



# Schoharie Watershed Turbidity Reduction Strategy

The primary focus of the Schoharie Watershed Turbidity Reduction Strategy (SWTRS) is the development of a locally led, comprehensive plan to address non-point source pollutants in the Schoharie Reservoir basin. Since 1997, the Greene County Soil & Water Conservation District (GCSWCD) has been working with the New York City Department of Environmental Protection (NYCDEP) to develop comprehensive Stream Management Plans (SMPs) for priority sub-basins in the Schoharie watershed. By spring 2007, the GCSWCD and NYCDEP will have completed detailed SMPs for the Batavia Kill, East Kill, West Kill and Schoharie main stem watersheds, covering over 75% of the Schoharie Reservoir basin. During SMP development, local watershed managers noted the need for additional assessments, and to further develop strategies for addressing potential pollutant sources at the watershed scale. While the SMPs provide a detailed blueprint for management of the immediate stream corridor, issues such as stormwater, forestry, transportation systems, agriculture, construction and others, were identified as needing further investigations.

## The Schoharie Watershed



***Schoharie watershed including the Schoharie Creek, East Kill, Batavia Kill, West Kill, Little West Kill, Huntersfield Creek, Manor Kill and various other tributaries. Elevations are diverse ranging from 1,140 feet above sea level at the Schoharie reservoir to 4,040 feet above sea level at the West Kill/Schoharie Creek watershed boundary in Hunter. The basin is located in Greene (76%) Schoharie (16%) and Delaware (8%) Counties. Collectively, the watershed includes thirteen local municipalities representing over 120 public officials and staff all of whom have some oversight or responsibility in watershed protection and management.***

## What is Turbidity?

Turbidity is basically cloudiness of a body of water caused by the suspension of organic and inorganic particles. It is typically reported in NTU's, a measurement of light scattering by these particles. Turbidity can be a significant problem as these particles absorb and transport contaminants, and make the disinfection process more difficult. In addition to public health risks, turbidity also impacts ecological integrity in the reservoirs and streams.

## The Purpose

The Greene County Watershed Assistance Program (GCWAP) is seeking to bring together watershed managers, including regulatory interests, with a diverse range of watershed stakeholders, including local decision makers, agencies, non-profits and landowners. The primary goal is to develop practical solutions for water quality protection in the Schoharie basin. While NYC has a direct interest in protecting their water supply, local stakeholders have a shared interest as it is this same resource that provides their drinking water and contributes to the local economy.

The process is designed to provide an opportunity for extensive local input into the development of a practical, long term plan that can be implemented at the local level. It is a planning process that is meant to bridge municipal and agency efforts by sharing information on the strengths and weaknesses of various approaches, providing an improved understanding of water quality impacts from various sources, and more importantly, by identifying the multiple benefits to NYC's water supply and to the communities within the watershed.

## Project Focus

While the project's primary focus is turbidity, it will also benefit the management of a wide range of other pollutants that are typically bound to the suspended particles that cause a waterbody to be turbid. Any process that can reduce turbidity, will also reduce other pollutants such as nutrients, pathogens and chemical contaminants. Numerous reports and studies have identified turbidity as the most significant water quality threat within the Schoharie Reservoir. Additionally, in September 2006, NYC was issued a State Pollution Discharge Elimination System (SPDES) permit specifically focused on the impact of turbid discharges from the Schoharie Basin. The SPDES permit included compliance items related to turbidity reduction via various mechanisms.

## The Process

1. The first step involved organizing the Schoharie Basin Working Group (SBWG) – this group is responsible for providing the overall guidance in developing the strategy and includes all project partners listed below.
2. The second step involved organizing a Steering Committee - which is the working arm of the SBWG. This committee meets approximately every 4 - 6 weeks to lay the groundwork for gathering information for the strategy, i.e. facilitating local input through surveys, organizing the Watershed Summit, and formulating project goals for the SBWG to review.
3. Hosting the one-day Watershed Summit – geared mostly for municipal workers, local, state, & federal agencies, NYCDEP, and non-government organizations. The purpose of the Summit is to bring everyone together for a series of presentations on non-point source pollution (such as turbidity), and then break out into focus groups where participants will work on identifying possible solutions to address problems associated with non-point source pollution.
4. Organizing sub-committees – sub-committees will play an important role in ensuring that an ongoing dialogue continues after the Watershed Summit, as this is where the strategy's recommendations will originate. Participants targeted for sub-committees include planning boards, town boards, code enforcement officials, developers, highway superintendents, and researchers. A scientific advisory sub-committee will ensure current available information is integrated with the recommendations.
5. Gathering data and information on turbidity – ongoing research of reports, studies, data, etc. on turbidity and synthesizing the information into a comprehensive report that will guide the strategy's development.
6. Identifying and prioritizing turbidity sources – organizing information from the above steps will begin the prioritization process leading to the development of the final turbidity action plan.
7. Developing the Turbidity Reduction Strategy – in conjunction with the Steering Committee, the SBWG will develop a detailed Action Plan for implementation of turbidity reduction measures, and the final strategy will be presented to each municipality for review and formal support.

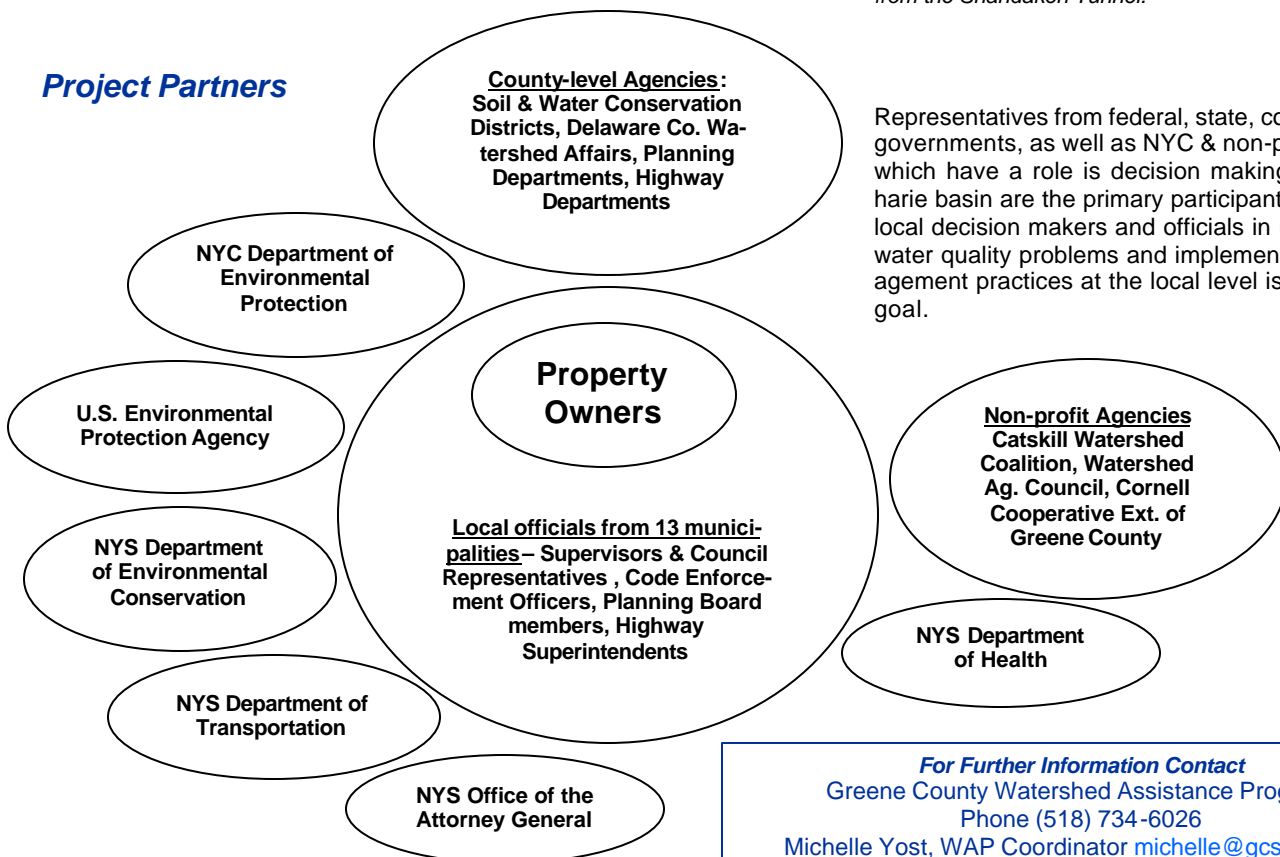


*Clear water benefits not only NYC's water supply, but also the local quality of life and economic resources.*



*The impacts of turbidity in the Schoharie basin are often transferred to the Esopus basin via the turbid discharge from the Shandaken Tunnel.*

## Project Partners



Representatives from federal, state, county and local governments, as well as NYC & non-profit agencies, which have a role in decision making in the Schoharie basin are the primary participants. Supporting local decision makers and officials in understanding water quality problems and implementing best management practices at the local level is a key project goal.

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