

Susquehanna River Reconnection:

What's Old,
What's New,
and What's Next

Lisa Hollingsworth-Segedy, AICP



**AMERICAN
RIVERS**



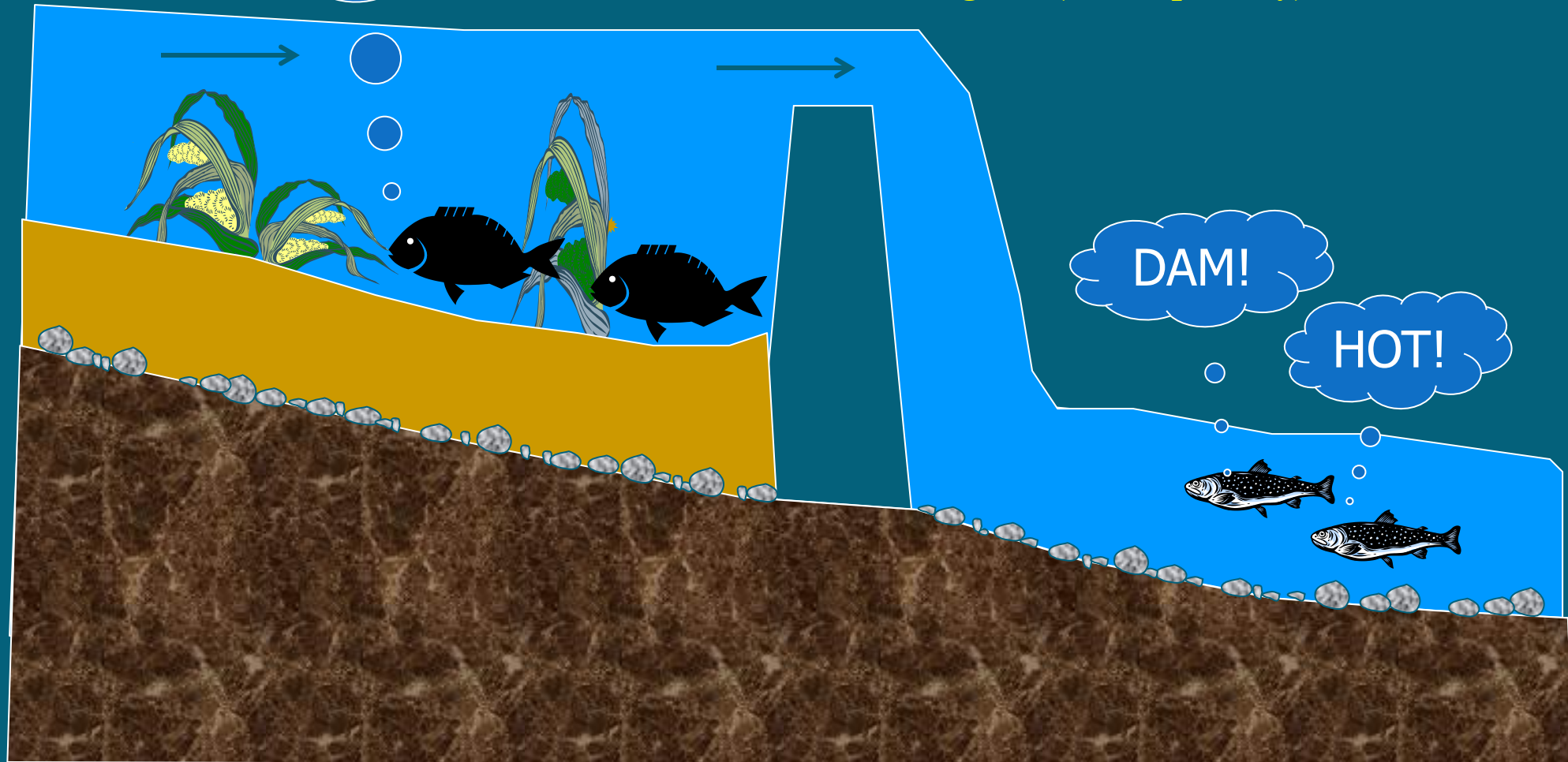
**American Rivers protects wild rivers,
restores damaged rivers,
and conserves clean water for people and
nature.**



Dams impact every aspect of healthy rivers (in impoundment and downstream):

- Habitat fragmentation (connectivity)
- Warming (water quality)
- Dissolved oxygen (water quality)
- Inundation of river habitat (complexity)
- Sediment starvation (complexity)
- Nutrients (water quality)
- Flow regime (water quantity)

HOT
DIGGETY
DAM!



2018



What's Old and New: Susquehanna River Mile 350
Largest Dam Removal in PA to date, first on mainstem Susq

2023





Courtesy Endless Mtns Heritage Region

Likely the oldest river in the world
siskewahane (Lenape) “muddy river”

Oneida People to the north
Tuscarora People to the south





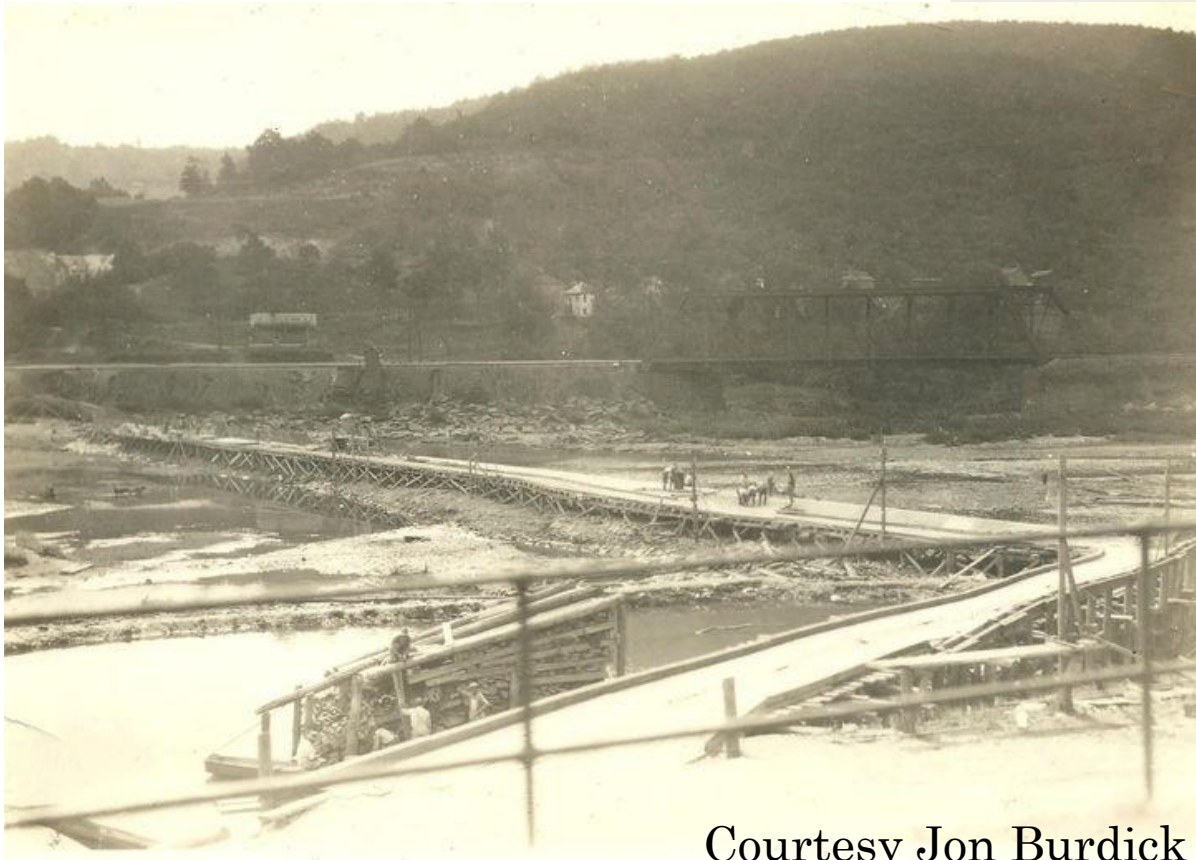
Courtesy Jon Burdick





Courtesy Jon Burdick





Courtesy Jon Burdick



Courtesy Jon Burdick





Courtesy Jon Burdick





Courtesy Jon Burdick





Courtesy American Whitewater



The Tipping Point



Brownfields to Playfields Pilot Project

Ira Reynolds Riverfront Park Susquehanna Depot Borough, Susquehanna County



The project is located along the Susquehanna River on a portion of the former Erie Rail Yard site. Many public and private organizations have committed to develop a 14-acre community park with a pavilion, pedestrian trails, lighting and access to the river. Ira Reynolds Riverfront Park is close to the Priesthood Restoration Site, a historic site of the LDS Church.

The Department of Environmental Protection is currently addressing contaminated soils through an interim response action funded by the Hazardous Sites Cleanup Act. After the cleanup is completed, the park will be built utilizing C2P2 grant funding from the Department of Conservation and Natural Resources.

Sources of Funding

2016 DCNR C2P2 grant – \$250,000

2017 DEP Hazardous Sites
Cleanup budget (HSCA) – \$1.9 Million



Ira Reynolds



Circa 1970





Courtesy Jon Burdick





Partners and Funders

Susquehanna and Oakland Boroughs

Susquehanna County

River Bounty (former hydropower operator)

Susquehanna County Conservation District

Endless Mountains Heritage Region

Upper Susquehanna Conservation Alliance

Upper Susquehanna Coalition

Susquehanna River Basin Commission

US Fish & Wildlife Service

US Army Corps of Engineers

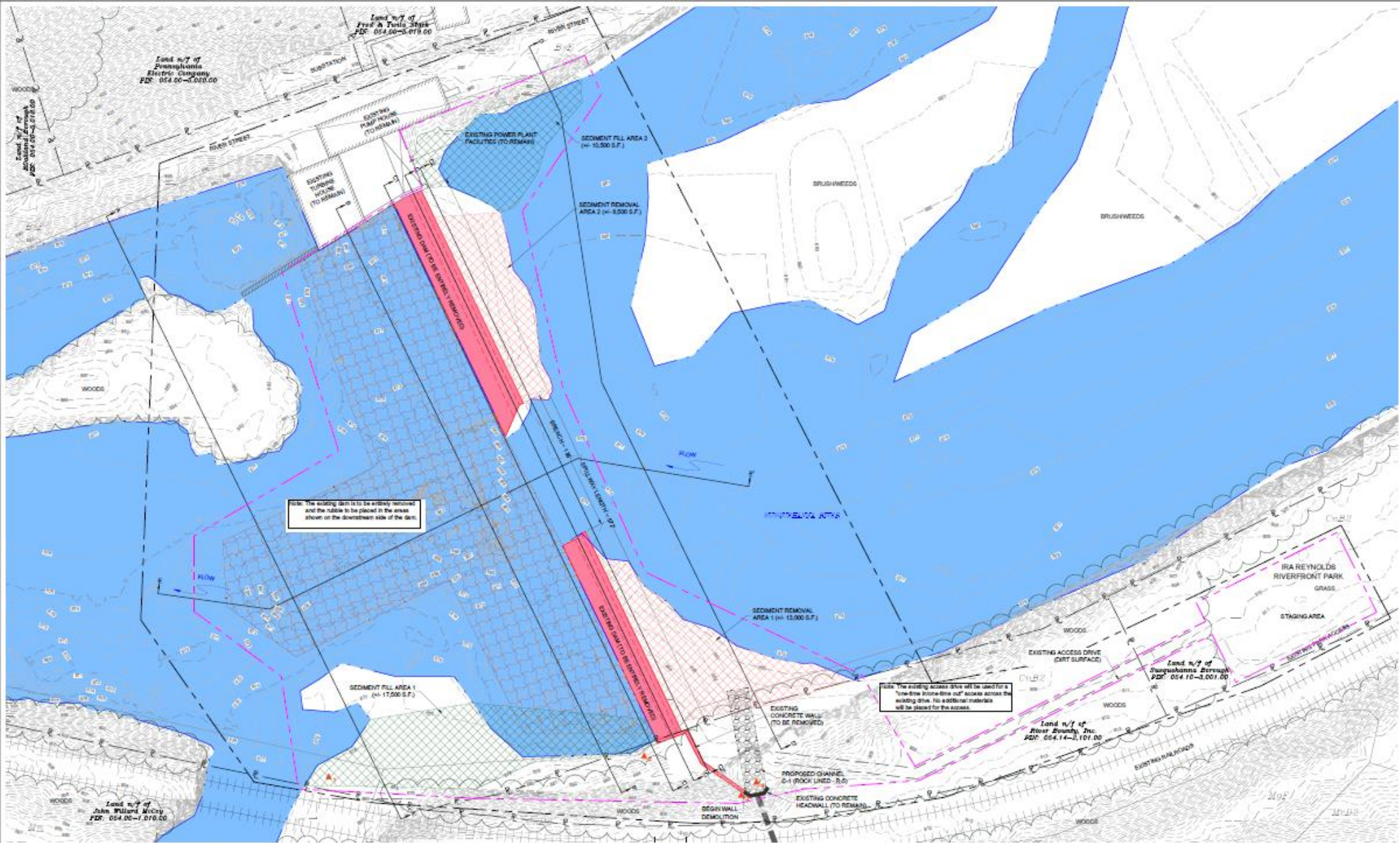
PA Dept Conservation and Natural Resources

PA Dept Community and Economic Development

PA Fish & Boat Commission

PA DEP Dam Safety





Note: The existing dam is to be entirely removed and the rubble to be placed in the areas shown on the downstream side of the dam.

Note: The existing access drive will be used for a "one-time drive thru" access across the existing drive. No additional materials will be placed for the access.

LEGEND

- EXISTING CONTOURS
- - - - - INDEX CONTOUR (5 FT)
- - - - - INTERM. CONTOUR (1 FT)
- EXISTING ROAD
- EXISTING ACCESS
- +++++ EXISTING RAILROAD
- ===== EXISTING BUILDINGS
- - - - - LIMIT OF DISTURBANCE
- SOIL BOUNDARY
- ABC SOIL TYPE
- PNDI BOUNDARY
- EXISTING RIVER
- EXISTING DAM
- ▲ PHOTO POINT
- ===== DAM RUBBLE DISPOSAL AREA
- ===== SEDIMENT REMOVAL AREA
- ===== SEDIMENT FILL AREA

PROPOSED CHANNEL (C)

Length - 1891.9'
 Bottom Width - 9'
 Approx. Depth - 17'
 Side Slope - 3:3
 Max. Load - 8-5
 Bottom Slope - 14%
 Invert EL - -891.0
 Invert O.C.T. - -879.0
 The actual channel configuration will be field adjusted to the final water surface elevation following removal of the dam and sediments.

GENERAL NOTES

Field Data Provided by:
 Susquehanna River Basin Commission (SRBC), 4421 N. Front Street, Harrisburg, PA 17118
 Phone: (717) 238-6423
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Watershed Information: This Dam Removal Project is within the Susquehanna River, a Watershed Watershed, Migratory Fishes (WFW) watershed. This designation is from 035 PA Code, Chapter 93.

CALL BEFORE YOU DIG
 PA LAW REGULATES
 3 WORKING DAYS NOTICE FOR
 CONSTRUCTION PHASE AND TO WORKING
 DAYS IN DESIGN STAGE - STOP CALL
 1-800-240-1176

Professional Engineer
 License # 22-00787

REVISIONS

NO.	DATE	DESCRIPTION

SHEET 1 OF 2

EXISTING CONDITIONS SITE PLAN
OAKLAND DAM REMOVAL
 Oakland Borough & Susquehanna Depot Borough
 Susquehanna County, PA
 Prepared by:
 February 2021

















Coming June 1, 2024!



Benefits of free-flowing headwaters Susquehanna River

-  250 miles of reconnected aquatic habitat for river resident and migratory fish, sportfish, freshwater mussels, and mussel fish-hosts
-  Expanded recreation access for an Environmental Justice Community, including a new camping area and boat launch adjacent to the dam site, and improved pedestrian access between the riverfront and businesses
-  Significantly improved public safety on North Branch Susquehanna River Water Trail
-  Retirement of obsolete infrastructure and elimination of liability

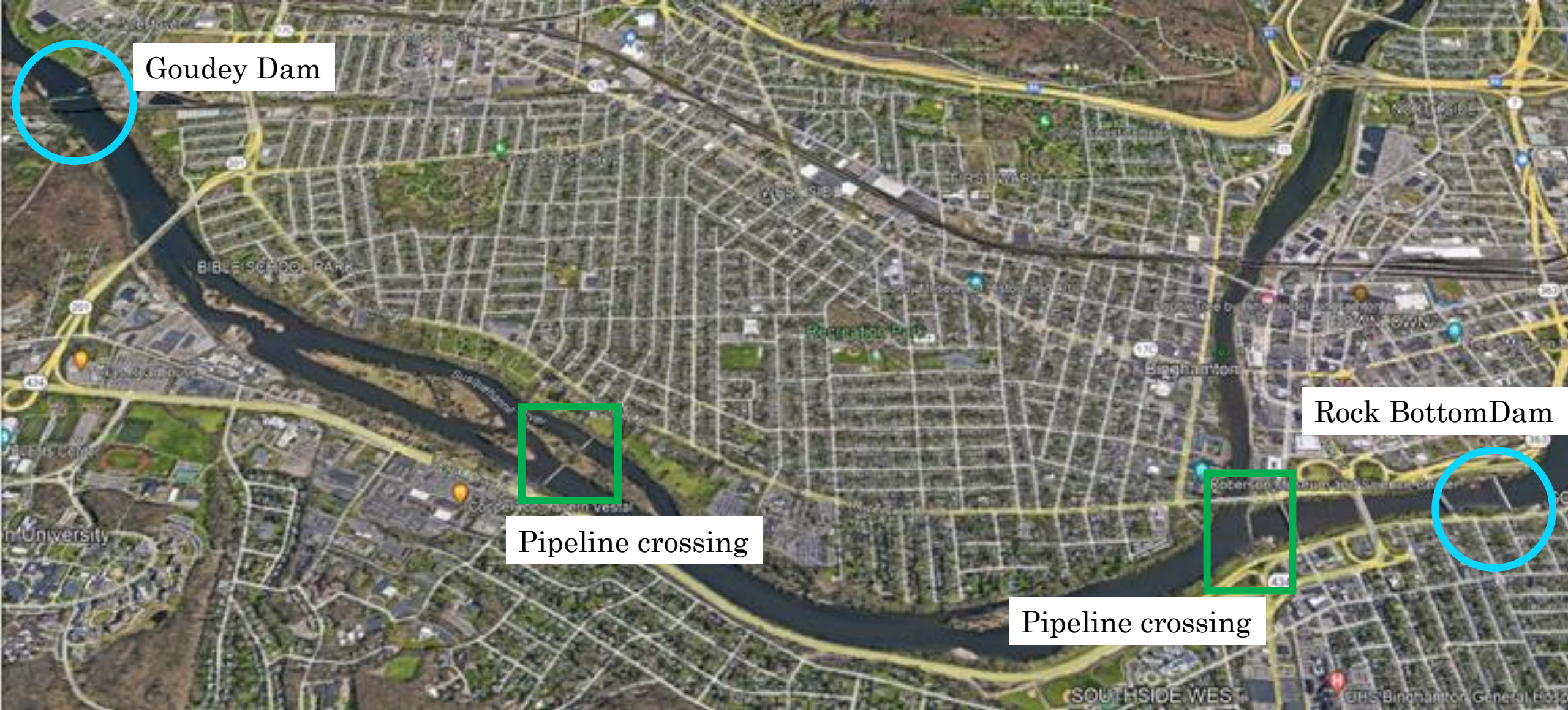


What's Next?



<https://www.pinterest.com/pin/192036371596010651/>





Goudey Dam

Rock Bottom Dam

Pipeline crossing

Pipeline crossing

Goudey Dam to first upstream pipeline = 2.1 miles

Rock Bottom Dam to Goudey Dam = 4.4 miles





Rock Bottom Dam

Built in 1936 for water supply
Last inspected 25 years ago
Killer Dam – 3 deaths in 1975
even though the dam has a low
hazard rating.

With new technology, water
systems are no longer dependent
on lowhead dams to flood water
intakes.

Binghamton ADD = 4.7 mgd
MDD = 10.5 mgd
These withdrawals are proven
feasible for passive screen intake
systems that do not rely on a
dam.





Goudey Dam

Constructed in 1917






AES Westover Power Station permanently retired in 2011, so this dam serves no purpose

Dam in deteriorating condition; not included in NYS DEC Dam Inventory

Currently under a cleanup order issued by USEPA



Benefits of removing Rock Bottom and Goudey Dams

-  Improve public safety and eliminate killer dams; retire obsolete infrastructure and eliminate liability
-  Upgrade infrastructure such as drinking water intake and pipeline crossings
-  Provide fish passage for river resident and migratory fish species; provide habitat access for freshwater mussels and their fish hosts
-  Expand recreation access for an Environmental Justice Community together with new recreation-focused entrepreneurship opportunities
-  ADD appx 100 miles of upstream aquatic habitat connectivity in the Upper Susquehanna River basin



What would it take to reconnect the “Binghamton Area section” of the Susquehanna River?

A range of solid partners, including local organizations, NGOs, state and federal agencies, and interstate commissions

- ▶ Engage dam owners and the community
- ▶ Determine the feasibility of upgrading water supply intake
- ▶ Evaluate the feasibility of upgrading non-dependent infrastructure



JUST BECAUSE YOU CAN'T GET IT UP-STREAM ANYMORE DOESN'T MEAN YOU HAVE TO STOP SPAWNING, BOB. THERE'S A NEW DRUG OUT THAT HELPS AGING SALMON WITH THAT PROBLEM...IT WORKS ON STREAMS, RIVERS, AND WATERFALLS. IT'S CALLED "NIAGRA."



The
fishes'
point of
view...



Life Depends on RiversSM



Lisa Hollingsworth-Segedy, AICP
lhollingsworth-segedy@americanrivers.org

