



Streamside Acquisition Program

Olive Town Board Meeting, March 2024



1



Program Mission



2

Here to help solve programs with streams



**Cornell Cooperative Extension
Ulster County**

- Stakeholder Outreach
- Implementation Grants
- Education and Training
- Coordination
 - Partner with Ulster County Dept. of Environment

- Funding
- 5-Year Intergovernmental Agreements
- Technical Assistance and Education

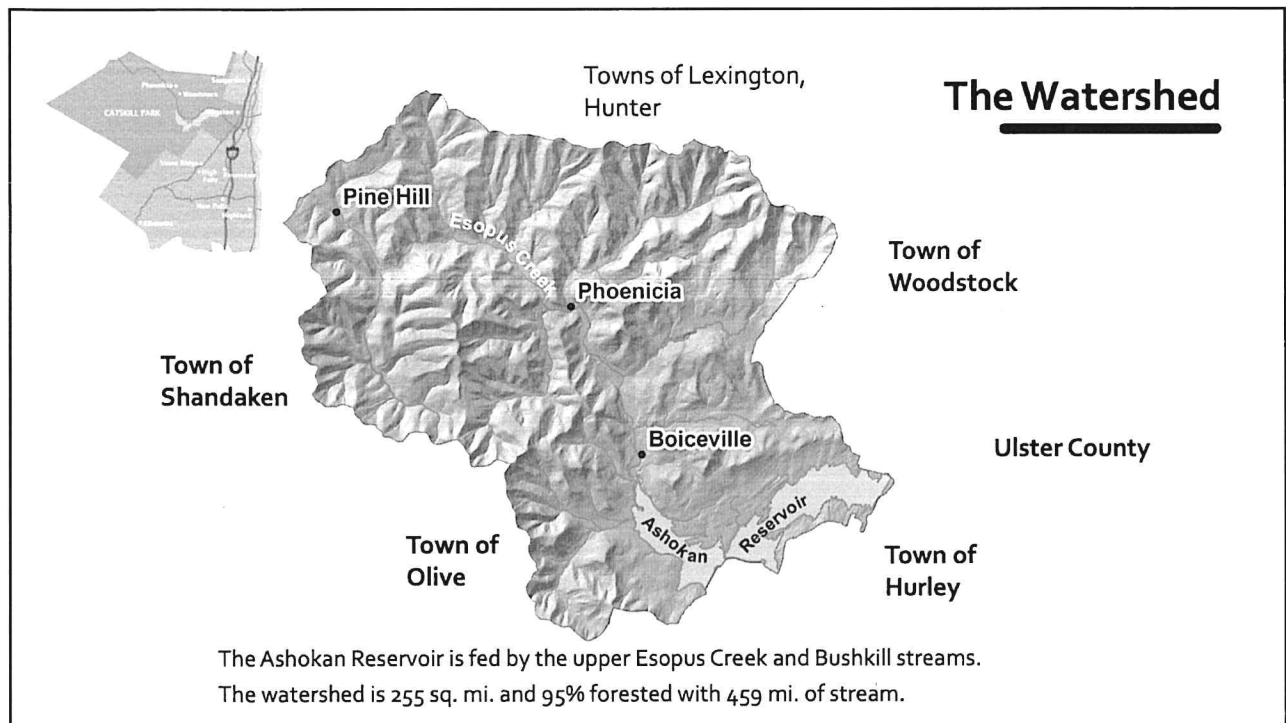


- Stream Project Implementation
- Technical Assistance
- Catskill Streams Buffer Program
- Stream Assessments and Management Plans

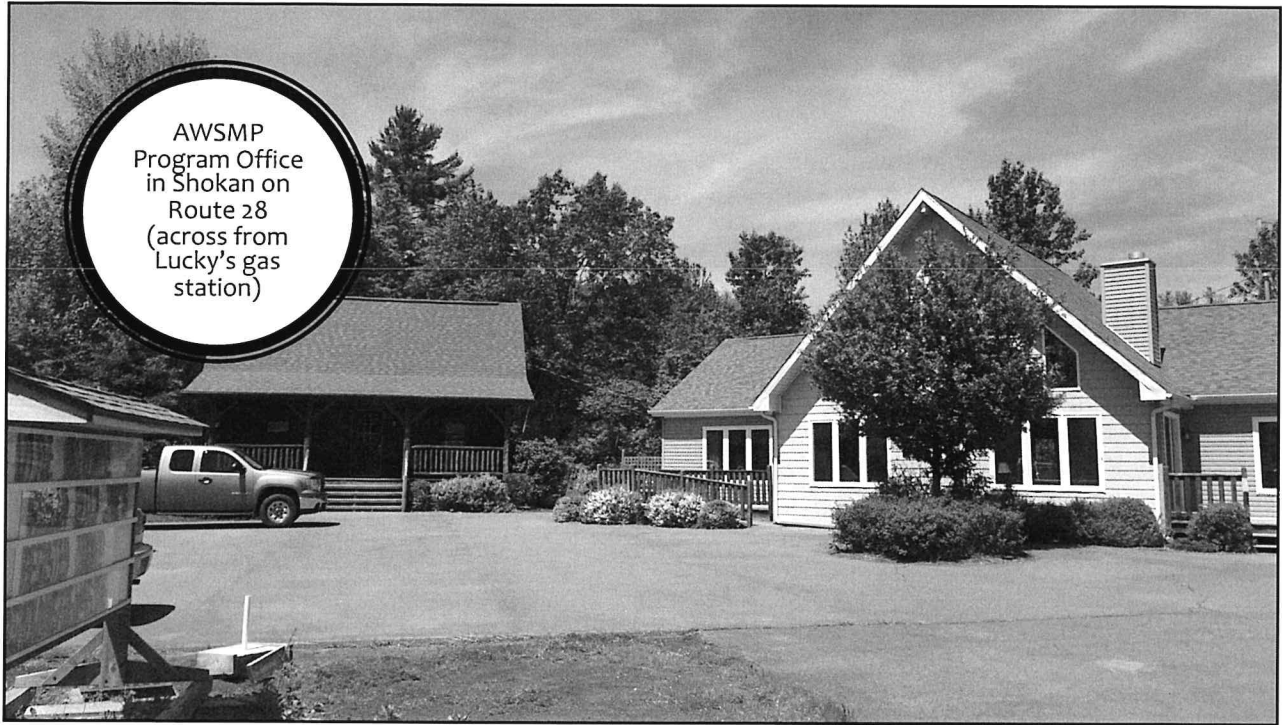
← **Local Partners** →



3



4



AWSMP
 Program Office
 in Shokan on
 Route 28
 (across from
 Lucky's gas
 station)

5

Municipal Stream Management

Municipal Officials

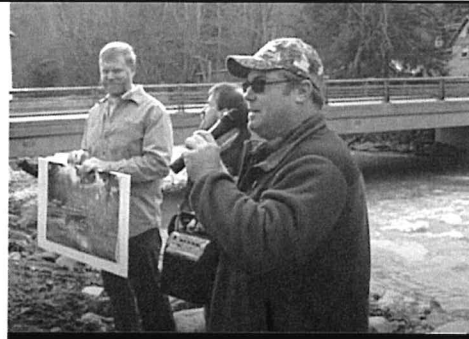
- Front line
- Roads, culverts, bridges
- Flooding
- Planning and development

Local Economy

- Tourism
- Community resilience

Climate Change

- Increased management need



Rob Stanley, Shandaken Town Supervisor (Dec. 9, 2011)
<https://www.youtube.com/watch?v=zQz7VDUY2q8>



Phoenicia Channel Restoration, 2012

6

Stream Channel Evolution

in response to a wetter climate or human disturbance of natural channel conditions

Hawley et al (2020), adapted from Schumm et al (1984)

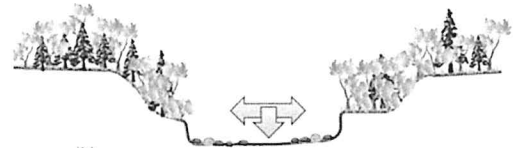
Equilibrium



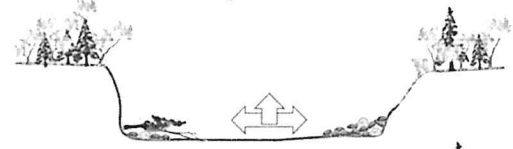
Incision



Deepening & Widening



Widening & Sedimentation



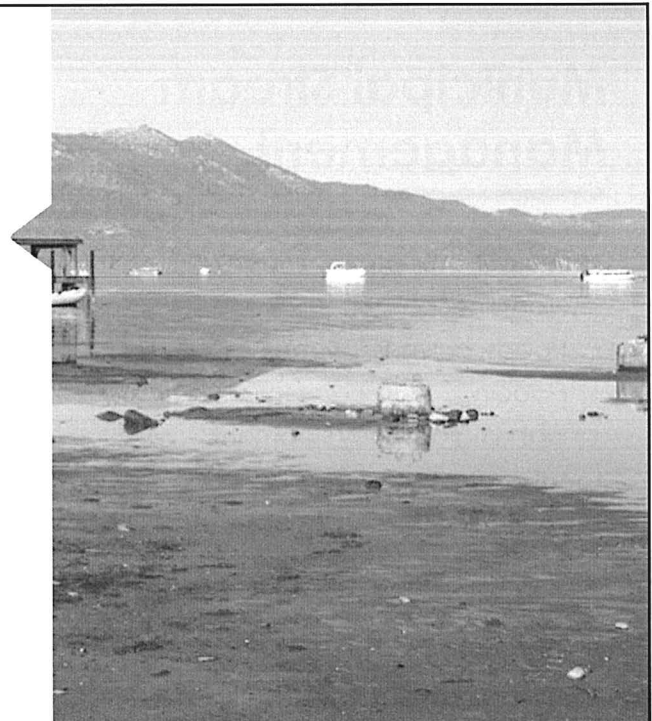
Recovery



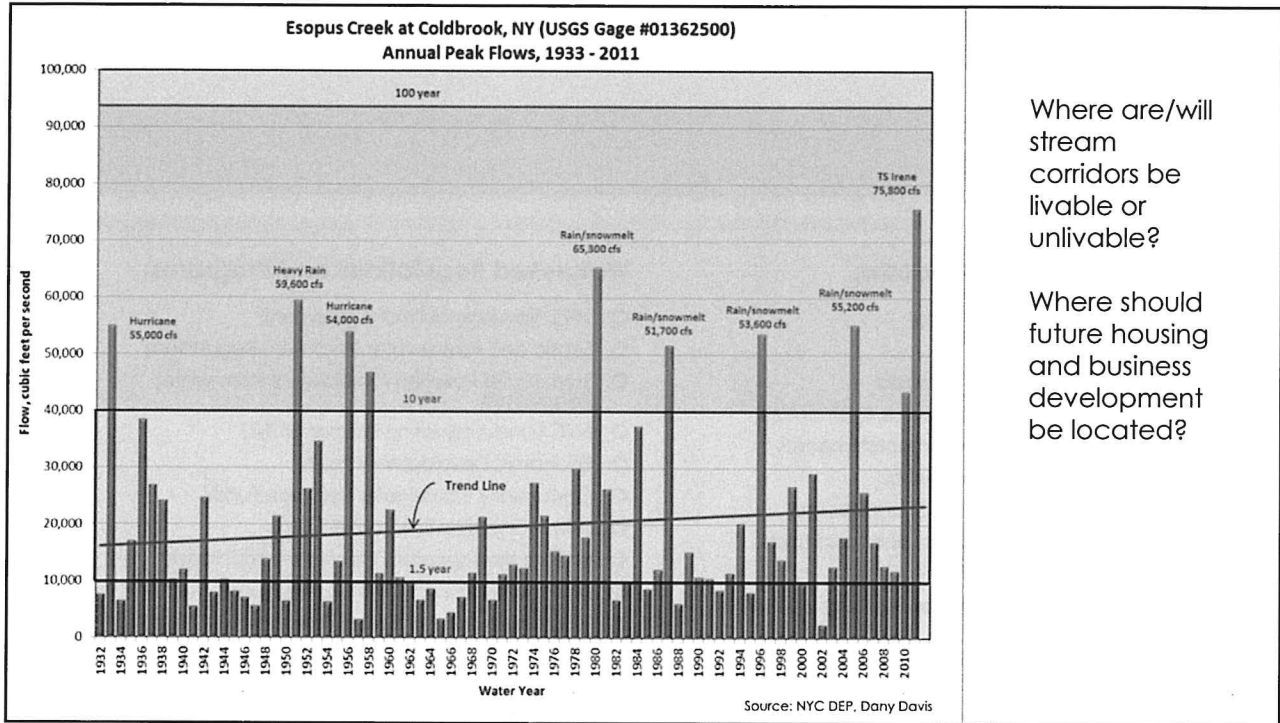
7

3° Celsius warming is entirely plausible

- Increased flooding
- Increased drought
- Heat stress on vegetation and aquatic organisms, changes in biogeochemical processes
- Human population migration to northern regions
- Creative management of reservoirs (shading to prevent evaporation)
- New water supply development
- Alternative energy development
- Happening in our planning timeframes for new infrastructure



8



Where are/will stream corridors be livable or unlivable?

Where should future housing and business development be located?

9

Tools in the Conservation Toolkit

Municipal Home Rule Law:

- Comprehensive Planning
- Zoning Laws
- Zoning Districts and Setbacks
- Environmental Regulations & Ordinances
- SEQR Review of Environmental Impacts
- Critical Environmental Areas
- Conservation Advisory Council/Board
- Conservation Easements and Land Trusts

Also, safe housing, affordable housing, and other public welfare

Watershed Regulations and Programs:

- 1997 Memorandum of Agreement
- Septic and Wastewater Treatment Regulations
- Stormwater Pollution / Residential Stormwater Regulations
- NYC Land Acquisition Program (LAP)
- Economic Development Fund
- Community Wastewater Upgrade Funds
- Sewer Extension Program & Funds
- Stream Management Planning & Imp. Funds
- Flood Mitigation Planning & Imp. Funds
- NYC Funded Flood Buyout Program (NYC FBO)
- Pilot Streamside Acquisition Program (SAP)

10

Tools in the Conservation Toolkit

Municipal Home Rule Law:

- Comprehensive Planning
- Zoning Laws
- Zoning Districts and Setbacks
- Environmental Regulations & Ordinances
- SEQR Review of Environmental Impacts
- Critical Environmental Areas
- Conservation Advisory Council/Board
- Conservation Easements and Land Trusts

Also, safe housing, affordable housing, and other public welfare

Watershed Regulations and Programs:

- 1997 Memorandum of Agreement
- Septic and Wastewater Treatment Regulations
- Stormwater Pollution / Residential Stormwater Regulations
- NYC Land Acquisition Program (LAP)
- Economic Development Fund
- Community Wastewater Upgrade Funds
- Sewer Extension Program & Funds
- Stream Management Planning & Imp. Funds
- Flood Mitigation Planning & Imp. Funds
- NYC Funded Flood Buyout Program (NYC FBO)
- Pilot Streamside Acquisition Program (SAP)

11

What is the SAP?

- Acquires vacant streamside lands
- No residential structures on land purchased
- Tight focus on stream buffers, floodplains, wetlands, reservoir lands
- Does not operate in designated hamlets (unless town requests)
- Fair market value + incentives
- Willing seller basis only
- Does not configure subdivisions

12

Who is developing the collaborative SAP?

- NYC DEP Stream Management Program, Legal Affairs, Land Acquisition Program
- County Governments
- Catskill Watershed Corporation
- Coalition of Watershed Towns
- Soil and Water Conservation Districts
- Cornell Cooperative Extension Ulster
- Watershed Agricultural Program
- Catskill Center for Conservation and Development
- NYS Department of Environmental Conservation
- NYS Department of Health
- US Environmental Protection Agency
- Riverkeeper
- Natural Resources Defense Council

13

National Academy of Science Recommendations

- Focus acquisition on the most valuable lands for water quality protection while recognizing legitimate concerns for community development
- Contribute directly to water quality objective
- Reconsider large parcel acquisition – focus instead on key portions of larger parcels
- Identify DEP owned parcels that offer development or relocation potential to sell or "swap"
- **Shift funding to acquire riparian lands on critical tributary streams through FBO and Streamside Acquisition programs**

NASEM 2020, Pages 226-227

14

Fee Acquisition with Subdivision of riparian property only

Fee Acquisition of entire parcel

Stewardship Funding – New license agreement in development

No conservation easement purchase option so far

15

Types of SAP Projects

- Protect and restore streams (while maintaining access for community needs, if practical and necessary)
- Flood hazard mitigation
- Recreational access
- Other interests identified through the collaborative process

- Partners share a goal of leaving property not important for above available for private use

16

Regardless of the tool, reasons to conserve priority stream corridors....

1. **Preservation:** Relatively undeveloped and providing immediate and long-term ecological benefits to the community
2. **Highly Dynamic and Unlivable:** The stream channel is going to avulse, erode across the floodplain, flood – nobody is safe living here
3. **On the Edge:** People living nearby and managing the stream, but a little more disturbance from climate change or human intervention will lead to major and expensive problems.

17

Stream Mgt Plans

Priority Intervention Levels

- Preservation
- Passive/Monitoring
- Assisted Restoration
- Full Restoration

Assessment and Monitoring

- Most major tributaries and mainstem assessed
- Large erosion sites monitored

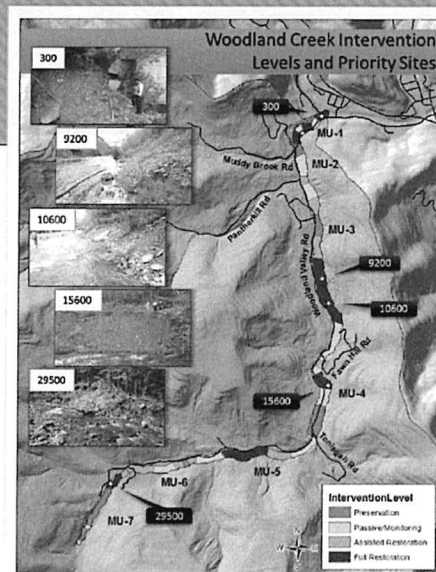


Figure 4 Map displaying the level of intervention required to achieve stability within the stream corridor in each management unit along Woodland Creek. Priority sites are unstable reaches posing the most threat to infrastructure, homes, and water quality and are numbered by stream station.

18



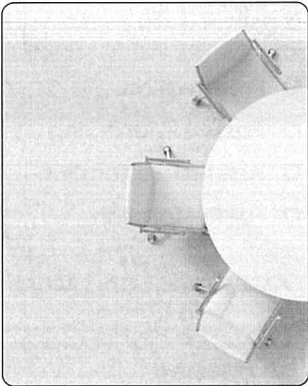
A collaborative framework for program implementation

DRAFT SAP Implementation Process Steps

19

Step 1: Identify a Project

- The Stakeholders:
Municipality, District/CCE, Catskill Center, NYC DEP
- Identify projects during regular meetings with AWSMP
 - Review of stream assessments and flood studies
 - Identify priority stream corridors
- Any stakeholder can propose a project

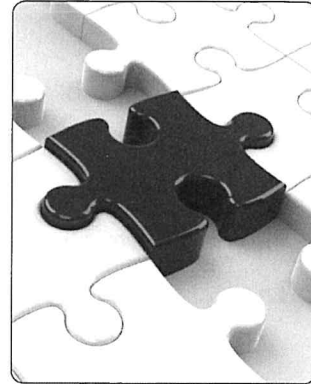


20

Step 2: Design Project and Approve

- Determine eligibility and priorities
- Preferred configuration
- Explore alternatives and address concerns
- Identify stewardship needs and funding sources

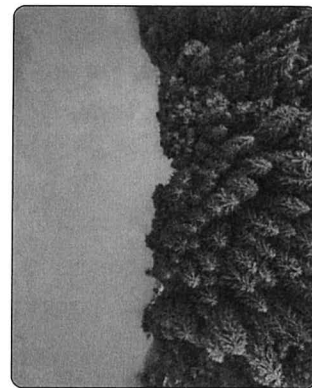
- All stakeholders must approve the project
- Town approval must be confirmed at the Board level



21

Step 3: Implement

- No acquisition until community authorizes
- Subdivision and fee acquisition administered by Catskill Center for Conservation and Development
- License agreements held by Catskill Center or Catskill Watershed Corporation
- Stream management program provides technical assistance



22



23

SAP Implementation

Once a project has been identified

- Assess project needs:
 - Site specific needs?
- Identify stewardship partners and/or funders
- Implement plan
- Monitor success
 - Program and project evaluation

A black and white photograph showing five construction workers in hard hats and safety vests standing on a dirt site. One worker in the foreground has 'JIBSELL INC.' on his vest. They appear to be in a wooded area with trees in the background.

24

How can AWSMP help?

- AWSMP can assist with stewardship needs through existing programs
- Stream Management Implementation Funding – SMIP
- Flood Hazard Mitigation - FHM
- Catskill Stream Buffer Initiative – CSBI
- For preservation projects
 - Buffer enhancement needs?
- For non-preservation projects what level of intervention is needed?
 - Full stream restoration
 - Buffer enhancement
 - Other

25

Catskill Streams Buffer Initiative - CSBI

CSBI as a stewardship tool

- Buffer assessment and evaluation
- Invasive species control
- Catskill native trees, shrubs
- Catskill native herbaceous plants
- Planting project monitoring
- Maintenance



26

Stream Restoration

Projects that require intervention

- Site assessment and evaluation
- Stream restoration design
- Stream restoration construction
 - Construction contractor
 - Engineering services/inspection
- Monitoring



27

Coordination

AWSMP can help connect partners

- Existing relationship with DEP
- Routinely meeting with watershed towns over stream management in Ashokan watershed
- Established working groups that can be used as forum for successful project coordination and implementation



28

Ashokan Watershed Stream Management Program



AWSMP can be a technical resource to the towns on topics related to stream and watershed management
Technical assistance program



AWSMP can be a funding partner through existing programs



AWSMP can be an education and outreach partner for both program and project implementation

29



Questions and Discussion

30

