



**Department of
Environmental
Conservation**

Resilient NY Program

October 29, 2019

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New York City Watershed and Flood Resiliency Programs

Resilient NY Program

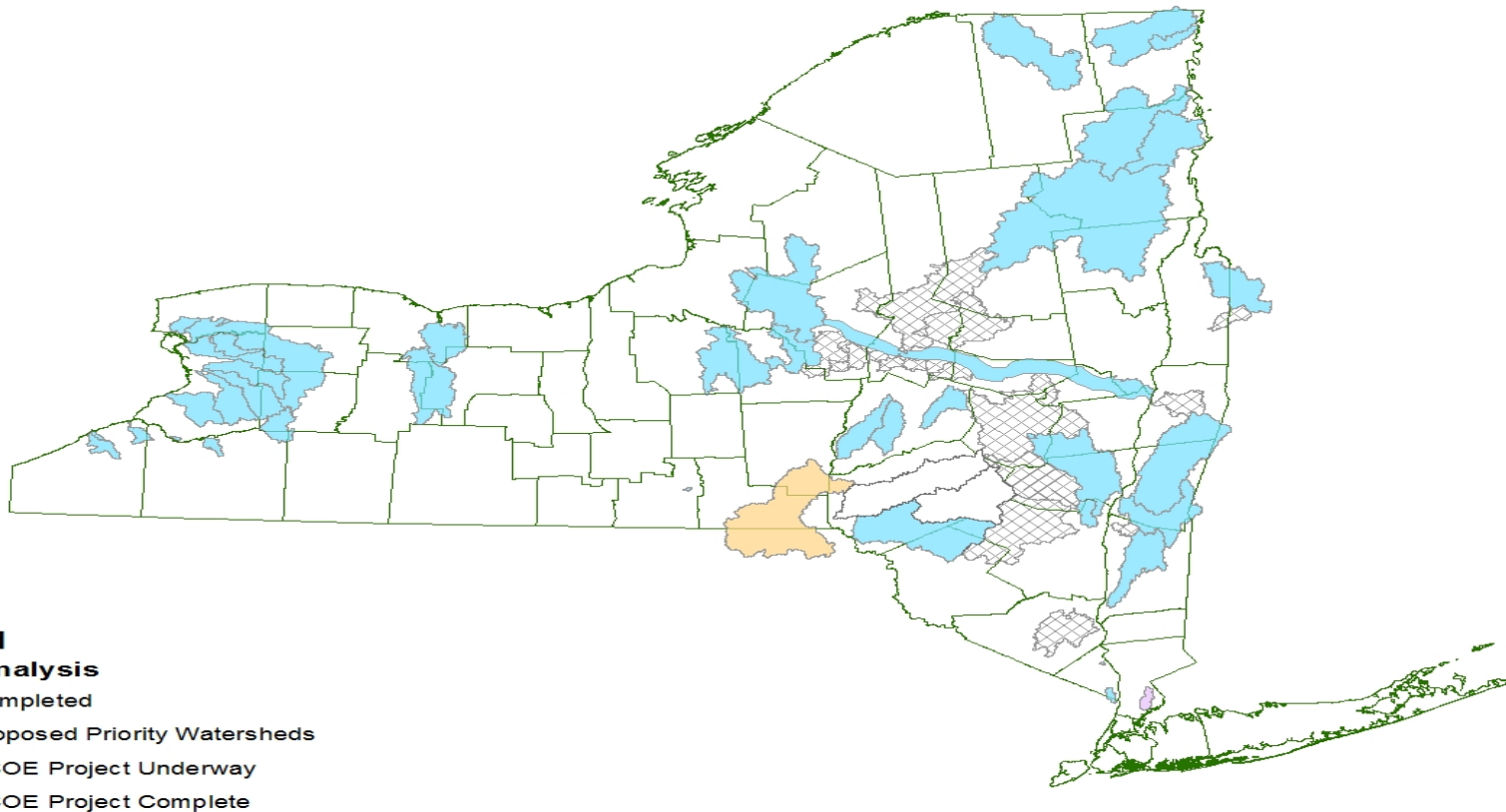
Flood/Ice Jam studies -

- Includes 48 high-priority watersheds across NYS
 - Comprehensive hydrologic and hydraulic analysis (HEC-RAS) and ice jams (where applicable);
 - Fluvial geomorphic assessment;
 - Current and future flood flows due to climate change will be evaluated; and
 - Reports will include specific project recommendations to mitigate flooding and ice jams.



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Resilient NY Program Proposed & Completed Priority Watersheds



Hudson River Watershed -

Wappinger Creek – Dutchess County

Roeliff Jansen Kill – Dutchess/Columbia

Main Street Brook – Ulster County

Catskill Creek – Greene County

Stockport Creek – Columbia/Rensselaer



How where these watersheds chosen?

- # of Repetitive Losses/community (FEMA information).
- # Repetitive Losses/stream (FEMA/DEC information);
- Total \$ flood insurance payment (FEMA information);
- DEC technical staff;
- Consultation with Departments of Homeland Security and Emergency Services and State; and
- County Soil and Water Conservation District staff.



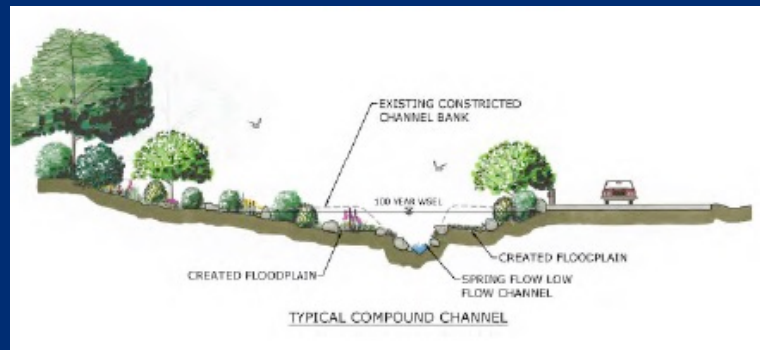
Flooding -

- An unfortunate reality in and near riverine areas across NYS
- Most recent catastrophic floods 2006, 2011, 2012 and 2013
- Isolated storms
 - July 2017 – Town of Whitestown/Village of Whitesboro, Hoosick Falls
- Ice jam flooding is also a common occurrence



Mohawk River Watershed Flooding

- In 2013/14, completed 13 state-of-the-art flood studies completed in high priority watersheds
 - 4 - Oneida County
 - 8 – Herkimer
 - 1 – Montgomery
- Schoharie Creek – initiated by County SWCD
- Restoration/mitigation plans to reduce risk and improve resiliency



Approach – same as in NYC watershed and Oneida, Herkimer and Montgomery Counties



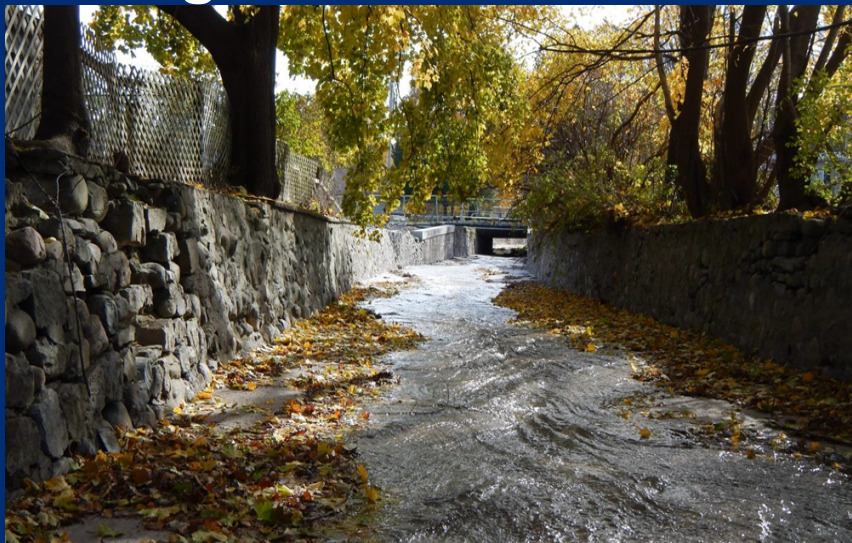
Issues

- Undersized bridges



Undersized stream channels

Bellinger Brook



Steele Creek



Issues -

- No floodplains



Dams

Steele Creek



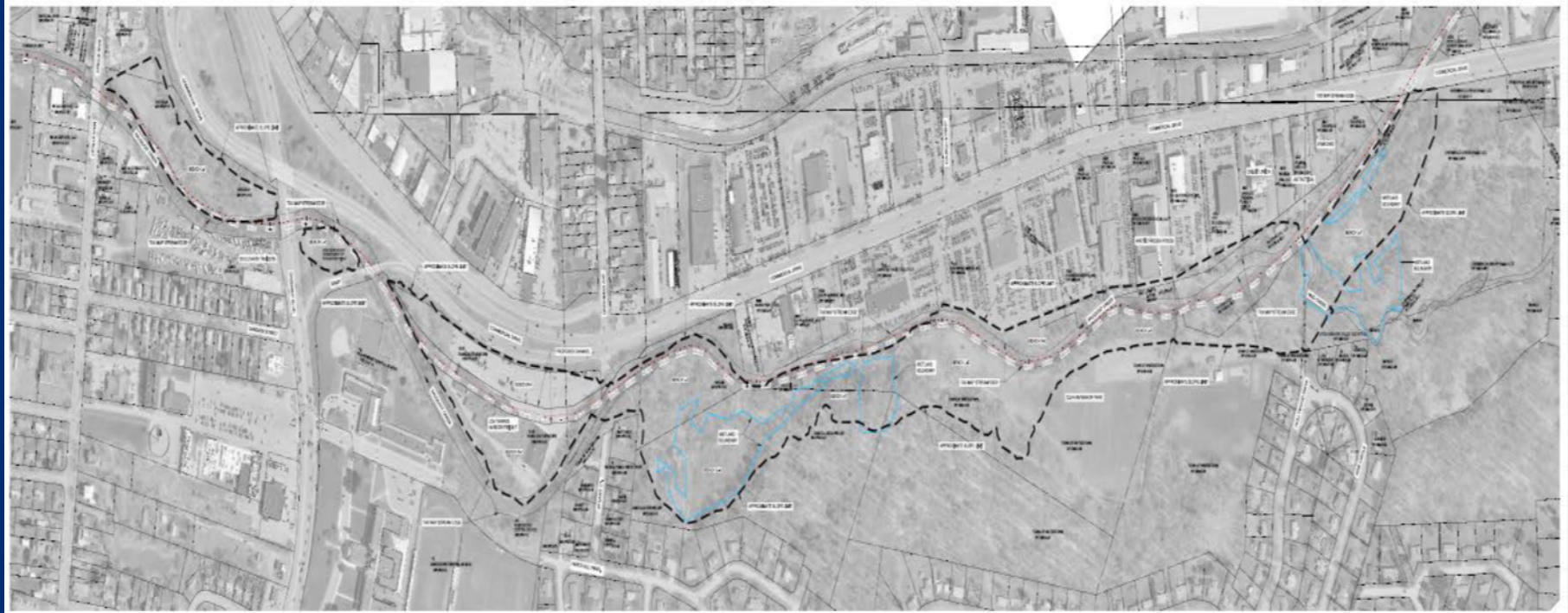
Oriskany Creek



Examples of flood mitigation projects resulting from these studies



Sauquoit Creek – Town of Whitestown





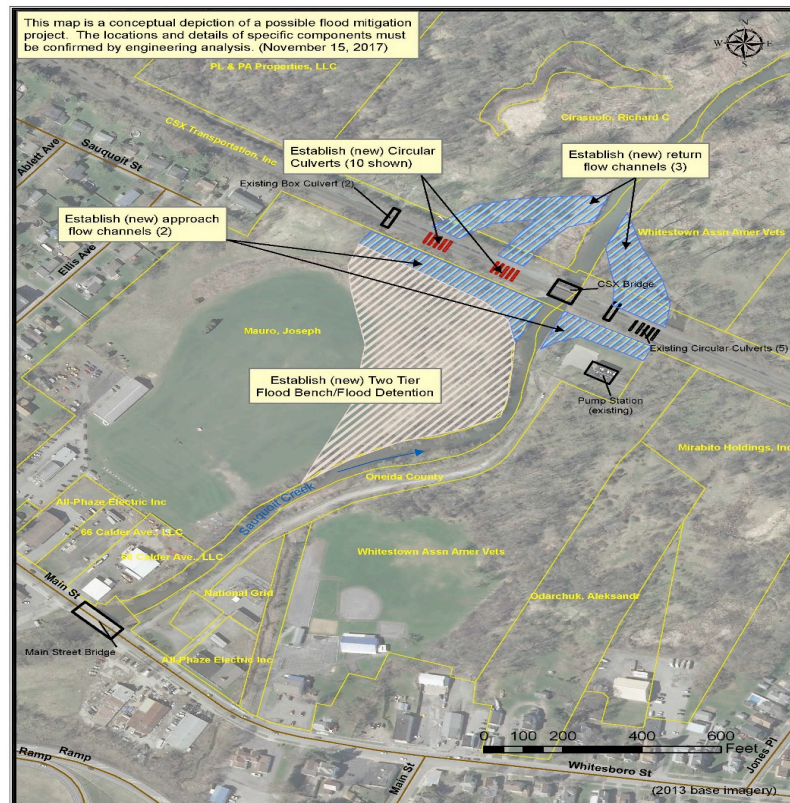






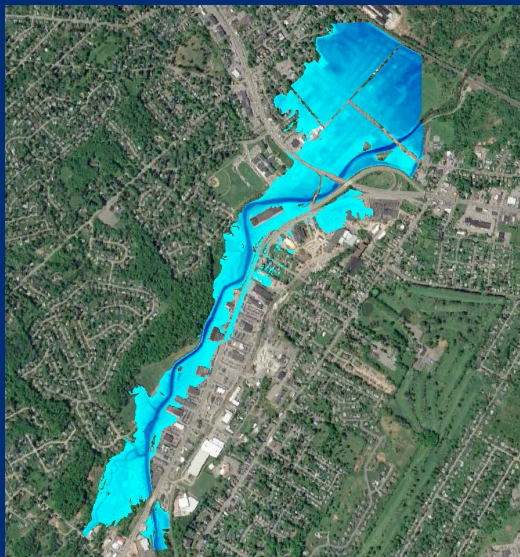


Lower Sauquoit Creek

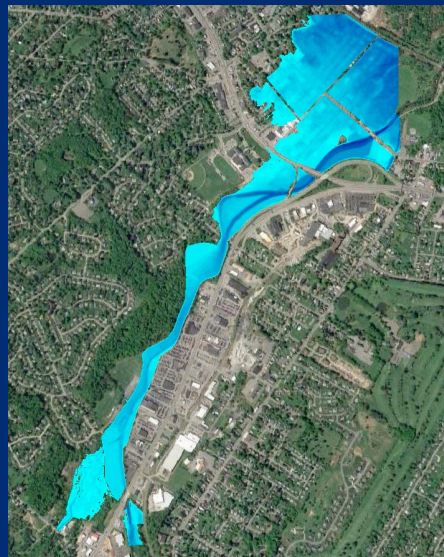


Sauquoit Creek

Existing Condition

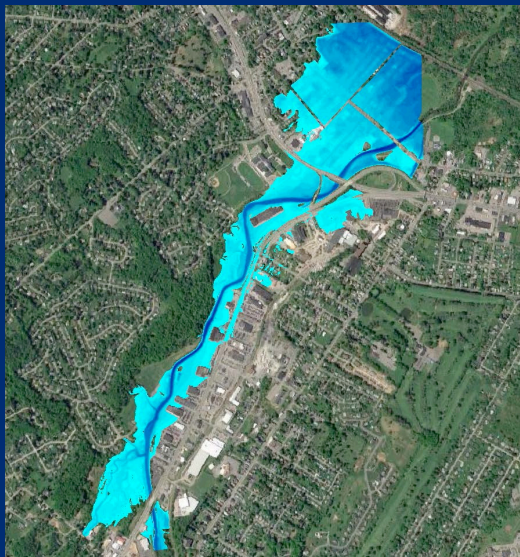


Anticipated Flooding – post project implementation



Sauquoit Creek – CSX and Commercial Drive

Existing Flood Condition

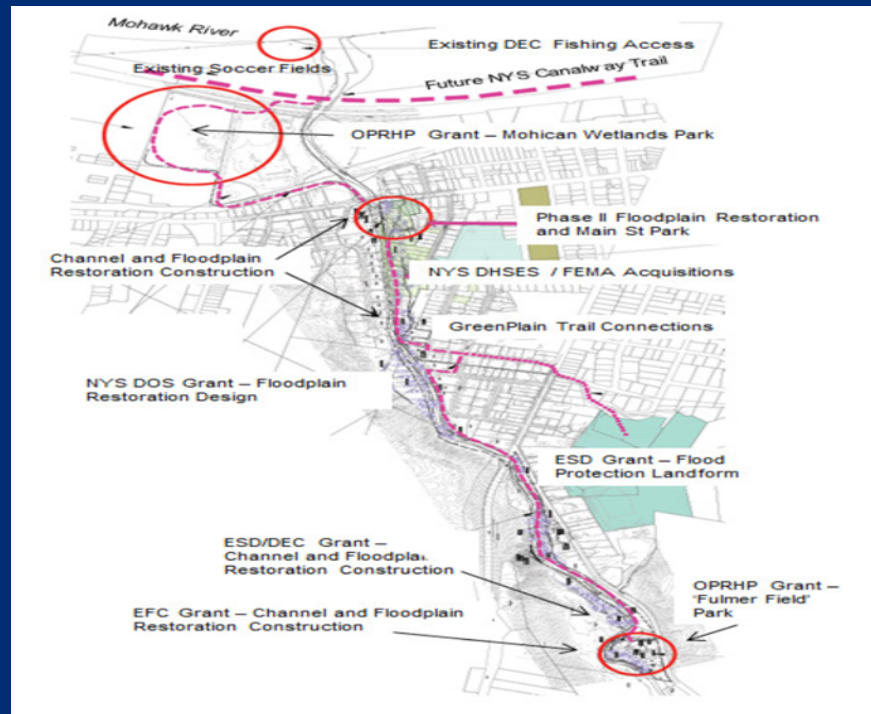


Anticipated Flood Post Project Implementation



Fulmer Creek – Herkimer County

- Town of German Flatts
- Village of Mohawk



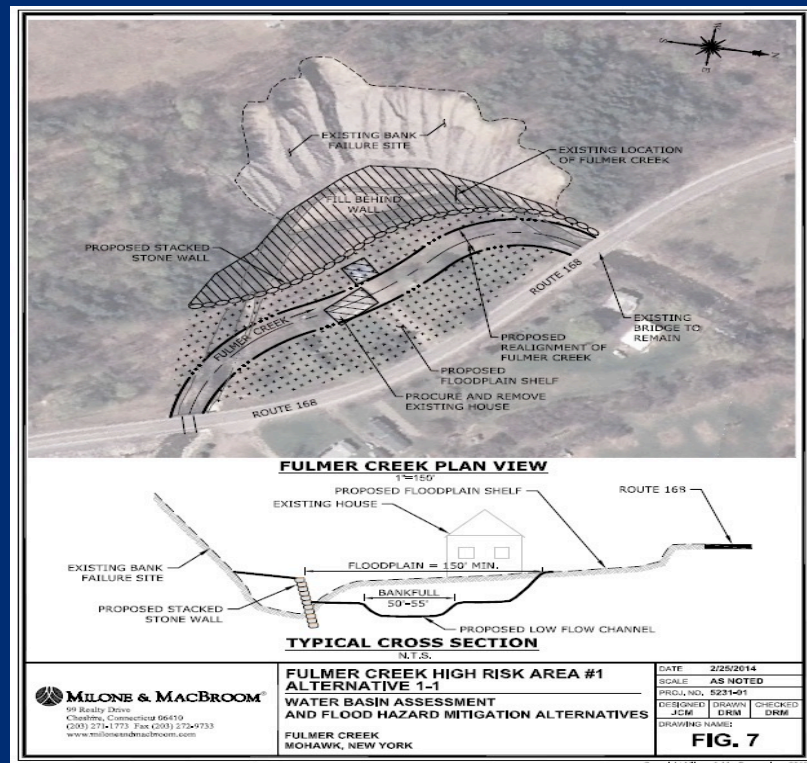


Floodplain Restoration



BEFORE ACQUISITION & DEMOLITION

AFTER ACQUISITION & DEMOLITION



High Back Failure – Fulmer Creek





Bridge Replacements – Otsego and Richfield



Questions

- thomas.snow@dec.ny.gov or 518- 402-9395
- Herkimer/Oneida flood studies –
 - <https://www.ocgov.net/oneida/planning/environmentwater/ReportsStudiesPub>
- NYC Watershed flood studies –
 - www.catskillstreams.org/lfa/