MVP Project Case Study - Pittsfield FY20

Municipality: City of Pittsfield, MA
Project Title: Mill St Dam Removal Project
Grant Award: $99,000
Match: $33,368

Community Overview:

The City of Pittsfield is a typical New England post-industrial city with a population of approximately 40,000. The city has evolved with dense neighborhoods around the waterways and dense commercial in the city center with suburban land uses on the outskirts. There is a fair amount of open space, much of it publically accessible. The city is the economic, medical, and cultural center of Berkshire County. There is significant community effort to clean up prior industrial contaminants across the downtown core.

Description of Climate Impact:
Extreme weather and natural and climate-related hazards are an increasing concern in Berkshire County and in Pittsfield, and there is a clear need to involve municipalities, corporations, organizations, and the State in increasing resilience at all levels. Recent storm events affecting the region have highlighted many of the vulnerabilities that towns and cities face. Hurricane Irene and Superstorm Sandy brought intense flooding to many municipalities and threatened (or destroyed) infrastructure across the city and region. Extreme temperatures at both ends of the spectrum have pushed the limits of communities' preparedness to protect both infrastructure and people.

What are the specific threats to the project area/site and reasons for applying to the grant program?

The removal of the Mill St dam will contribute to ecosystem and climate resilience through restoration of riparian continuity of the west branch of the Housatonic River and by eliminating obsolete and deteriorating infrastructure. Additionally, the removal of this dam and the contaminated sediment will further the City's goal of increasing community and neighborhood resilience by addressing matters related to the City's obligation to further environmental clean-up in this Environmental Justice neighborhood. Removing the dam will reconnect nearly five miles of upstream river habitat with the lower reach of the West Branch and, ultimately, the main stem of the Housatonic River, allowing fish and other aquatic species to move more freely in the watershed. Dam removal will improve water quality and repair natural river processes in the West Branch.

Project Goals:

Specifically, project goals for the removal of the dam were: (1) To improve public safety by removing an obsolete, derelict dam; (2) to support a broader urban revitalization effort by removing blight and an attractive nuisance; and, (3) to improve river ecology and habitat connectivity to the West Branch of the Housatonic River.

Approach and Result:

The project to remove the dam began in 2000 when the Office of Dam Safety found the Tel-Electric Dam to be in overall poor condition with significant operational or maintenance deficiencies. In 2006, the City of Pittsfield approached the Massachusetts Riverways Program (now part of Massachusetts Division of Ecological Restoration) for support for the dam's removal within the broader context of river restoration, neighborhood revitalization, and the vision for the Westside Riverway. The Riverways Program funded a feasibility study for the dam's removal. The study flagged sediment management as a potential feasibility issue given previously identified pollutant concentrations and associated costs for removal and disposal. In 2008, the Massachusetts SubCouncil of the Housatonic River Trustee Council -- responsible for administering the Natural Resource Damage Assessment and Restoration settlement reached with General Electric in 1999 -- contributed $750,000 to the project. An additional $100,000 was approved in 2018 and another $20,000 added in 2019, for a total of $870,000. The Commonwealth of Massachusetts, the State of Connecticut, the U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration make up the Council.

Additional funding was sought and received (over $4 million in total), and in 2019 the City was able to bid the project. A contract for construction was awarded to SumCo Eco-Contracting of Peabody, Mass. SumCo began removing PCB-contaminated sediment in September 2019 from above the dam. About 4,400 cubic yards (5,300 tons) of PCB-contaminated sediment was transported to Clinton County Landfill in Morrisonville, New York. Removing the dam will reconnect nearly five miles of upstream river habitat with the lower reach of the West Branch.

Lessons Learned:

The project was challenged throughout the duration by high water flows within the river. Though the project team attempted to model the anticipated flows for each month, the changing weather patterns as a result of climate change (more frequent and intense, shorter duration storms) made for an unpredictable flow regime. As a result, the project saw hefty change orders in order to adequately deal with high flows. Modeling for the worst case scenario upfront is absolutely the way to handle these projects in the future. Additionally, old contaminated rail road ties were uncovered during excavation and led to additional costly disposal. Though some level of unforeseen was anticipated at this old industrial site adjacent to the rail road, it was a surprise to finds the quantity of ties that were uncovered.

Partners and Other Support:

Over the last 20 years, partners including the National Fish and Wildlife Foundation, the Massachusetts Sub-Council of the Housatonic River Trustee Council, the Massachusetts Office of Energy and Environmental Affairs Dam and Seawall Repair or Removal Program, the Massachusetts Division of Ecological Restoration, the Massachusetts Department of Environmental Protection, the Massachusetts MVP Program, Pittsfield Mills Corporation, and the

U.S. Department of the Interior Office of Restoration and Damage Assessment have come forward to fund removal.

- U.S. Department of the Interior/ National Fish and Wildlife Foundation Hurricane Sandy Coastal Resiliency Competitive Grant Program $1.7 million
- Massachusetts Executive Office of Energy and Environmental Affairs Dam and Seawall Repair or Removal Program $915,000
- Massachusetts Sub-Council of the Housatonic River Trustee Council $870,000
- Massachusetts Division of Ecological Restoration $169,000
- Massachusetts Department of Environmental Protection $100,000
- Pittsfield Mills Corporation (dam owner) $33,000
- U.S. Department of the Interior Office of Restoration and Damage Assessment $32,300
- MA MVP Program $99,000
- City of Pittsfield (cash and in-kind)

Photos:

See accompanying document

Tel-Electric Dam Removal:

Reshaping Pittsfield's Relationship with the Housatonic

MA DER

Tel-Electric Dam site from above

Kristopher Houle/MA DER

Tel-Electric Dam removal underway

The Tel-Electric Dam – named for the company that produced mechanical piano players in the adjacent mill building – has been part of the Pittsfield community for more than a century. Manufacturing supported by the dam provided jobs and supported generations of families.

In recent years, the structure, also known as the Mill Street Dam, has fallen into disrepair and no longer serves a useful purpose. Its removal, to be completed in Spring 2020 at a cost of about $3.8 million, involves national, state, and local partners and ushers in a new era for the people of Pittsfield and the West Branch of the Housatonic River.

Benefits for Pittsfield and beyond

The City of Pittsfield's plan for a Westside Riverway envisions a clean, free-flowing West Branch of the Housatonic River that connects Wahconah and Clapp parks and increases residents' access to the river. Removing the Tel-Electric Dam is a cornerstone of this effort.

Removing the dam will reconnect nearly five miles of upstream river habitat with the lower reach of the West Branch and, ultimately, the mainstem of the Housatonic River, allowing fish and other aquatic species to move more freely in the watershed. Dam removal will improve water quality and repair natural river processes in the West Branch.

This project will improve public safety by eliminating the drowning hazard posed by the derelict dam. Without the dam, the risk of flooding to people and property during heavy rain events will decrease. Historically polluted sediment will be removed and disposed of at safe, off-site locations.

The Westside Riverway plan includes a walking trail past the former dam site and interpretive signs telling the story of the dam, adjacent mill building, and the river itself. Kayaking and canoeing will be possible from Wahconah Park to Woods Pond in Lenox. The Berkshire Environmental Action Team (BEAT) plans to expand their Kids in Kayaks program, which allows Westside neighborhood kids to paddle the West Branch.

In addition to improving Pittsfield and the Housatonic River Watershed, lessons learned through this project will guide future complex dam removals and river restoration efforts in Pittsfield and throughout New England.

Partner Contacts:

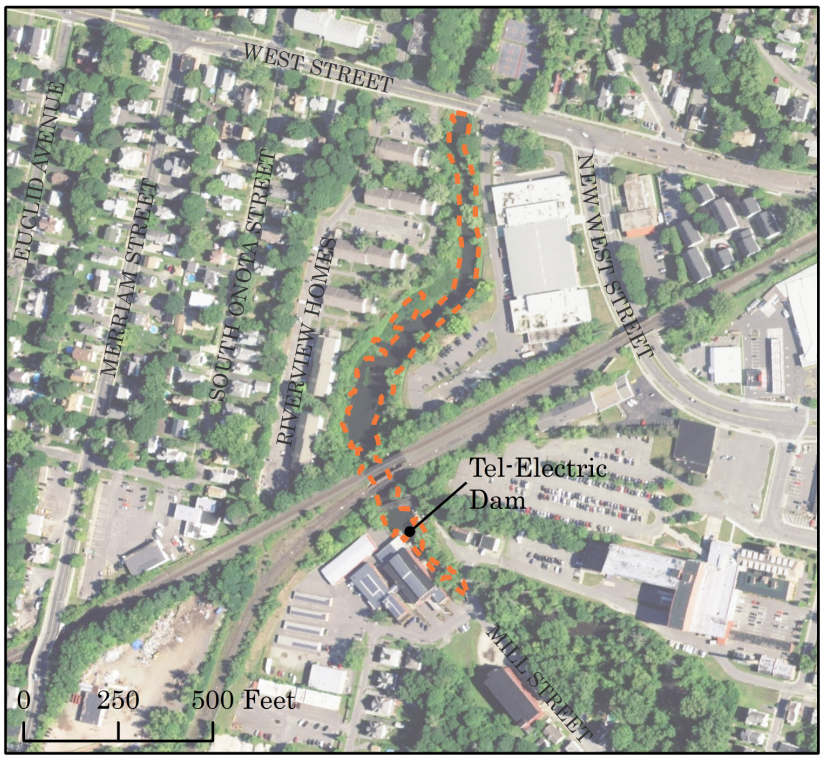
- **City of Pittsfield:** Roberta McCulloch-Dews, 413-499-9322, rmdews@cityofpittsfield.org
- **Massachusetts Division of Ecological Restoration:** Kristopher Houle, 617-626-1543, kris.houle@mass.gov
- **U.S. Fish and Wildlife Service:** Lauri Munroe-Hultman, 413-588-1005, lauri_munroe-hultman@fws.gov
- **National Fish and Wildlife Foundation:** Michael Smith, 703-623-3834, mike@greensmithpr.com
- **Massachusetts Department of Environmental Protection:** Thomas M. Potter, 617-292-5628, thomas.potter@mass.gov
- **Berkshire Environmental Action Team (BEAT):** Jane Winn, 413-230-7321, jane@thebeatnews.org

Project timeline:

- *2000:* The Massachusetts Office of Dam Safety found the Tel-Electric Dam to be in overall poor condition with significant operational or maintenance deficiencies.
- *2006:* The City of Pittsfield approached the Massachusetts Riverways Program (now part of Massachusetts Division of Ecological Restoration) for support for the dam's removal within the broader context of river restoration, neighborhood revitalization, and the vision for the Westside Riverway. The Riverways Program funded a feasibility study for the dam's removal. The study flagged sediment management as a potential feasibility issue given previously identified pollutant concentrations and associated costs for removal and disposal.
- *2008:* The Massachusetts SubCouncil of the Housatonic River Trustee Council -- responsible for administering the Natural Resource Damage Assessment and Restoration settlement reached with General Electric in 1999 -- contributed $750,000 to the project. An additional $100,000 was approved in 2018 and another $20,000 added in 2019, for a total of $870,000. The Commonwealth of Massachusetts, the State of Connecticut, the U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration make up the Council.
- *2014:* The project was awarded $1.7 million from the U.S. Department of the Interior/National Fish and Wildlife Foundation Hurricane Sandy Coastal Resiliency Competitive Grant Program.
- *2018-2019:* The City was awarded $915,000 from the Massachusetts Executive Office of Energy and Environmental Affairs Dam and Seawall Repair or Removal Program.
- *June/July 2019:* In addition to staff time devoted to the project over the previous 10 years, Massachusetts Division of Ecological Restoration contributed $169,000. The project was also awarded $100,000 from the Massachusetts Department of Environmental Protection Natural Resource Damages Trust Fund.
- *August 2019:* The City awarded the contract for construction to SumCo Eco-Contracting of Peabody, Mass.
- *September 2019:* SumCo began removing PCB-contaminated sediment from above the dam. About 4,400 cubic yards (5,300 tons) of PCB-contaminated sediment will be transported to Clinton County Landfill in Morrisonville, New York.
- *November 2019:* SumCo began dam-demolition activities.
- *January 2020:* SumCo will build a natural and stabilized river channel, including protective measures for the two railroad bridges that span the river.
- *February 2020:* The dam will be demolished and removed.
- *June 2020:* Project complete.
- *Smmer 2020:* Planning for future river greenway begins.

Project Funders/Partners:

U.S. Department of the Interior/ National Fish and Wildlife Foundation Hurricane Sandy Coastal Resiliency Competitive Grant Program	$1.7 million
Massachusetts Executive Office of Energy and Environmental Affairs Dam and Seawall Repair or Removal Program	$915,000
Massachusetts SubCouncil of the Housatonic River Trustee Council	$870,000
Massachusetts Division of Ecological Restoration	$169,000
Massachusetts Department of Environmental Protection	$100,000
Pittsfield Mills Corporation (dam owner)	$33,000
U.S. Department of the Interior Office of Restoration and Damage Assessment	$32,300
City of Pittsfield	$10,000
Berkshire Environmental Action Team	In-kind services
TOTAL	**~3.8 million**



Legend

Approximate Project Limits

MILONE & MACBROOM

TEL-ELECTRIC POND DAM #MA01970 (AKA MILL STREET)
DAM REMOVAL - WEST BRANCH HOUSATONC RIVER

PHOTOGRAPHIC LOG

Pre-Construction Photograph **Date Taken** **8/12/2016**

Description: Pre-construction photo looking upstream at the Tel-Electric Dam.

Post-Construction Photograph **Date Taken** **6/22/2020**

Description: Post-construction photo looking upstream at the former location of the Tel-Electric Dam.

Pre-Construction Photograph **Date Taken** **8/12/2016**

Description: Pre-construction photo looking across the Tel-Electric Dam from the river left bank.

Post-Construction Photograph **Date Taken** **6/23/2020**

Description: Post-construction photo looking across the West Branch Housatonic river from the river left bank at the former Tel-Electric Dam location.

Pre-Construction Photograph **Date Taken** **8/12/2016**

Description: Pre-construction photo looking downstream at the inactive railroad bridge and former Tel-Electric Dam impoundment.

Post-Construction Photograph **Date Taken** **6/23/2020**

Description: Post-construction photo looking downstream at the inactive railroad bridge and West Branch Housatonic River.

Pre-Construction Photograph **Date Taken** **8/12/2016**

Description: Pre-construction photo looking downstream at the active MassDOT & HRRC railroad bridge and former Tel-Electric Dam impoundment.

Post-Construction Photograph **Date Taken** **6/23/2020**

Description: Post-construction photo looking downstream at the active MassDOT & HRRC railroad bridge and West Branch Housatonic River.

Pre-Construction Photograph **Date Taken** **3/27/2019**

Description: Pre-construction photo looking downstream from the left bank of the former Tel-Electric Dam impoundment at the CSX railroad bridge.

Post-Construction Photograph **Date Taken** **6/23/2020**

Description: Post-construction photo looking downstream from the left bank of the West Branch Housatonic River at the CSX railroad bridge.

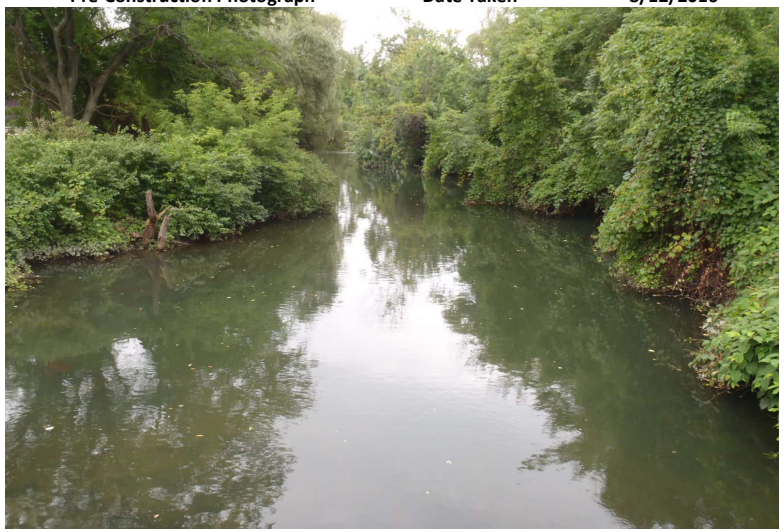
Pre-Construction Photograph **Date Taken** **4/2/2019**

Description: Pre-construction photo looking downstream at the CSX railroad bridge.

Post-Construction Photograph **Date Taken** **6/16/2020**

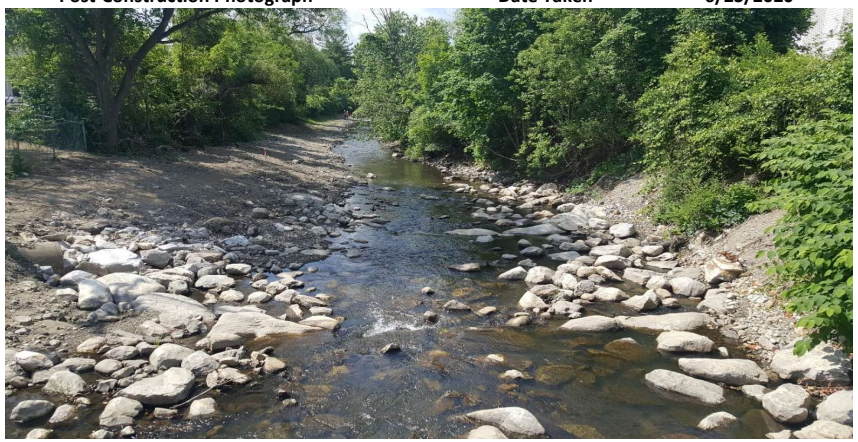
Description: Post-construction photo looking downstream at the CSX railroad bridge.

Pre-Construction Photograph **Date Taken** **8/12/2016**



Description: Pre-construction photo looking downstream from the West Street bridge and former Tel-Electric Dam impoundment.

Post-Construction Photograph **Date Taken** **6/23/2020**



Description: Post-construction photo looking downstream from the West Street bridge and West Branch Housatonic River.

Pre-Construction Photograph **Date Taken** **3/27/2019**

Description: Pre-construction photo looking upstream at the West Street bridge.

Post-Construction Photograph **Date Taken** **6/23/2020**

Description: Post-construction photo looking upstream at the West Street bridge.