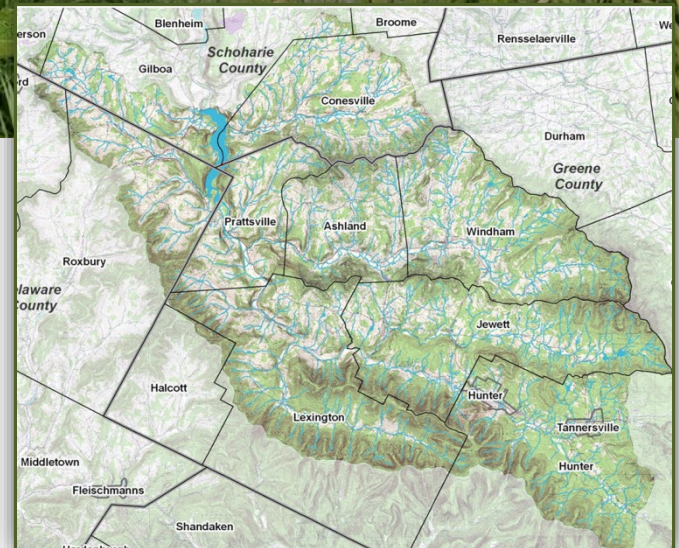




Schoharie Basin

Annual Partner's Meeting

February 20, 2019



2018 Education Programs

347 total participants at our education programs in 2018

Streamside Landowner Workshop

- **Saturday, January 27th, 2018**
- **E&O Objectives:**
 - Promote CSBI program
 - Educate interested streamside landowners about the importance of riparian buffers
 - Use the EnviroScape® to further demonstrate how riparian buffers are beneficial in preventing or slowing erosion and helping filter pollutants out of stormwater runoff.
- **Key Message:**
 - Gain interest and stewardship with streamside landowners within the Schoharie watershed, promote CSBI, and discuss the importance of riparian buffers.



13 total participants

Do you have a stream in your backyard? Would you like to enhance or restore the streamside forest on your property?

Streamside Landowner Workshop
Saturday, January 27th, 2018
10:00am-12:00pm

**Join us...
and bring a friend!**

PRESENTER:
Laura Weyeneth
CSBI Coordinator
Greene County Soil & Water
Conservation District

LOCATION:
Mountain Top Library
6093 Main Street
Tannersville, NY 12485



REGISTER BY:
Thursday, January 25th, 2018

To register, or for more information, please contact
Laura Weyeneth:
laura@gscwcd.com
518-622-3620

Did you know the land along the stream, known as the riparian buffer zone, can improve water quality and enhance wildlife habitat?

The Greene County Soil & Water Conservation District (GCSWCD) is offering a Streamside Landowner Workshop at the Mountain Top Library in Tannersville on Saturday, January 27th, from 10:00am-12:00pm. This workshop is geared for individuals who own streamside property in Hunter, Tannersville, Windham, Ashland, Jewett, Lexington, and Prattsville. Attendees will learn how to establish and increase the riparian buffer zone on their own property by planting native trees and shrubs. Participants may be eligible for Catskill Streams Buffer Initiative (CSBI) program funding and will have the opportunity to inquire about CSBI resources at this workshop.

For more details, contact Laura Weyeneth, CSBI Coordinator at Greene County Soil & Water Conservation District, at laura@gscwcd.com or 518-622-3620. **Advance registrations requested for this FREE event by Thursday, January 25th.** In the case of snow or other inclement weather, the workshop will be rescheduled for the following weekend on Saturday, February 3rd, 2018.

We hope to see you there!



SMIP Information Session

- **Tuesday, February 13th, 2018**
- **E&O Objectives:**
 - Promote SMIP opportunities.
 - Educate the public about SMIP and describe sample projects that have previously been funded.
 - Provide an opportunity for interested SMIP applicants to discuss their application ideas prior to the deadline.
- **Key Message:**
 - Gain interest about SMIP and provide the general public with a better understanding about the program.



Funding available for water quality-related projects in the Schoharie Reservoir drainage basin.



Stream Management Implementation Program Information Session

Tuesday, February 13th, 2018
9:30am-11:30am

Join us...
this is an opportunity to learn about SMIP, see examples of past projects, and share your project ideas.

PRESENTER:
Abbe Martin
Program Manager
Greene County Soil & Water Conservation District

LOCATION:
Schoharie Watershed Program
6049 Main Street
Tannersville, NY 12485

Do you live or work in the Schoharie Reservoir drainage basin? Are you interested in learning about a funding opportunity for water quality-related projects?


The Greene County Soil & Water Conservation District (GCSWCD) is offering a FREE information session for the Stream Management Implementation Program (SMIP) at the Schoharie Watershed Program office in Tannersville on Tuesday, February 13th, from 9:30am-11:30am. A brief presentation about the program will kick off the information session at 9:30am, followed by an informal Q&A for attendees. Feel free to drop in and see if you might be eligible for SMIP funding and inquire about your project ideas. Visit <https://www.gcsxcd.com/swp/smp/smpig> to learn about the funding categories and project examples.

REGISTER BY:
Monday, February 12th, 2018

To register, or for more information, please contact:
Abbe Martin
abbe@gcsxcd.com
518-622-3620

Pre-registrations are requested by February 12th but walk-ins are also welcome. For more details, or to register for this event, contact Abbe Martin, Conservation District Program Manager at GCSWCD, at abbe@gcsxcd.com or 518-622-3620. Can't make it on February 13th? Contact Abbe by phone or e-mail with your questions or to set-up an appointment.

We hope to see you there!



2018 EnviroScape® School Visits

- **Winter/Spring 2018**
- **Schoharie Watershed Visits:**
 - Windham-Ashland-Jewett Central School
 - Hunter-Tannersville Central School
- **E&O Objectives:**
 - Teach students about watersheds, the Schoharie watershed, the NYC drinking water supply, point source pollution, and non-point source pollution.
- **Key Message:**
 - Gain interest and stewardship within the Schoharie watershed and help prevent future pollution.



85 total participants

2018 Schoharie Watershed Month

May 4th



Student Art Exhibit Opening

May 5th



Photography Walk

May 5th, 12th, 19th, & 26th



Eco-Friendly Story Time & Craft Hour

May 8th



Annual Trout in the Classroom
Student Trout Release

May 12th



Invasive Species Day

May 12th



Hunter Branch Rail Trail Walk & Talk

May 26th



Mountain Top Arboretum Volunteer
Appreciation Day & Native Shrub
Planting

June 2nd



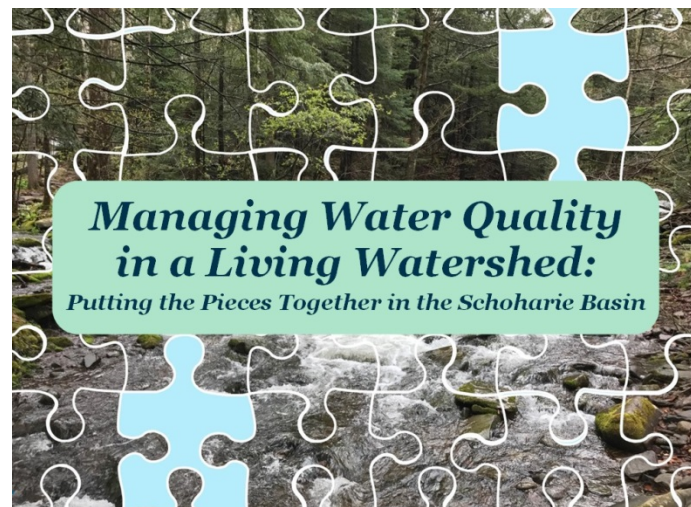
Bog Tour with Mike Kudish



147 total participants

2018 Schoharie Watershed Summit

- **Saturday, April 7th, 2018**
- **Hunter, NY**
- **Summit Theme:**
 - *Managing Water Quality in a Living Watershed: Putting the Pieces Together in the Schoharie Basin*
 - Covered the history of the building of the Schoharie Reservoir and the Gilboa Dam, the incredible engineering of the NYC water supply system, and the basics in natural stream processes and stream management.



101 total participants

2018 SMIP Updates



**\$610,320.75 total funds
awarded in 2018**



2018 SMIP Awards

Category	Round 17 Projects	Round 18 Projects
Landowner Stream Assistance	<ul style="list-style-type: none"> County Route 78 Streambank Stabilization (\$150,000) 	
Recreation & Habitat	<ul style="list-style-type: none"> Mountain Top Arboretum Rain Garden Implementation (\$24,987) Windham Multi-Use Trail System – Public Access (\$3,000) 	<ul style="list-style-type: none"> Hunter Brook Fishing Access and Habitat Enhancement Project – Phase 1 (\$25,000)
Education & Outreach	<ul style="list-style-type: none"> 9th Annual Schoharie Watershed Month (\$4,133.75) Stormwater Floodplain Simulation System (\$1,600) Windham Path Phase 3 Kiosk – Maplecrest/Windham Multi-Use Trail System – Educational Kiosk and Signage (\$12,400) 	
Planning & Assessment		
Highway & Infrastructure	<ul style="list-style-type: none"> County Route 2 Culvert on Unnamed Tributary to West Kill (\$100,000) County Route 78 Culvert on Unnamed Tributary to East Kill (\$100,000) 	
Flood Hazard Mitigation	<ul style="list-style-type: none"> Manorkill Floodplain Enhancement (\$189,200) 	
Total	9 applications 0 modifications \$585,320.75	1 application 0 modifications \$25,000



SMIP Projects Completed in 2018

- **Education & Outreach:**

- Environmental Awareness Movie Series - Mountain Top Library (Round 16)
- Purchase of Floodplain Education Model (Round 17)
- Schoharie Watershed Month 2018 (Round 17)

- **Recreation & Habitat:**

- Mountain Top Arboretum Education Center Rain Garden Design (Round 16)
- Mountain Top Arboretum Rain Garden Implementation (Round 17)
 - Partially completed
 - All rain gardens have been constructed and have shown to be working well with the heavy rains we had in fall 2018
 - 75% of trees and shrubs were planted in fall 2018; remaining plants and perennials to be planted in spring 2019.



Floodplain model purchased for education programs

2018 SMIP Budget Update

Category	Funds Allocated to Date	# of Awards through 18 Rounds (8/1/09-10/24/18)
Education & Outreach	\$106,248.77	26
Landowner Stream Assistance	\$1,668,000.00	12
Highway & Infrastructure	\$1,010,331.00	16
Stormwater & Critical Area Seeding*	\$85,903.50	4
Planning & Assessment	\$150,919.35	6
Recreation & Habitat	\$161,366.30	11
Flood Hazard Mitigation	\$841,802.50	12
Total	\$4,024,571.42	87

- 87 awards, 53 completed projects, 24 projects are in-process, 1 withdrawn, 8 awards for additional funding
- Next SMIP Round 3/15/19
- Stormwater category currently funded through Catskill Watershed Corporation.



2018 LFA Updates

3.6-foot reduction
at bridge

1.3-foot reduction
1,000 feet upstream

Negligible
reduction
1,800 feet
upstream

2 LFAs completed in
2018

Legend

— Model Cross Sections

Existing Flood Extent - 50 Year

Bridge Removal Depths (ft) - 50 Year

0 - 0.5

0.5 - 1

1 - 2

2 - 3

3 - 4

4 - 5

5 - 10

10 - 15

15 - 20

20 - 25

FEMA Flood Zones

AE - Area of 1% Annual Chance Flood

7 LFAs Completed to Date

- **Prattsville** – completed
- **Lexington** – completed
- **Windham** – completed
- **Tannersville** – completed
- **Conesville** – completed
- **Ashland** – completed
- **Hunter** – completed
- **Jewett** – TBD

All of the completed LFAs have been accepted/adopted.



2018 Stream Restoration Project Updates



**8 projects in design phase
in 2018**

Stream Restoration Project Updates

Several projects in design:

- County Route 2 Culvert
- County Route 78 Culvert
- County Route 78 Stream Restoration Project
- Conesville Floodplain & Stream Restoration
- Hunter Brook Fishing Access and Habitat Enhancement Project
- KUM Stormwater
- East Kill Stream Restoration
- Red Falls



Project Monitoring

- Yearly monitoring of stream restoration projects is required under the ACOE Nationwide Permit. Typical monitoring schedule requires the site to be assessed on the 1st, 2nd, 3rd, and 5th years, with the 5th years monitoring also requiring a complete as built of the site.
- **11 Full Channel Restoration Projects Requiring Monitoring in 2018**
 - 6 projects requiring a complete as built of the site
- **Parameters:**
 - Qualitative Assessments:
 - Photographs
 - Visual Inspection
 - Pattern
 - Channel Dimension (Cross Sections):
 - Riffle Area (FT²)
 - Riffle Width (FT)
 - Riffle Mean Depth (FT)
 - Width to Depth Ratio, W/D
 - Pattern
 - Sinuosity, K
 - Longitudinal Profile
 - Water Surface Profile
 - Sediment Transport:
 - Bed Material
 - Biology:
 - Vegetation Plots
 - Other:
 - Structure Survey
 - Wetland Delineation



Apple Hill during project monitoring in 2016



2018 CSBI Updates

4 CSBI planting projects in
2018

2018 CSBI Planting Projects

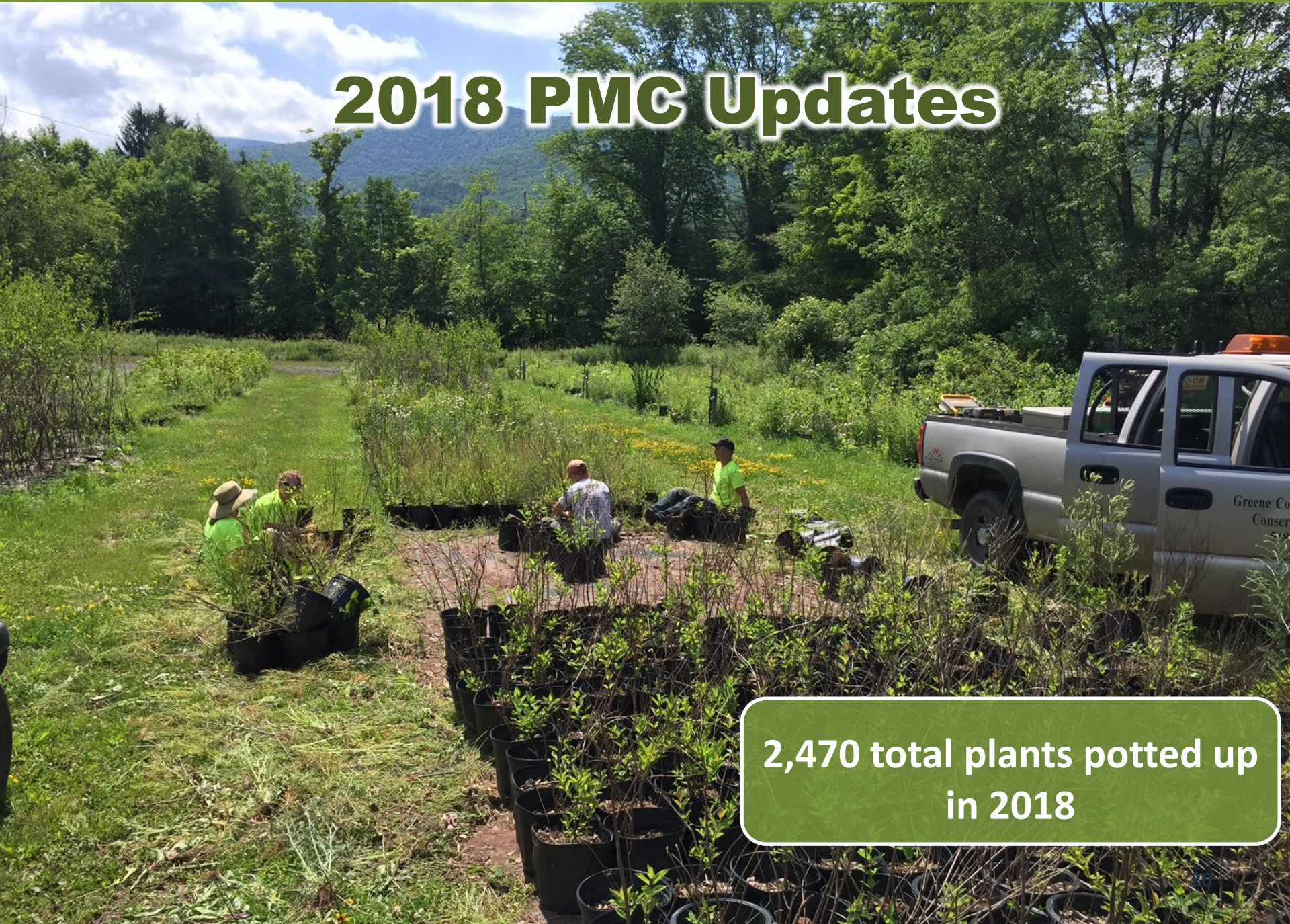


CSBI Project Monitoring

- 12 CSBI Projects Requiring Monitoring in 2018
- Parameters:
 - Vegetation Plots:
 - Photographs
 - Observation of planting site
 - Noting disturbances/human influence
 - Planted Tree & Shrub Tracking
 - Alive/Dead
 - Height of Individual Plant (m)
 - Width of Shrub (m)
 - Diameter of Tree Trunk
 - » Caliper Reading (cm)
 - Visual Inspection
 - » Predation (Insect/Deer/Human)
 - » Vigor (High/Medium/Low)
 - » Natural Regeneration/Die Back
 - Canopy Cover (%)
 - Ground Cover (%)
 - Including list of ground cover species
 - Noting invasive species



2018 PMC Updates



**2,470 total plants potted up
in 2018**

2018 PMC Updates

- Spring 2018 staff & intern potting-up events
 - Potted up 2,470 bare root trees and shrubs
- Greenbelt delivery from One Nature
 - Fall delivery
 - 1,108 containerized plants delivered

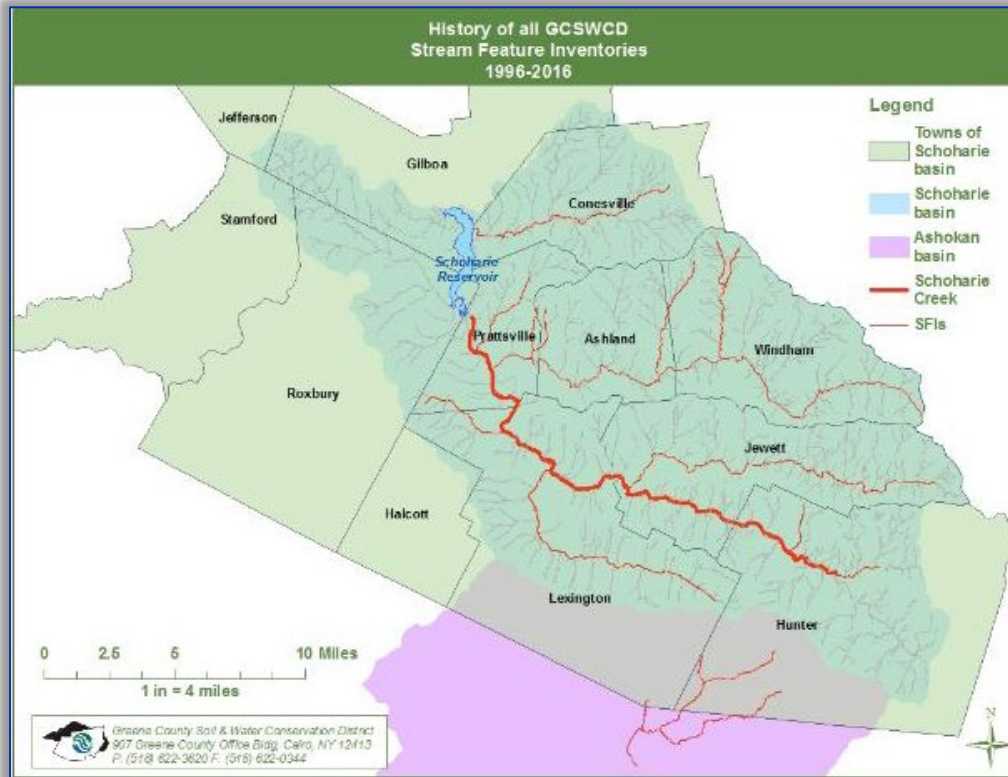


2018 SFI Updates



15.04 total miles of stream
assessed in 2018

SFIs Completed to Date



1996	2001	2003	2004	2005	2006	2008	2009	2016	2017	2018
Batavia Kill	Stony Clove	Batavia Kill	West Kill	West Kill update	Schoharie Creek & East Kill	Manor Kill	Mad Brook, North Settlement Creek, Furnace Creek, & Red Falls Creek	Huntersfield Creek, Little West Kill, & Red Kill	Batavia Kill	West Kill & Gooseberry Creek

2018 Internships

6 interns assisting with
stream projects in 2018

2018 Internships

- **SCA Stream Stewardship intern**
 - Peter Barron
 - 10-month position (January-November)
 - Accomplishments:
 - Batavia Kill Stream Feature Inventory (SFI)
 - Assisted with vegetation monitoring
 - Assisted with project monitoring
 - Assisted with education programs
- **1 GCSWCD summer intern**
 - Haley Keff
 - June-August
- **4 SUNY Delhi summer interns**
 - June-August



2018 Highway Updates



12.3 total roadside miles seeded in 2018

2018 Highway Updates

- Ditch Seeding – Continue to work with highway departments to vegetate highway ditching
- In 2018, 53 sites were treated totaling 12.3 miles.
- Continue \$50K fund through SMIP to utilize more substantial treatments in steeper terrain.
- Retain two CPESC Certified staff



2019 Goals & Priorities



2019 Goals & Priorities

- Education/Outreach/Training
 - Schoharie Watershed Summit (Saturday, April 27th, 2019)
 - Schoharie Watershed Month (May 2019)
- SMIP
 - Host spring and fall SMIP rounds and SWAC meetings
 - Prepare to transition SMIPs between contracts
- LFA/FHM
 - Complete Conesville Floodplain and Stream Restoration Project
- Assessment
 - SFI of the East Kill
- Stream Restoration Projects
 - County Route 78 Culvert (East Kill)
 - County Route 2 Culvert (Little West Kill)
 - Complete Hunter Brook Habitat Restoration
 - Complete East Kill Stream Project
 - Complete Stony Clove at Meadow Brook Lane
 - Finalize Red Falls Design
- Stream Restoration Project Monitoring
 - 7 project reaches requiring monitoring in 2019
 - 4 projects requiring a complete as built of the site
- CSBI
 - Complete 4 CSBI projects
 - Complete vegetation monitoring



Red Falls Lower Reach February 2016

Questions?

Greene County Soil & Water Conservation District
907 Greene County Office Building
Cairo, NY 12413
518-622-3620

