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# The Norwalk River Watershed Action Plan

*It's Our Watershed -- Let's Take Care Of It!*



**2004 Supplement to October 1998 Plan**

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Funds to support printing of this document were provided under Assistance Agreement # X991480 between the U.S. Environmental Protection Agency, New England, and the New England Interstate Water Pollution Control Commission.

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# Vision Statement

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*“We envision a restored Norwalk River Watershed system: one that is healthy, dynamic and will remain so for generations to come; one that offers clean water and functioning wetlands; one in which a diversity of freshwater and anadromous fish as well as other wildlife and plants are once again sustained; one in which the river system is an attractive community resource that enhances quality of life, education, tourism and recreation; and above all, one in which growth respects this vision and all people participate in the stewardship of the watershed.”*

Norwalk River Watershed Initiative Committee, 1998

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*This 2004 supplement updates the original Action Plan five years after it was adopted by the watershed municipalities in October 1998. It highlights the substantive accomplishments of the Initiative's Advisory Committee and the watershed coordinator during this period, and prioritizes action items for the next five years.*

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# Executive Summary

The Norwalk River Watershed Initiative (NRWI) is a partnership effort among federal and state agencies, local authorities, local groups and individuals within the Norwalk River Watershed. Begun in 1996, the NRWI is a voluntary, cooperative, locally-based watershed planning effort. The purposes of the Initiative are: 1) to build local capacity to protect and restore the Norwalk River Watershed; and 2) assist communities in integrating the resource management objectives of the Long Island Sound *Comprehensive Conservation and Management Plan* into local land use planning and regulatory programs. To do this, participants in the Initiative have developed a watershed Action Plan. The plan represents a coordinated effort to address local water quality and resource protection problems and opportunities.

The Norwalk River Watershed encompasses portions of seven communities whose political boundaries fall within the states of Connecticut and New York. The six Connecticut towns, all located in Fairfield County, are New Canaan, Norwalk, Redding, Ridgefield, Weston and Wilton. The seventh town is Lewisboro, New York, which falls within Westchester County. A watershed can be defined as all of the land and water area from which precipitation runs off and drains into a particular watercourse or waterbody. The watershed is approximately 40,000 acres or 64.1 square miles, and is populated by approximately 66,000 people (1990 census). The watershed is defined by three main drainages: the Norwalk River, Comstock Brook and the Silvermine River. For this plan, the watershed boundary covers the inner harbor area in Norwalk and includes that portion of the harbor extending to the mouth of the Norwalk River between Manresa Island and Calf Pasture Point.

The authors of this plan are members of the NRWI Committee. The Committee was formally established in February 1997. By March 1997, the Committee formed the following four subcommittees in order to better focus on the issues affecting the watershed: habitat restoration, land use/flood protection/open space, water quality, and stewardship and education. Each of the subcommittees developed goals and objectives which were, in turn, presented to the public for review and comment in June 1997. The NRWI Committee refined its goals and objectives based on public comment and proceeded to identify those tasks which would be needed to achieve the goals of the plan.

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The goals adopted by the Committee are listed below:

- *To preserve and conserve habitat features to protect and increase the diversity of floral and faunal species. We will seek to improve wildlife habitat, to foster cold water fisheries, and to restore anadromous fish passage.*
- *To promote balanced growth which preserves property values and protects and enhances the watershed's resources for future generations. This will be done by (1) providing that new development is within the carrying capacity of the environment, (2) promoting economic development without adversely impacting the watershed, and (3) creating performance standards by which all development and renovations can be evaluated.*
- *To restore and protect surface and ground water resources to meet state water quality standards throughout the watershed such that it supports its designated uses (e.g., fishing, swimming, drinking water).*
- *To educate citizens about the boundaries and functions of the Norwalk River Watershed, specific needs for protection of and improvement to the river system, the benefits of a healthy watershed to individuals and communities, and the opportunity for the public to speak out on issues, and to participate in the stewardship of the watershed.*

This Norwalk River Watershed Action Plan provides a background of the Initiative; summarizes the socioeconomic, cultural, and environmental conditions of the watershed; recommends implementation items to protect and restore the resources of the watershed; and highlights the need for continued watershed stewardship by individual and collaborative actions. This plan presents action items for restoring habitat for fish and wildlife, for protecting citizens and property in flood prone areas, and for maintaining and restoring water quality. This plan also provides tools for better land use management and endeavors to educate citizens on the concept of watershed based decision making and resulting impacts. The plan's goals rely heavily on the coordination of efforts by all interested parties to address local water quality and resource protection problems. To coordinate these implementation efforts, the plan recommends the formation of a Watershed Advisory Committee and the establishment of a Watershed Action Plan Coordinator.

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# Supplement Process Report

In October 1998, the Norwalk River Watershed Initiative held a signing ceremony to commemorate the completion of *The Norwalk River Watershed Action Plan*, including officials of the seven watershed towns, representatives of federal and state agencies, local legislators, the public, and members of the planning committee. At that time, the Natural Resources Conservation Service/U.S. Department of Agriculture (NRCS) promised to assist the Initiative to review its progress after five years of implementation and to help the Initiative's Advisory Committee prioritize action items for the next five years. What follows is the process that NRCS and the Advisory Committee used to do this review and prioritization.

Involved in this process was a subcommittee consisting of the following individuals: 1) Walter Smith, Water Quality Coordinator, NRCS; 2) Patricia Sesto, Environmental Affairs Director, Town of Wilton, and Advisory Committee co-chair; 3) Christopher Malik, Environmental Analyst, Connecticut Department of Environmental Protection; and 4) Jessica Kaplan, Watershed Coordinator, Norwalk River Watershed Initiative. Smith, Sesto and Kaplan were members of the Initiative's earlier planning committee and part of the team that wrote the Action Plan.

At the June 19, 2003, meeting of the Advisory Committee, Smith offered to work with the committee to review the Initiative's progress in implementing the recommendations from the Action Plan in the past five years. He also offered to facilitate a process to help the committee develop priorities for the upcoming five years. The process would include these steps:

- Documenting completed and ongoing tasks
- Assessing committee members' priorities vis-à-vis the action items (with a questionnaire as well as a facilitated session)
- Reviewing action items in light of the first two steps
- Approving a revised list of action items that deleted completed tasks and reflected what committee members thought were high priority, achievable tasks.

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At that meeting, attendees were asked to volunteer for a subcommittee to help in the assessment process. Kaplan, Sesto, and Malik volunteered to be participate. To conclude the presentation, Smith handed out a “spreadsheet of action items” (listing all tasks from the Action Plan) to the entire committee and asked each member to review the items and update progress made.

The following month (at the July 17, 2003 Advisory Committee meeting), Smith gave a presentation on how the Initiative came together and the Action Plan was prepared. This presentation had three goals – 1) to introduce new members to the Initiative’s development; 2) to refresh the memories of those experienced with the Initiative; and 3) to prioritize upcoming Initiative activities. At the end of his presentation, Smith distributed a questionnaire to determine members’ priorities for tasks to be conducted in the watershed. For each of 28 objectives from the Action Plan, the assessment asked respondents to evaluate: is the item achievable, is it important to you, and is it important to the watershed.

The Advisory Committee did not meet in August 2003. It resumed work on the assessment process at its September 18, 2003, meeting. At this meeting, Smith distributed a revised spreadsheet, reflecting input from committee members and the subcommittee’s assessment. (The subcommittee had met twice during the intervening months.) The spreadsheet’s tasks were color-coded to show which had made good progress, which were high priority and which were low priority, according to the subcommittee. After the subcommittee provided an overview for committee members of this revised spreadsheet, Smith facilitated a brainstorm session to identify the items of most importance to the Advisory Committee.

At the October meeting of the Advisory Committee (on October 16, 2003), a summary of the brainstorming session, with water quality and education dominant themes, was distributed. A summary of responses to the questionnaire was handed out as well. Of the 28 objectives, 10 were viewed favorable in all 3 evaluation categories by a majority of respondents. Smith observed that there was consistency between the brainstorming session priorities and this questionnaire summary.

The Advisory Committee next met on December 18, 2003. Sesto explained how the objectives/supporting tasks from the Action Plan were winnowed down to those on the draft spreadsheet distributed at this meeting. Items that had been completed in the past five years were deleted; also items considered “low priorities” from the questionnaire were deleted. In addition, the remaining

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items were compared with the list developed from the brainstorming session in September 2003 for consistency. The result was that the number of action items from the Action Plan (more than 100) had been reduced to about 40. Sesto pointed out that most of these related to education in one way or another, showing the importance of education to the committee. Members discussed the draft spreadsheet in detail and all comments and revisions were noted.

At the January 15, 2004, meeting of the Advisory Committee, a revised and final spreadsheet, reflecting comments from the December meeting, was reviewed. Sesto proposed to the full committee that this revised spreadsheet be adopted to guide the Initiative's activities in the next five years. The committee approved this proposal and the revised spreadsheet was adopted.

The revised list of action items, as approved by the Advisory Committee, appears in Chapter 3. A tally of the status of the original 104 action items from the Action Plan appears below.

**Status of Action Items from 1998 Action Plan**

Total number: ..... 104  
Number of items initiated: ..... 53  
Percent items initiated: ..... 51  
Number of items ongoing: ..... 37  
Number of items completed: ..... 16  
Number of items deleted\*: ..... 48

\*An item was deleted from the Supplement if it was considered duplicative, infeasible to accomplish, or not a priority for Advisory Committee in the next five years.

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# Initiative

# Accomplishments

Since the Action Plan's adoption in October 1998, the Norwalk River Watershed Initiative has been implementing "specific actions that focus on restoring and preserving this watershed" (*The Norwalk River Watershed Action Plan*, p. 43). Brief summaries of selected actions appear below, organized by the four subcommittees that originally developed these recommendations. Partners working on each action appear in parentheses at the summary's end.

## Habitat Restoration

**Invasives Removal.** Under the NRCS/USDA Wildlife Habitat Incentives Program (WHIP), 14.4 acres of invasive species have been controlled in Ridgefield and Wilton. Old field management, riparian buffer management, and enhancing butterfly habitat in Ridgefield are included. (*Norwalk River Watershed Association, NRCS/USDA, and Trout Unlimited Mianus Chapter.*)

**Dam Removals and River Restoration.** The Initiative has targeted three old dams along the Norwalk River - Cannondale, Merwin Meadows, and Flock Process - for action. All three dams are "run-of-river" dams, which do not offer any flood control or protection in the watershed; all three are abandoned and no longer serve industry or agriculture. By the end of 2004, a 120-foot long fish bypass channel will be built at the Cannondale Dam in Wilton, allowing fish to swim around the dam and move up the river to spawn. Plans are also being developed for the dam at Strong Pond in Merwin Meadows Park (also in Wilton), originally built as a swimming pool for the owner's children. Two options are being considered, either breaching the dam or installing a fish bypass. Sediments behind the dam that would need to be removed if the dam is breached have been sampled and analyzed. The level of contamination found in the sediments will affect the project's cost. The Flock Process Dam (also know as the Winnipauk Dam), just south of the Merritt 7 office complex and the Merritt Parkway in Norwalk, is 22 feet, the highest dam along the river. The Initiative hopes to remove this dam completely. However, other options are being studied, including partially removing it and installing a fish ladder. Work at the Merwin Meadows Dam and the Flock Process Dam will involve restoring the stream corridor and planting native vegetation to stabilize the banks. The ultimate goal of these

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three projects is to restore the river to its free flowing state and to promote a healthy environment for the resident fish population as well as anadromous and diadromous fish. (*American Rivers, Connecticut DEP, NRCS/USDA, National Fish and Wildlife Service, Save the Sound, Town of Wilton, Trout Unlimited Mianus Chapter, and EPA.*)

**Stream Corridor Restoration.** To date, the Initiative has restored more than 6,000 linear feet of stream corridor in the watershed, including work under Trout Unlimited's Embrace-A-Stream program and NRCS/USDA's WHIP as well as the habitat restoration demonstration projects in New Canaan, Ridgefield, and Norwalk (*described below under Water Quality*).

Using four consecutive grants from TU's national organization (1998-2001) and WHIP funding, instream and streamside improvements were made to the Norwalk River in Wilton at Schenck's Island Park, Merwin Meadows Park, near Old Mill Road, in Ridgefield at Walpole Pond, and along Topstone Road. A variety of structural habitat enhancements were installed, including conifer tree revetments, streambank soil bioengineering with coir fiber rolls, instream and bank-placed boulders and large woody debris, and single wing and saw tooth rock deflectors.

NRCS/USDA and DEP have monitored yearly, using electrofishing equipment, to assess the trout population's viability. In electrofishing, an electric current is passed through the water, temporarily paralyzing the trout and allowing a researcher to count them and take measurements. Monitoring results are very positive. At the first site where work was done in Merwin Meadows Park, the wild trout population increased by about 130 percent after 9 months. Similarly impressive results were seen around Schenck's Island. In recognition of these improvements, the state has declared 12 miles of the Norwalk River to be a Class III wild trout management area.

However, immediately downstream of the Strong Pond Dam in Merwin Meadows, several years of electrofishing data document depressed fish abundance. Despite substantial physical habitat enhancements making the area conducive to coldwater fisheries, this section continues to exhibit depressed fish abundance until the coldwater influence of Comstock Brook. Water quality impacts associated with the impoundment created by the Strong Pond Dam and habitat fragmentation are suspected to contribute to this situation.

Within the next year, an eroded streambank section located behind the Silvermine School (on the Silvermine River) in Norwalk will also

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be restored. Coldwater fisheries will be enhanced, a pedestrian bridge will be rebuilt, and riparian plantings along the eastern streambank (school property) will be installed. Timber steps to the river are also being considered. This project provides an opportunity to educate students, faculty, and parents about habitat and stream restoration. (CT DEP, City of Norwalk, NRCS/USDA, Trout Unlimited Mianus Chapter, and Town of Wilton.)

**Road Sand/Salt Study.** A recently completed report analyzed the use of road sand and salt (including related road operations, maintenance, and cleanup) by watershed towns and made recommendations to reduce sand deposition. The project surveyed municipal public works directors about their current practices and researched alternatives, such as using brines for anti-icing and alternatives to sodium chloride. A workshop was held in November 2002 to share information. (Southwest Conservation District.)

### Land Use/Flood Protection/Open Space

**Public Access/Trails.** To encourage first-hand enjoyment of the Norwalk and Silvermine Rivers, the Initiative prepared in September 2001 a public access guide that identified five sites. This guide will be expanded in the near future. In addition, efforts are underway to prepare a map of existing trails in the watershed and to encourage the development of the Norwalk River Valley Linear Park. (Norwalk River Watershed Association and Watershed Coordinator.)

**Municipalities Pursue Action Plan's Objectives.** Four of the seven watershed towns have designated a municipal employee who is responsible for pursuing the Action Plan's objectives. These towns are New Canaan, Norwalk, Wilton, and Weston.

**ALERT System.** An automated early flood warning system, the ALERT system, has been in place in the watershed since early 2001. The system, designed and installed by CT DEP, benefits four watershed towns (Norwalk, Redding, Ridgefield, and Wilton) by providing advance notice before flooding begins. The ALERT system uses a combination of computers, automated rain gauges, and river gauges to collect rainfall and river level information automatically and in real time. In the Norwalk River Watershed, there are four rainfall gauges and three river gauges along the Norwalk and Silvermine Rivers. Information is passed through a system of radio repeaters to a central base station at Redding's 911 center where specialized computer software analyzes the river stage and precipitation data. The other three watershed towns can dial into the Redding computer

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to receive this information. The system's total cost was just under \$100,000, of which the state paid two-thirds and municipalities one-third. (*CT DEP, City of Norwalk, and Towns of Redding, Ridgefield, and Wilton.*)

## Water Quality

**Streamside Buffers Brochures.** The Initiative published two brochures about the importance of streamside vegetation and with guidelines for maintaining, improving and restoring buffers. One brochure is aimed at the private property owner; the other focuses on buffers in developed urban areas. (*CT DEP, NRCS/USDA, and Southwest Conservation District.*)

**Habitat Restoration Projects.** The Initiative has undertaken three habitat restoration demonstration projects in the watershed: 1) at the old Perkin-Elmer facility, Norwalk (July 1998); 2) at Fox Hill Condominiums, Ridgefield (May 2000); and 3) at two adjacent residential properties on the Silvermine River, New Canaan (May 2004). The goals of these restoration projects are similar: to restore habitat, to improve water quality, and to demonstrate to the community how landscaping can effect these changes. At the first two sites, another goal was to dissuade the Canada goose. At each site, volunteers created a buffer next to the river by planting native shrubs and trees to replace existing lawn. (*CT DEP, City of Norwalk, King's Mark Resource Conservation and Development, NRCS/USDA, Norwalk River Watershed Association, Ridgefield and Caudatowa Garden Clubs, Southwest Conservation District, Towns of New Canaan, Ridgefield and Wilton, Trout Unlimited Mianus Chapter, and Watershed Coordinator.*)

**Water Quality Monitoring.** The Initiative has sponsored water quality monitoring of the Norwalk River for five years and of the Silvermine River for two years. From May-November, trained volunteers collect and analyze water samples for indicator bacteria, nutrients, dissolved oxygen, and conductivity, from 10 sites along the Norwalk River and 8 sites along the Silvermine River. Results show that there are stressed areas along the Norwalk River and water quality is moderately impaired.

Over the past three years, this monitoring has identified three "hot spots" or instances of problem discharges, two of which were successfully resolved. In the first case, in August 2001, analyses of discharges from the Ridgefield South Street wastewater treatment plant showed extremely high levels of bacteria and ammonia.

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Prompted by these results, the town launched an investigation, which revealed that the plant manager had unilaterally decided to try biological phosphorous removal, a treatment operation not appropriate for the plant and which caused operational problems and violations of the plant's discharge permit. The plant manager was subsequently reassigned. For the past two summers (2002 and 2003), the treatment plant has met its permit limits.

The second "hot spot" was discovered in the summer of 2003, when monitoring revealed high fecal counts at a site on the Silvermine River in Wilton, just north of the Silvermine Tavern. This site is a small farm where the property owner has large animals and waterfowl. At the time of this monitoring, the owner was not using any best management practices to prevent animal waste runoff from reaching the water. Both the town and the property owner were informed of the problem, and the property owner is implementing several procedures, including removing some waterfowl and removing animal waste more regularly.

The third problem discharge is in Ridgefield, on the Norwalk River near Cooper Brook and the Route 102 bridge. At this site, monitoring has shown elevated bacteria levels exceeding CT DEP standards for the past four years; the source (or sources) has not as yet been identified. The Ridgefield health department has been notified. (*Harbor Watch/River Watch, Towns of Ridgefield and Wilton, and Wilton High School.*)

**Septic System Study.** Septic system ordinances from municipalities in the region were collected and local officials were interviewed about how better to manage septic system requirements. A draft model septic system ordinance was also developed. Project conclusions include recommending pump-outs every three years, providing better education for sanitarians and the public, and implementing systems to track municipal inspections of private septic systems. A workshop was held in October 2001, with presentations by towns in the region that have active septic inspection programs, a discussion of the draft model ordinance, and an overview of appropriate communication strategies. (*Norwalk River Watershed Association.*)

#### **Stewardship and Education**

**Advisory Committee.** The 20-person Advisory Committee for the Norwalk River Watershed Initiative was established in November 1999. It continues to meet regularly to provide ongoing leadership for the Action Plan's implementation. A list of current representatives appears on page 16.

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The Advisory Committee can be characterized by continuity of involvement and commitment by the seven municipalities and other partners. With the exception of the U.S. Environmental Protection Agency, which is no longer actively represented on the committee, all of the partners present at the first meeting continue to participate – after more than five years. Meetings are also consistently well attended. At least two-thirds of all members attended the 9 meetings in 2003; at the July 2003 meeting, 16 members (80 percent) of the entire committee were present. The Advisory Committee generally meets the third Thursday of each month at the Wilton Town Hall Annex from 3:00 – 4:30 p.m.

**Watershed Coordinator.** The Watershed Coordinator provides technical and administrative support to the Initiative’s Advisory Committee and directs the Initiative’s public outreach efforts. Jessica Kaplan, a Wilton resident, has served as Watershed Coordinator since February 2000. She is now in her fifth year in this position.

The Watershed Coordinator concentrates her efforts in the following four areas:

- Developing outreach materials, such as press releases and news articles, to deliver the message of responsible watershed management to all inhabitants of the Norwalk River Watershed and to help each resident understand that he/she personally has a stake in taking care of the river. A complete list of the outreach materials Ms. Kaplan has prepared is available upon request.
- Increasing public awareness by making presentations to service groups, such as local Rotary Clubs and the League of Women Voters, and at other venues such as the Oyster Festival in Norwalk where the Initiative had a booth in September 2000 and 2001.
- Institutionalizing the Initiative by increasing its visibility. In 2003, due to the Watershed Coordinator’s efforts, the Initiative’s work was recognized in several ways. In February, the Initiative was selected by the U.S. Environmental Protection Agency as a *Clean Water Partner for the 21<sup>st</sup> Century*. Based on that selection, EPA Region 1 honored the Initiative with a “Special Recognition Award” for its work in April 2003. Finally, in October 2003, the Southwest Conservation District recognized Ms. Kaplan, on behalf of the Initiative, as the Outstanding Cooperating Agency of the Year.
- Supporting the Advisory Committee both administratively and technically. For each meeting, the Coordinator identifies an appropriate speaker, prepares the agenda and other handouts, and drafts and distributes meeting minutes. The Coordinator also

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assists in implementing technical projects and serves as a liaison among the partners to accomplish project work.

Total funding for the Coordinator's position is \$50,000, a figure that has remained constant since the position was filled in 2000. For the past five years, the Dibner Fund in Wilton has provided \$25,000 for the position. For three years (2000-2003), a matching \$25,000 was provided by a federal Clean Water Action Section 319 grant through DEP. For FY 2004, the 319 funds were cut in half. Because of cuts in federal funding, DEP has informed the Initiative that no further 319 funds will be available for the Coordinator's position. The table below shows funding for this position for the two most recent fiscal years.

<b>Funding Sources</b>	<b>FY 2002-2003</b>	<b>FY 2003-2004</b>
Dibner Fund	\$25,000	\$25,000
DEP 319	\$25,00	\$12,500
Watershed Municipalities	- 0 -	\$6,250
<b>Total</b>	\$50,000	\$43,750

In 2003, confronted by a shortfall of \$12,500, the Initiative requested that the seven watershed municipalities contribute a portion of the unfounded balance. A formula was determined to allocate the shortfall across the localities based on three factors: 1) whether the municipality owned (or shared) treatment capability; 2) the percent of each town's area in the watershed; and 3) the total population of each town and the percent that this represents in the watershed. Unfortunately, because of the tough economic situations faced by all watershed municipalities, only six of the seven contributed for a total of only \$6,250.

For FY 2005, the Initiative has again requested from each watershed municipality the full pro-rated contribution amount for a total of \$12,500. To date, only one municipality, Lewisboro, NY, has furnished its contribution (\$500). It is anticipated that the other six municipalities have included funding for the Initiative in their FY 05 budgets.

**Watershed Video.** *Life in a Watershed: The Story of Nonpoint Source Pollution* is the title of a video, on permanent exhibit at The Maritime Aquarium in Norwalk since October 2002, that illustrates the problem of nonpoint source pollution. This 15-minute video shows the effects of nonpoint source pollution, describes local activities to eliminate these

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effects, and underscores how each watershed resident can help solve the problem. (*CT DEP, NRCS/USDA, The Maritime Aquarium at Norwalk, Town of Wilton, and Watershed Coordinator.*)

**Meetings of Chief Elected Officials.** The Initiative has held two meetings for chief elected officials of the watershed towns, one in October 2000 and the other in January 2003. Both were held at The Maritime Aquarium in Norwalk. At each meeting, Advisory Committee members updated officials on implementing the Action Plan and asked for their priorities for future work. A report on each meeting was prepared. (*Advisory Committee members and Watershed Coordinator.*)

**Initiative Website.** The Initiative has developed a website, [www.norwalkriverwatershed.org](http://www.norwalkriverwatershed.org), which provides information about the watershed and the Initiative's activities, and includes the Action Plan in PDF format. The website is in the process of being updated. (*Watershed Coordinator.*)

# Revised Spreadsheet of Action Items

GOAL/Objective	Supporting Tasks
<b>GOAL 1: Habitat Restoration</b>	
1. PRESERVE AND IMPROVE WILDLIFE HABITAT/	
(1) Control or diminish the prevalence of invasive species.	1. Educate residents, landscapers, land use commissions, nurserymen, and interested groups about the detrimental effects of non-native invasive species.
	2.
	3. Implement specific invasive species reduction/restoration projects.
	4. Encourage nurseries to offer more native species and discourage the sale of invasive non-native species.
(2) Minimize loss of habitat values coincident with land use practices.	1. Make recommendations regarding habitat needs for general wildlife support.
2. RESTORE ANADROMOUS FISH PASSAGE/ (1) Restore anadromous fish passage.	1.
	2.
	3.
	4.
	5. Oversee the implementation of management practices to restore fish passages.
3. FOSTER COLD WATER FISHERIES/ (1) Re-establish and protect riparian zones.	1.
	2. Seek funding to restore riparian zones.
	3. Document the design, implementation, and outcome of restoration projects and communicate results to municipal boards and general public.
(2) Restore streambeds impacted by road sand deposition and seek solutions to reduce future road sand sedimentation.	1. In cooperation with municipal public works departments and CT DOT, develop and implement the most effective methodology for reducing the deposition of road sand into watercourses.
	2. Reduce direct stream discharges of stormwater through retrofitting existing discharges and by minimizing or avoiding discharges associated with road improvement projects and new construction.
(3) Enhance instream habitat conditions.	1.
	2. Seek funding and support to implement habitat restoration and enhancement projects in identified viable stream reaches.
<b>GOAL 2: Land Use/Flood Protection/Open Space</b>	
1. PROMOTE BALANCED GROWTH WHICH PRESERVES PROPERTY VALUES AND PROTECTS AND ENHANCES THE WATERSHED'S RESOURCES FOR FUTURE GENERATIONS/	
(1)	
(2) Identify appropriate areas for public access to the rivers and streams and increase public access where, appropriate.	1. Develop a public access area inventory (existing and potential). Compile list and map with location, size of area, and ownership, and potential active and passives uses; this list should not affect sensitive areas.

GOAL/Objective	Supporting Tasks
(3) Ensure that land use planning includes adequate water supply resources, stormwater drainage systems, and wastewater treatment systems (both on-site and several systems).	1. Coordinate land use planning with sewage treatment system capacity and public water supply resources.
	2. Hold workshop on innovative stormwater management techniques and groundwater recharge.
(4)	
(5)	
(6)	
(7) Recognize, maintain, and increase open space to ensure the proper functioning of the watershed.	1. Identify, list and map, and then protect and/or acquire open space immediately adjacent to the Norwalk River and other critical areas within the watershed as recommended by local plans of conservation and development.
(8) Recognize that the streams, streambanks, and riparian areas within the Norwalk River Watershed are fragile places which should be conserved, restored, and protected.	1.
	2. Support state funding and seek grants for a <i>Norwalk River Valley Linear Park</i> , greenways, uplands, flood hazard areas, and linking parcels.
	3.
	4.
	5.
	6. Work with municipalities to amend zoning and subdivision regulations, if necessary, to conserve, restore and protect streams, streambanks, and riparian areas of the watershed.
<b>GOAL 3: Water Quality</b>	
1. TO RESTORE AND PROTECT SURFACE AND GROUND WATER TO MEET STATE WATER QUALITY STANDARDS THROUGHOUT THE WATERSHED SUCH THAT THE NORWAK RIVER SUPPORTS ITS DESIGNATED USES (e.g., FISHING, SWIMMING, DRINKING WATER)/	
(1)	
(2) <b>Promote</b> adequate maintenance of septic systems.	1.
	2.
	3. Develop an education program around septic system maintenance issues and the model ordinance.
	4. Inventory areas in each municipality where the greatest potential for concentration of poorly-functioning septic systems are located, including a brief description of the primary factors contributing to these problems. These factors might include: high development density or unsuitable soils (i.e., high water table, shallow to bedrock, or low permeability soils). Tasks should include communication with sanitarians and correlating observation with existing water quality data.
(3) Reduce the impact of road sand on water quality and stream habitat.	1. Obtain and review municipal (and if possible, state) sand and salt application records and policies, and estimates of amounts recovered each year.
	2. Reduce application rates to only what is necessary to maintain safety.

GOAL/Objective	Supporting Tasks
	3. Prioritize catch basin pump-outs and street sweeping based on proximity to receiving waters and sensitive habitats and rate of sand accumulation. Accelerate pump out and street sweeping schedule as early after winter as possible.
	4. Replace or retrofit stormwater catch basins to provide <b>sediment removal</b> prior to discharge to receiving waters in critical areas and sensitive habitats (in conjunction with normal infrastructure improvement planning and implementation.
(4) Maintain and increase riparian buffer areas.	1. Educate streamside/wetland property owners about the value of riparian buffers.
	2. Educate municipal commissions about the value of riparian buffers.
	3.
	4. Implement habitat restoration projects using the priority list of sites established by the NRWIC's habitat restoration subcommittee.
(5) Improve solid and liquid waste management at watershed businesses and municipal	1. Ensure management practices follow local, state, and federal regulations that emphasize education, appropriate storage, and waste management and pollution prevention practices.
	2. Develop an <i>Adopt-A-Stream</i> Program to engage riverside/ streamside businesses and property owners in improving stream conditions.
(6) Evaluate the cumulative effect of discharges permitted by both the Connecticut Department of Environmental Protection and the New York Department of Environmental Conservation.	1. Assess and evaluate the cumulative effects of permitted damages.
(7)	
(8) Reduce the cumulative impacts of development and improve storm water management.	1. Educate land use agencies about the design of effective stormwater management systems and the required maintenance programs. Reduce the cumulative impacts of development on water quality by implementing Best Management Practices.
	2.
	3.
	4.
	5.
	6. Educate homeowners, golf course operators, school groundskeepers and municipal maintenance staff of the impact of fertilizer use and nutrient enrichment products on water quality and the benefits of environmentally sound groundskeeping practices.
(9) Continue water quality monitoring/ data collection and assessment	1. Continue monitoring program by River Watch/Habor Watch. Publish yearly summary and conclusions. Evaluate trends and modify procedures, as needed.
	2. Develop a hot spot response plan to notify appropriate local and state agencies when obvious pollution is observed.
	3. Summarize and publish data, periodically.
	4. Repeat streamwalk in 2007.
(10) Ensure proper functioning of wastewater treatment plants.	1. Promote communication between Connecticut DEP and Advisory Committee (AC) regarding permit exceedances.

GOAL/Objective	Supporting Tasks
<p>1. TO EDUCATE CITIZENS ABOUT THE BOUNDARIES AND FUNCTIONS OF THE NORWALK RIVER WATERSHED, THE SPECIFIC NEEDS FOR PROTECTION OF AND IMPROVEMENT TO THE RIVER SYSTEM, THE BENEFITS OF A HEALTHY WATERSHED TO INDIVIDUALS AND COMMUNITIES, AND THE OPPORTUNITY FOR THE PUBLIC TO SPEAK OUT ON ISSUES AND TO PARTICIPATE IN THE STEWARDSHIP OF THE WATERSHED.</p>	
<p>(1) To develop a mechanism to monitor The Plan to implement such a mechanism, and to foster watershed stewardship.</p>	<p>1. Assemble an AC to include representatives from the government of each town in the Norwalk River Watershed and representatives from environmental organizations, business, and education.</p>
	<p>2. Hire a part-time <i>Watershed Action Plan Coordinator</i> as a facilitator responsible to the above AC.</p>
	<p>3. Hold bi-annual workshop of chief elected officials to maintain support of plan implementation.</p>
<p>(2) To develop methods to provide information and education about the Norwalk River Watershed.</p>	<p>1.</p>
	<p>2.</p>
	<p>3.</p>
	<p>4.</p>
	<p>5.</p>
	<p>6.</p>
	<p>7. Develop watershed-based outreach program to disseminate stewardship message and provide knowledge of the watershed, its boundaries, and the functions and values of its resources. Actions for consideration of the AC include, but are not limited to:</p> <ul style="list-style-type: none"> <li>- School competitions</li> <li>- Watershed Awareness Day</li> <li>- Information kiosks throughout the basin</li> <li>- Website for the basin, linking to stakeholders and municipalities</li> <li>- Develop a regular column about the watershed and its resources in the watershed.</li> </ul>

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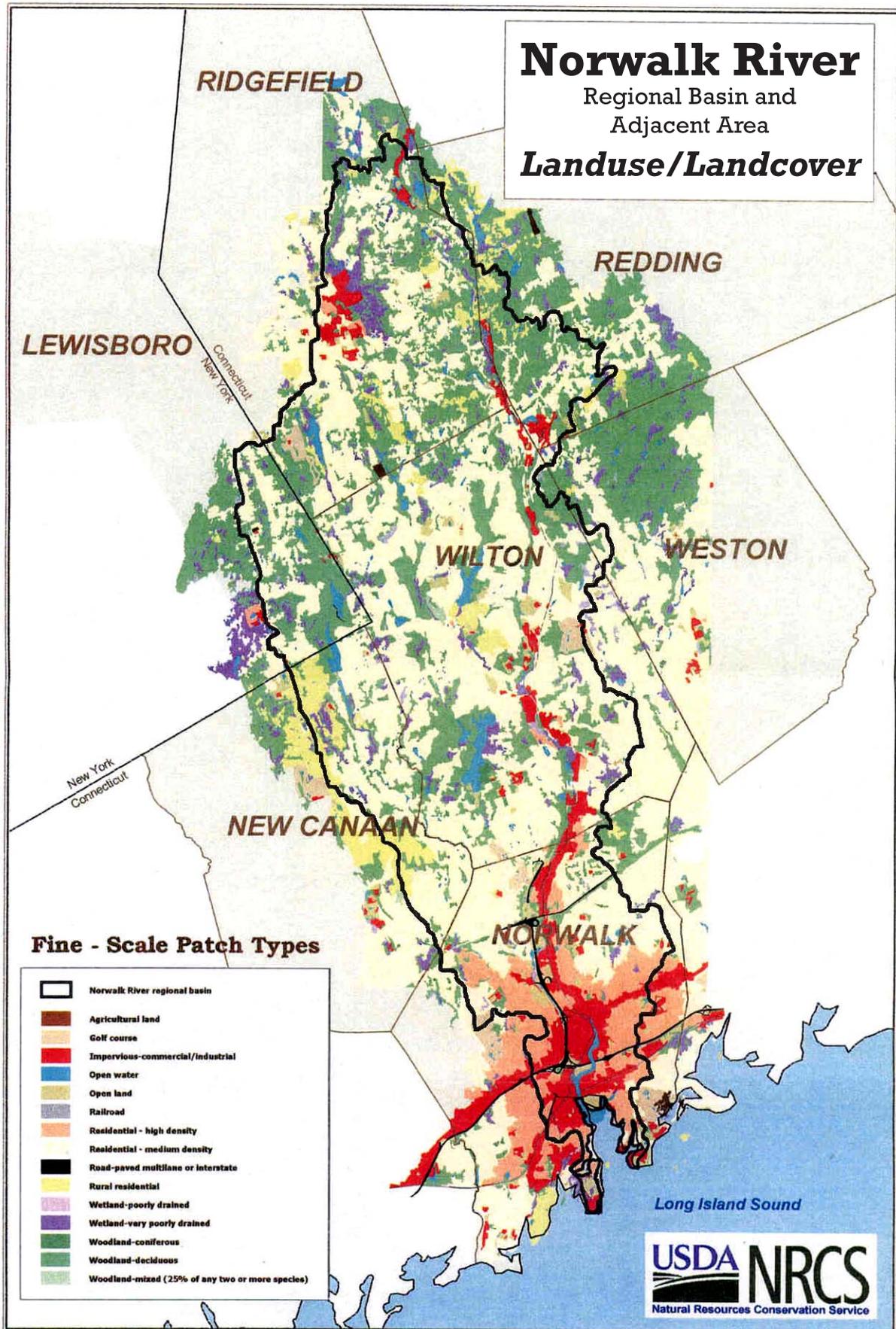
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## **LIST OF ADVISORY COMMITTEE MEMBERS**

**(June 2004)**

Mark Alexander, CT Department of Transportation, Newington, CT  
Fred Anderson, Conservation Planner, Town of Weston, CT  
Todd Bobowick, Resource Conservationist, USDA/NRCS, Torrington, CT  
\*Joseph DeRisi, Southwest Conservation District, Wallingford, CT  
Michael Devine, President, Devine Brothers, Norwalk, CT  
Michael B. Greene, Director of Planning and Zoning, City of Norwalk, CT  
Dick Harris, Harbor Watch/River Watch, Westport, CT  
Kathleen Holland, Director, Inland Wetlands, Town of New Canaan, CT  
Leah Lopez, Save the Sound, Norwalk, CT  
Chris Malik, CT Department of Environmental Protection, Hartford, CT  
Ray Morse, Town of Lewisboro, South Salem, NY  
Ed Musante, Greater Norwalk Chamber of Commerce, Norwalk, CT  
Wallace Perlman, Town of Redding, CT  
Jere Ross, Norwalk River Watershed Association, Redding, CT  
Jack Schneider, The Maritime Aquarium at Norwalk, Norwalk, CT  
\*Patricia Sesto, Environmental Affairs Director, Town of Wilton, CT  
Ed Vallerie, Trout Unlimited, Wilton, CT  
Tom Villa, Water Department, Second Taxing District, Wilton, CT  
Robert Wilson, South Western Regional Planning Agency, Stamford, CT  
Beth Yanity, Conservation Commission, Town of Ridgefield, CT

\*Advisory Committee Co-chair



**Figure 2.**