

Esopus Creek News Briefs

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Esopus • Birch • Bushnellsville • Fox Hollow • Peck Hollow • Broadstreet Hollow • Woodland Valley • Stony Clove • Beaver Kill • Little Beaver Kill • Traver Hollow • Bushkill

Welcome to the Esopus Creek News Trib; a shorter version of the full-length Esopus Creek News. A "trib" (short for "tributary") is a smaller creek that flows into the main river. Look for the full-length Esopus Creek News to return this winter. We hope you enjoy this edition of the Trib!

Stream Management in Action



One of the Ashokan Watershed Stream Management Program's primary activities is to track stream erosion in the network of streams feeding water to the Ashokan Reservoir. Stream assessments are used to diagnose stream corridor conditions that cause excessive erosion so that managers can intervene.

Erosion is a natural process, but excessive erosion can threaten habitat, infrastructure, and water quality. The chief culprit of excessive erosion in this watershed is a stream channel with the wrong geometry for its valley and the amount of water and sediment it carries. Another cause of instability is loss of streamside vegetation.

Under healthy conditions trees, shrubs, and native herbaceous plants grow abundantly at stream margins and on floodplains. The combined effects of a naturally stable channel geometry and healthy vegetation make any rapid changes in the stream's course somewhat rare.

But disturbance that throws the system dramatically out of balance can set up a chain of events that leads to expanding erosion and channel destabilization. Once the situation unravels, stream channels can shift course often and dramatically across the valley bottom, especially during high flows when the stream's power to carve a new path is highest.

Management interventions run the gamut from "wait and see" monitoring of how the stream evolves over time to restoring native trees and shrubs to bolster the strength of channel margins. The most expensive intervention is a full-scale stream restoration that remakes the channel bed, banks, and adjacent hillslopes. These projects can span hundreds of feet of stream length.

One of two large-scale restoration projects planned in the Ashokan watershed for 2022 is underway on the Stony Clove Creek to restore stable and healthy conditions. Read more below.

If you believe your property is experiencing excessive erosion, call the stream program office at (845) 688-3047 to schedule a free site visit and consultation.



Pine Hill Local Flood Analysis

The Town of Shandaken is studying flooding in Pine Hill to find solutions that are feasible and cost-effective to implement. Join the next public meeting on August 10 at 7pm, Pine Hill Community Center.

Field Guide to Culvert Assessment

An illustrated guide to culvert and bridge assessment is now available. The guide benefits highway managers, but private landowners can consult the guide to assess their culvert's condition. Look for "MOSCAP" manuals here: https://ashokanstreams.org/publications-resources/technical-data/

Looking for Adventure?

Take the challenge and complete 11 stops on a self-guided tour of the Ashokan Watershed. Win prizes for going on the adventure! Learn about streams and impressive water engineering feats in the Ashokan Reservoir watershed. Printed guides available at the AWSMP Office or Catskills Visitor Center. For a digital version: https://bit.ly/3JscwE1

If Sediment is Your Problem

A new Sediment Management 'Stream Guide' explains approaches to managing sediment to improve water quality, maintain habitat, and protect infrastructure: https://bit.ly/3cC7ulr. For technical assistance call the stream program at (845) 688-3047 or email info@ashokanstreams.org.

Big Indian to Highmount Trail

Ulster County is developing a multi-use trail with pedestrian bridges from Highmount to Belleayre Beach in the Town of Shandaken. The current phase converts 2.5 miles of the Ulster & Delaware Railroad to trail. Learn more at: https://bit.ly/3BFN2Bd

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EVENTS AROUND THE WATERSHED

Toddlers & Tributaries

For toddlers and their parents on August 15 from 9am-11am at the Kenneth Wilson Campground, Mt. Tremper. Children ages 18 months to 5 years will explore stream life in a safe, controlled environment. Free. Registration is required: https:// ashokanstreams.org/register-nowfor-toddlers-and-tributaries/

Family Fun & Fish Day!

The entire family can learn to fish with help from NYCDEC and Trout Unlimited. Poles and tackle are provided. Sunday, September 25 from 11am-2pm at Kenneth Wilson Campground, Mt. Tremper under the pavilion. Free, but registration required: https://www.surveymonkey.com/r/DRBL8XR

Watershed Bus Tour

'Walking the Watershed' bus tours are heading out August 7, 20, and 21. Stops near Phoenicia will focus on stream management and flood resilience. Tours cover the entire NYC Water Supply in the Catskills. Tickets available here: https://www.walkingthewatershed.com/tours/bus-tours/



Joe Simorelli of Kingston Equipment Rental & Baker Brothers Excavating uses a survey grade Global Positioning System to mark the future boundary of a stream channel.

Where the Stream Levels Out

The Stony Clove Creek above Jansen Road is a stretch of river where the stream's tendency is to flatten out, meander a bit, and deposit sediment. About a mile north of Lanesville on Route 214 in Greene County, the Stony Clove Creek valley becomes less steep.

The broad and flat area acts like a speed bump for the otherwise steep, fast-moving creek carrying significant amounts of sediment downstream from the mountains above.

Recent flow events with enough energy to rework the channel were Tropical Storm Irene in August 2011 when two primary areas of bank erosion opened along Route 214. A rain-on-snow flood event on December 25, 2020 made things worse and initiated erosion of steep banks and more sediment deposition.

The Ulster County Soil and Water Conservation District hired the engineering firm SLR in 2020 to prepare a restoration design. This year Kingston Equipment Rental, Inc. (also known as Baker Brothers Excavating) won the bid to construct the stream restoration project.

A total 1,600 feet of stream length will be restored for just over \$2 million, making this one of the largest stream restoration projects completed in the Ashokan watershed.

The stream channel will be reshaped and relocated by project end. Grading will stabilize steep banks. Instream rock riffles and large wood revetments will be built to stabilize the channel bed and banks. These features naturally occur in Catskill streams and provide structure for fish habitat. The final important step will be to plant and restore native trees and shrubs to "bioengineer" long-term bank protection.

Construction of the Stony Clove Creek stream restoration project above Jansen Road began in June and will end by September 2022 if high flows don't cause delays.







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