



# NEW YORK STATE WATER RESOURCES INSTITUTE

Department of Earth and Atmospheric Sciences

1123 Bradfield Hall, Cornell University  
Ithaca, NY 14853-1901  
<http://wri.eas.cornell.edu>

Tel: (607) 255-3034  
Fax: (607) 255-2016  
Email: [nyswri@cornell.edu](mailto:nyswri@cornell.edu)

## Hudson Estuary Watershed Resilience Project: 2016 Cornell Cooperative Extension Outreach Activities and Educational Material Development

Summary prepared February 28, 2017  
Jeff Luoma, CCE Dutchess [juoma@cornell.edu](mailto:juoma@cornell.edu)



Workshop on Culvert  
Prioritization

Bowery Creek meeting



### Overview

In 2016, the Hudson River Estuary Watershed Resilience Project continued to support collaborations across Cornell Cooperative Extension of Columbia-Greene, Dutchess, Orange, and Rockland Counties to address the challenges of flooding, stream and watershed management, and climate change. The project serves municipal and landowner audiences in target watersheds in the Hudson Valley. This partnership between the New York State Water Resources Institute (NYS WRI) at Cornell University and Cornell Cooperative Extension (CCE) is supported by the New York State Department of Environmental Conservation's Hudson River Estuary Program (HREP). The project website is <http://hudsonestuaryresilience.net>

# Hudson Estuary Watershed Resilience Project: 2016

## Timeframe

Collaboration began in July 2012 and funding has continued into 2017. During this time, those involved with the project have collaborated with other academic and non-profit partners on research and outreach to promote watershed resiliency.

## Geographic Area

The geographic area served by the regional project in 2016 included targeted watersheds in Albany, Columbia, Dutchess, Greene, Orange, Rensselaer, Rockland, and Ulster counties, with concentrated efforts in Columbia, Greene, Dutchess, and Ulster.

## Keywords

Watershed, resilience, Hudson River Estuary, flood, culvert, Bowery Creek, Water Resources Institute, Cornell Cooperative Extension

## Overview of 2016 Efforts

CCE Columbia-Greene provided project leadership for 2016. The following overview of highlights from 2016 are from collaborations across CCE agencies of Columbia-Greene, Dutchess, Rockland, and Orange Counties.

- **Development and distribution of educational materials on watershed management**
  - Held Bowery Creek Training Facility scoping meetings and educational component preparations including identifying learning stations and monitored cross-sections of the creek (*Bowery Creek Report included as an appendix*)
  - Distributed Village of Catskill flood guides to floodplain residents along with media outreach
  - Workshop materials prepared for culvert assessment and prioritization efforts
  - Completed video modules for Climate Smart Communities case studies
  - CCE agencies continued to promote all forums and information through press releases, radio spots, fliers, calendar listings, events, and email listserves.
  - Maintained and updated websites and contact lists to include events and resources throughout the year
  - Material examples:
    - *Who to Call After a Flood* - completed guides for Albany, Rensselaer, Rockland, and Westchester Counties.
    - *Catskill Flood Guide* – creation and implementation of flood guide distribution plan for the Village of Catskill.
    - *Parts of a Stream* - Finalized Streams 101 Series Parts of a Stream video module.
    - Video modules located at <http://blogs.cornell.edu/estuaryresilience/video-modules/>
      - 7.11 Part 1 “Enhance Your Community’s Floodplain Management Ordinance”
      - 7.11 Part 2 “Going ‘Above & Beyond’ State Minimum Standards”

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- 7.11 Part 3 “Reading FEMA Flood Maps” (Finished earlier)
- 7.15 “Flood Prevention Strategies through the NFIP’s Community Rating System”
  
- **Outreach and assistance to local governments regarding watershed management**
  - Presented to the Catskill Planning Board and ZBA on CAD designs (Feb 29)
  - Planned and held “Culvert Prioritization Workshop” attended by three invited municipalities (Sept 28)
  - Continued to work closely with two municipalities to strategize continued efforts for remediation of problematic water passages. (*Report on Culvert Prioritization Project included as an appendix.*)
  - Assisted the Catskill Planning Board to provide education on and facilitate implementation of “green alley” designs.
  - Assisted Hudson with Climate Adaptive Design studio efforts through support, outreach, critique and feedback.
  
- **Forums/Seminars/workshops to expand knowledge and regional efforts**
  - Hosted the Hudson River Watershed Alliance Roundtable (May 25)
  - Hosted the Catskill Creek Summit Recap Meeting (May 19)
  - Planned, promoted, and hosted “Municipal Infrastructure: Identifying Undersized Culverts” seminar at Columbia-Greene Community College (May 3)
  - Planned, promoted and hosted “Wetland, Woodlands and Water” seminar at Bethlehem Town Hall (May 26)
  - Provided “Streams 101” Training in Rockland County (June 30)
  - Collaborated with Laura Heady to plan, promote and host “Forest and Wetlands: What Communities need to Know” seminar in Marbletown (Dec 5)
  - Held Climate Smart Communities forum for regional municipalities (Jun 4)
  - Held workshop explaining the Community Rating System (CRS) to communities (Sept 21)

## Appendices

- Bowery Creek Training Facility Year End Report
- Final Report on 2016 Culverts Assessment and Prioritization

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