SECTION 519 FOX RIVER HABITAT & CONNECTIVITY STUDY UPDATE

USACE Chicago District
October 31, 2024

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PROBLEMS & OPPORTUNITIES

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Riverine Fragmentation

- Prevents fish/mussel migration during all flows
- Limits tributary accessibility in some reaches

Altered Riverine Process

- Alters hydraulics, creating lentic (lake) conditions
- Alters sediment transport by trapping cobble, gravel and sand
- Lost ability to sort, clean, and remove embeddedness
- Scours habitat and substrates ~500-feet below dam
- Promotes unsustainable wetlands within impoundment
- Lost ability to absorb flood pulses

Riparian Plant Communities

Water Quality Degradation

Human Safety

Aesthetics

STUDY OBJECTIVES

Objective 1 – Reestablish Fluvialgeomorphic Processes to Support Riverine Habitat

Existing run-of-the-river dams alter riverine conditions limiting natural recovery. Improvement is measured via the predicted increase in quality of riverine habitat (FWP HSI (QHEI)).

Objective 2 – Reestablish Connectivity for Riverine Animal Assemblages

Currently 70% of the river is impounded by run-of-the-river dams blocking passage for riverine organisms. Improvement is measured via the predicted increase in distribution in species richness.

MEASURES CONSIDERED

Dam Removal Demolition

- Full Removal of dam, spill way, aprons
- Partial Removal; notching if necessary

By-Pass Channel

- Excavation/grading
- Rock placement

Rock Ramp

- Rock placement

Fish Ladders

- Metal, concrete or combination

TENTATIVELY SELECTED PLAN

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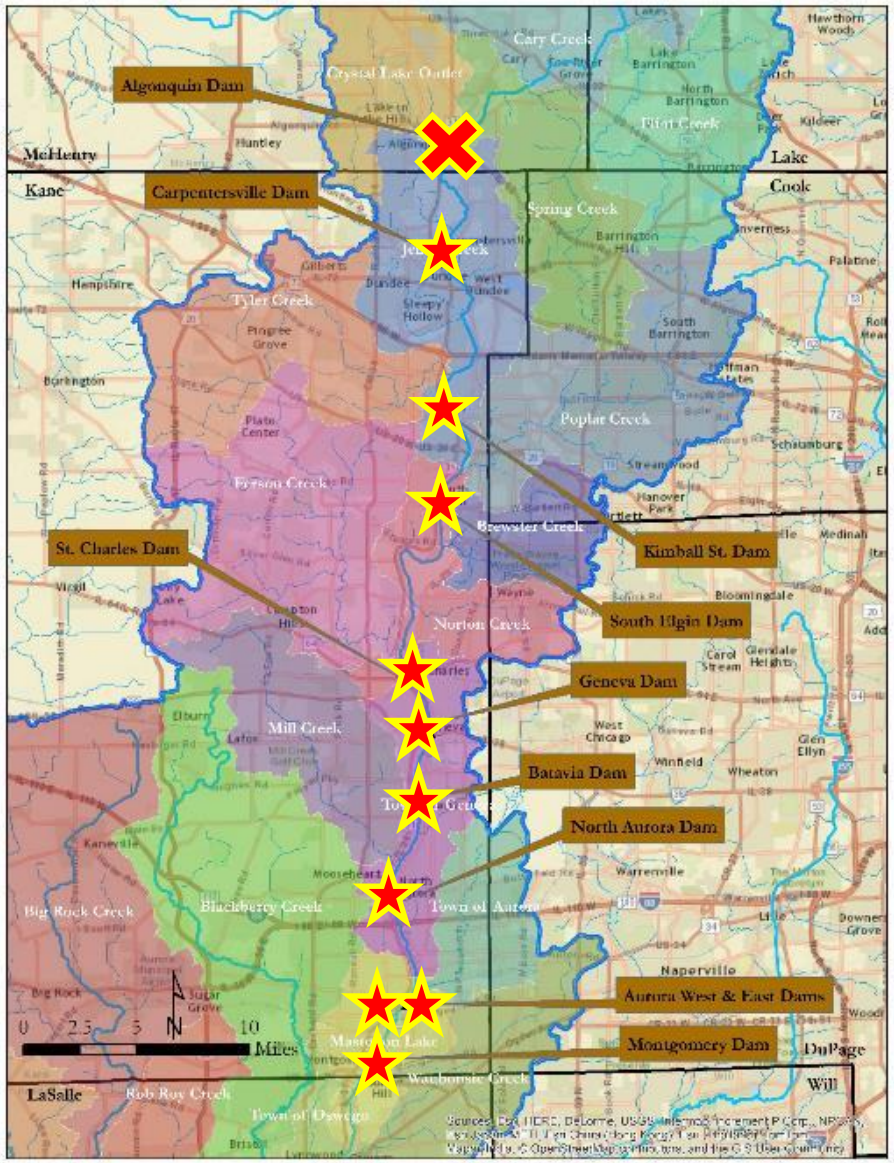

MEASURES:

- **Full Dam Removal**
- **9 Dams**

Construction Methods

- **Demolition**
  - Full demolition
  - Spillway or notch for dewatering
  - Remove and recycle/dispose all materials generated from demolition
- **Grading**
  - Post demolition clean up and restoration
- **BMPs**
  - Temp erosion control
  - Water runoff control
- **Adaptive Management**
- **Monitoring**
  - Habitat quality
  - Sediment transport
  - Fish / mussel migration
  - Native fish species richness & abundance
  - Water quality

RECENT UPDATES

- Forest Preserve District of Kane County and IL DNR started removal of Carpentersville Dam in Fall 2024
- USACE is shifting to a programmatic environmental assessment for NEPA compliance
- Will complete supplemental NEPA analysis, sediment sampling, and H&H modelling during design phase
- Follow-up public and agency review period anticipated in early 2025

Photo Credit: Art Malm

UPCOMING WORK

- USACE finalizing preliminary sediment transport estimates.
- Upcoming public comment period in early 2025 to outline changes from standard to programmatic EA
- Coordination with IDNR-OWR and municipalities to finalize municipal decisions on state owned dams.
- Seeking letters of intent from dam owners by mid-2025.
- Coordination with IDNR-OWR to outline design agreement approach.

TENTATIVE SCHEDULE

- 11/2023 Public comment period closed
- 12/2023 Developed responses to public/agency comments
- 2024 Shift to programmatic approach to NEPA
- 1/2025 Second public and agency review period
- 4/2025 Move from TSP to Recommended Plan
- 4/2025 Seek non-binding letters of intent from non-federal sponsors
- 8/2025 Report approval

End of Feasibility Phase

- 1/2026 Execute Design Agreements
- 2026 Develop plans and specifications
- 2027 Project Partnership Agreements
- 2027-? Construction award