



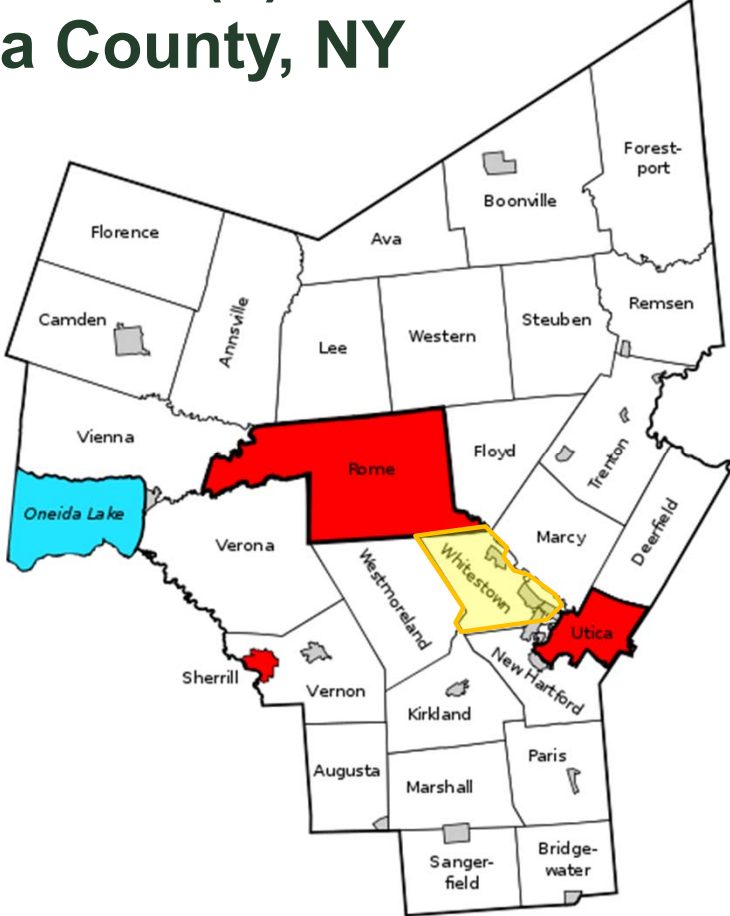
**Environmental
Facilities Corporation**

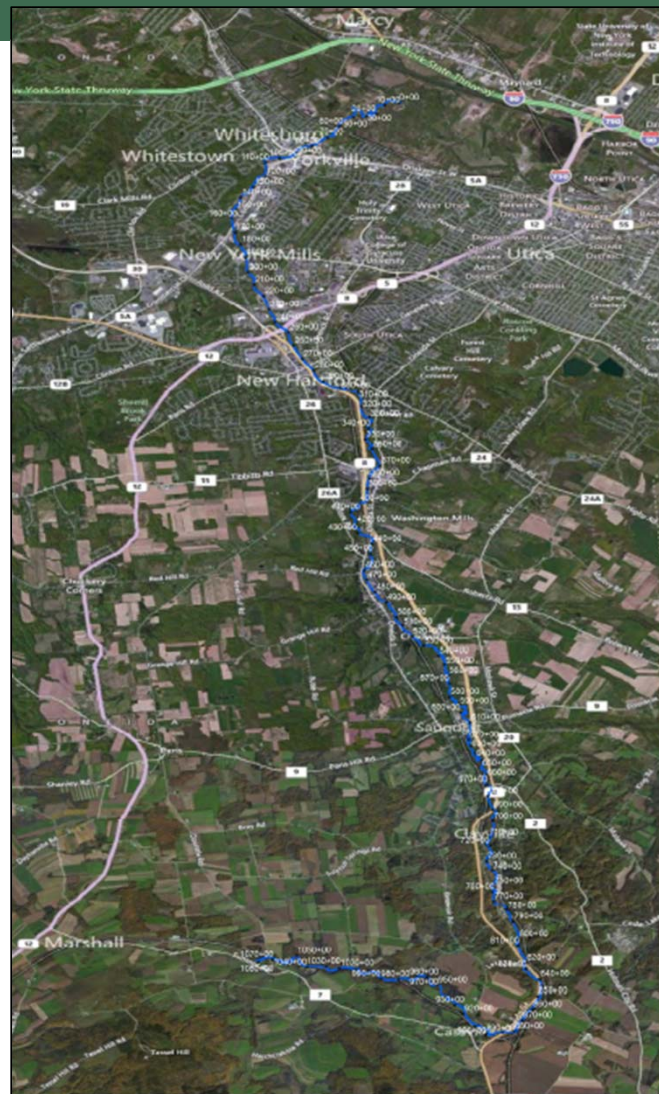
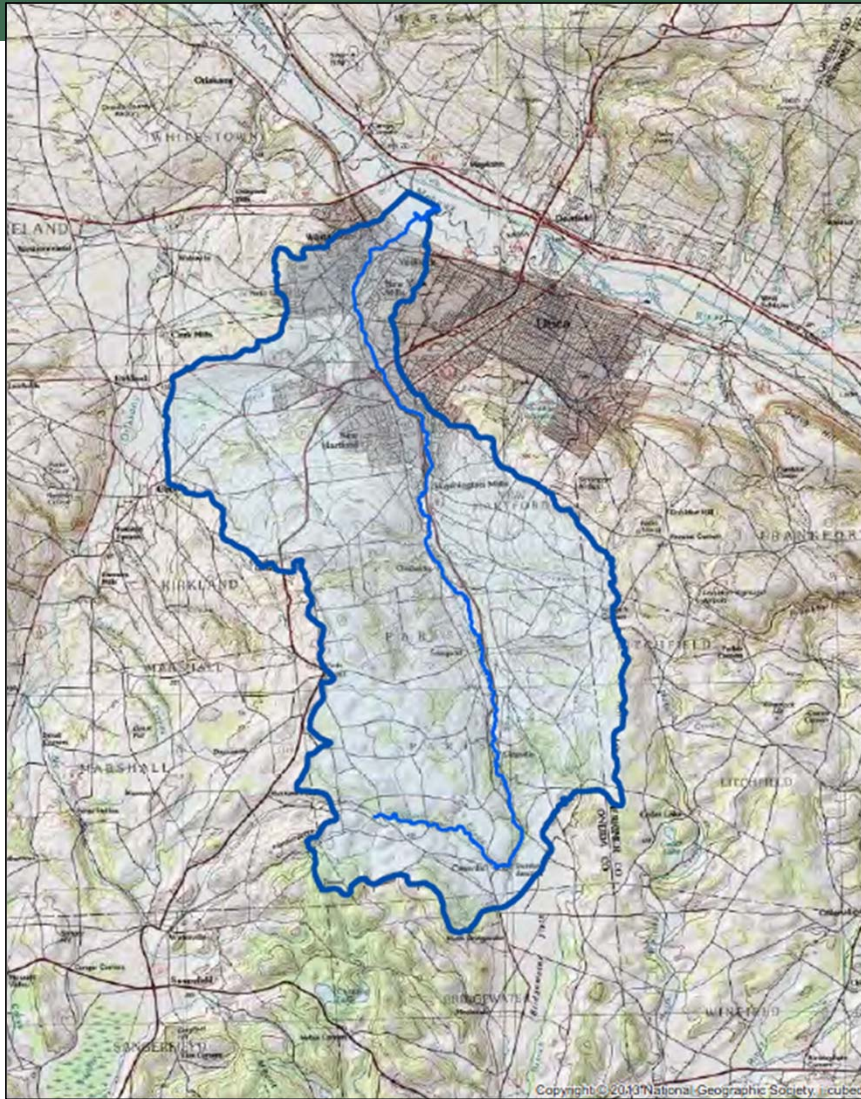
Whitestown (T) Sauquoit Creek Floodplain Restoration Case Study

NEIWPC National SRF Workshop

July 28, 2022

Whitestown (T) Oneida County, NY





Phase 1

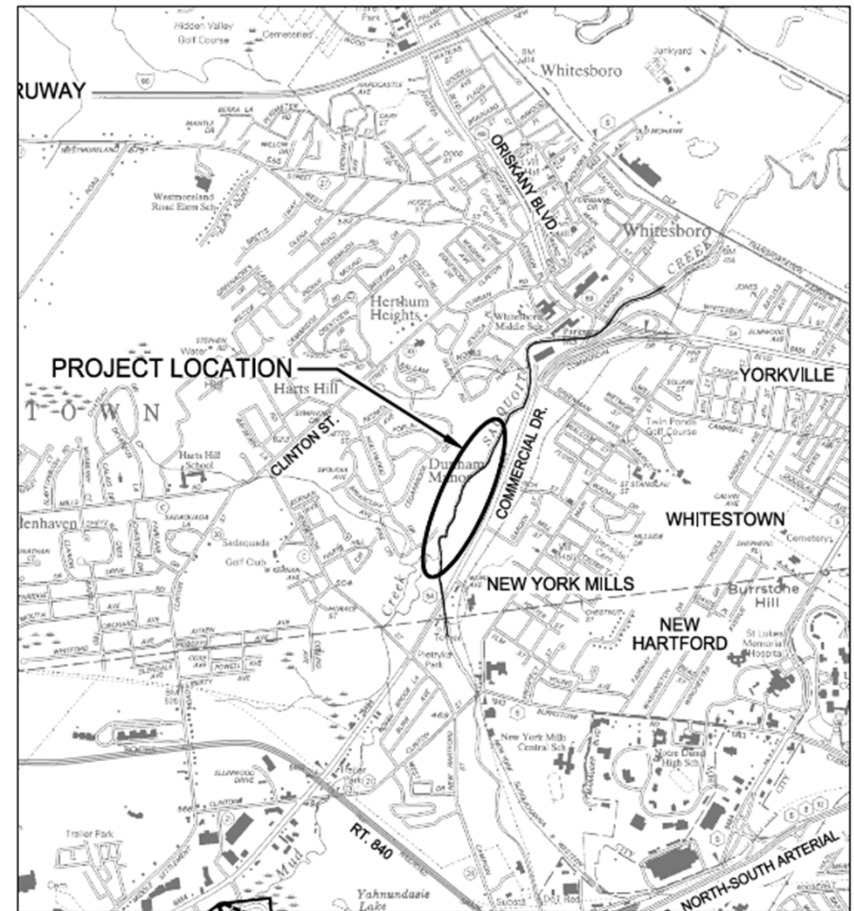
Floodplain reconnection and bank stabilization ~ 8,300 linear feet

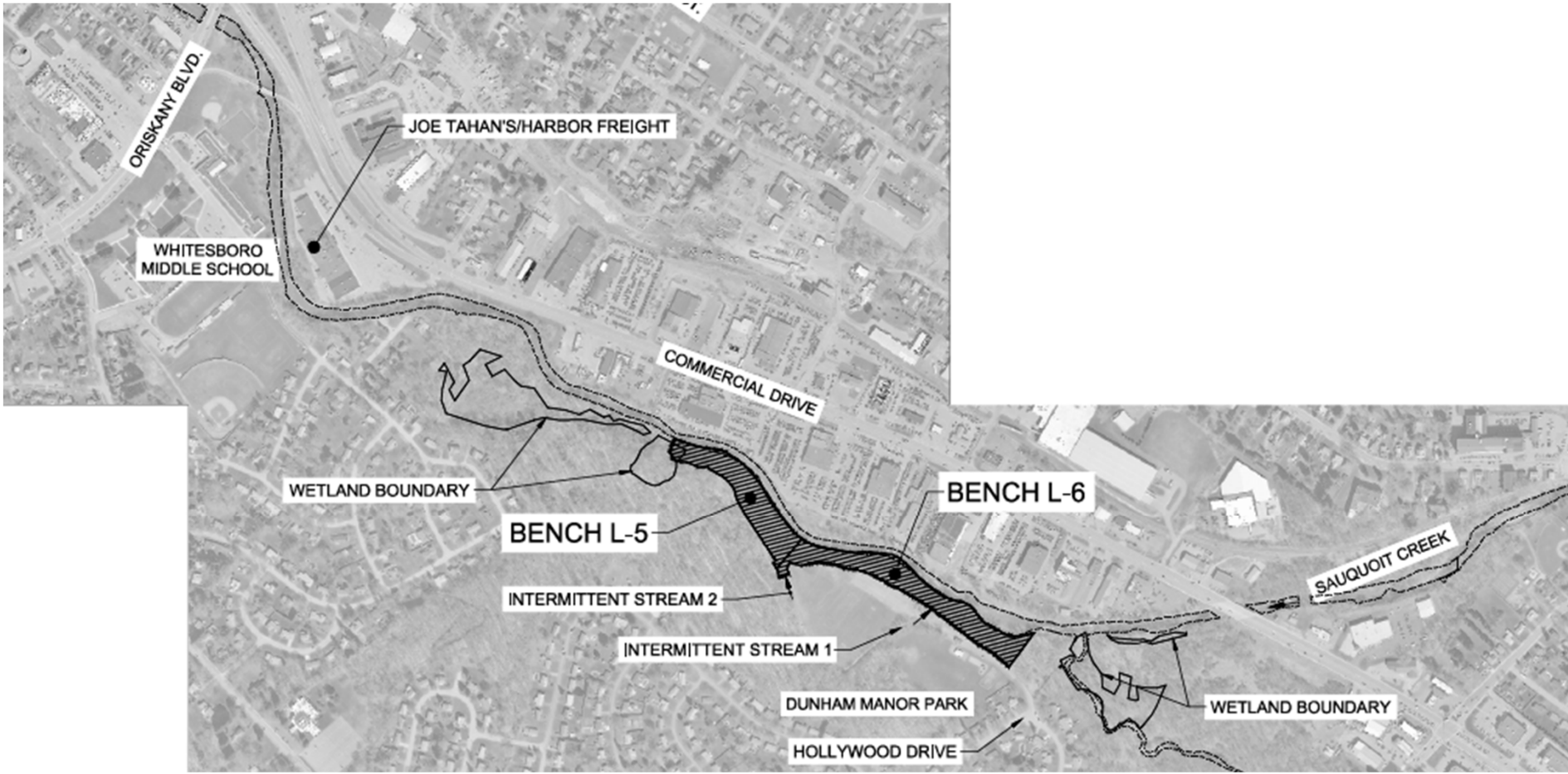
Total Project Cost: \$4.925M

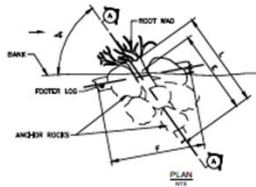
- EFC GIGP Grant: \$2,000,000
- DASNY Grant: \$2,500,000
- Oneida County: \$ 400,000
- Trees for Tribs: \$ 25,000

Construction Start – March 2019

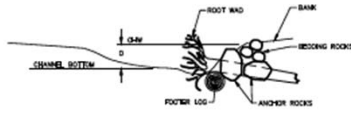
Construction Completion – October 2019







SECTION
 D = 24" MIN.
FOOTING LOG
 DL = 12" MIN. 24" MAX.
 L = 12" MIN. 24" MAX.
 W = 8" MIN. 12" MAX.
 F = 8" MIN. 12" MAX.
ANCHOR ROCKS
 DL = 12" MIN. 24" MAX.
 F = 10" MIN. 12" MAX.
ANCHOR ROCKS
 L = 24" MIN.
 W = 24" MIN.
OF ROCKS PER STRUCTURE 12 MIN.
ANCHOR ROCKS
 DL = 12" MIN.



- NOTES:**
1. USE HARDWOOD TREES SALVAGED FROM SITE. ACTUAL TREES TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION.
 2. TOP OF FOOTING LOG SHALL BE ONE FOOT BELOW LOWEST STREAMBED ELEVATION.
 3. WHEN EXCAVATING FOR ROOT WAD PLACEMENT, THE FAN END SHOULD BE TWO DEEPER TO ALLOW STABLE INSTALLATION OF STRUCTURE WITH FAN INTACT.
 4. RE-COMPACT ANY FILL AREAS AND STABILIZE.
 5. STABILIZE DISTURBED AREAS WITH SEED MIX AND GEOTEXTILE BARRIERS.
 6. ROOT WADS SHALL BE SPACED WITH A MINIMUM OF 10 FEET BETWEEN THEM.
 7. PREFERENCE SHALL BE GIVEN TO THE SPECIES THAT ARE CAPABLE OF PRODUCING BRACKEN/ROOT PRODUCTS (E.G. WALNUT).
 8. THE ANGLE OF THE ROOT FAN TO THE CENTERLINE OF STREAM SHALL BE BETWEEN 90° AND 45°. THE FAN SHALL NOT EXTEND MORE THAN 50% OF THE BANKWIDTH WITHIN FROM THE BANK.
 9. THE ROOT FAN SHALL HAVE A MINIMUM OF 3 INTO THE EXISTING BANK.
 10. A CONTINUOUS BLANKET OF LIVE CUTTINGS SHALL BE PLACED BETWEEN EACH LOG. LIVE STAKES SHALL BE USED TO SECURE THE LOGS AND SHALL BE SPACED EVERY 2'.

2
ROOT WAD BANK STABILIZATION DETAIL
 NOT TO SCALE



Floodplain Construction



Floodplain construction



Root wad placement and floodplain construction





Final Construction



Phase 2

February 2019, Sauquoit Creek experienced an ice jam related flood event at a CSX railway bridge

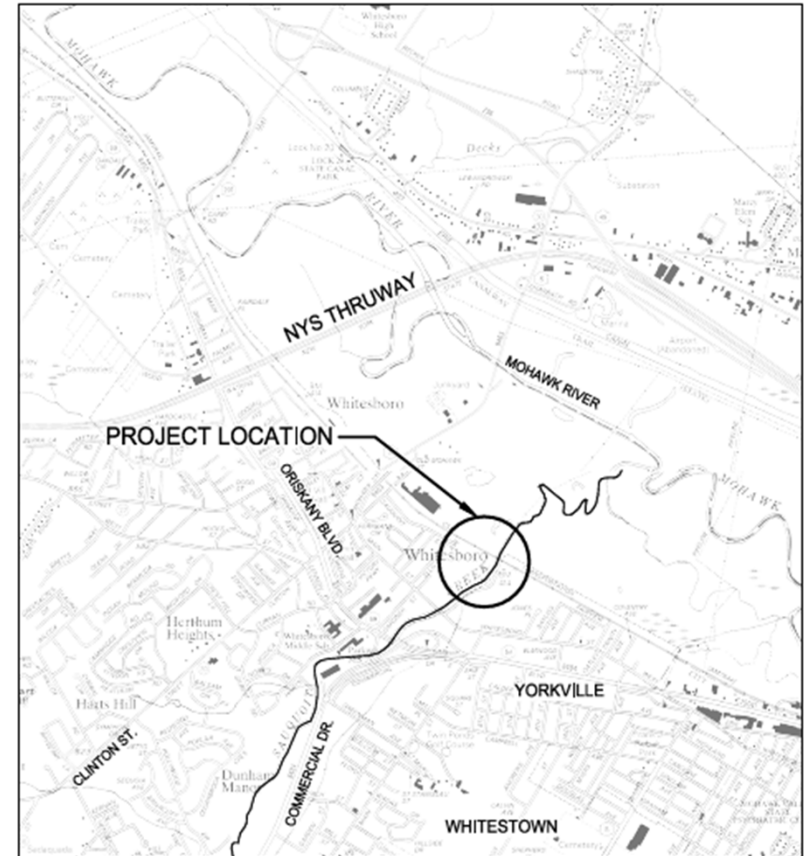
Project constructed a floodplain bench and ice mitigation structure near CSX bridge

Total Project Cost: \$4.79M

- EFC GIGP Grant: \$2,500,000
- NYSDOT: \$ 800,000
- DASNY Grant: \$ 380,000
- NYSDEC WQIP Grant: \$ 100,000

Construction Start – June 2021

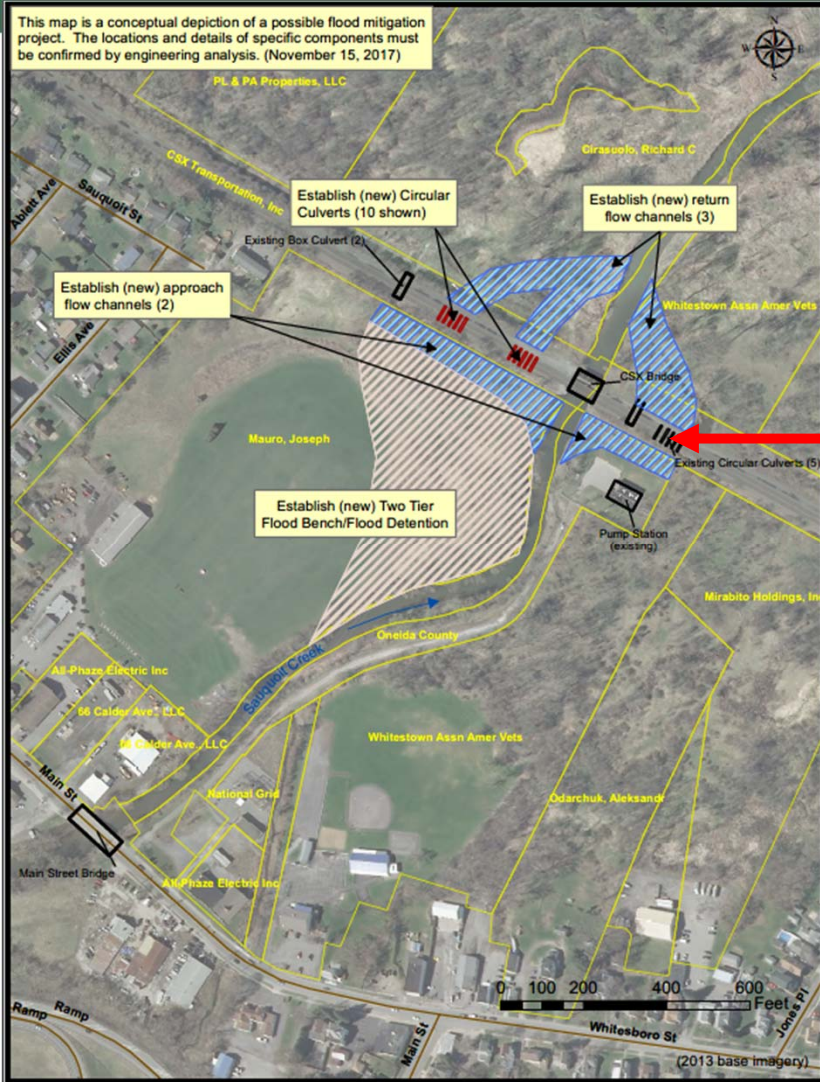
Construction End – July 2022



Oneida County Sanitary Pump Station



CSX Railway



Existing culverts (undersized for current flood events)



Jack and bore new 48" culverts under CSX railway





Root balls ready for installation



Site access



July 2022 – Floodplain Construction

Future Projects

Phase 3

Proposing additional floodplain benches and bank stabilization along Sauquoit Creek

- Applied for Green Innovation Grant Program (GIGP) funds in 2022
- Goal is to continue to reduce the flood stage by providing additional space for water to flow and slowly release downstream
- Bank stabilization, armoring the stream bank along with sediment reduction

Questions

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Division of Engineering**

www.efc.ny.gov

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