

# HISTORY OF THE ST. CHARLES DAM

City of St. Charles Dam Task Force Meeting - May 2, 2024 7:00 pm

City of St. Charles Public Works Department

# Presentation Agenda



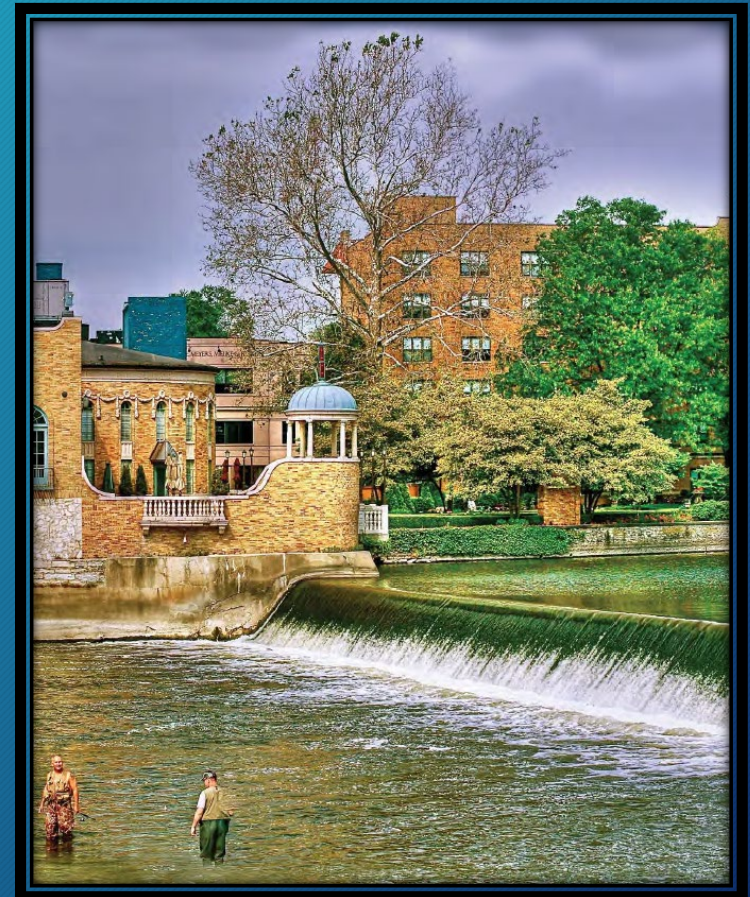
Early History  
of St.  
Charles Dam

Modern  
History of  
the St.  
Charles Dam

Active River  
TF - River  
Park  
Concept

Fox River  
Connectivity  
& Habitat  
Study

Questions?



# Early History of the St. Charles Dam



- Original Construction Complete in 1916 & 1936
  - Wood & Earthen Materials
  - Water control for water powered mills
  - Supported Economic Growth of St. Charles
  - Ice Harvesting (Early Refrigeration)
- Re-Construction “Concrete Low Head Dam” 1934 Plans Prepared
- Capped & “Gunite” - 1935 thru 1939 Plans Prepared
- 1960 State Div. of Waterways constructed todays dam under contract FR-118

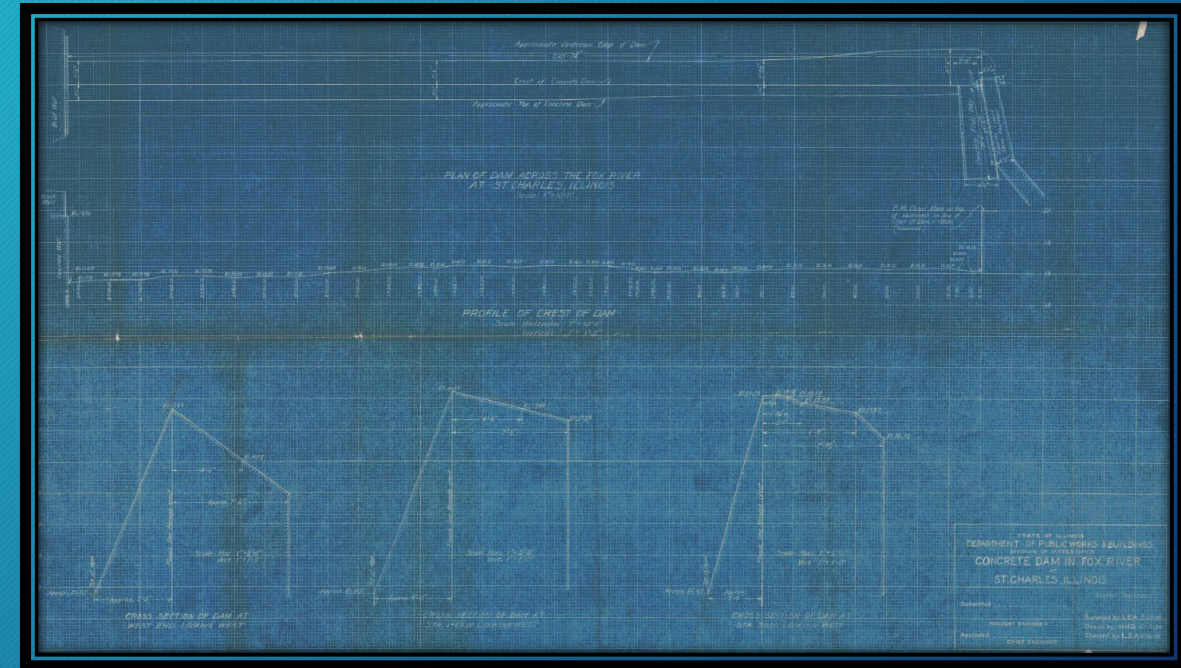


Photo credit - State of Illinois Dept. of Public Works

# Modern History of the St. Charles Dam



- Dam Structure\*
  - Owned by State of Illinois
  - Located +\- 120' North of IL Rte. 64
  - Approximately 6' tall & 300' long
  - Broad Concrete Crest Style w/ Steep Face 60 degrees
  - 2 Abutment training walls & Spillway
- 2006 - State of Illinois initiates “Evaluation of Public Safety at Run-of-River Dams”
  - Report presents options and recommendations to improve safety...near 25 low head or run of the river dams on publicly navigable waterways.
  - Included “Options Assessment” St. Charles Dam
    - Temporary Rock Fill, Dame Removal, Full By-Pass Channel, Riffle Pool, In-Stream By-Pass, Face Modification



## Evaluation of Public Safety at Run-of-River Dams

4.8 Fox River Dams

4.8.6 St. Charles Dam

CTE | AECOM

# Modern History of the St. Charles Dam Cont...



- 2007 IDNR Inspection by CTE Engineers\*
  - Noted the following Assessment items
    - “no apparent obvious deficiencies”
    - Standard signage present but limited upstream warning
    - Abutment railings have bottom openings
    - Emergency vehicles have limited access
    - A ledge exists on the east side that would allow pedestrian access to the face of the dam.
    - No marked portage points
  - Noted ownership as - State of Illinois (IDNR 2006)



# Modern History of the St. Charles Dam Cont...



- 2008 - Presentation of IDNR Proposed Rules Concerning the Fox River Dam to Government Service Committee
  - Mark Koenen, Public Works Director presented proposed rules impacting the City
  - Signs, buoys, access restrictions
  - Have been operating under these warning systems since 2008 to present day.
  - Maintenance of buoys, signs, etc, has remained with IDNR since placement
  - Debris removal, vegetation removal and access control has been maintained by the City



# Modern History of the St. Charles Dam Cont...



- 2009 Municipal Center Wall and Plaza Restoration Project
  - Addressed some related concerns with 2007 inspection
    - Limited Access with installation of Parapet Wall & Railing
    - Corrected Damage at East Abutment
    - Repaired Viewing Platform and Stairs
  - NOT a dam specific project but was related to some issues noted in 2007 inspection report
  - Performed Dive Inspection of area



# Active River Task Force - River Park Concept



- 2015 River Corridor Foundation of St. Charles Master Plan Update - River Park Concept
- Staff from City, Park District, Forest Preserve District and RCF formed Task Force to investigate initial details of the River Park Concept.
  - Feasibility, Ownership, Permitting and Regulatory Items
  - Task Force Meeting with IDNR
    - Ownership of existing structure (IDNR)
    - Riparian Rights of Adjacent Owners
    - Multiple Permitting & Regulatory Offices Involved
    - Ownership of Proposed Structures (City or other Municipal Body)





# Active River Task Force - River Park Concept Cont...



- Task Force presented completed Master Plan and River Park Concept

- Preliminary Hydraulic Analysis
- Base Map and Existing Conditions
- USACE Sediment Depth Study
- 3 - River Park Concept Plans
- Engineers Estimate of Probable Cost

- River Park Concept Goals

- Maintain Upstream Pool
- Create Recreation and Economic Driver
- Eliminate Safety Concerns
- Improve Connectivity

**St. Charles Active River Project**  
Alternative One

WBK engineering | S.O. International | City of St. Charles  
June 26, 2017

**Legend**

- 1 Active Features: Adaptive Playground, Wave Pools, Boat Dock
- 2 Accessible River Access
- 3 Accessible Park Area
- 4 Improper Fishing Area
- 5 Active Features: Engineer Hole
- 6 Accessible River Access: Handicap Chaise
- 7 Informal/Ad-hoc Fishing Area
- 8 Active Features: Intermediate/Advanced Hole
- 9 River Access Point
- 10 Accessible/Informal River Access Point

**City of St. Charles**  
6-26-2017

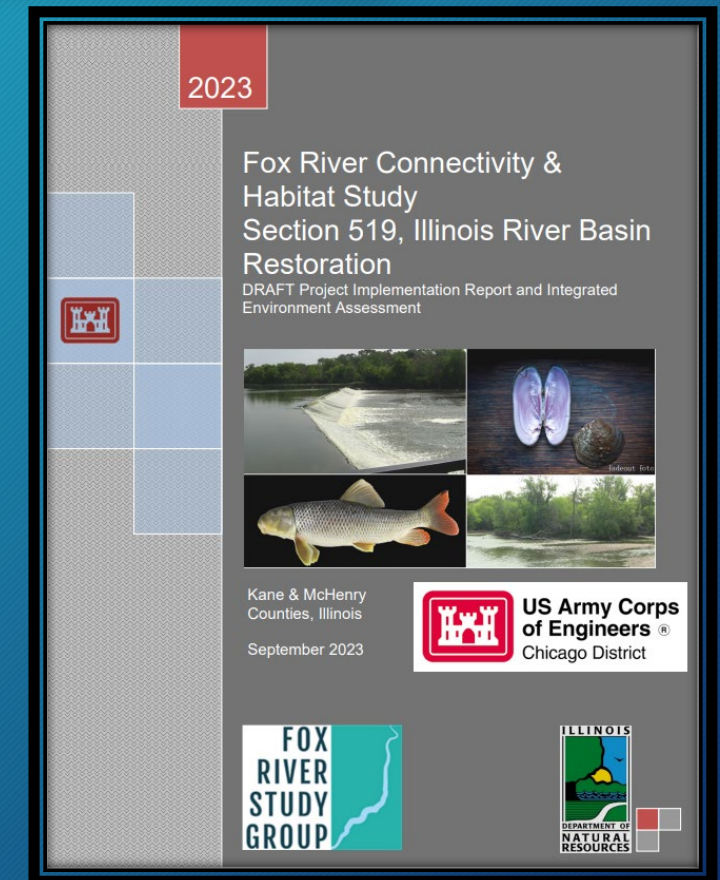
Presented By:  
**WBK engineering**

# Fox River Connectivity & Habitat Study



## Background:

- In 2023, the Illinois Department of Natural Resources (IDNR) and Army Corps of Engineers released a draft report recommending the removal of dams along the Fox River, including St. Charles. The agencies are assessing the feasibility of restoring the river connectivity and habitat for fishes, mussels and wildlife along a stretch of the Fox River from Algonquin to Montgomery.
- The draft report considers three alternative plans to restore the river connectivity and habitat, including a no-action option. The recommendation involves the demolition, removal and disposal of the existing dam structures in St. Charles and other communities.
- The St. Charles dam is owned by the Illinois Department of Natural Resources. The City of St. Charles will not have final authority on the dam's future since the decision rests with the State.



# Fox River Connectivity & Habitat Study Cont...



## What We Know:

- The City is not required to file a Letter of Interest with the State of Illinois proffering its decision to remove, redesign and retain the dam since the City is not the owner of the dam. The owner of the St. Charles dam is the IDNR.
- The IDNR & Army Corps held public hearings and accepted written comments in 2023. The feedback will be included in the Army Corps's final report, which is expected to be completed in January 2025.
- There is no cost to the City for dam removal. There would be significant costs to redesign and/or retain the dam because those options require the City to accept ownership of the dam and all maintenance and liabilities associated with such ownership. The IDNR detailed the cost breakdown in a letter sent to the City.

**Illinois Department of Natural Resources**  
JB Pritzker, Governor • Natalie Pheloa Finnie, Director  
One Natural Resources Way • Springfield, Illinois 62702-1271  
[www.dnr.illinois.gov](http://www.dnr.illinois.gov)

12/01/2023

Honorable Lora Vitek  
City of St. Charles  
2 E. Main Street  
St. Charles, IL 60174  
[lvitek@stcharlesil.gov](mailto:lvitek@stcharlesil.gov)

Dear Honorable Vitek,

"A river is more than an amenity; it is a treasure" – Oliver Wendell Holmes Jr.

The USACE has recently completed their public comment period for the draft *Project Implementation Report and Environmental assessment (PRI/EA) for the Fox River Connectivity & Habitat Study* (<https://www.lrc.usace.army.mil/Missions/Civil-Works-Projects/Fox-River-Connectivity-Habitat-Study-IL/>). The USACE's *Tentatively Selected Plan (TSP)* recommends full removal of Fox River dams in the following communities: Carpentersville, Elgin, South Elgin, St. Charles, Geneva, Batavia, North Aurora, Aurora, and Montgomery. In the coming year, the USACE will be seeking letters of intent from the dam owners, identifying support for these proposed projects.

As the owner of the dam in your community, the State of Illinois is looking to evaluate the community's interest in the dam. The State of Illinois' current interest is to remove all dams to improve public safety, reduce liability, reduce maintenance costs, improve water quality, and to improve fish passage and species diversity throughout the study reach.

Below is a table containing information from a 2007 IDNR dam safety study prepared by CTE/AECOM ([Part 1](#) and [Part 2](#)) documenting your community's specific dam information. The information includes potential estimates of costs for dam removal and modification alternatives. Note that these estimates of costs have been taken from the 2007 CTE/AECOM dam safety study and may not reflect current construction rates.

Per the attached [IDNR/OWR Public Dam Removal Program Local Government Participation Guidance](#), IDNR can participate in dam removal projects and provide funding to cover 100% of dam removal costs. In lieu of full removal, the IDNR may provide limited funding for dam modification safety improvements with expressed ownership conditions per the guidance. If a community desires to modify the existing dam, and that modification incorporates removal of the reverse hydraulic roller below the dam, the IDNR can provide up to 60% of the dam removal cost toward such a dam modification option. IDNR will work with communities on a first come basis per the prioritization presented in the dam removal program guidance document.

Based on the findings of the IDNR dam safety study by CTE/AECOM and applying the IDNR/OWR Public Dam Removal Program guidance, the table below provides preliminary cost breakdowns for possible options for the dam in your community.

# Questions?

