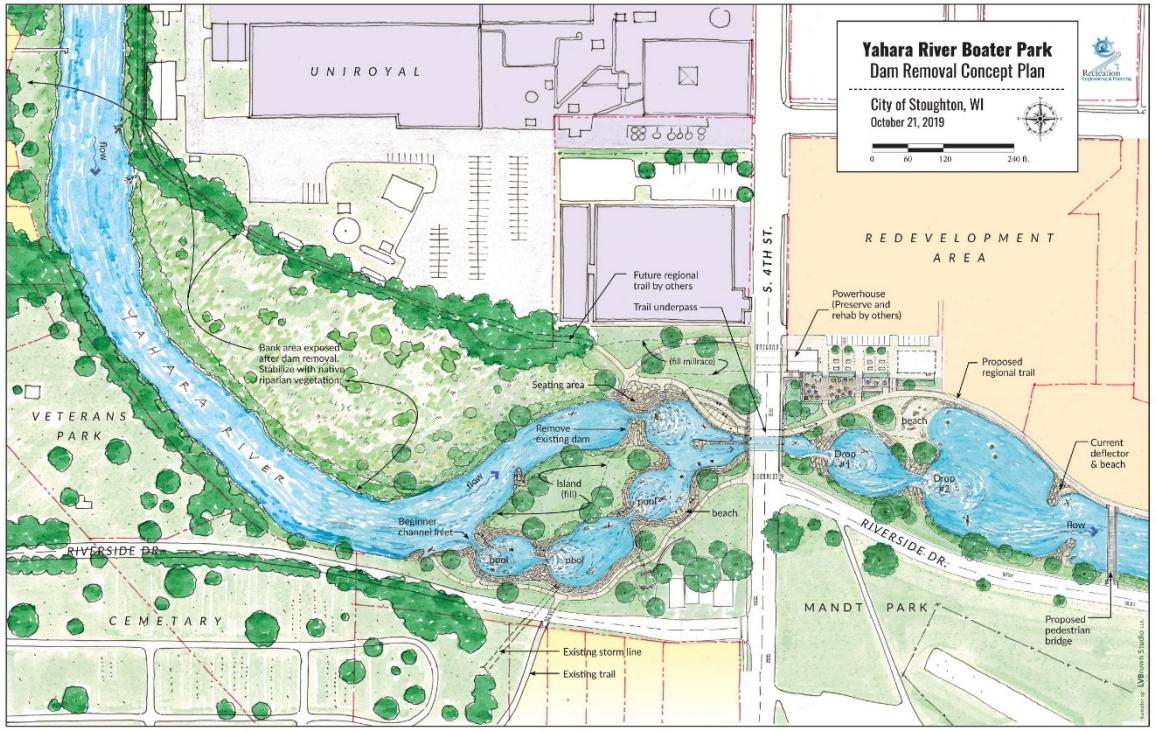


Yahara Riverfront Project

Dan Glynn
Director of Parks & Recreation
City of Stoughton

Why are we pursuing this project?

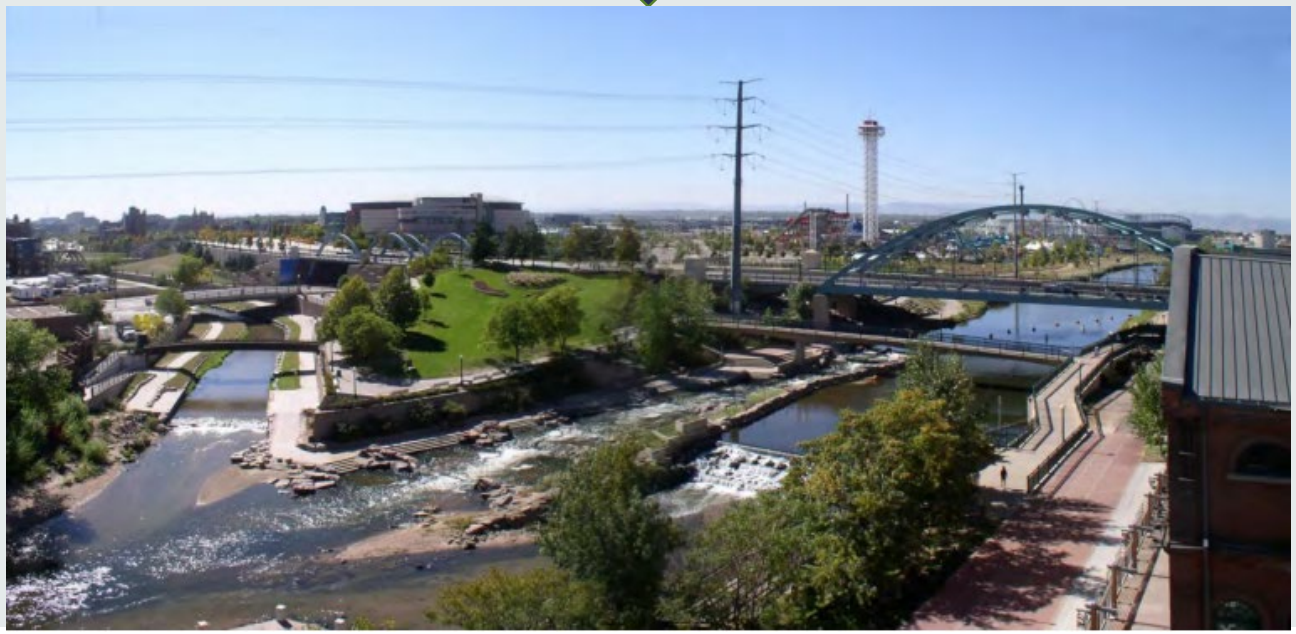
- Quality of Life
- Economic
- Environmental
- Branding
- Public Safety

Quality of Life

Economic

E South St
E South St
E South St
S 4th St
S 4th St
City of Stoughton
Food Pantry
Riverside
Drive Park
Riverside Dr

?



Economic

- Visitor Spending
  - $5.6 million annually
  - Downtown Businesses
- Dam Costs
  - Approximately $70,000/year

"Our river park is our downtown anchor and was the key piece in our revival helping make Salida the economic hub for our region and is our city's social center."

- P.T. Wood, Mayor of Salida, CO & Business Owner

University of Wisconsin – Madison/Cooperative Extension
Department of Planning and Landscape Architecture

Potential Economic Impacts of a Proposed Whitewater Park:

A Market-based Case Study of Stoughton, Wisconsin

Dan Glynn, Tsung-Lun Hsu, Dave Marcouiller, and Bill Ryan*

Applied Research Report 18.1
September 2018

* Dan Glynn is Director of Parks and Recreation with the City of Stoughton, Wisconsin. Tsung-Lun Hsu is a recent graduate of the MS in Urban and Regional Planning at the University of Wisconsin – Madison. Dave Marcouiller and Bill Ryan are with the University of Wisconsin – Madison/Cooperative Extension and serve as Resource Economist and Community Business Development Specialist respectively. Listed in alphabetical order with lead authorship shared equally.

1

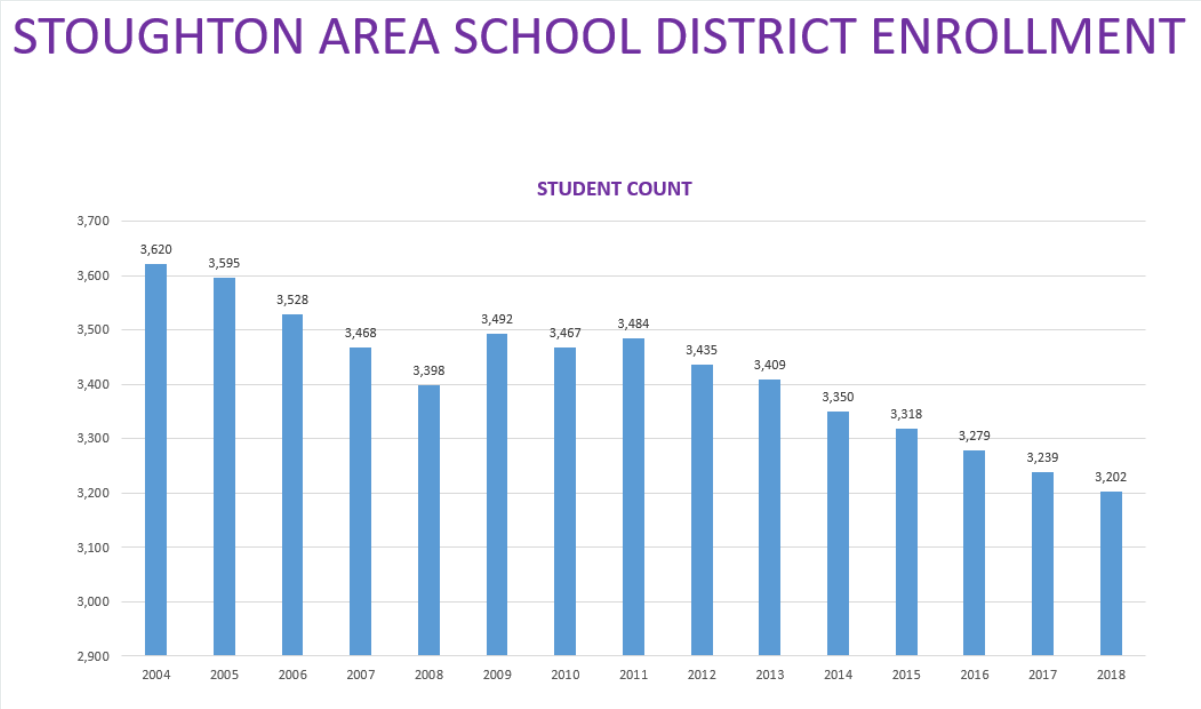
Environmental

- River Restoration
  - Water quality
  - Fish passage
  - Flood mitigation
  - Shoreline restoration

Branding

- Focal Point for Outdoor Lifestyle Experiences
- Attracting people to Stoughton
  - Young Professionals

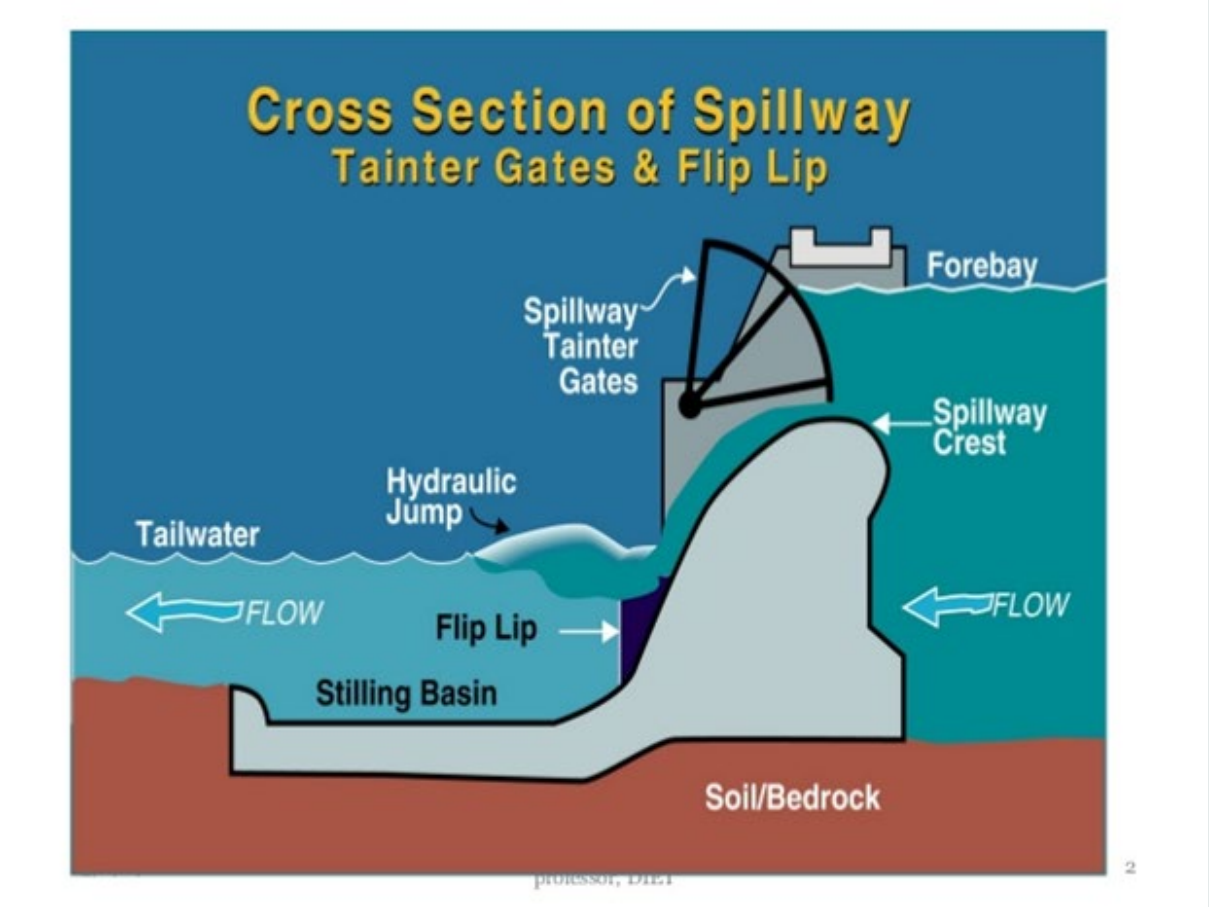
    https://apl.wisc.edu/shared/youngadults
  - School District Enrollment



Source: Wisconsin Department of Public Instruction

Public Safety

- 57 Deaths Attributed to Dams in 2019
- 2018 Stoughton Dam Incident
- 1996 Dunkirk Dam Drowning



Project History

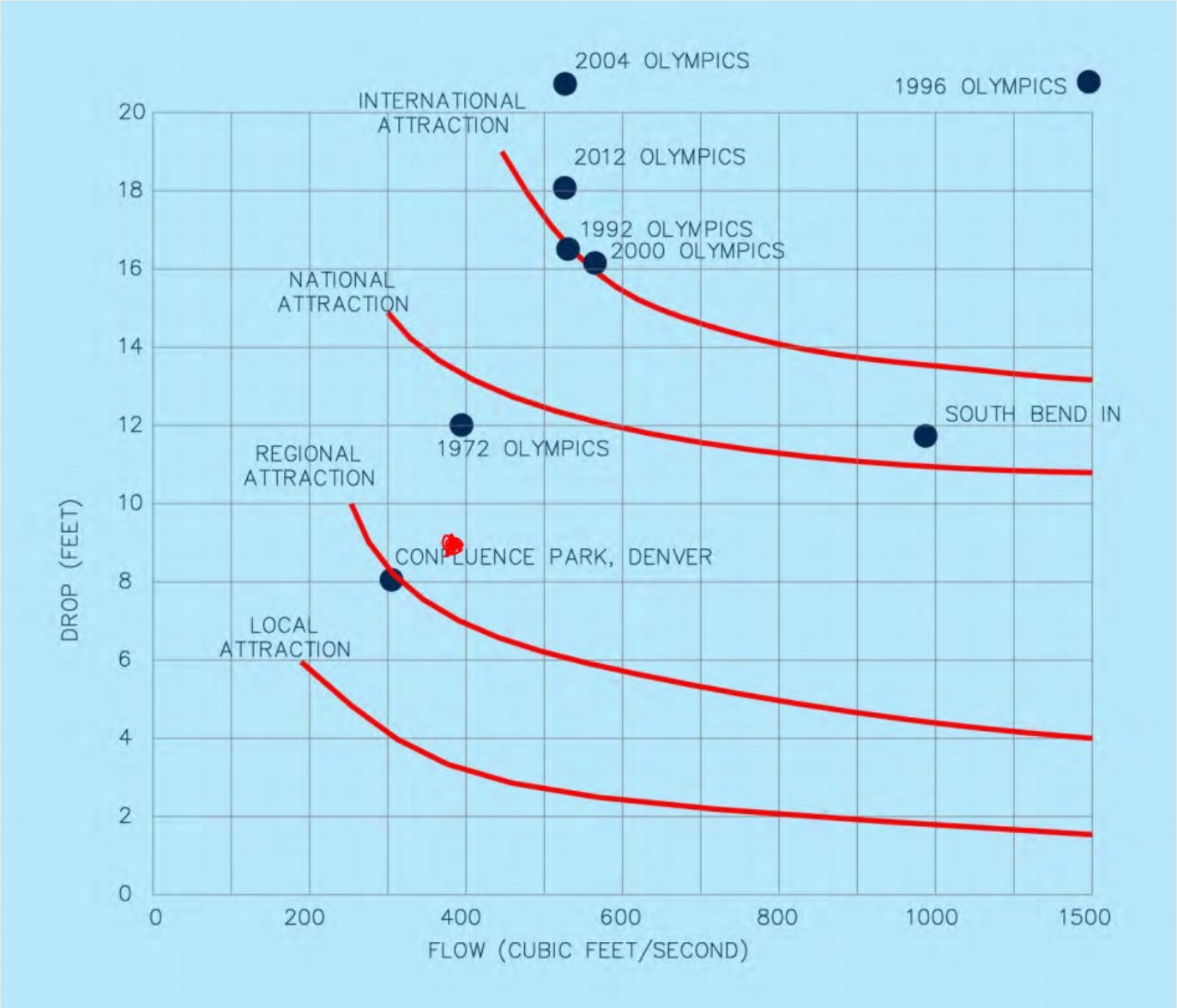
Project Process

1. **Research**
2. **Conceptual Plan/Feasibility Study**
3. **Preliminary Design**
4. Permitting
5. Detailed Design
6. Construction Documentation
7. Project Bidding and Construction
8. Construction Oversight and Inspection
9. Course Commissioning and Operations

1. Research

- Benefits
- Trends
  - River Surfing
  - Wisconsin Participation Trends
- Site Considerations
  - Drop
  - Water Flow

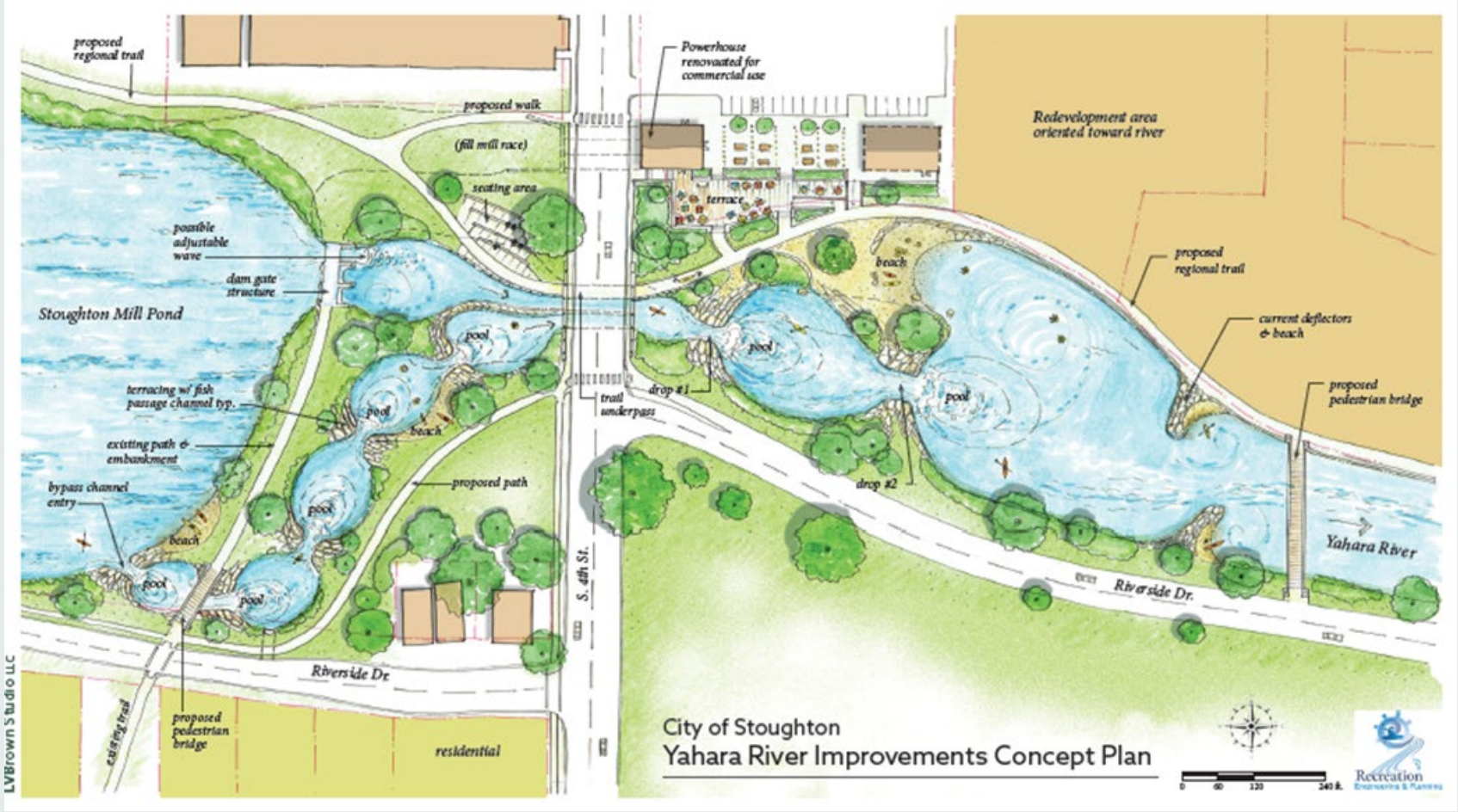
Completed January 2018



2. Conceptual Plan/Feasibility Study

- Completed by Recreation Engineering & Planning
  - 120 Parks – Iowa, Ohio, Michigan

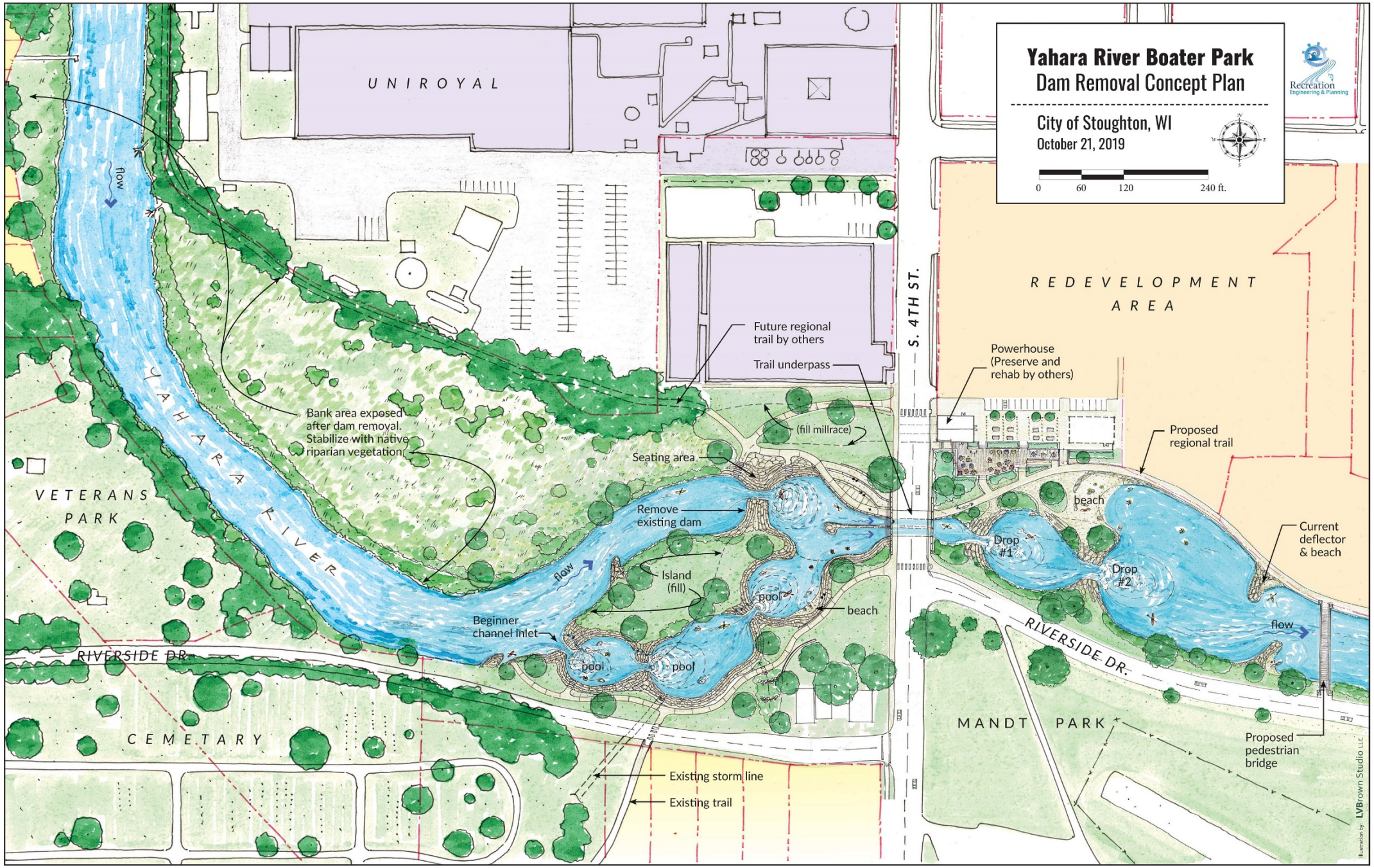
Completed May 2018

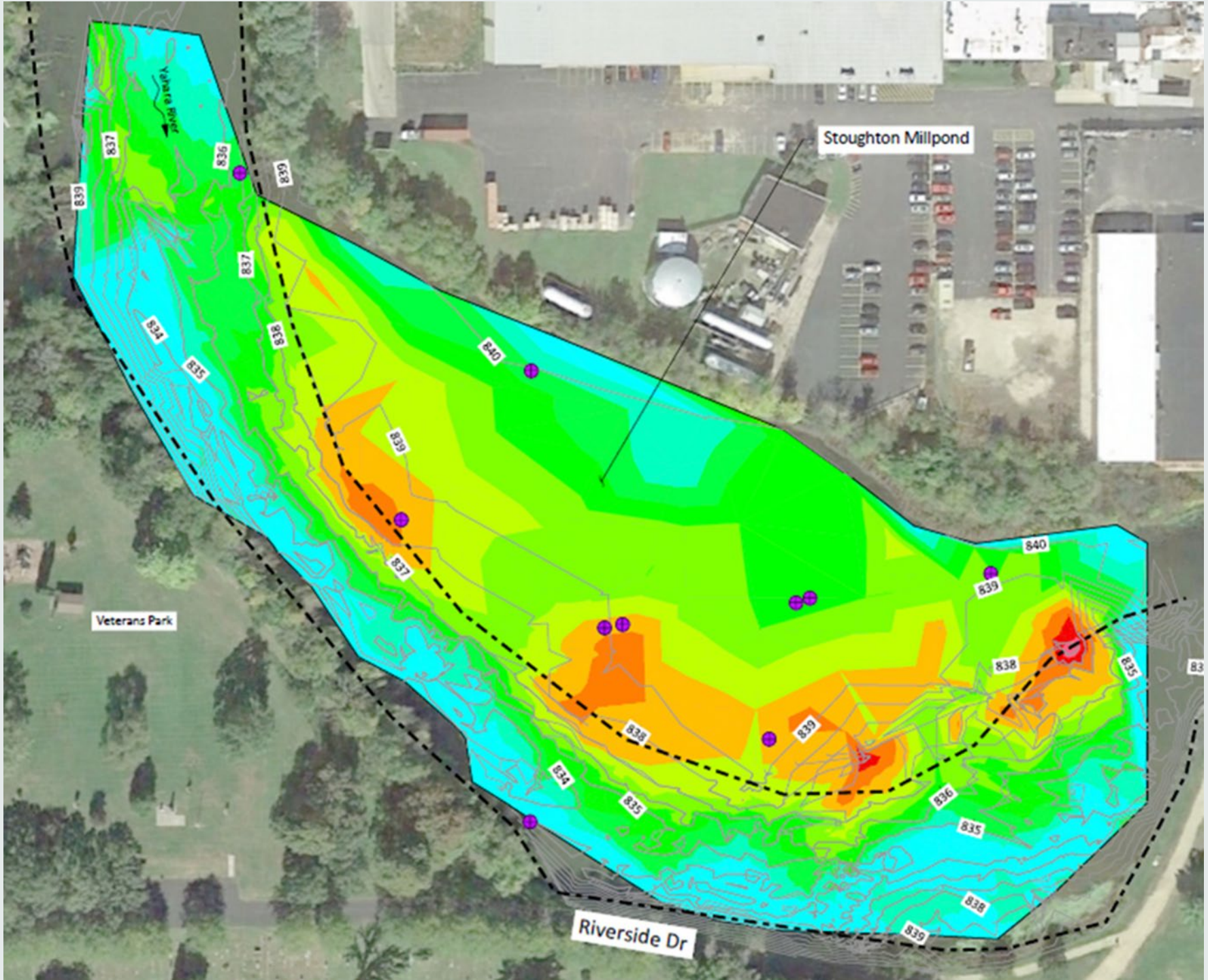


3. Preliminary Design

- *Creation of a Steering Committee*
- Bathymetric Survey
- Preliminary Hydraulic and Hydrological Analyses
  - Inundation Mapping
- Sediment Sampling – Stoughton Millpond
- Updated Design

Completed January 2020


Yahara River Boater Park
Dam Removal Concept Plan
City of Stoughton, WI
October 21, 2019
0 60 120 240 ft.
Recreation Engineering & Planning
UNIROYAL
REDEVELOPMENT AREA
S. 4TH ST.
YAHARA RIVER
flow
VETERANS PARK
CEMETARY
RIVERSIDE DR.
MANDT PARK
Future regional trail by others
Trail underpass
Powerhouse (Preserve and rehab by others)
Proposed regional trail
Bank area exposed after dam removal. Stabilize with native riparian vegetation
(fill millrace)
Seating area
Remove existing dam
Island (fill)
pool
beach
Beginner channel inlet
Drop #1
Drop #2
Current deflector & beach
Proposed pedestrian bridge
Existing storm line
Existing trail
Illustration by LVBrown Studio LLC


Stoughton Millpond
Yahara River
Veterans Park
Riverside Dr
839
837
836
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838
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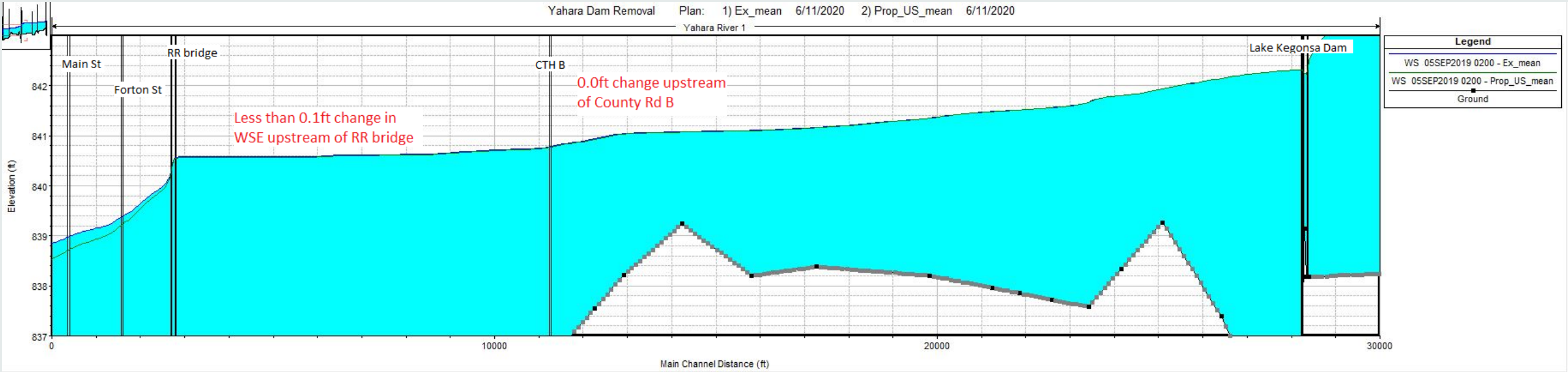
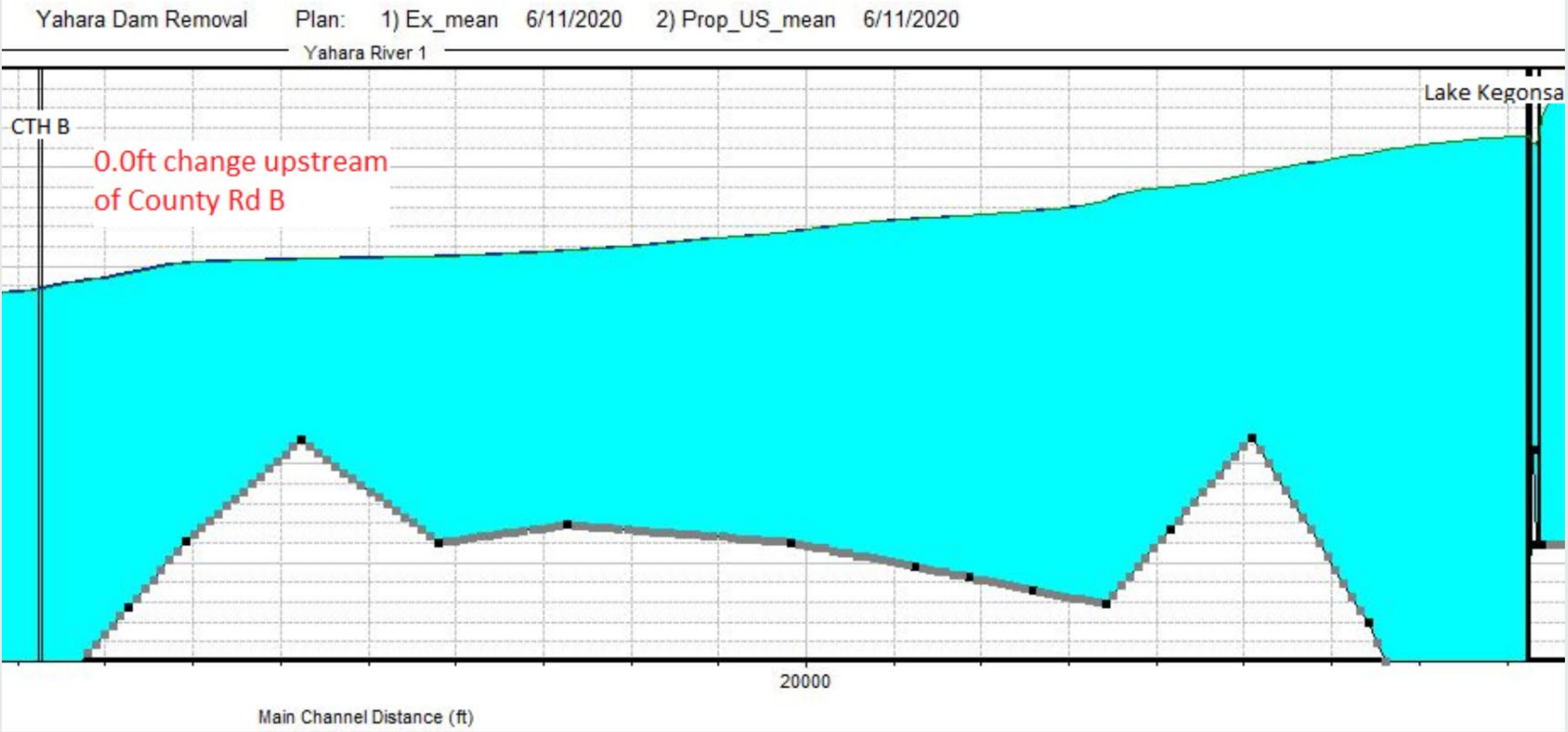
839


Yahara Dam Removal Plan: 1) Ex_mean 6/11/2020 2) Prop_US_mean 6/11/2020
Yahara River 1
Main St
Forton St
RR bridge
CTH B
Lake Kegonsa Dam
Less than 0.1ft change in
WSE upstream of RR bridge
0.0ft change upstream
of County Rd B
Legend
WS 05SEP2019 0200 - Ex_mean
WS 05SEP2019 0200 - Prop_US_mean
Ground
Elevation (ft)
842
841
840
839
838
837
0
10000
20000
30000
Main Channel Distance (ft)


Yahara Dam Removal
Plan: 1) Ex_mean 6/11/2020 2) Prop_US_mean 6/11/2020
Yahara River 1
CTH B
Lake Kegonsa
0.0ft change upstream
of County Rd B
20000
Main Channel Distance (ft)

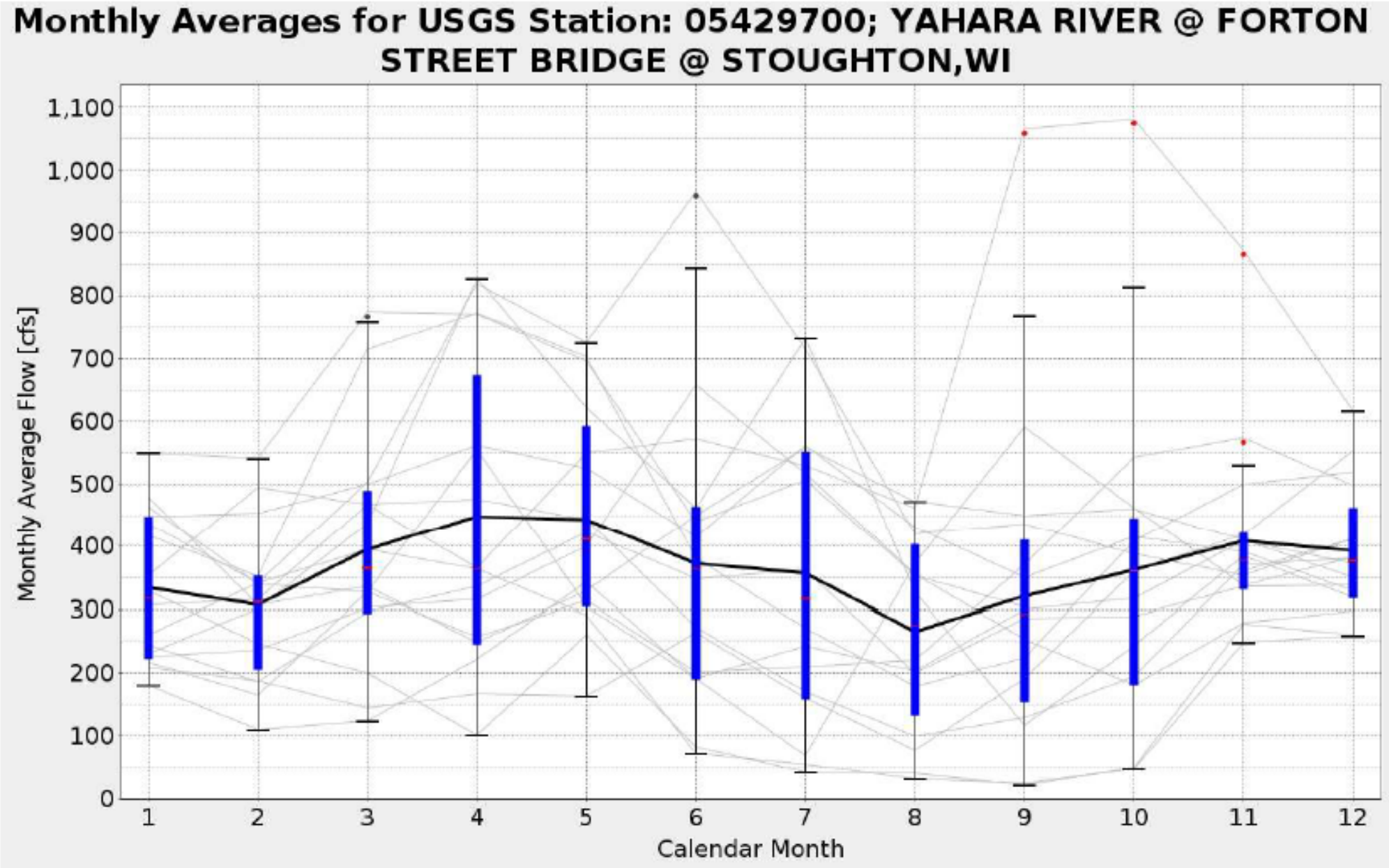
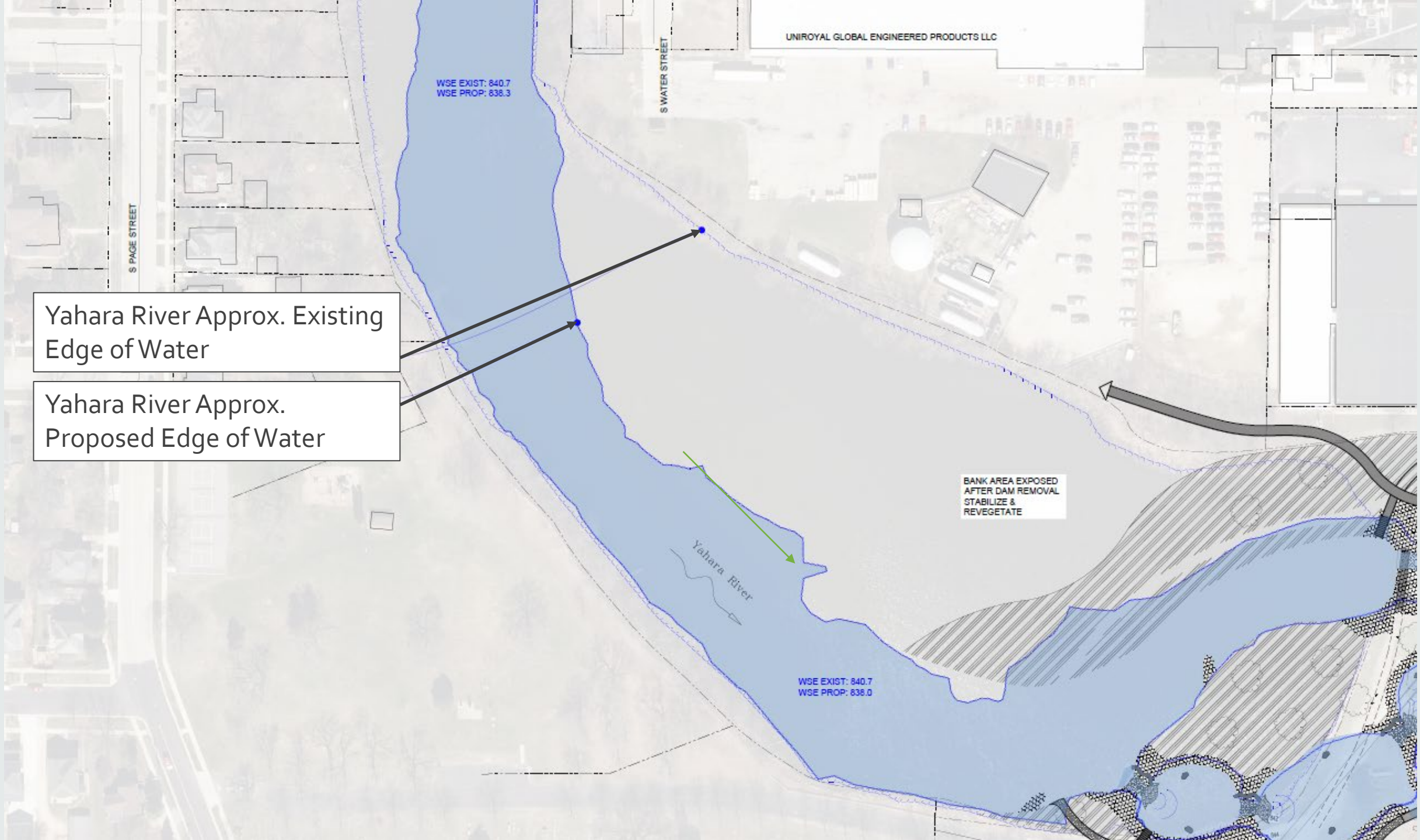


Figure 4. Monthly average flows connected by the bold black line. A box plot is shown for each month, with the blue bar representing the interquartile range. The monthly averages for each indivdual month of record are shown in light grey.


Yahara River Approx. Existing Edge of Water
Yahara River Approx. Proposed Edge of Water
UNIROYAL GLOBAL ENGINEERED PRODUCTS LLC
S WATER STREET
S PAGE STREET
WSE EXIST: 840.7
WSE PROP: 838.3
BANK AREA EXPOSED AFTER DAM REMOVAL STABILIZE & REVEGETATE
Yahara River
WSE EXIST: 840.7
WSE PROP: 838.0

Next Steps

4. Permitting

- *City Council Decision to Move Forward*
- Federal, State, and Local Permits
- Federal
  - Army Corp - Section 404 of the Clean Water Act Permit
    - Environmental Assessment or Environmental Impact Statement
  - National Historic Preservation Act
  - Endangered Species Act
  - National Flood Insurance Program
- State
  - Wisconsin Department of Natural Resources Chapter 30 and 31 Permits
- Local
  - Dane County and City of Stoughton Floodplain Permits

5. Detailed Design

- Design is finalized
- More detailed calculations and modeling

6. Construction Documentation

- Define the project to the contractor(s).
  - Cross-section drawings
  - Details
  - Specifications
  - Bid Items

7. Project Bidding and Construction

- Goes out to bid
- Contractor selected and contracted

8. Construction Oversight and Inspection

- Design team and contractor(s) work together to construct the project

9. Course Commissioning and Operations

- Park Opening
- Concessions or Rental Operation Management

Financial Pathways

Two Paths

1. “State” Grant Funding Only
2. Federal & State Grant Funding

“State” Grant Funding Path – Phases

Phase I – Redevelopment Site Improvements

- Pedestrian Bridge – Mandt Park to Redevelopment Site
- Shoreline Restoration – Redevelopment Site
- Pedestrian Trail – 7th St to 4th St

Phase II – Whitewater Park Area Improvements

- Whitewater Features
- Dam Removal
- Pedestrian Plazas & Seating Areas
- Shoreline Restoration
- Millpond Remediation & Restoration
- Pedestrian Trail – 4th St to Water St

“State” Grant Funding Path - Phase I Items & Timeline

Items

- Pedestrian Bridge – Redevelopment Site to Mandt Park
- Shoreline Restoration – Redevelopment Site
- Pedestrian Trail – 7th St to 4th St

Timeline

- July & August 2020 – Preliminary Design & Engineering
- September & October 2020 – Detailed Design & Permitting
- November & December 2020 – Construction Documents
- January & February 2021 – Project Bidding & Contractor Selection
- April – October 2021 – Construction

Item	Cost	Grant Funding	Local Funding
Pedestrian Bridge	$546,368	$546,368	$0
Shoreline Restoration	$243,340	$121,671	$121,669
Pedestrian Trail	$278,739	$137,770	$137,770
Total	$1,068,447	$946,778	$259,439

Grants

WEDC Idle Sites (Acquired) - $500,000
2019 WDNR Stewardship (Acquired) - $168,980
2020 *WDNR* Land Water Conservation Fund (Pending – Late Summer) - $138,429

“State” Grant Funding Path - Phase II Items & Timeline

Items

- Whitewater Features
- Dam Removal
- Pedestrian Plazas & Seating Areas
- Shoreline Restoration
- Millpond Remediation & Restoration
- Pedestrian Trail – 4th St to Water St

Future Timeline

- September 2020 – September 2021 – Detailed Design & Permitting
- November & December 2021 – Construction Documents
- January & February 2022 – Project Bidding & Contractor Selection
- April – October 2022 – Construction

“State” Grant Funding Path - Budget

Item	Cost	Grant Funding	Local Funding
Whitewater Features	$1,397,978	$698,989	$698,989
Dam Removal	$562,021	$400,000	$162,021
Plazas, Trails, & Underpass	$1,480,996	$740,498	$740,498
Millpond Restoration & Remediation	$425,000	$212,500	$212,500
Total	$3,865,995	$2,051,987	$1,814,008

Grants

2020 WDNR Municipal Dam Program (Pending) - $400,000
2021 *WDNR* Land Water Conservation Fund (To be applied for) - $1,439,487
2022 WDNR Municipal Flood Control (To be applied for) - $212,500

Federal & State Grant Funding Path – Phases

Phase I – Redevelopment Site Improvements
- Pedestrian Bridge – Mandt Park to Redevelopment Site
- Shoreline Restoration – Redevelopment Site
- Pedestrian Trail – 7th St to 4th St

Phase II – Whitewater Park Area Improvements
- Whitewater Features
- Dam Removal
- Pedestrian Plazas & Seating Areas
- Shoreline Restoration
- Millpond Remediation & Restoration
- Pedestrian Trail – 4th St to Water St

Phase III – Mandt Park Improvements
- East & West Parking Lots
- Looped Trail System & Shoreline Naturalization
- New Roadway System
- Pedestrian Bridge – Jefferson Street

Federal & State Grant Funding Path – Budget

Phase I	Item Cost	Eligible Cost	State Grants	Eligible State Grants	Local	Eligible Local	DOT Grant
RDA Trail	$ 278,739	$ 242,379	$ 140,960	$ 104,600	$ -	$ -	$ 137,779
RDA Ped Bridge	$ 546,368	$ 475,103	$ 407,939	$ 336,674	$ -	$ -	$ 138,429
Shoreline Restoration	$ 243,340	$ 211,600	$ 121,671	$ 92,061	$ 2,130	$ -	$ 119,539
Subtotal	$ 1,068,447	$ 929,082	$ 670,570	$ 533,335	$ 2,130	$ -	$ 395,747
Phase II							
Millpond Remediation & Restoration	$ 425,000	$ 425,000	$ 212,500	$ 212,250	$ -	$ -	$ 212,500
Plaza Underpass	$ 1,480,996	$ 1,422,060	$ -	$ -	$ 58,936	$ -	$ 1,422,060
Whitewater Features	$ 1,397,978	$ 1,331,695	$ -	$ -	$ 66,283	$ -	$ 1,331,695
Dam Removal	$ 562,021	$ 535,372	$ 400,000	$ 400,000	$ 26,648	$ -	$ 135,373
Subtotal	$ 3,865,995	$ 3,714,127	$ 612,500	$ 612,250	$ 151,867	$ -	$ 3,101,628
Phase III							
Roadway System	$ 650,571	$ 650,571	$ -	$ -	$ -	$ -	$ 650,571
Multi-Use Path and Shoreline Naturalization	$ 592,210	$ 592,210	$ 249,000	$ 249,000	$ -	$ -	$ 343,210
East Parking Lot	$ 684,219	$ 684,219	$ -	$ -	$ -	$ -	$ 684,219
Jefferson St Ped Brige	$ 498,420	$ 468,600	$ -	$ -	$ 42,748	$ 12,928	$ 455,672
Subtotal	$ 2,425,420	$ 2,395,600	$ 249,000	$ 249,000	$ 42,748	$ 12,928	$ 2,133,672
Totals	$ 7,359,862	$ 7,038,809	$ 1,532,070	$ 1,394,585	$ 196,745	$ 12,928	$ 5,631,047
BUILD Eligible Totals		$ 7,038,809		$ 1,394,585		$ 12,928	$ 5,631,047

Frequently Asked Questiosn

Water Levels & Control

- The river would be free flowing
- Less control of the water levels
- Most impact would be in the Stoughton Millpond

Environment

- The environmental impacts will be looked at during the permitting process.
- We may need to have an environmental assessment or environmental impact statement completed
- "Dams disrupt a river's natural course and flow, alter water temperatures in the stream, redirect river channels, transform floodplains, and disrupt river continuity. These dramatic changes often reduce and transform the biological make-up of rivers, isolating populations of fish and wildlife and their habitats within a river." – American Rivers

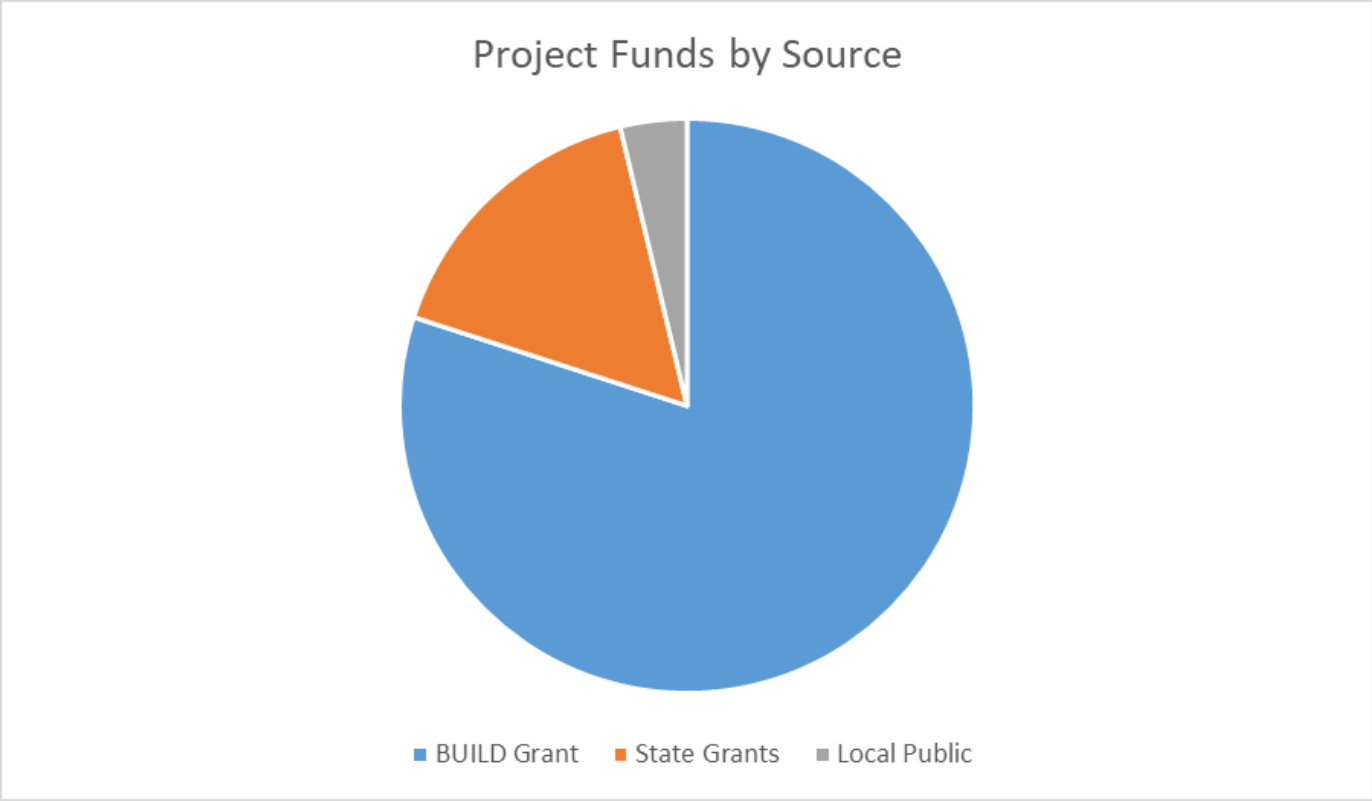
Property Values

- 2006 University of Wisconsin – Madison Study – Does Small Dam Removal Affect Local Property Values? An Empirical Analysis.
  - "This being the case, and given the results of the current study, the available evidence is that properties that lose their frontage on impoundments would increase in value as their frontage converts to "frontage" on a riverside greenbelt, so long as the greenbelt is dedicated to preserving the natural features of the riparian zone."
- Property values in the project area are estimated to improve 10-20% based on other projects.
- Low Utility to High Utility Property Transformation
  - Grand Rapids, MI Economic Impact Study

Project Financials

- Improvement Costs
- Phase I - $1,523,484
- Phase II - $3,865,995
- Phase III - $1,927,000
- Total - $7,316,479

- Project Funds by Source
- Federal Grants - $5,631,047
- State Grants - $1,393,245
- Local Funds - $292,186



Miscellaneous Questions

- What will the cost be to use the park?
  - There will be no charge to use the park.
- Does the project affect fishing?
  - DNR fishery biologists believe the fishery will be improved. The existing conditions allow carp to thrive. The changes will lower the temperature of the water creating conditions that are conducive to smallmouth bass.
  - Fishing access will be much improved in the City through the acquisition of public lands throughout the project area.
- Does the project affect downstream water levels?
  - The water levels downstream of the Stoughton dam will be unaffected.

Miscellaneous Questions Continued

- Does the dam have historical value?
  - The dam does not have historical value based on the repairs that were done in 2009.

- Does the project affect the canoe race?
  - The canoe race may need to modify the start, but it would still be able to happen. The finish could go through the whitewater park with a finish at Mandt Park.

- Updated FAQ at www.stoughtonrec.com/riverpark

Thanks

www.stoughtonrec.com/riverpark