



Landscape Level Conservation in the Chesapeake Bay Watershed

The mission of the Upper Susquehanna Conservation Alliance (USCA) is to promote the conservation of natural resources in the headwaters region of the Susquehanna River in New York. The USCA is an alliance of agencies, organizations, academic institutions, and individuals who are working collaboratively to conduct green infrastructure planning, implement restoration and maintenance of high quality waters and habitats, protect and restore species of greatest conservation need, reduce impacts of flooding, and promote sustainable working landscapes for the people of the watershed.

The USCA was formed in 2010 under leadership of the U.S. Fish and Wildlife Service, New York Field Office (NYFO). Today, over 225 members from more than 65 diverse agencies, organizations, academic institutions, and individuals make up the USCA, and its efforts continue to draw new collaborators.

The alliance has eight separate committees that target individual conservation objectives. These work groups (see right panel) convene on an ad hoc basis to accomplish specified goals and objectives such as conducting surveys, implementing conservation work on the ground, and educating the public on USCA conservation plans. Once or twice per year, members gather in Cortland, NY, to provide updates on the status of ongoing projects and discuss issues, priorities, and funding opportunities within the headwaters of the Chesapeake Bay Watershed.



Between 2014 and 2019, the USFWS has provided \$159,000 to support research, habitat restoration, education, and land protection in the Upper Susquehanna Watershed. We are looking to partner with other organizations to implement conservation projects.

If you are interested in learning more about the USCA or joining our alliance, please contact:

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<http://www.fws.gov/northeast/nyfo/index.html>



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Work Group Ongoing Efforts:

Landscape/Conservation Planning Work Group

Despite large areas of habitat and natural resources, the watershed contains contamination, flooding, and other threats. This work group will:

- Use GIS to identify important habitat connectivity areas and diverse landscape areas for restoration and protection
- Assist with easements and restoration projects led by USCA partners by supporting them with parcel-level analysis
- Provide stewardship of GIS data for all work groups and share data as needed among partners.

Flood Work Group

Floodplains provide critical services such as flood attenuation and water filtration. To support resilient floodplain management throughout the watershed, this work group will:

- Outreach and Education: Serve as a forum for exchange of information and ideas with communities affected by flooding.
- Improve Flood Resiliency: Work with landowners and municipalities to improve flood resiliency, protect floodplains and drinking water sources. Plant buffers along streams or plant trees in urban areas. Incorporate bioswales, rain gardens, and bioreactors into project designs. Work with partners to remove barriers (culverts, small dams).
- Planning and Development: Reduce impermeable surfaces, avoid or minimize channelization of waterways and maintain wood in streams. Fence livestock out of streams, wetland areas to protect water quality.

Ditch Work Group

Roadside ditch networks intercept landscape runoff, contributing to downstream flooding, pollution, erosion, and degraded habitat. To support better roadside ditch management, this work group's priorities are to:

- Develop alternative stormwater management solutions such as improving our ditch systems to reduce peak flows, erosion, sedimentation and contaminants that could potentially affect drinking water supplies, lakes and rivers.
- Work with transportation agencies to reduce ditch slope/depth and maintain vegetation in ditch systems.
- Implement the "Train the Trainer" program to help with education and outreach.

Invasive Species Work Group

This is group is led by the Partnership for Regional Invasive Species Management (PRISM) and will work to:

- Identify high priority risk areas in iMAP Invasives including the type and extent of invasive species.
- Provide guidance to landowners to prevent the spread of invasive species. Develop a management plan for public lands.
- Increase funding availability for management.

Eastern Hellbender Work Group

The largest salamander in North America is declining potentially due to water quality issues and lack of habitat. This work group will:

- Identify areas for habitat restoration and land protection.
- Continue headstarting project in a tributary to the Susquehanna River and monitor released individuals.
- Construct and install artificial nest boxes to increase shelter availability within known and potentially occupied sites.

Pearly Mussel/American Eel Work Group

Freshwater mussels are one of the most imperiled aquatic species and are largely misunderstood. This work group will:

- Evaluate species diversity and richness of mussels and close data gaps. Identify fish hosts used in reproduction (including American eels).
- Identify areas under threat of contaminated surface water runoff
- Work on restoring American eel population to the Upper Susquehanna River in NY.

Eastern Brook Trout Work Group

Brook trout populations are in decline due to loss of habitat and water quality issues. This work group will:

- Identify and implement restoration and habitat improvement projects to support sustainable brook trout populations
- Determine streams warranting water classification revisions
- Work with partners to identify barriers to fish migration

Outreach Work Group

This group will assist USCA work groups as needed. Design and distribute outreach materials for internal and external partners.