The Ashokan Watershed Stream Management Program is a collaborative effort of four agencies:

**Ulster County Soil and Conservation District (UCSWCD)** coordinates and provides technical services such as stream assessments, design and construction of stream projects, and direct technical assistance to municipalities and landowners.

**Cornell Cooperative Extension of Ulster County (CCEUC)** coordinates community funding for stream related projects, works with local governments and other relevant groups and agencies on stream and floodplain programs and policies, and conducts education, training and outreach programs.

**USDA Natural Resources Conservation Service (NRCS)** provides engineering and technical support to the project. Assists with design of stream projects and reviews proposed projects.

**New York City Department of Environmental Protection (DEP)** is the program’s primary funding source, and the DEP Stream Management Program staff also assist with technical aspects of the program and research projects.

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**Program Team (2010)**

**Cornell Cooperative Extension Ulster County**
Lydia Reidy, Executive Director
Elizabeth Higgins, Ashokan Watershed SMP Program Coordinator
Michael Courtney, Watershed Educator
Dona Crawford, Volunteer Program Assistant
Walt Keller, Aquatic Habitat Specialist
Beth Roessler, Watershed Educator (7/10-11/10)
Jenine Tobey, SCA Intern (2/10-12/10)
Colleen Griffith, Administrative Assistant

**Ulster County Soil and Water Conservation District**
Gary Capella, Executive Director
Cory Ritz, Ashokan Watershed SMP Project Manager
Adam Doan, CSBI Coordinator
Jake Wedemeyer, Technician
Graham Markowitz, 2010 Summer Intern

**USDA NRCS**
Deron Davis, Project Engineer

**New York City DEP**
Beth Reichheld, Stream Management Program Director
Danny Davis, Ashokan Watershed Project Manager
Jenn Greiser, CSBI Program Coordinator (1/10-9/10)
Chris Tran, CSBI Program Coordinator (10/10-present)
2010 was a productive and busy year for the Ashokan Watershed Stream Management Program. This was the year where the team officially moved from planning to implementation. The project team completed its first construction project in Woodland Valley, assessed two streams, and initiated 25 Stream Management Implementation Program Fund projects totaling $643,412. Fifty-five streamside landowners were directly assisted by staff.

Technical assistance, training, and support was provided in all six watershed communities. In May we held the first Ashokan Watershed Conference for landowners and towns at Belleayre. For fun, in September we celebrated Creek Week in the Ashokan Watershed with six public events in the watershed. After the October and December floods, SWCD, CCE and DEP worked closely with watershed communities to help restore flood-damaged areas and to implement planning projects to mitigate future floods. In November we co-sponsored the Catskill Environmental Research Conference – bringing together over 100 researchers and resource managers from government agencies, non-profits and universities. During the year over 2,700 residents received the program’s newsletter Esopus Creek News.

We are excited to be moving into the implementation phase of our work and look forward to continuing to work with the communities and organizations of the Ashokan Watershed in the future.
Flooding in 2010. Left, the Woodland Valley Creek Project at Fawn Hill during the October 1st flood. The project held up well during the flood. Below, Phoenicia during the December 2010 flood.

Warner Creek Assessments in 2010. Left, DEP officials tour Warner Creek turbidity sites. Below, Danny Davis works with SUNY New Paltz REU students on Warner Creek Assessment.

Left, installing the VRSS at the Woodland Valley Project. Below, stream assessment training day (left to right) Adam Doan, Michael Courtney, Elizabeth Higgins, Jenine Tobey, Cory Ritz, and Graham Markowitz
The Ashokan Watershed Stream Management Program seeks to:

- Protect and restore water quality, stream stability, and aquatic and streamside ecosystems while reducing flooding and erosion hazards and enhancing stream-based recreational opportunities
- Coordinate stream management activities in the watershed
- Educate local municipalities, landowners and tourists about stream stewardship practices

Program Areas in 2010

In order to meet the program goals, the Ashokan Watershed Stream Management Program had the following Program Areas in its 2010 Action Plan

Watershed Assessment and Monitoring: Data collection monitoring and analysis to help guide policy, projects, and programs in the Ashokan Watershed related to stream, riparian corridor and floodplain management.

Riparian Corridor Improvement: Activities to protect and enhance the riparian corridor of streams in the Ashokan Watershed. Primarily through the Catskill Streams Buffer Initiative (CSBI).

Municipal Coordination and Assistance: Coordination of municipal projects and activities with Ashokan Watershed Stream Management Program Projects and Assessments.

Reach-level Stream Plans and Projects: Development and implementation of stream restoration projects that are identified as high priority through the assessment process.

Training and Technical Assistance for Resource Managers, and Streamside Landowners: Provide access to training and technical information in the watershed to increase the knowledge, skills, and capabilities of government agencies, elected officials, organizations, businesses, and landowners in the watershed.

Community Engagement and Communication: Provide opportunities for volunteers in the watershed. Conduct outreach and education in the watershed through public events, the press, electronic media and other venues to raise general awareness, knowledge and support for watershed stewardship.
Data collection monitoring and analysis to help guide policy, projects, and programs in the Ashokan Watershed related to stream, riparian corridor and floodplain management.

2010 Accomplishments

**Beaverkill Stream Assessment** - UC SWCD staff continued with the Beaverkill assessment this summer. This is the first stream to be assessed by the current AWSMP team.

**Warner Creek Stream Assessment** - Danny Davis and a team of SUNY New Paltz REU interns conducted an assessment of Warner Creek this summer. Warner Creek has been identified as one of the most significant sources of turbidity during low to moderate flows in the watershed.

**Warner Creek Restoration Project Study** - UC SWCD has contracted with Rocky Powell at Clear Creeks Consulting for a further assessment of Warner Creek and to design plans for a reach-level restoration project. Assuming a feasible design is presented, construction will likely begin in 2012.

**Chichester Reach Restoration Project Study** - Milone and MacBroom, the consultants hired by the AWSMP program, completed their investigation and issued a report on the four proposed stream remediation sites in the Chichester area of the Stony Clove this year. The Chichester reach has been identified as an area that is a significant contributor to turbidity in the Watershed during low to moderate flows. Construction of a project in Chichester is planned to begin in 2011.

**LWD Study of Woodland Valley Creek** - Jenine Tobey the Program SCA intern has completed her study of persistent large woody debris in Woodland Valley. During the summer 2010 she went to the 91 sites that were documented as having large woody debris in the 2008 Woodland Valley assessment to determine which locations still had large woody debris present in 2010. The October Flood provided her with an opportunity to go back into the field to determine which of the summer 2010 persistent sites survived the flood. She presented her findings at the Catskill Environment and Research Conference in November.

**Glacial Geology Mapping (NYS Geological Survey)** - with support from an AWSMP Implementation Fund, the NYS Geological Survey began drilling this summer to collect data for the glacial geology mapping project.

**USGS Investigation of Aquatic Habitat** - Barry Baldigo and his team continued their investigation of fish, macro-invertebrate and periphyton in the Upper Esopus Creek and tributaries. They were joined by TJ Ross, a graduate student from Cornell University who is working on the Telemetry study. Barry and TJ presented their preliminary findings at the Watershed Technical Conference in September and the Catskill Environmental Research Conference in November. TJ will be working in the Watershed next summer.

**USGS Investigation of Water Quality** - USGS has installed the 13 turbidity monitors in the Ashokan watershed.
SUNY New Paltz REU Didymo Project - REU (Research Experience for Undergraduate) students from SUNY New Paltz, under the direction of David Richardson of New Paltz and Catherine O’Reilly of Bard conducted research on the factors that lead to Didymo blooms in the Esopus. They presented their findings at the Catskill Environmental Research Conference in November.

Catskill Environmental Monitoring and Research Conference, November 17-18 2010 - The Ashokan Watershed Stream Management Program, partnered with NYS Department of Environmental Conservation, USGS, Cary Institute for Ecosystem Studies, New York City Department of Environmental Protection and the Catskill Institute for the Environment to sponsor the Catskill Environmental Monitoring and Research Conference at Belleayre. The conference focused on research related to ecosystems, climate change and water in the Catskill region. Over one hundred and seventeen researchers, agency staff, and interested members of the public attended the two-day conference and over 35 presentations and 10 posters were presented. The agenda, abstracts from the presentations, and copies of some of the presentations are available on the ashokanstreams.org website.

### Implementation Fund Projects Supporting this Program Area: 9 grants $373,880

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Recipient</th>
<th>Purpose</th>
<th>Status</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rock Snot in Sick Rivers</td>
<td>David Richardson, SUNY New Paltz</td>
<td>Support for summer research on Didymo by SUNY New Paltz Research Experience for Undergraduates (REU) Program. Project will generate data to help determine why Didymo is in the Esopus.</td>
<td>Completed</td>
<td>$5,000</td>
</tr>
<tr>
<td>Use of telemetry to assess potential effects of Schoharie Reservoir waters on trout populations in the Upper Esopus Creek</td>
<td>Barry Baldigo, USGS</td>
<td>Purchase of telemetry equipment and radio transmitters to support the project.</td>
<td>Completed</td>
<td>$8,273</td>
</tr>
<tr>
<td>Quantitative assessment of fish, macroinvertebrate, and periphyton communities in the Upper Esopus Creek</td>
<td>Barry Baldigo, USGS</td>
<td>Hire interns and senior researcher for summer field work in 2010</td>
<td>Active</td>
<td>$27,080</td>
</tr>
<tr>
<td>An Investigation of Glacial Geology and Applied Three Dimensional Geologic Mapping in Ulster County, NY</td>
<td>Andrew Koslowski, NYS Geological Survey</td>
<td>To support 3-dimensional geologic mapping efforts within the Ashokan Watershed.</td>
<td>Active</td>
<td>$38,037</td>
</tr>
<tr>
<td>Quantitative assessment of fish, macroinvertebrate, and periphyton communities in the Upper Esopus Creek</td>
<td>Barry Baldigo, USGS</td>
<td>To continue monitoring biological communities in the Ashokan Watershed.</td>
<td>Active</td>
<td>$79,700</td>
</tr>
<tr>
<td>Use of telemetry to assess potential effects of Schoharie Reservoir waters on trout populations in the Upper Esopus Creek</td>
<td>Barry Baldigo, USGS</td>
<td>To provide additional support for DEC-funded telemetry project by providing funds for analysis of data collected for project.</td>
<td>Active</td>
<td>$86,800</td>
</tr>
<tr>
<td>Quantitative Assessment of Water Quality in the Upper Esopus Creek</td>
<td>Michael McHale, USGS</td>
<td>To monitor water chemistry, hydrology, suspended sediments, turbidity, and temperature at 13 sites in the watershed.</td>
<td>Active</td>
<td>$90,990</td>
</tr>
<tr>
<td>Habitat Mapping for the Town of Woodstock</td>
<td>Jeff Moran, Town of Woodstock</td>
<td>To identify and map ecologically significant habitats throughout the entire town of Woodstock.</td>
<td>Active</td>
<td>$29,000</td>
</tr>
<tr>
<td>Trimble</td>
<td>Elizabeth Higgins, CCE Ulster</td>
<td>To purchase a Trimble GPS unit that can be shared by agencies needing the equipment.</td>
<td>Active</td>
<td>$9,000</td>
</tr>
</tbody>
</table>
Riparian Corridor Improvement

Activities to protect and enhance the riparian corridor of streams in the Ashokan Watershed. Primarily through the Catskill Streams Buffer Initiative (CSBI).

2010 Accomplishments

Development of Riparian management Plans for Landowners - Three riparian corridor management plans were developed in 2010 for Ashokan Watershed landowners. One large CSBI planting was completed for a landowner this year. Over 25 volunteers, many from the Bruderhof, assisted in the November planting.

Design and Planting at Boiceville Wastewater Treatment Plant - UCSWCD CSBI program received a request for assistance from the contractor installing the Boiceville Wastewater Treatment Plant (funded by CWC). The CSBI program coordinator provided a planting design and materials to the project.

NYS Natural Heritage Reference - the CSBI program has contracted with New York Natural Heritage to develop guidelines for reference forests.

Trainings and Public Programs – Streamside Native Plant Workshop: March 27, 35 participants. Co-sponsored by CCE UC and UCSWCD, speakers included Adam Doan, UCSWCD, and Francis Groeters from Catskill Native Plant Nursery. Topics included native plant use for riparian areas and replacement plants and management strategies for invasive species.

Development of a Native Plant Center - UCSWCD CSBI coordinator developed a native plant center at the Ashokan office to care for the thousands of plants propagated for the program.

CSBI Projects that Support this Program Area:

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flynn 2010</td>
<td>The project site comprises the western portion of the property and extends approximately 20 feet east of the stream bank. The primary concern of the landowner is stabilization of eroding banks found on the property. To accomplish this, the landowner is willing to allow a section of lawn be converted to native vegetation.</td>
</tr>
<tr>
<td>Mitchelotti 2010</td>
<td>The project site is located within the main parcel West of Oliverea Road and adjacent to the right bank (facing downstream) of the Esopus Creek. The Michelotti’s primary concern is stabilization of their eroding bank through the use of vegetation native to the Catskill region of New York State. The landowners have also expressed an interest in utilizing vegetation that has a high wildlife value. Visual access to the stream is not required, though it is strongly suggested that any plan incorporate some form of physical access to the stream.</td>
</tr>
<tr>
<td>Smith 2010</td>
<td>The project site is located within the east parcel and adjacent to the left bank (facing downstream) of Fox Hollow. The property owners’ primary concern is the presence of established stands of Japanese knotweed. They are hoping once the invasive plants have been removed, plants native to the Catskill region can be established.</td>
</tr>
</tbody>
</table>
Municipal Coordination and Assistance

Coordination of municipal projects and activities with Ashokan Watershed Stream Management Program Projects and Assessments. Providing grants and other support to municipalities in the Watershed.

2010 Accomplishments

Throughout the year AWSMP staff meet with town and county highway managers to identify high priority projects in each town.

**Woodland Valley at Fawn Hill** – The Fawn Hill site project is primarily a bank stabilization project initiated by the Town of Shandaken to preserve and protect the Woodland Valley Road. The primary objective of this project was: to stabilize stream to prevent street deterioration and to protect public infrastructure. The secondary objectives were: to demonstrate the use of bioengineering to stabilize steep slope; and maintain pool for habitat and recreation.

75% of the cost of this project was covered by a FEMA mitigation grant, AWSMP funded 25%. The project was installed in September 2010. Installed 150ft of stacked stone wall and bioengineering vegetated reinforced soil slope (VRSS). The final step scheduled for spring 2011 to plant trees and shrubs on upper slope. The project held up well during the October and December 2010 floods.

**Bradkin Road Culvert** - The Traver Hollow Creek/Bradkin Road culvert crossing project is a project to replace a failed culvert. The heavy rains and flooding that occurred on October 1st and 2nd caused the failure of the existing 7 ft metal culvert. Traver Hollow Creek completely washed out the culvert causing the rock headwalls to fall into the creek and a ten foot section of the culvert to be broken off and crushed. The existing culvert was completely rusted through on the bottom and was a hydraulic constriction to the channel. The Town of Olive was willing to install a larger culvert that would be sized to pass the 25 year storm event if funding was available.

A 25’4” x 9’5” aluminum box culvert was sized to pass the 25 year storm event. The Town required that the crossing be 40 feet to allow for winter maintenance. Aluminum headwalls and toe walls will be installed. A plunge pool will be installed to dissipate energy. The bottom 1-2 feet of the culvert will be filled with stream bed material for improved fish passage. The ASWMP program will fund 75% of
the cost of this project, and the town will fund 25%. The culvert is scheduled to be installed in the spring of 2011.

**Cross Patch Road Project** - The eroding ditches along Cross Patch Road in the Town of Woodstock have been an on-going sediment source to the local stream and a maintenance problem for the Town. This project will 1) install a concrete catch basin at the base of Cross Patch Road, 2) clean-out grates at intervals along the road ditches, and 3) install perforated culvert pipe covered with stone in the road ditches. These the stormwater system is designed to collect surface flows and direct them safely to a settling basin that will trap the suspended sediments before the runoff empties into the stream.

The Town of Woodstock has already installed a small section of the stone covered pipe and two surface inlets along a section of the road. This completed work appears to be functioning well and has greatly reduced bank erosion. However, road sediment continues to build-up and washes into the stream. It is important that this sediment be collected before entering the stream. Deeper catch basins will collect a portion of the sediment while the concrete settling basin at the outlet will trap the sediment behind concrete barriers and a stone check dam. This project is scheduled for installation in spring 2011. Securing landowner agreements is the current barrier as the catch basin would be located on private land.

**Brown Road Assistance** - During the October 2010 flood, a section of the Esopus Creek near Brown Road moved, threatening a town road and private property. A section of Esopus Creek channel was reconstructed to return the flow to the pre-storm location. This was completed by the Town of Shandaken with the assistance of Milone and McBroom Engineers that were contracted by the NYC DEP. This emergency work allowed for a landowner to rebuild his driveway and moved the channel away from other homes. However, this was by all accounts a temporary emergency fix. This section of the Esopus Creek has additional problems that should be addressed with a restoration project.

**Support to Towns in the Watershed after the 2010 Floods**

After the October and December 2010 floods, AWSMP staff worked with the affected towns to assess damages and help make recommendations for mitigation. Staff toured damaged sites with the towns, DEC, Emergency Management and FEMA. Staff assisted landowners, many of whom were out of the area, in documenting flood damage and assisting with the permitting process. DEP offered the assistance of MMI consulting to evaluate the structural integrity of the Deer Lane bridge in Shandaken, allowing the town to reopen the bridge more quickly to residents, some of whom were elderly and disabled.

AWSMP staff also worked with the county and other agencies to sponsor an informational workshop in January on sources of funding and programs to assist flood-damaged residents.

Finally, after the December flood, the Town of Shandaken was interested in options to mitigate future flooding in the Hamlet of Phoenicia. AWSMP staff assisted the town in coordinating the various agencies. At the request of the town, DEP provided engineering support for the town’s permit for emergency work in the Stony Clove Creek to remove sediment. The initial planning group is now known as SAFARI (Shandaken Area Flood Assessment & Remediation Initiative) and is continuing to meet to develop longer term flood mitigation strategies for the town.
Implementation Fund Projects Supporting this Program Area: 3 grants $215,121

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Recipient</th>
<th>Purpose</th>
<th>Status</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross Patch Road Culvert Demonstration</td>
<td>Town of Woodstock/UCSWCD</td>
<td>Replace roadside ditch with erosion and sediment issues with a buried culvert and using BMPs for stormwater runoff management.</td>
<td>Contract in Process</td>
<td>$90,000</td>
</tr>
<tr>
<td>Bradken Road Culvert Replacement</td>
<td>Town of Olive/UCSWCD</td>
<td>To replace a culvert that was previously identified as a problem that was washed out during the October 1 flood.</td>
<td>Active</td>
<td>$90,046</td>
</tr>
<tr>
<td>Woodland Valley at Fawn Hill</td>
<td>Town of Shandaken/UCSWCD</td>
<td>To match FEMA mitigation funds to protect eroding streambank that is undercutting the road.</td>
<td>Active</td>
<td>$35,075</td>
</tr>
</tbody>
</table>

Coordination with DEC and DEP Floodplain Assessment Efforts in the Watershed

In 2009 DEP procured recent LIDAR topographic data necessary for the development of the new Flood Insurance Rate Maps (FIRMS) and flood studies. DEP and contractors updated digital elevation models based on LIDAR data. The updated digital elevation models will be used for hydraulic modeling and subsequent hydraulic modeling results to be used in the flood studies and in deriving FIRMs.

In April 2010, NYS DEC, DEP and CCE sponsored an initial meeting with towns to identify priority areas for detailed flood studies. Regular mapping committee meetings with the towns are expected to commence in 2011.

AWSMP staff have participated in trainings sponsored by DEP and DEC to increase their knowledge of floodplain management. AWSMP staff have encouraged municipal officials in the watershed communities to take advantage of these training opportunities.
Training and Technical Assistance for Resource Managers, and Streamside Landowners

Provide access to training and technical information in the watershed to increase the knowledge, skills, and capabilities of government agencies, elected officials, organizations, businesses, and landowners in the watershed.

2010 Accomplishments

Ashokan Watershed Conference May 1, 2010 Belleayre Mountain

65 participants attended the first annual Ashokan Watershed Conference was held with the theme of “Floodplain and Stormwater Management for Towns and Landowners.” Highlights included broad representation from each town board or planning board in the watershed with attendance roughly split between streamside landowners and municipal or other agency officials.

Roadway and Roadside Drainage Workshop

A one day training for highway department workers on roadside drainage was held on October 15. David Orr from Cornell Local Roads Program lead the training for 25 participants who were members of highway crews in four of the five towns in the Ashokan Watershed. The main reason for the workshop was to encourage practices for proper culvert installation and limiting runoff pollution from roads and ditches.

Highway Managers Working Group

The AWSMP staff have organized regular meetings of the highway managers in the watershed. At the request of the group, the staff organized a sweeper-vac truck demonstration in September at the Ulster County highway garage in Boiceville.

Floodplain Management Training

CCE staff attended floodplain manager training in Oneonta to prepare to assist watershed towns, The Shandaken code enforcement officer, Gina Reilly, also attended the Oneonta training. Both Higgins and Reilly attended a week-long training on using the Community Rating System in the National Flood Insurance Program.

Technical Assistance to Landowners

Over fifty-five landowners were directly assisted by ASWMP staff in 2010. UCSWCD provided technical information about property improvements. In addition, landowners were educated about flood insurance, permitting requirements, and directed to resources and agencies for assistance.
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Recipient</th>
<th>Purpose</th>
<th>Status</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosgen Level 2 Training</td>
<td>Gary Capella, UC SWCD</td>
<td>To send UC SWCD staff for advanced Rosgen training to increase technical capacity</td>
<td>Completed</td>
<td>$2,362</td>
</tr>
<tr>
<td>Rosgen Level 3 Training</td>
<td>Gary Capella, UC SWCD</td>
<td>To send UC SWCD staff for advanced Rosgen training to increase technical capacity</td>
<td>Completed</td>
<td>$4,224</td>
</tr>
<tr>
<td>Rosgen Level 4 Training</td>
<td>Gary Capella, UC SWCD</td>
<td>To send UC SWCD staff for advanced Rosgen training to increase technical capacity</td>
<td>Active</td>
<td>$5,000</td>
</tr>
<tr>
<td>Cornell Local Roads Ditch and Culvert Class</td>
<td>Michael Courtney, CCE Ulster</td>
<td>To provide a class to Ashokan Watershed Highway Departments on ditch and culvert best practices. The class was taught by David Orr, PE of the Cornell Local Roads Program.</td>
<td>Active</td>
<td>$2,500</td>
</tr>
<tr>
<td>Raingarden Project</td>
<td>Teresa Rusniek, CCE Ulster Master Gardeners</td>
<td>To develop a rain garden within the Ashokan Watershed at a site where run-off would be likely to impact a stream. Offer training on raingarden installation and a public program and informational signage at demonstration site.</td>
<td>Active</td>
<td>$5,000</td>
</tr>
<tr>
<td>Woodstock Watershed Education</td>
<td>Town of Woodstock</td>
<td>For education, outreach, training and other forms in which to enhance understanding of why and how to implement stream stewardship principles in Woodstock. Special focus on issues relating to erosion, stormwater pollution and the Beaverkill.</td>
<td>Active</td>
<td>$4,400</td>
</tr>
<tr>
<td>Shandaken Education and Training Grant</td>
<td>Town of Shandaken</td>
<td>To cover cost of approved trainings and education programs for municipal employees and elected officials.</td>
<td>Approved</td>
<td>$5,000</td>
</tr>
<tr>
<td>Woodstock Education and Training Grant</td>
<td>Town of Woodstock</td>
<td>To cover cost of approved trainings and education programs for municipal employees and elected officials.</td>
<td>Approved</td>
<td>$5,000</td>
</tr>
<tr>
<td>Olive Education and Training Grant</td>
<td>Town of Olive</td>
<td>To cover cost of approved trainings and education programs for municipal employees and elected officials.</td>
<td>Approved</td>
<td>$5,000</td>
</tr>
<tr>
<td>Hunter Education and Training Grant</td>
<td>Town of Hunter</td>
<td>To cover cost of approved trainings and education programs for municipal employees and elected officials.</td>
<td>Approved</td>
<td>$5,000</td>
</tr>
<tr>
<td>Lexington Education and Training Grant</td>
<td>Town of Lexington</td>
<td>To cover cost of approved trainings and education programs for municipal employees and elected officials.</td>
<td>Approved</td>
<td>$5,000</td>
</tr>
</tbody>
</table>
Volunteer Activities in 2010

**Knotweed Pull**, May 22, Six volunteers met to dig and cut knotweed at a demonstration site at the corner of Bridge and High St. in Phoenicia.

**Stream Cleanup and Barbecue, June 12**, 18 volunteers cleaned up access points along the Esopus Creek in the Phoenicia-Shandaken Area, removing a truckload of trash and recyclables. A barbecue with musical entertainment was held afterwards. DEP land management provided trash pickup.

**Stream Stewards Training**, On July 17 a committed group of volunteers were trained to learn about stream processes, how to use the stream table and about the AWSMP overall. The program included classroom and field components on typical issues for streamside landowners and the watershed in general. Volunteers were trained on basics for photomonitoring and how to upload and label photos on a GoogleMaps page.

**CSBI Planting Project** - Over 25 volunteers, many from the Bruderhof, assisted in the November CSBI planting.

Public Programs

**Ulster County Fair: Watershed Awareness Day, August 7** The Stream Table and Enviroscape were on display and two additional classes were offered including a fly fishing class led by our intern Graham Markowitz and “How to Build Your Own Rain Barrel” workshop.

**Booths at Summer Festivals: Shandaken Day, Olive Day, Eco-Heritage Festival** The stream table, Enviro-scape and displays for Creek Week and our photo contests were center-pieces for booths at three large festivals.

**Creek Week 2010, Sept 6-20** The first Ulster County Creek Week was held in 2010. From September 6 – 19. Six public events were held in the Ashokan Watershed for Creek Week including Youth Learn to Fish Day, Native Plant Walk, Environmental Family Film Night, Rain Barrel Workshop, Crummy Culverts Contest, Photo Contest and a streamside restoration volunteer planting.

**Creekside Crummy Culvert Contest** Residents were asked to provide photos of the “crummiest” culverts they could find, with guidelines for crummy culverts on the website. The contest was used to raise awareness of poorly sized and designed culverts as a water quality and fish passage issue. 10 applications were received. Staff were invited by Trout Unlimited and the Catskill Cabiradio show in Pine Hill to talk about best culvert practices.
Youth Programs

**Stream Monitoring Day with Onteora High School, October 14**
Students from the AP Environmental Studies and biology classes learned about macrovertebrate identification and stream flow monitoring.

**Newsletter and Publications**

**Esopus Creek News** Three issues of the program newsletter were distributed to over 2750 watershed residents.

**Fact Sheets** Two fact sheets were developed and distributed. One was on permitting requirements for streamside projects and the other was on flood safety.

**Website and social media** The program website www.ashokan-streams.org received over 400 unique hits per month. In addition, a Facebook site for the program was developed. E-lists were developed to better reach volunteers.