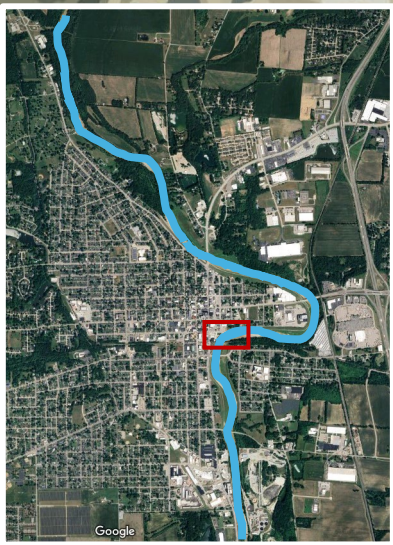
WATER ST

VANE ARM

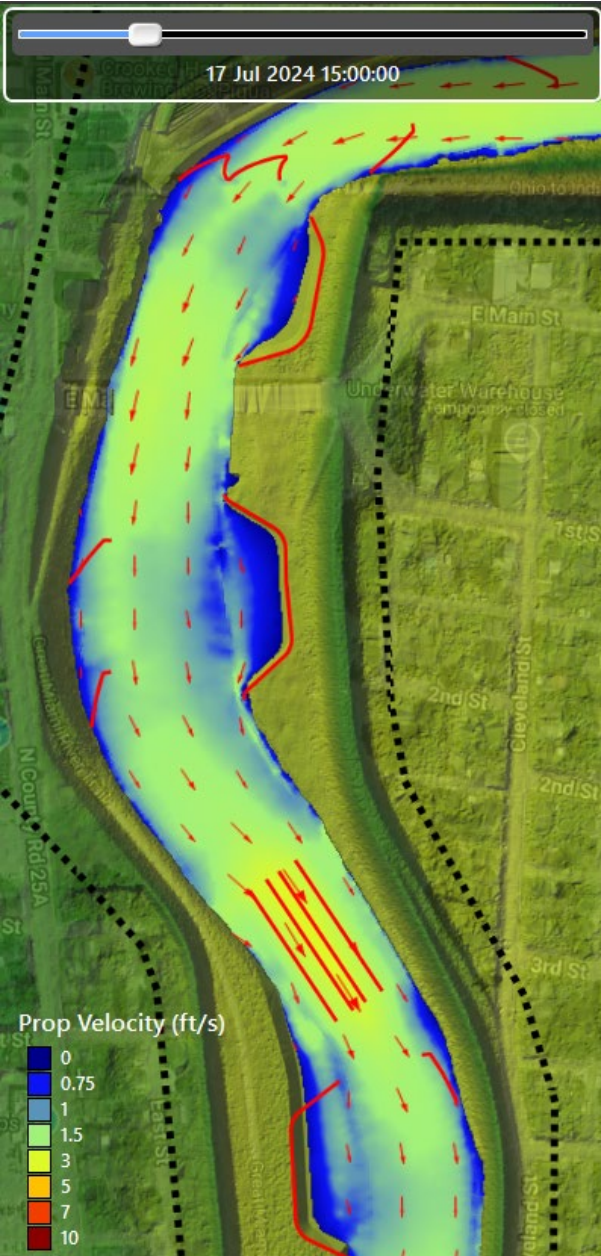
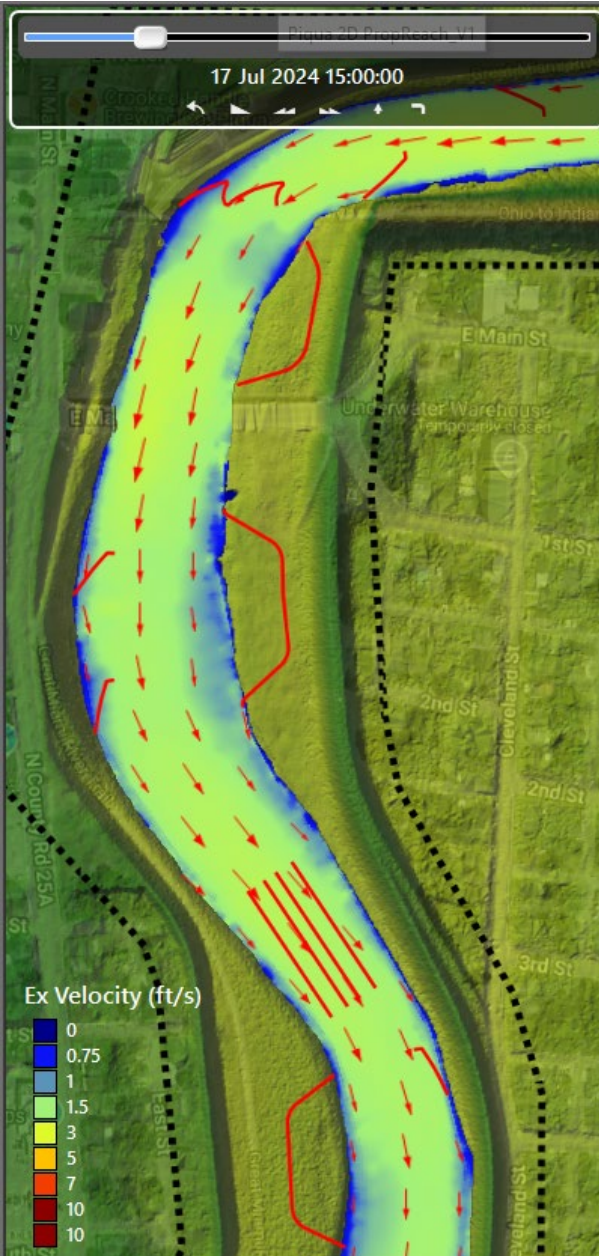
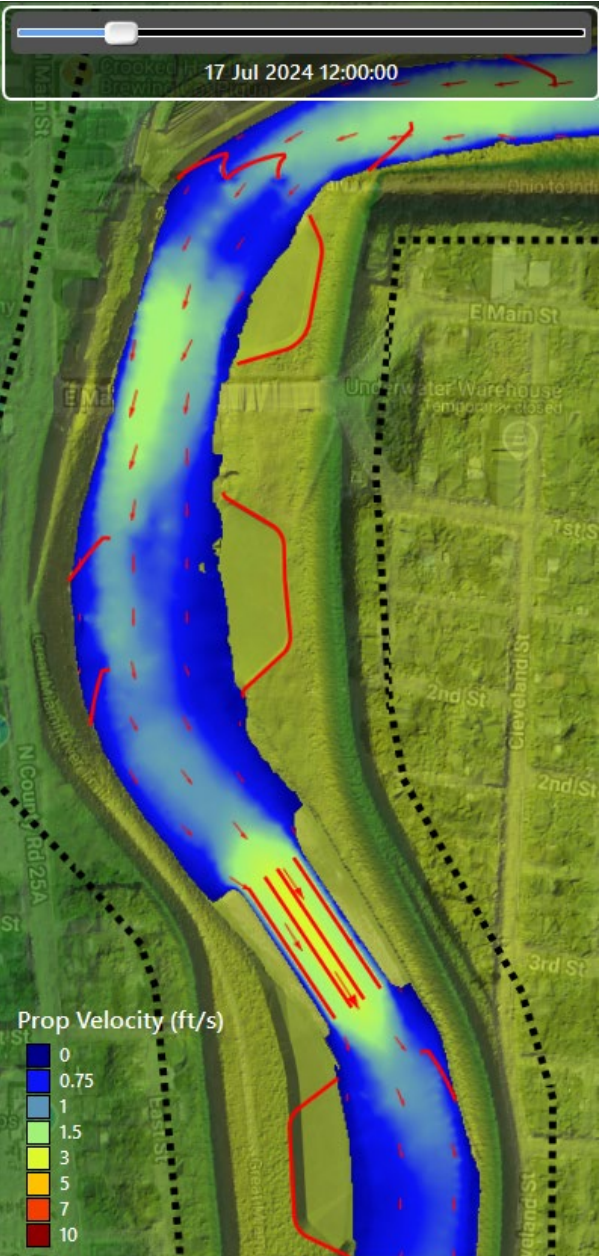
GREAT MIAMI RIVER

RIVER RESTORATION





PROPOSED RIVER STRUCTURES



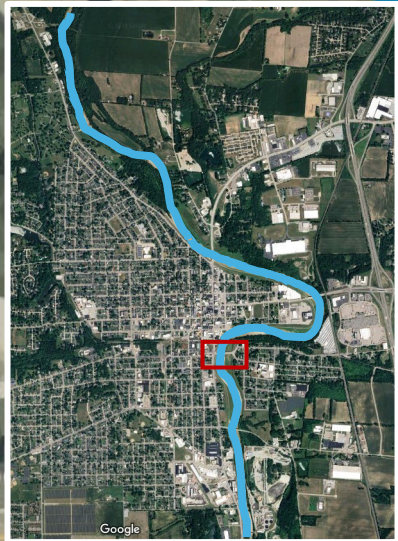
MAIN ST

VANE ARM

1ST ST

BANK GRADING

GREAT MIAMI RIVER



RIVER RESTORATION



FLOODPLAIN BENCH

CONSTRUCTED RIFFLE

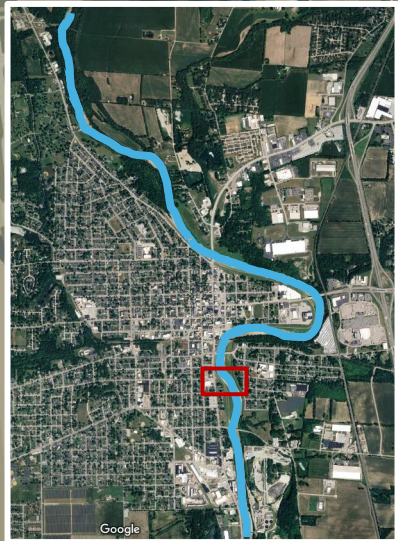
CLEVELAND ST

VANE ARM

FLOODPLAIN BENCH

GREAT MIAMI RIVER

RIVER RESTORATION



CONSTRUCTED RIFFLE



CONSTRUCTED RIFFLE



MAIN ST

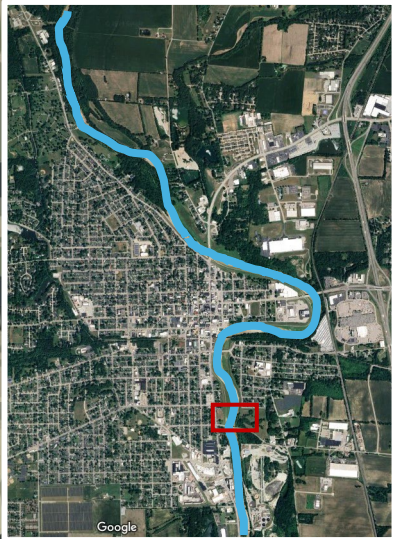
5TH ST

CONSTRUCTED RIFFLE

GREAT MIAMI RIVER

GARNSEY ST

RIVER RESTORATION



RIVERBANK PLANTINGS

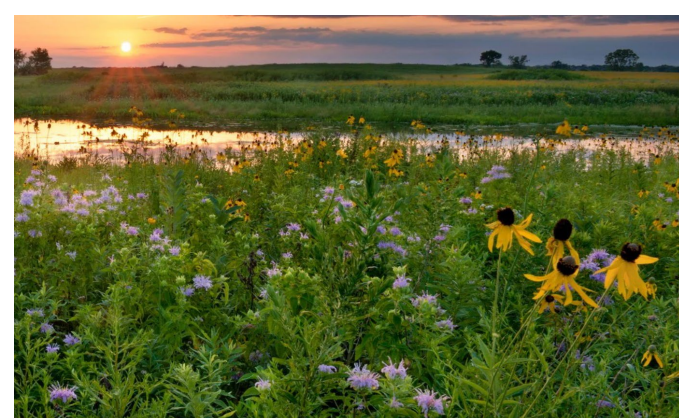
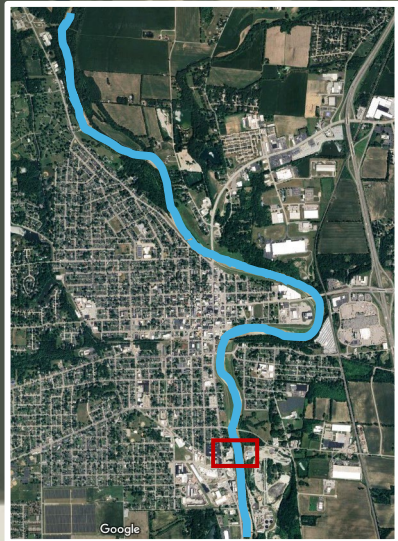
CONSTRUCTED RIFFLE

GREAT MIAMI RIVER

GARNSEY ST

MAIN ST

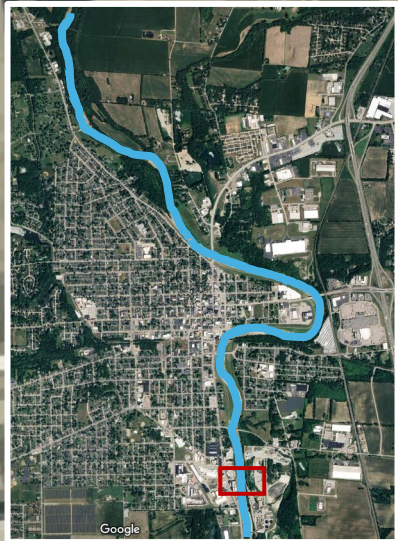
RIVER RESTORATION



MAIN ST

GREAT MIAMI RIVER

RIVER RESTORATION



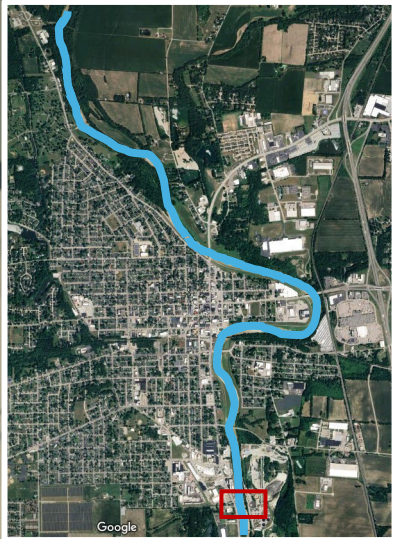
CONSTRUCTED RIFFLE

FOCUS ON RIVER ACCESS

MAIN ST

GREAT MIAMI RIVER

RIVER RESTORATION

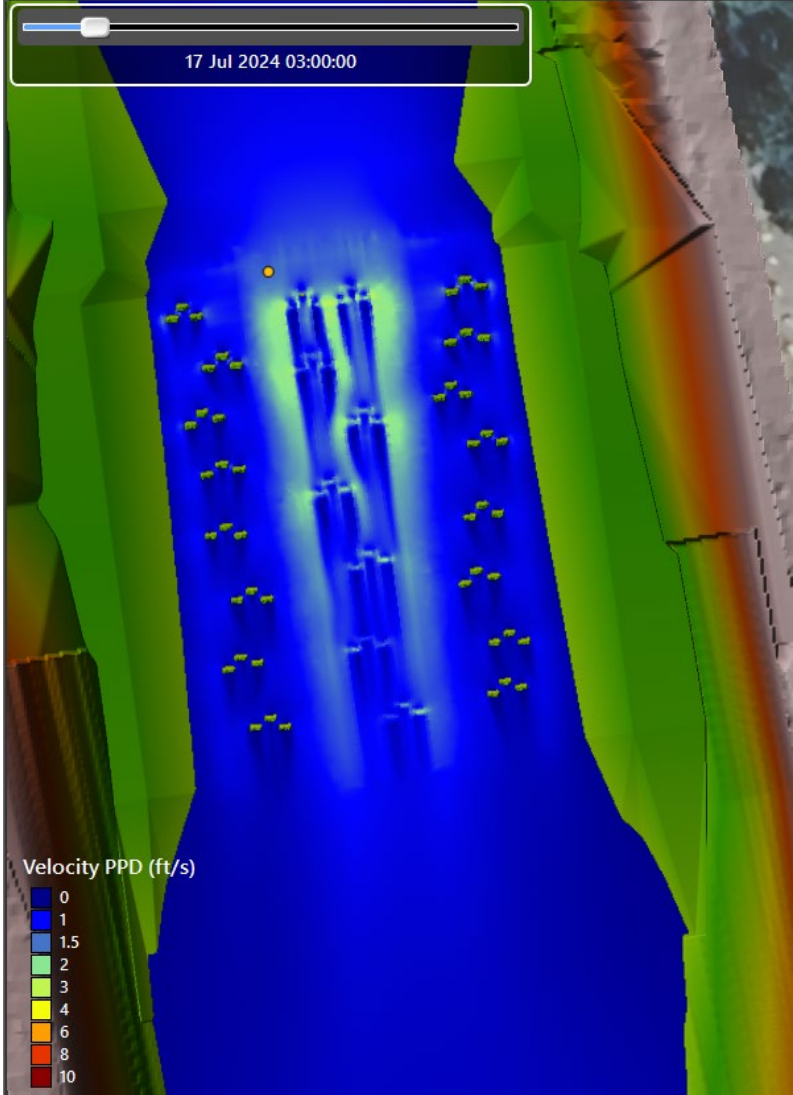


POWER PLANT DAM RIFFLE

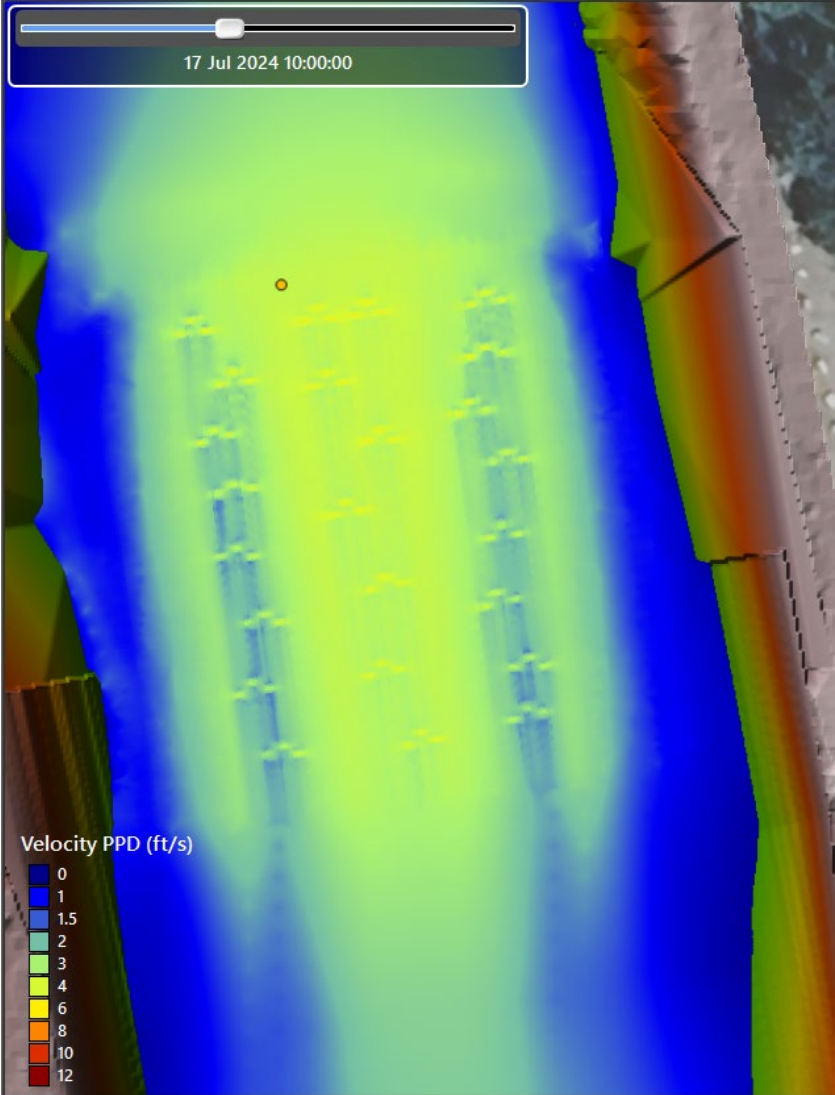
Proposed section has low-flow channel, inner berm and bankfull bench to allow for passage at different stages.

3rd Boulder Iteration
Protrusion Height: 2.50'
Manning's: 0.05

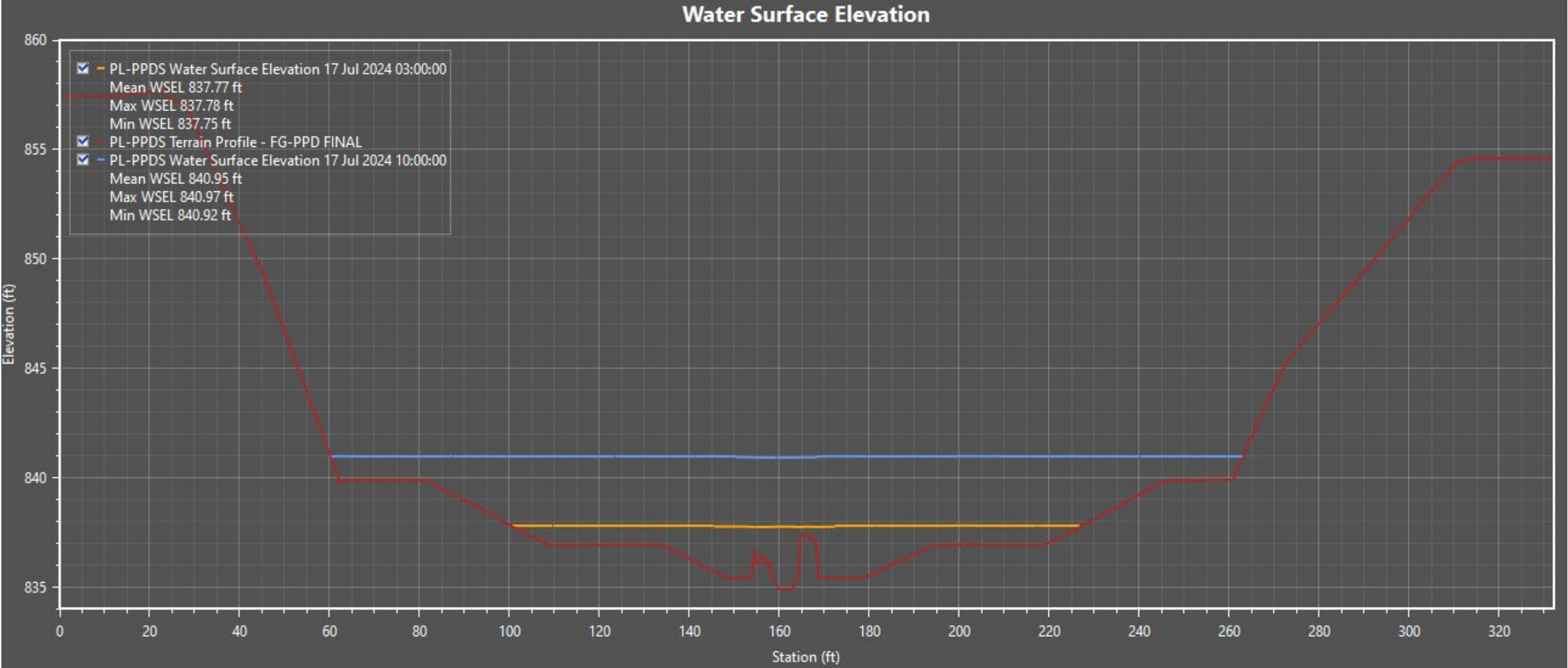
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POWER PLANT DAM RIFFLE





PIQUA DAM REMOVAL & MODIFICATION
POWER PLANT DAM REMOVAL



PROJECT NEXT STEPS

- **Coordination w/ Stakeholders**
- **Work Towards 100% Design Development**
- **Allocate Funding**
- **Bid Project**
- **Construction Fall of 2025**



QUESTIONS?



PIQUA DAM REMOVAL & MODIFICATION
WATER SURFACE ELEVATION CHANGE