

2001 REPORT



Conflict

1990

In its attempt to protect drinking water for 9 million New Yorkers, the New York City Department of Environmental Protection presents a discussion draft of new regulations to upstate watershed communities, including requirements that affect agriculture and put the livelihood of farmers at risk.

Collaboration

1991

An Ad Hoc Task Force on Agriculture and New York City Watershed Regulations convenes representing upstate and downstate interests. A collaborative plan of policy recommendations called The Brown Book is created to protect water and “do no harm” to farm operations in the watershed.

Partners

1992

Phase I of the Watershed Agricultural Program begins with Whole Farm Planning on ten pilot farms dispersed geographically throughout the Catskill/Delaware watersheds.

Foresters Log On

1996

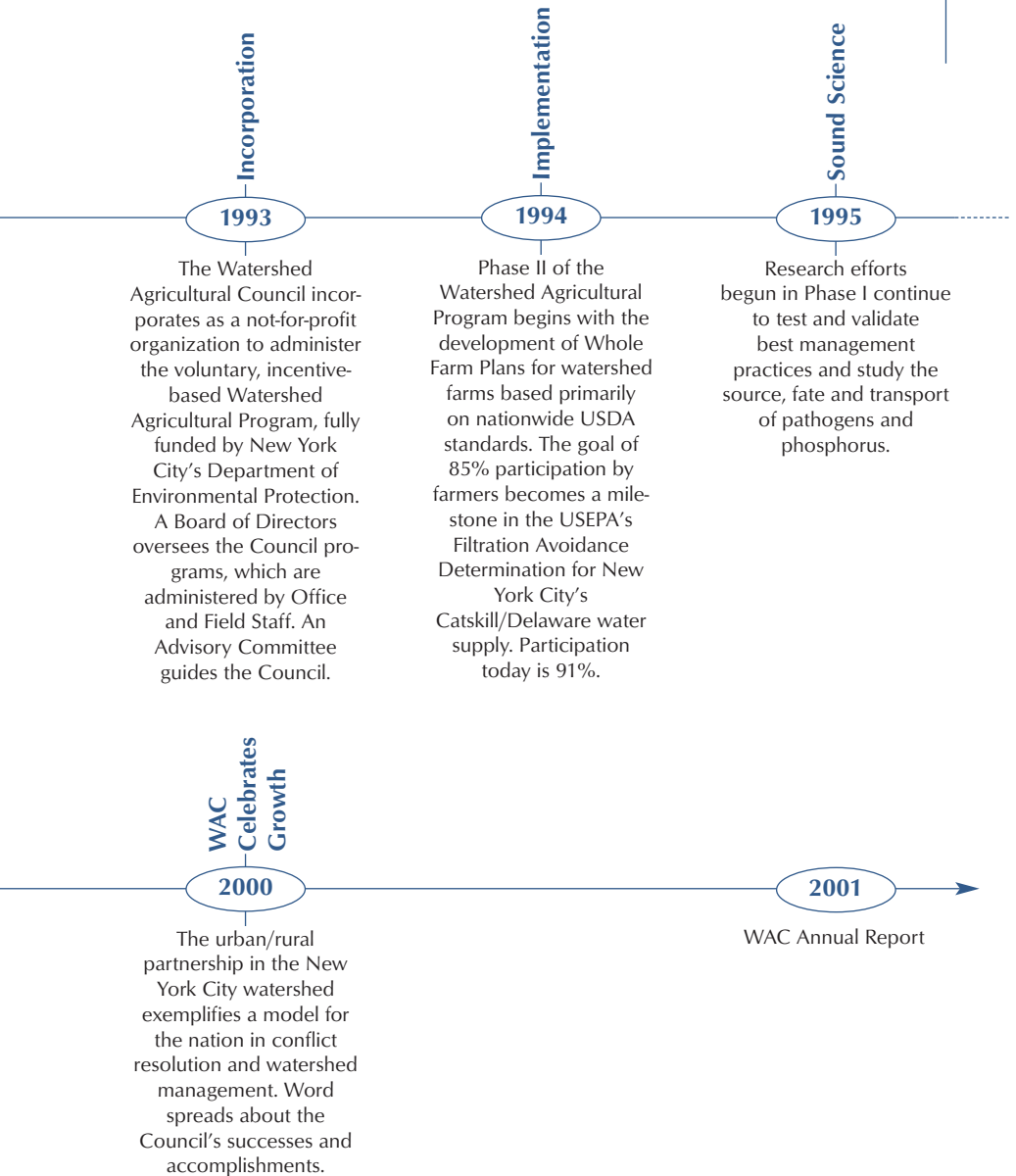
With The Green Book of policy recommendations, the Watershed Forestry Task Force lays out a blueprint for the Watershed Forestry Program, promoting best management practices to train loggers in preventing nonpoint source pollution. Outreach and Economic Development Programs are put in place to support the efforts of the Watershed Agricultural Council.

Conserving Open Space

1998

WAC and New York City implement a Conservation Easements Program to purchase the development rights on watershed farms. This effort provides long-term watershed protection through a good balance of watershed land use activities. In the same year, New York City, the USDA and WAC enter an agreement for increased federal financial incentives for farmers to establish riparian buffers through the CREP.

WAC HISTORY



Throughout the watershed, Watershed Agricultural Council (WAC) programs are at work. In these pages, you'll see accomplishments in every area, from farmer sign-ups to forest management planning. The Board, staff and partners of WAC are on the job every day fulfilling our goals in the region: to promote well-managed farms and forests. Why? Because we see this as the future of both a thriving rural economy and long-term water quality protection.

As we enter our second decade of watershed planning, it's clear to WAC that holistic watershed management is the right way to sustain two of our most important natural resources: water and people. Every best management practice we implement means work for people in our communities. Our fifteen million dollar annual funding yields both comprehensive pollution prevention and a positive economic impact on the watershed. As our research continues to bring national experts together to test and validate our work, our success is quantified and the impact of our work grows.

With the expansion of our Whole Farm Planning effort to small operations in the Catskill/Delaware watershed, we've doubled the number of farms that will now have access to the same water quality protection as the hundreds of larger farms already in the Watershed Agricultural Program. Since many of these small operations are just starting up, Whole Farm Planning becomes part of their business plan – what better way to grow the economy in a sustainable way? As our daily contact with these landowners increases, so does our excitement about developing innovative ways to increase net farm income.

For farms in the Croton watershed, we now have a blueprint for prioritizing watershed management on those distinctive operations, many of which have important environmental issues vital to keeping the water clean. As agricultural and forestlands are the largest remaining unplanned open space in this watershed, landowners here have an immediate need for technical assistance.

But perhaps our greatest milestone this year was the closing of our first two conservation easements on watershed farms, which took place in December. This unique tool for farmland protection gives us the ability to be a truly multifaceted program and, with funding from New York City, is quite possibly the only easement in the country that's directly tied to water quality.

More and more, we hear about the challenges of urban sprawl, food and water supply security and the survival of small family farms. In order to meet the increasing interest in our accomplishments, we've revamped our internet web site at www.nycwatershed.org. Who knows exactly what the watershed will look like ten, twenty, or even a hundred years from now? WAC is strong, our programs are succeeding and it's our hope that people will still care enough about farms, forests and clean water to support our efforts.

- Richard I. Coombe, Chair & CEO

CONTENTS

Agriculture

| | |
|--------------------------------------|-----|
| Watershed Agricultural Program | 1 |
| Small Farms | 2 |
| East-of-Hudson | 2 |
| Filtration Avoidance Goals | 3 |
| CREP Accomplishments | 4 |
| 2001 BMP Accomplishments | 4-5 |

Forestry

| | |
|---|---|
| Watershed Qualified Loggers and Foresters | 7 |
| Timber Harvest Roads/Forest Roads | 8 |
| Forest Management Planning | 9 |
| Riparian Area Planning | 9 |

Conservation Easements

Research

| | |
|-----------------------------|-------|
| Agricultural Research | 13-15 |
| Forestry Research | 16-17 |

Outreach

| | |
|--|----|
| Web Site | 19 |
| Cleansweep Chemical Disposal Day | 19 |
| Model Forest Interpretive Exhibit | 19 |
| WAC Celebrates Growth | 20 |
| O'Connor Foundation Farm Beautification Projects | 20 |
| Forestry Education Initiatives | 21 |

Natural Resources

| | |
|--|-------|
| Custom Service Survey | 23 |
| Economic Action Program: Rural Dev. Through Forestry | 23-24 |
| Catskill Farmstead Cheese Project | 24 |
| Innovation in Agriculture Conference | 24-25 |
| Eco-Labeling | 25 |

Finance

Personnel





WATERSHED AGRICULTURAL PROGRAM

As the Whole Farm Planning effort continued to meet its water quality goals, the focus this year was on finding ways to increase the pace of implementation. The creation of a "pre-qualified" engineer's list was a major effort to engage consultants from private industry, a concept that WAC has proved successful in prior years with nutrient management planning.

A successful nutrient management plan usually involves spreading manure more frequently on fields further from the barn, creating higher fuel and equipment costs for the farmer. Taking a

page from the Conservation Reserve Enhancement Program (CREP), WAC is exploring ways to match City funds with federal sources to improve the economic viability and, ultimately, the effectiveness of this practice.

"I don't think farmers in general are going to do a bad job intentionally, but with an incentive, they'll be able to do a really good job."

- Dave Cammer,
dairy & maple farmer

WAC initiated a pilot program which gives farmers a means to gain credits through compliance with their nutrient management plan and access funding to help defray the cost of their equipment needs. In

this way, the farms maintain economic viability while providing effective water quality protection.



SMALL FARMS

Smaller farm operations in the watershed vary widely and grow a range of products from meat, eggs and vegetables to Christmas trees and maple syrup. Within its first year, WAC's program for small farms began implementing Whole Farm Plans on ten pilot farms throughout the West-of-Hudson watershed, and is currently surveying hundreds more to identify envi-

ronmental priorities for source water protection. Sixteen additional farms have been selected for the next phase of this growing program. While learning about best management practices for water quality, these participating farmers are also gaining new access to technical assistance through contact with WAC.

EAST-OF-HUDSON

In the East-of-Hudson watershed, WAC established a field office this year and is currently in the early stages of farmer sign-ups, planning and design of Whole Farm Plan implementation. The East-of-Hudson group developed a Croton Agricultural Plan as a "blueprint" for delivering the program and a new priority ranking methodology to be utilized in conjunction with the State's Agricultural Environmental Management (AEM) Program to identify farms with the highest pollution potential in the Croton watershed.

WAC has identified over one hundred program participants in the

Croton watershed and is currently surveying the needs of these farms for water quality protection. While

"Watershed planning for farms and forestland in the region is a void that needed to be filled, for the benefit of water quality, open space and keeping farmland viable."

- Mike Saviola
East-of-Hudson
Program Manager

WAC's Whole Farm Planning program helps protect water quality, many communities benefit directly from this conservation of resources. A growing population is responding to the need for farmland conservation for the future. The growth in farmer's markets and the sustainable food movement over the last ten years adds impact to the con-

sumer's view of small farms throughout the Northeast region.



FILTRATION AVOIDANCE DETERMINATION GOALS*

Farmer Sign-ups

| | |
|------------------|------|
| Goals 12/2001: | .297 |
| Accomplishments: | .322 |

Whole Farm Plans Summaries Approved

| | |
|------------------|------|
| Goals 12/2001: | .273 |
| Accomplishments: | .273 |

Whole Farm Plans Commenced Implementation

| | |
|------------------|------|
| Goals 12/2001: | .212 |
| Accomplishments: | .229 |

Farms Substantially Complete

| | |
|------------------|------|
| Goals 12/2001: | .105 |
| Accomplishments: | .109 |

Annual Status Review/Follow-up

| | |
|------------------|------|
| Goals 12/2001: | .73 |
| Accomplishments: | .114 |

Nutrient Management Plans

| | |
|------------------|-----|
| Goals 12/2001: | N/A |
| Accomplishments: | .53 |

*West-of-Hudson



CREP ACCOMPLISHMENTS

Stream Buffers Implemented/Complete:

| | |
|--------------|-------|
| Linear Miles | 196.8 |
| Acres | 708.8 |

Stream Buffers Planned/Under Contract:

| | |
|--------------|---------|
| Linear Miles | 408.8 |
| Acres | 1,472.0 |

2001 BMP ACCOMPLISHMENTS

| Whole Farm Plan - BMP Description | No. Implemented |
|-----------------------------------|-----------------|
|-----------------------------------|-----------------|

| | |
|---|----|
| Waste Storage Facility | 4 |
| Brush Management | 3 |
| Conservation Cover | 1 |
| Conservation Crop Rotation | 3 |
| Cover Crop | 1 |
| Critical Area Planting | 1 |
| Diversion | 4 |
| Fencing | 46 |
| Filter Strip | 3 |
| Grasses & Legumes in Rotation | 1 |
| Grassed Waterway | 1 |
| Irrigation System /Micro-irrigation Trickle | 1 |
| Lined Waterway | 1 |
| Use Exclusion | 1 |
| Forage Harvest Management | 1 |
| Pasture & Hayland Planting | 2 |
| Pipeline | 3 |
| Prescribed Grazing | 2 |
| Roof Runoff Management System | 2 |
| Access Road | 8 |
| Heavy Use Area Protection | 6 |
| Spring Development | 23 |

continued →

| Whole Farm Plan - BMP Description | No. Implemented |
|-----------------------------------|-----------------|
|-----------------------------------|-----------------|

| | |
|---|----------------|
| Animal Trails & Walkways | 12 |
| Streambank Stabilization | 1 |
| Subsurface Drain | 2 |
| Tree & Shrub Planting CREP | 36 |
| Watering Facility | 2 |
| Underground Outlet | 1 |
| Waste Transfer System | 6 |
| Agri-Chemical Mixing Facility | 1 |
| Barnyard Water Management System | 22 |
| Roofed Barnyard | 3 |
| Calf Greenhouse | 4 |
| Ventilation | 4 |
| Milkhouse Waste - Backflow Safety Valve | 1 |
| Farm Fuel Facility | 6 |
| BMP Equipment Components | 14 |
| Anaerobic Fixed Film Digester/Separator | 1 |
| Solid Aerobic Bio-Dry Compost Building | 1 |
| Sanitary Sewer Connection & 5 Year Fee | 1 |
| Greenhouse Irrigation System | 1 |
| Bridge - Animal Trails & Walkways | 1 |
| Riparian Forest Buffer CREP | 13 |
| Nutrient Management Plan | 62 |
| Waste Utilization | 53 |
| Record Keeping | 51 |
| Total No. of BMPs | 417 |
| Implementation Cost - NYC Funds | \$2,133,752.38 |
| Implementation Cost - Federal | \$345,881.00 |

| Small Farms - BMP Description | No. of BMPs |
|-------------------------------|-------------|
|-------------------------------|-------------|

| | |
|---------------------------------|-------------|
| Conservation Cover | 1 |
| Pond | 1 |
| Fencing | 2 |
| Spring Development | 1 |
| Animal Trails & Walkways | 1 |
| Tree & Shrub Planting | 8 |
| Total No. of BMPs | 14 |
| Implementation Cost - NYC Funds | \$39,536.73 |
| Implementation Cost - Federal | \$39,534.00 |





WATERSHED QUALIFIED LOGGERS AND FORESTERS

The Watershed Forestry Program trains and recommends “watershed qualified” loggers and foresters to landowners managing their forests with timber harvests. These professionals are trained in water quality BMPs and are eligible for cost-shares on a range of traditional BMPs and innovative tools to help them do their job with watershed protection as the goal. Free samples of BMP tools such as the open-topped pipe culvert, geotextile fabric and organic bar and

“The bottom line is that on every job, we want to come back again. BMPs make the road better and that’s our investment in the future.”

- “Watershed Qualified” logger

chain oil, are made available by WAC field staff. In another program, fourteen portable bridges were loaned to loggers for temporary stream crossings this year, yielding water quality protection on harvests throughout the region. A full range of workshops run by WAC, from Chainsaw Safety to “Getting To Know Your New York State BMP Field Guide,” help timber harvesters gain knowledge and skills they can apply on every job.

Watershed Qualified Forestry Professionals

| | |
|---------------------------------|-----|
| Timber Harvesters: | 149 |
| Foresters: | 34 |
| Forest Roads Contractors: | 12 |

TIMBER HARVEST ROADS/FOREST ROADS

Properly built forest roads protect soil and water and last a lifetime. WAC offers loggers cost-sharing and other incentives for properly designing and installing timber harvest roads using erosion control best management practices such as water bars, culverts and broad-

based dips. This year, the Forestry Program initiated a successful cost-share pilot for the remediation of existing forest roads with erosion problems due to poor layout and design. Fourteen roads were rehabilitated with erosion control BMPs and properly stabilized.

Number of Timber Harvest Road BMP Projects

| | |
|----------------|----|
| 2001: | 11 |
| To date: | 17 |

Miles of Road Designed and Installed

| | |
|----------------|------|
| 2001: | 24.2 |
| To date: | 35 |

Waterbars Installed

| | |
|----------------|-----|
| 2001: | 466 |
| To date: | 823 |

Broad-based Dips Installed

| | |
|----------------|----|
| 2001: | 36 |
| To date: | 57 |

Forest Road Remediation Pilot Program

| | |
|--|-----|
| Number of Road BMP Projects Completed: | 14 |
| Miles of Road Remediated: | 23 |
| Acres Stabilized: | 6 |
| Water Bars Installed: | 473 |
| Broad-based Dips Installed: | 58 |

FOREST MANAGEMENT PLANNING

To encourage voluntary stewardship of private forestland, the Forestry Program pays for the development of a forest management plan for landowners with ten or more acres in the watershed. Through the process of working with a forester to plan the future of

their forest land, owners learn what’s there and how to actively manage it using best management practices. As they gain technical knowledge about these resources, their commitment to keeping the land forested grows.

RIPARIAN AREA PLANNING

On land adjacent to streams, riparian area management has become a valuable tool in maintaining and protecting water quality. This year the Forestry Program incorporated the USDA Forest

Service’s standards for delineating and managing riparian areas into ten pilot management plans, adding another tool in working with private landowners in the watershed.

Management Plans Complete

| | |
|----------------|-----|
| 2001: | .86 |
| To date: | 184 |

Forested Acres Under Management

| | |
|----------------|--------|
| 2001: | 9,586 |
| To date: | 28,532 |

Riparian Area Planning – New!

| | |
|----------------------------------|-----|
| Management Plans Complete: | .8 |
| Acres Under Management: | 111 |





Conservation Easements

The WAC Easement Program was initiated in 1996 as a component of the Watershed Memorandum of Agreement (MOA) with New York City. A WAC easement is distinctive in that it is designed to protect water quality through environmentally sound management of farms and forestland. The easement addresses water quality issues by identifying sections of a farm as resource protection areas and further delineates which parts of a farm can be used for agricultural production. Agriculture and forestry activities on the land are carried out in accordance with Whole Farm Plans and forest management plans approved by WAC.

WAC acquired its first conservation easements this year on two

farms totaling 770 acres. This program is designed to pay landowners for a permanent agreement limiting

the development of the farm while allowing the continued use of the land for agriculture, forestry and recreation. WAC has signed contracts to purchase conservation easements on an additional four farms representing 1,500 acres.

“The easement is exactly what I need: a means for the farm to stay a farm and not be developed.”

- Jim Lamport,
dairy farmer

The acquisition of these easements will take place in early 2002. During 2001, the program opened the process to more landowners and selected ten additional farms. Appraisals of these farms are currently establishing the value of these conservation easements, and it is projected that easements will be acquired on these properties over the next two years.

Program Statistics

| | |
|--|-------|
| Whole Farms with Easement: | 2 |
| Acres under Conservation Easement:: | 770 |
| Whole Farms Under Easement Contract: | 4 |
| Acres under Contract: | 1,500 |
| Whole Farms Under Appraisal: | 10 |



AGRICULTURAL RESEARCH

Town Brook Research Group

Research in Town Brook is a cooperative effort with two main objectives: 1) Develop, implement and evaluate BMPs for minimizing phosphorus loss from farms represented by those farms in the Town Brook basin; and 2) Apply and improve field-scale and farm-scale indices and models to support nutrient management planning within the Town Brook basin. The findings of this project will be applied in the Cannonsville watershed and other Catskill watersheds.

There are several research projects ongoing in the Town Brook basin including: monitoring stream flow and water quality, collecting meteorological data, evaluating the effectiveness of milkhouse filter strips through experimentation, quantifying the relationship between soil phosphorus and runoff phosphorus for soils on site,

and determining phosphorus leaching from intact soil cores through laboratory study. WAC's Town Brook Research Group includes farmers from the basin plus representatives from USDA Agricultural Research Service, USGS, Cornell University and DEP. The group is currently under the leadership of Dr. William J. Gburek and Dr. Andrew N. Sharpley, two world experts in the transport of phosphorus through watersheds.

The group's major goal for the coming year is to add comprehensive pathogen research to projects in this watershed, taking advantage of overlaps with Town Brook phosphorus research where possible. This includes testing and validating the program's current best management practices that are intended to reduce pathogen transport from farms.



Paired Watershed Research

This study, led by the NY State DEC, aims to test the ability of the Whole Farm Plan to correctly identify significant sources of on-farm pollution, and then recommend and implement cost-effective management practices that substantially reduce pollutant losses from those sources. A pair of watersheds is monitored, in this case one dairy farm and one non-agricultural control site, of similar size, shape, elevation and soils. The agricultural watershed consists almost entirely of the farm itself and is at the headwaters of a small tributary that arises on the farm. The control site is also a headwater watershed and is composed of forest land, abandoned field returning to forest and shrub land.

Both sites were monitored for two years prior to any best management practice installation on the farm in order to establish an accurate relationship between the hydrologic responses of the agricultural watershed and the control watershed. The farm was then treated with all prac-

tices recommended in its Whole Farm Plan. These include a 9-month capacity manure storage, a rotational grazing system, barnyard water management, manure spreading schedules, farm road improvement, milkhouse waste diversion to the manure storage, stream diversion away from the barnyard area, tile drainage, relocation of the silage storage area and upland diversion installations. Monitoring began again in November 1996 and will continue for five years.

The results of the first two years of post-implementation sampling indicate a decrease in concentrations loads of dissolved phosphorus leaving the farm. This would be consistent with storage of manure during critical runoff periods in winter and spring. There is also some evidence of reductions in ammonia loads and concentrations. Results of macroinvertebrate sampling show clear-cut improvements at the farm in the diversity of the stream biota (important indicator species).

NYSERDA

In conjunction with Cornell University and New York State Energy Research and Development Association (NYSERDA), WAC dairy farms are demonstrating two innovative systems for treating and

handling dairy manure to manage volume, nutrients, pathogens and odor. One farm was selected to demonstrate an anaerobic fixed-film digestion manure handling system constructed for reducing the foot-

print and construction cost of a full scale, complete-mix digester. The end product allows for the application of manure on land adjacent to neighbors, and at the same time, gives the farmer the ability to distribute available nutrients to these fields. A second farm was chosen to demonstrate an aerobic composted or "biodrying" system for reducing manure mass and volume.

Phosphorus in the form of dried manure is more economical to transport out of the watershed. Both of these innovative manure handling systems will be evaluated to determine their effectiveness in managing phosphorus and pathogens as well as the economic viability of these BMPs to be used on other watershed farms. Construction of both projects was completed in July.

Solar Calf Greenhouse Study

Researchers from Cornell University are investigating solar calf housing to determine its effectiveness in reducing the transport of *Cryptosporidium parvum* oocysts off farms. Three different approaches will be attempted to analyze the effect of solar calf housing. First, a comparison will be made of the number of infected animals before and after installation of the solar

calf barn was installed. Second, the survivability of *C. parvum* will be tested at three locations inside and outside of the solar calf barn. Finally, the transport of the pathogen off the farm will be studied by sampling runoff, streams and soil most likely affected by the calf housing. Initial farm sampling began this summer.

Pathogen Action Plan

A conference focussing on pathogens was held by WAC in Philadelphia this fall, bringing together the nation's leading experts on this field of research. The result of the meeting was the adoption of a Pathogen Action Plan to guide WAC's future efforts in this area including the formation of a Professional Advisory Committee, chaired by Dr. Ronald Fayer, to help

develop research, review proposals and monitor research projects; the convening of a group to develop new BMPs for composting calf manure on small dairy farms in New York City watersheds; and the initiation of a pilot study to monitor calf manure compost in independent laboratories. Additional research projects to test and validate current BMPs were also identified by the group.

FORESTRY RESEARCH

The Watershed Forestry Program coordinates four model forests that integrate research, demonstration, continuing education and public outreach. Water quality monitoring gages help researchers study the effects of various silvicultural treatments on stream flow and water quality. The four sites reflect different types of land ownership and are spread out East and West of the

“A tour through the model forest teaches about the complexity of forest management and the value of long-term planning.”

- Tom Alworth,
Executive Director, Catskill
Center for Conservation
and Development

Hudson. Once complete, each model forest will contain a permanent forest inventory plot system, experimental treatment blocks, a demonstration access road with best management practices (BMPs) and interpretive signs with educational scripts. Research at all four model forests is coordinated by Dr. René Germain of SUNY College of Environmental Science and Forestry.

Lennox Memorial Forest

Delhi, Delaware County. A 70-acre site owned and operated by Cornell Cooperative Extension of Delaware County and affiliated with their 4-H Camp Shankitunk (Cannonsville watershed).

The Lennox Memorial Forest hosts hundreds of landowners and natural resource managers from as near as the surrounding Catskills and New York City and as far as the U.K., Korea and Pakistan. An educational kiosk on-site connects healthy forests to clean water and a two-mile demonstration road highlights erosion control best management practices (BMPs).

Pre- and post-harvest data from this Model Forest will provide the

basis to study the role of coarse woody debris on the forest floor and its role in how nutrient cycling impacts water quality. City University of New York researchers are also sampling bark at this forest in a study tracking airborne PCB transport from the Hudson River to the Catskills.

Frost Valley Model Forest

Denning, Ulster County. A 240-acre site owned and operated by Frost Valley YMCA and affiliated with their environmental education facility in Ulster County (Neversink watershed).

Forest inventory plots were completed in this mini-watershed while SUNY-ESF and USGS monitors the stream. The next step is to observe the effects of harvesting and road building on nutrient cycling and macroinvertebrates (important indi-

cator species) living in the stream. A harvest operation is scheduled for the winter of 2002, followed by the construction of a two-mile forest road with appropriate BMPs will begin.

Mink Hollow Model Forest

Woodstock, Ulster County. A 250-acre site is owned and operated by NYCDEP and affiliated with the SUNY New Paltz field campus in Ulster County (Ashokan watershed).

At Mink Hollow, a USGS stream-monitoring gage samples stream flow and water quality in conjunction with NYCDEP's comprehensive watershed monitoring program.

The USGS stream gage will provide five years of baseline data from an undisturbed forest, followed by five years of data from a managed forest in the fifth year.

Ninham Mountain Model Forest

Kent, Putnam County. A 150-acre site owned and operated by NYSDEC in Putnam County (West Branch watershed).

Similar to the Frost Valley Model Forest, researchers at Ninham Mountain will examine the effects

of forest harvesting on nutrient cycling and macroinvertebrates.



WEB SITE

WAC has occupied a spot in cyberspace since its first website was designed in 1998. Since then, national and international attention on watershed planning and its effects on farms have grown a great deal. The WAC website gets thousands of hits per month from users all over the world, including many students searching for the latest information on how watershed programs are developing. The site is meant to reach both upstate residents and program participants as

well as downstate residents who may also be watershed landowners. There are two "virtual tours" to illustrate BMPs on a farm and in the Lennox Model Forest. Over time, the site will be developed further as a resource for WAC participants, but right now the goal is to get the word out about best management practices and how they're working here on the ground. To access the site, go to www.nycwatershed.org.

CLEANSWEEP CHEMICAL DISPOSAL DAY

Fourteen farms participated in the fourth annual Cleansweep Chemical Disposal Day. Nearly twice the volume of material was collected this year over last year from area households, farms and businesses. Over three hundred vehicles passed

through the Cornell Cooperative Extension parking lot in Hamden. Many volunteers stepped forward to help with the event, which has become a successful partnership effort. Plans for the fifth annual event are underway.

MODEL FOREST INTERPRETIVE EXHIBIT

Installation of interpretive signs at the Lennox Model Forest took place this summer, offering a permanent exhibit of forestry best management practices to loggers, foresters and forest landowners, plus a steady stream of school-age children from

4-H Camp Shankitunk. At the bequest of John A. Lennox, a former 4-H director and American Tree Farmer, the forest is a working demonstration to show how timber harvests can be managed in the New York City watershed. Both good and

poor forestry practices exist side by side in this living classroom, along with water bars, culverts and other water quality best management

practices. An interpretive kiosk at the trailhead links healthy forests to favorable conditions in the stream below.

WAC CELEBRATES GROWTH

It's been over a decade since upstate farmers and New York City put down the roots for Whole Farm Planning in the watershed with The Brown Book. A celebration took place in June to mark the Council's achievements and recognize those whose dedication and hard work laid a solid foundation for the program. There was reminiscing about

negotiations with the City, efforts to set up risk assessment on farms, and how the farmer sign-up goal was successfully reached. Retiring Council members Gail Dale, Sandra Dawson and Dave Taylor were honored with thanks for their many years of dedication to the organization

O'CONNOR FOUNDATION FARM BEAUTIFICATION PROJECTS

WAC administered \$12,000 this year in funding from the O'Connor Foundation to six farm operations in Delaware County for beautification of their farmsteads. Now in its fourth year, this effort helps Catskill region farms by jump-starting projects that have long been on the "to do" list and renews everyone's pride in the beauty of rural culture. Dairy farms in the New York City watershed are the focus of worldwide

attention, with hundreds of visitors coming each year to view implementation of Whole Farm Planning for watershed protection. Other agricultural tourism in the region includes activities like "on the farm" visits, maple sugar days, and wholesale and direct marketing of livestock, vegetables, wool, meat and eggs. These events connect consumers with those who help conserve land and water resources.

Accomplishments

| | |
|---------------------------|----|
| Projects Completed: | 19 |
| In Progress: | 7 |

FORESTRY EDUCATION INITIATIVES

Green Connections

The Watershed Forestry Program continued its urban/rural education and outreach activities targeted to forest landowners, water consumers, and environmental groups with "Green Connections," a youth education project for 120 upstate/downstate students. Supported with a USDA Forest Service grant, it partnered urban students in Brooklyn and Queens with rural students in Ellenville and South Kortright during an interactive learning experience including

email, letters, art projects and field trips. Participating students grew seedling trees in the classroom, which they later planted as a riparian buffer along the Neversink River during a watershed field trip. A second field trip to New York City included visits to Inwood Park in Manhattan, South Street Seaport, Alley Pond Environmental Nature Center in Queens and the New York Hall of Science where the students camped overnight in sleeping bags.

Watershed Forestry Teacher's Institute

The third annual Watershed Forestry Institute for Teachers was sponsored at the Frost Valley YMCA Straus Center in Ulster County for 16 teachers from New York City and the watershed. To date, this popular program has provided 43 high school and middle school teachers

with forestry curriculum materials (i.e., Project Learning Tree, Project WILD Aquatic, and Ways of the Watershed) and hands-on environmental instruction. Four days were spent exploring a watershed model forest, water supply reservoir and an active timber harvest site.

Landowner Outreach

An informational newsletter for watershed forest landowners was published this year and mailed to over 20,000 people owning forestland in the Catskill/Delaware and Croton watersheds. Also, a watershed forest science symposium was held for natural resource managers to bolster sound science initiatives in water quality protection. The

Forestry Program also sponsored three major educational workshops and site visits for almost 300 watershed forest landowners living in the Catskills and the New York metropolitan area. These one-day workshops covered the topics of agroforestry, timber theft, and proper forest management for watershed protection.





Natural Resources

CUSTOM SERVICE SURVEY

In an effort to help farmers control production costs and maximize efficiency, WAC is currently surveying farmers about their interest in custom field services and equipment leasing. For many small operations typical to the Catskill region, increasing costs of labor and equipment may make custom field services or leasing a smart economic alter-

“We can’t all afford to buy every piece of equipment and custom service works well out west. I think it’s worth a try.”

- dairy farmer

native to purchasing expensive but seldom-used machinery. Reliable professional providers, using modern equipment might be more efficient, timely and productive. By exploring this management tool, farmers could potentially choose a way to remain competitive that eases the need for capital purchases in uncertain times.

ECONOMIC ACTION PROGRAM: RURAL DEVELOPMENT THROUGH FORESTRY

Since June 2000, the USDA Forest Service awarded two grants totaling \$1.2 million to support the Watershed Forestry Program’s Rural Development through Forestry Grants Initiative. This year, an expert grants committee made 22 awards to Catskill-based wood products businesses exceeding \$960,000 for a range of projects from comput-

“We are fully prepared on a professional level to take our business forward.”

- Jenifer Green,
GreenTree Furniture &
Accessories

er upgrades and apprenticeship programs to new woodworking equipment and research on kiln drying methods. The Watershed Forestry Program hired an administrator for the grants initiative in October and anticipates awarding funds through 2004. The program is successful because many viable wood-based industries in the region are

unable to secure adequate expansion funding from traditional sources and with this grant, a business can expand without going deeply into debt. The results are improved efficiencies, cutting-edge

wood technologies, and innovative marketing campaigns, all of which underscore WAC's goal of ensuring that forestry remains a viable enterprise to protect water and to bolster economic vitality in the Catskills.

CATSKILL FARMSTEAD CHEESE PROJECT

Some day, farmstead cheese makers may be to the Catskills Mountains what wineries are to New York's Finger Lakes. "The farmstead specialty cheese industry is poised for the same take-off that farm wineries enjoyed twenty years ago," notes Mike Chamberlain, a business consultant who completed a feasibility study and business plan for two Catskill mountain dairy farms on behalf of WAC this year. All of the necessary ingredients are here: cli-

"Consumers are interested in identifying where their food is coming from. Farmstead cheese production would add value to our milk and help us meet our goal of having this farm support a second family in the future."

- Paul Deysenroth,
dairy farmer

mate, lush mountain pasture, and dedicated family farmers who have the skill, patience and intelligence to grow their businesses slowly while they master this ancient craft. There are already several excellent goat cheese farms and one new cow cheese maker in the area. The conversion of some traditional dairy farms in the region would create more momentum, providing food tourism and marketing opportunities similar to those found in other parts of the country.

INNOVATION IN AGRICULTURE CONFERENCE

Farm entrepreneurs and business development specialists gathered at a conference arranged by WAC in December to discuss marketing

opportunities and the resources available to help keep area farms growing. The agenda highlighted a variety of ways that local farmers are

meeting the challenges of competing in the modern marketplace, with presentations from Catskill Family Farms Cooperative (specialty potatoes) and Meadow Raised Meats Association (pastured meats and poultry), as well as farm market retailers, an “on-farm” bed and breakfast and value-added projects for milk – like farmstead cheese pro-

duction. The conference made clear that new business and marketing skills are needed to take these ideas to the next level. WAC’s goal is to provide assistance by coordinating the tools and services they need, whether it’s marketing education, regional promotion or business development services.

ECO-LABELING

Representatives of The Food Alliance, a highly-respected west-coast environmental label, met with WAC to explain its program’s eastern expansion and what it could mean for watershed farmers maintaining best management practices.

An eco-label identifies products made in an environmentally conscious way, recognizing and rewarding farmers for environmental stewardship. It can also help producers gain market access and consumer attention.



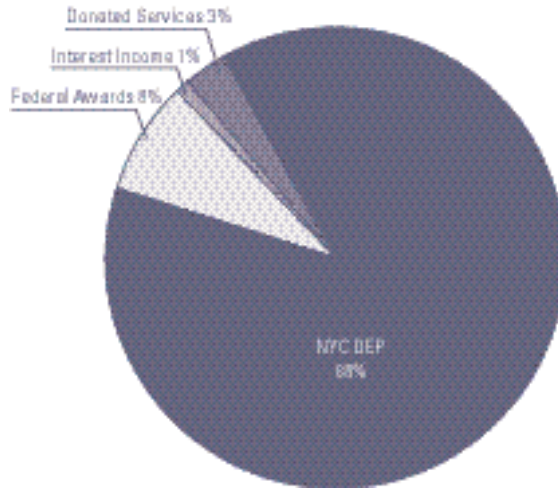


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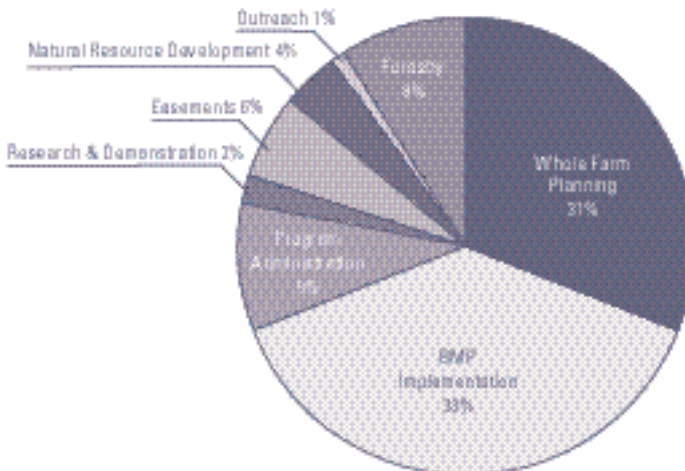
Watershed Agricultural Council
33195 State Highway 10, Walton, NY 13856
phone • 607-865-7790 fax • 607-865-4932



2001 REVENUES



2001 EXPENSES



Watershed Agricultural Council of the New York City Watershed, Inc.
SCHEDULE OF ACTIVITIES BY PROGRAM - UNRESTRICTED
 FOR THE YEARS ENDING JUNE 30, 2001 AND 2000

| | 2001 | 2000 |
|--|--------------------|--------------------|
| Revenue: | | |
| Program Services: | | |
| Whole farm planning | \$2,048,203 | \$1,805,185 |
| BMP implementation & construction | 2,277,727 | 3,009,392 |
| Program administration | 633,162 | 746,992 |
| Forestry | 542,753 | 291,47 |
| Economic development | .0 | 57,975 |
| Natural Resource Development | 78,909 | |
| Education and outreach | 110,510 | 36,822 |
| Easements | 682,898 | 446,008 |
| Research & Technical | 235,001 | 113,000 |
| Total Program Revenue | 6,609,163 | 6,506,846 |
| Other Revenue: | | |
| Federal awards | 316,826 | 141,347 |
| Foundation grants | 27,710 | 11,520 |
| Interest | 79,185 | 51,398 |
| Economic development and other grants | 289,052 | 204,299 |
| Acquisition of plant equipment | .0 | 0 |
| Donated Services | 252,613 | 273,278 |
| Total Other Revenue | 965,386 | 681,842 |
| Total Program and Other Revenue | 7,574,549 | 7,188,688 |
| Expenditures: | | |
| Whole farm planning | 1,771,565 | 1,785,782 |
| BMP implementation & construction | 2,503,253 | 2,406,566 |
| Program administration | 579,390 | 558,848 |
| Depreciation | 61,663 | 54,925 |
| Research & technical | 113,631 | 108,818 |
| Easements | 368,915 | 212,284 |
| Economic development | 231,478 | 279,126 |
| Natural Resource Development | 46,966 | |
| Education & outreach | 66,810 | 42,376 |
| Forestry | 609,570 | 356,217 |
| Donated services | 252,613 | 273,279 |
| Acquisition of fixed assets | (31,122) | (65,225) |
| Total Expenditures | 6,574,732 | 6,012,996 |
| Excess (Deficiency) of Revenues over (Under) Expenditures | 999,817 | 1,175,692 |
| Net Assets, Beginning | 3,253,045 | 2,077,353 |
| Net Assets, Ending | \$4,252,862 | \$3,253,045 |



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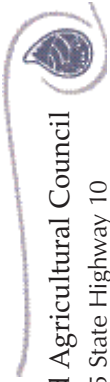
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