



# **Watershed Agricultural Program 2012 Annual Report and 2013 Workload**

**for the New York City Catskill/Delaware and Croton Watersheds  
March 2013**



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*Cover Photo: Brian Danforth  
Report Photos: WAP Staff*

## PRIMARY FUNDING SOURCES



## Protecting Water Quality in the Catskill/Delaware

In 2012, the Watershed Agricultural Program (WAP) implemented 291 Best Management Practices (BMPs) on 111 farms totaling over \$2.5 million. The Program partners with local county Soil and Water Conservation Districts (SWCD) and the USDA Natural Resources Conservation Service (NRCS) to provide technical design and implementation of water quality BMPs. Farm participants actively followed 346 Whole Farm Plans (WFPs) and 286 Nutrient Management Plans (NMPs) in the Catskill/Delaware Watersheds and 65 WFPs and 48 NMPs in the Croton Watershed. A percentage of the Nutrient Management Plans are reviewed and updated annually. Funding provided by New York City Department of Environmental Protection (DEP), the USDA and other sources helped the Program realize its goals.

The WAP continues to partner with NRCS to encourage conservation of natural resources through provisions of the Agriculture Water Enhancement Program (AWEP). AWEP monies awarded in 2012 for structural BMPs totaled \$300,000. This was the final funding year for this grant which provided over \$1.5 million for water quality projects. A 2010 AWEP grant with a 5-year agreement awarded \$80,388 in 2012 to 12 new farm participants to assist in the development and compliance of Nutrient Management Plans. As a result of all AWEP Nutrient Management contracts, 33 AWEP participants received \$285,555.

Through the USDA Conservation Reserve Enhancement Program (CREP), 29.0 acres in riparian forest buffers were enrolled in 2012. CREP helps fence animals out of the surface water supply and provides for more filter areas to improve water quality.

The WAP continues to partner with Cornell Cooperative Extension (CCE) to provide educational programs to area farmers. In 2012, 778 farmers and farm advisors attended 33 educational programs.

In 2012, the Quality Management Assistance (QMA) Program was introduced to increase on-farm water quality and economic viability by providing technical and quality assistance for existing and scheduled BMPs on participating farms. Program planners focus their efforts on six management areas: Prescribed Grazing, Calf Raising, Crop Production, Effective Pest Management, Manure Management and Precision Feed Management. Staff and participants established goals to improve management in these areas along with increased profitability and BMP effectiveness. In 2013, additional participants will be selected, based on their needs identified in the Annual Status Reviews (ASR).

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# Watershed Agricultural Program

## 2012 Planning Goals and Accomplishments

Catskill/Delaware Large Farms		Catskill/Delaware Small Farms		Croton Watershed	
Goal	Accomplishment	Goal	Accomplishment	Goal	Accomplishment

Annual Status Reviews					
248	233	90	83	60	54

New Whole Farm Plans					
as identified	0	10	6	6	3

## 2012 Implementation Accomplishments – Funding

BMP - Funding Sources	Catskill/Delaware Large Farms	Catskill/Delaware Small Farms	Croton Watershed	Total
<b>Watershed Agricultural Program</b>				
- Non-CREP BMPs	\$ 580,067	\$ 280,339	\$ 479,854	\$ 1,340,261
- CREP (WAP)	\$ 59,475	\$ 43,124	-	\$ 102,599
Total Watershed Agricultural Program Funding	\$ 639,543	\$ 323,463	\$ 479,854	\$ 1,442,860
<b>Other Funding Sources</b>				
- CREP (FSA)	\$ 59,063	\$ 41,549	-	\$ 100,612
- DCSWCD	\$ 35,984			
- EQIP	-	-	\$ 10,245	\$ 10,245
- Landowner	-	-	\$ 88,031	\$ 88,031
- AWEP	\$ 765,608	\$ 108,331	-	\$ 873,939
Total Other Funding Sources	\$ 860,655	\$ 149,880	\$ 98,276	\$ 1,108,811
<b>Total Funding</b>	<b>\$ 1,500,197</b>	<b>\$ 473,343</b>	<b>\$ 578,130</b>	<b>\$ 2,551,670</b>

## 2012 Implementation Accomplishments – Number of BMPs

NRCS/WAC BMP Code	Best Management Practices	Catskill/Delaware Large Farms	Catskill/Delaware Small Farms	Croton Watershed	Total
313	Waste Storage Facility *	3	1	3	7
314	Brush Management		1		1
317	Manure Composting Facility *			2	2
340	Cover Crop	2		3	5
360	Closure of Waste Impoundment	1	2		3
362	Diversions *		4	2	6
382	Fencing *	15	14	1	30
390	Riparian Forest Cover			3	3
391	Riparian Forest Buffer	1	2		3
393	Filter Strip *	3			3
412	Grassed Waterway			1	1
468	Lined Waterway			1	1
500	Obstruction Removal	1			1
512	Pasture & Hayland Planting	1	1		2
516	Pipeline		5	1	6
528	Prescribed Grazing	2		2	4
533	Pumping plant			1	1
558	Roof Runoff Management System *	1	1	4	6
560	Access Road Improvement *	2	3		5
561	Heavy Use Area Protection *	4	1	5	10
574	Spring Development *	4	6		10
575	Animal Trails and Walkway *	5	1	1	7
578	Stream Crossing	3	3	2	8
580	Streambank Protection *	2			2
584	Gully Stabilization *	1			1
587	Structure for Water Control		1		1
590	Nutrient Management Plan	67	32	10	109
595	Pest Management	3			3
606	Subsurface Drain *	1	1	3	5
612	Tree & Shrub Planting	5	4		9
614	Watering Facility	2	1	1	4
614.07	Watering Facility - Heated Winter Waterer*	1			1
620	Underground Outlet	1	1	1	3
634	Waste Transfer System	2			2
635	Vegetated Treatment Area			7	7
642	Well	1			1
707	Barnyard Water Management System *	2			2
3010	Roofed Barnyard	1	1		2
3050	Waste Storage Facility	1	2		3
3110	Calf Greenhouse *	3			3
3120	Calf Hutches *	1			1
3125	Calf Kennel	1			1
3175	Enhanced Nutrient Management Credit	1			1
3178	Manure Transportation Credit	1			1
3420	Bucket Loader		1		1
3425	Dump Trailer *	1	1		2
3450	Manure Agitator Pump	1			1
<b>Total</b>		<b>147</b>	<b>90</b>	<b>54</b>	<b>291</b>

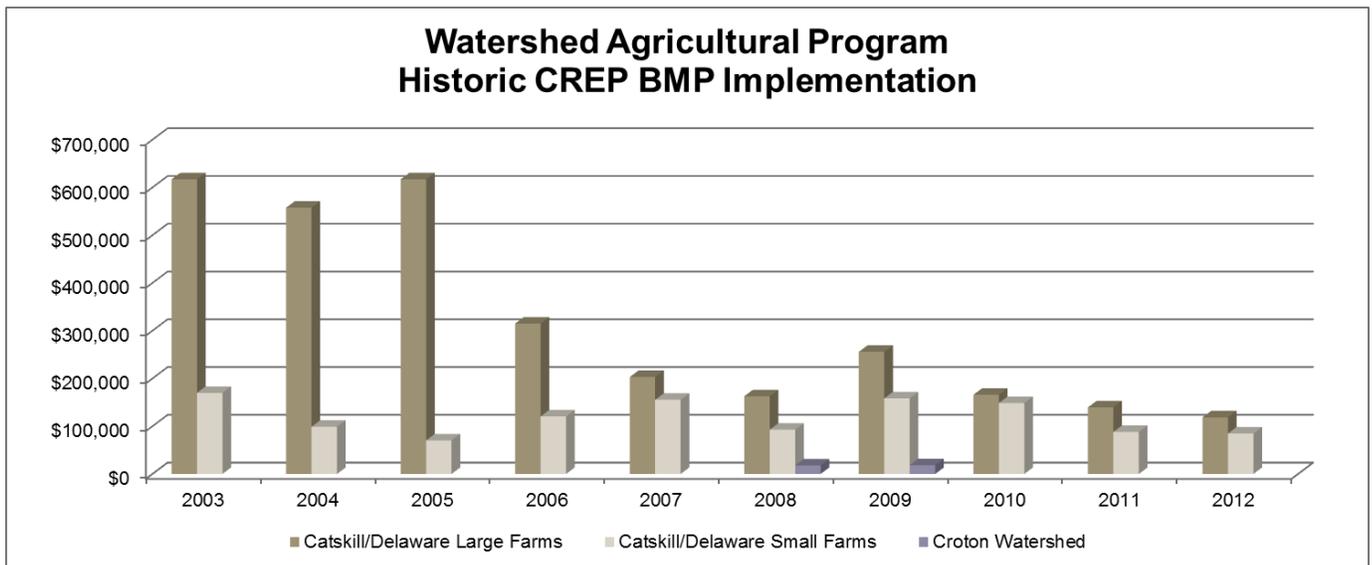
\* Contains a modification, emergency repair, repair or repair and replacement BMP.

## USDA Conservation Reserve Enhancement Program (CREP) 2012 Accomplishments

The USDA CREP Program within the NYC Watershed Agricultural Program utilizes the talents found within the multi-agency team assigned to work in the Watershed to promote, design and establish both Riparian Forest Buffers and Vegetative Buffers along watercourses. This year marked the 14th full year of the New York City Watershed Conservation Reserve Enhancement Program (CREP) Memorandum of Agreement between New York City, New York State and the United States Department of Agriculture (USDA). In 2012, three Riparian Forest Buffer contracts (two new and one renewal) enrolled an additional 32.1 acres, and three contracts expired bringing the total number of enrolled acres to 2,051.7.

### 2012 Total Implementation Expenditures

Total Rental Payments (USDA)	\$ 54,672
Sign-Up Incentive Payment (SIP-FSA)	\$ 3,590
Practice Incentive Payment (PIP-FSA)	\$ 94,011
BMP Cost (FSA)	\$100,612
BMP Cost (WAP)	\$102,599



Program	99-2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Catskill/Delaware Large Farms	\$2,070,038	\$616,995	\$557,601	\$616,929	\$315,034	\$202,979	\$162,811	\$255,789	\$165,823	\$139,466	\$118,538	\$5,222,003
Catskill/Delaware Small Farms	\$ 185,096	\$169,888	\$ 98,829	\$ 70,182	\$120,534	\$155,360	\$ 92,777	\$158,378	\$148,507	\$ 87,957	\$ 84,673	\$1,372,181
Croton Watershed							\$ 17,968	\$ 18,547	\$0	\$0	\$0	\$ 36,515

## Nutrient Management Program 2012 Accomplishments

The Nutrient Management Team (NMTeam) is a multi-agency team that assists farmers in improving phosphorus and pathogen management. Nutrient Management Plans (NMPs) are designed to manage the amount, source, placement, form and timing of the application of nutrients from fertilizer, manure, and other organic sources. All plans are compliant with the NRCS 590 Standard and use the NY Phosphorus Index and Cornell University guidelines to ensure that environmental soundness and crop productivity are achieved.

The NMTeam supports the farmer in implementing a NMP, which will result in protection of water quality and producing optimum yields.

In planning year 2012, the Nutrient Management team completed 99 nutrient management plans (67 large farms and 32 small farms). The breakdown of each category and percent current as of 1/1/2013 follows below.

**Table 1. Large Farm NMP status as of 1/1/2013**

Status	Number of Farms	% of Farms with NMPs
Current NMPs	174	96.7
Plans 1 years out of date	2	1.1%
Plans 2 years out of date	2	1.1%
Plans 3 years out of date	0	0%
Plans >3 years out of date	1	0.6%
Needs NMP	1	0.6%
Total	180	

**Table 2. Small Farm NMP status as of 1/1/2013**

Status	Number of Farms	% of Farms with NMPs
Current NMPs	70	76.9%
Plans 1 years out of date	0	0%
Plans 2 years out of date	0	0%
Plans 3 years out of date	0	0%
Plans >3 years out of date	0	0%
Needs NMP	21	23.1%
Total	91	

### Nutrient Management Credit (NMCredit)

The NMCredit Program encourages good stewardship of manure resources to improve water quality and provides the WAP a means to enhance implementation of NMPs. In 2012, 82 farms participated in the NMCredit Program and earned \$332,512 in credits that they can utilize to reimburse nutrient management related expenses. The WAP also reviewed and approved manure spreading records for 21 farms participating in the NRCS AWEPP program, which is similar to NM Credit, but extends beyond the Cannonsville Basin. These farms earned a total of \$59,584 in federal funds for implementing their nutrient management plans. In partnership with the NRCS, the WAP extended the program to twelve additional farms in 2012.

## Farmer Education Program

The Farmer Education Program supports the water quality protection and farm viability mission of the Watershed Agricultural Council by providing educational programs that enhance farmers' abilities to manage their operations more profitably and in a way that nurtures their natural resources. In total, 33 educational programs were offered during 2012 with a total attendance of 778, including at least one person from 128 different Watershed Agricultural Program participating farms.

New farmers, new crops, new markets, and new practices were a focus of events for the WAP Farmer Education Program. Farmers had a chance to learn the basics of poultry production and beef production, both in the classroom and with hands on demonstration. Dairy farmers checked out the newest ideas on calf production, and crop growers got together to learn about growing soybeans.

Attendance	Farmer Education Events 2012
115	Catskill Regional Dairy Livestock & Grazing Conference
9	Managing Windfalls
10	Farm Investments
48	Basics of Poultry Production (3)
60	Sheep and Goat Producers Group (6)
118	Nutrient Management Workshop (3)
36	Group-Housed Dairy Calf Symposium
13	Calf Health Workshop
22	Calf Facility Open House
68	No-Till Tour – Kemmeren Farm
43	No-Till Crop School
67	Eklund's Processing Tour
7	Catskill Grazers Group: Joe Eisele Farm
13	VT Grazing Tour
8	Beef Producers Group (2)
48	Beef Production for Beginners (3)
48	Dairy Producers Group (3)
45	Home Grown Grain Producers Group (3)
778	Total

### Attendee Demographics:

Watershed Farmers	397
Other Farmers	311
Farm Advisors	141
Others	29



## Putting the Face on Buying Local

The Farm to Market Program made significant strides in 2012. Along with promoting the Pure Catskills buy local campaign's growing membership, the Program collaborated with others in support of the local food system, networking, educational efforts related to land access, beginning farming in the Catskills, and technical training related to marketing and business administration.

Pure Catskills membership grew to 207 in 2012, further strengthening the region's local food access and the community's ability to organize in support of growing demands for fresh, local products. Forty thousand copies of the *Guide to Farm Fresh Products* were distributed throughout the region. Improvements to PureCatskills.com now enable consumers to search for members by county. The "Fresh From the Catskills" campaign, made possible through a New York State Ag & Markets USDA Specialty Crop Block Grant, expanded the buy local effort for tomatoes, squash and holiday evergreens. Program staff also attended over 50 events at which Pure Catskills members and sample products were featured.

In March, the annual Farm to Market Connection brought together over 120 farm and food representatives from the Catskills and beyond. Curbside consulting sessions connected one-on-one participants with regional marketing and business development specialists. Workshops included hot topics like online marketing, culinary tourism, cooperative marketing and regional distribution.

Catskills FarmLink, an online resource connecting landowners with farmers seeking productive lands, celebrated two successful "links" in 2012. In April, Migliorelli Farm of Dutchess County expanded its operation by leasing an Ulster County farmstand. In June, a local farmer relocated her growing heifer herd to a 500+ acre farm in Bovina where she plans to begin milking in 2013.

Catskills CRAFT (Collaborative Regional Alliance for Farmer Training), a grassroots farmer-to-farmer networking group, offered seven events at which participating member and mentor farmers learned the tricks of seed starting, rotational grazing, and vegetable production, while networking and socializing.

The Program again received a \$15,000 grant from Farmhearts to continue the beginning farmer-focused initiatives started in 2011. In November, beginning farmer Eleanor Blakeslee-Drain accepted the Farmhearts fellowship position. Eleanor launched her own farm operation, Berry Brook Farm in Roscoe last year, from which she sold at the local farmers' market, direct to stores, restaurants and caterers, and through a 10-week CSA. Working with regional as well as national organizations, Eleanor will dedicate her fellowship to sharing her story as a beginning farmer in the Catskills while maintaining the programmatic mechanisms that offer land access, educational resources, training and networking opportunities to beginning farmers.

The Council approved a new tool for online selling, the Pure Catskills Marketplace, which is scheduled to launch mid-year 2013. The Marketplace offers farm, food and wood businesses the opportunity to sell beyond the region through a web-based platform to be marketed and promoted through the Farm to Market Program.

To keep up with the demand of expanding markets, farmer education and producer groups continued to inspire and inform regional farmers with workshops ranging from grazing, calf and nutrient management, raising poultry, and organic vegetable production, to using smartphones and tablets on the farm and at market.



Supporters put a face to buying local at events like the Cauliflower Festival, New Green City, and the Delaware County Fair.

## Bovina, Delaware County

### Covered Manure Storage

Webcrest Farm is a 438-acre dairy farm. Owned and operated by Ed and Donna Weber, the farm sits at the headwaters of the Little Delaware River in the Town of Bovina in the Cannonsville Reservoir basin. The business raises 52 Holstein milk cows and 38 replacements on an intensive, rotationally grazed, pasture system.

In the late 1980s, a 100'x104' 9-foot deep earthen storage pit served as a temporary retention pond. Fed by a 30-inch gravity-driven steel pipe from a manure "hopper" inside the dairy barn, the storage pit emptied either through another 30-inch gravity pipe exiting the downhill berm or with a manure agitation pump at the concrete access ramp. The original earthen

storage pit was not designed to handle the addition of liquid milk-house waste. Years with a high annual rainfall created management and spreading issues as well. The increased volume of unplanned liquid forced the Weber's to load and spread manure in January on fields not accessible with the farm's high-capacity manure truck.

The solution came with the construction of a 70'x135' x10' deep, covered, concrete manure storage tank located on the same foot print as the original earthen storage. The new structure provides increased capacity from 365,000 gallons to 706,860 gallons (87,500 cubic feet).

The new storage is filled by the existing 30-inch, gravity-driven steel pipe from the manure "hopper" inside the dairy barn and receives the existing input of liquid milk-house waste. The storage access for agitation and unloading occurs on two hard surface ramps at either end of the structure. A new trailer-mounted, vertical access pump replaces the old manure agitation pump. Additionally, the entire structure is now covered, eliminating snow and rainfall accumulating within the storage. Completed just in time for snowfall, the new structure provides three months storage capacity and prevents forced spreading on sensitive or inaccessible wintertime fields.



Covered Manure Storage - After



Earthen Manure Storage - Before

The project was constructed by David Stanton of Walton. The WAP team included NRCS Planner Brandon Dennis, WAC Engineering Specialist Tim Hebbard, and Jason Skinner, P.E. Partial funding through USDA's Agricultural Water Enhancement Program (AWEP) totaled \$300,000 for this project.

## Walton, Delaware County

### Covered Manure Storage

### Covered Feeding Area

The Carman Farm is a recent start-up, small livestock operation owned by Rodney and Peggy Carman. The couple raises beef, hogs and horses on 100+ acres. They market their beef and pork directly to consumers in and around the Walton area.

The farm posed several resource concerns including a spring flowing through the farm's agricultural activities causing large amounts of manure runoff that flowed into the nearby



Water quality concerns at Carman Farm: 1) a spring flowed through the farm bringing manure runoff into the nearby stream. 2) the feeding area hosted high nutrient concentration; 3) manure cleanup was extremely difficult; 4) existing feeding practices promoted overgrazing and allowed animals stream access.

stream. The winter feeding area, also in a hydrologically sensitive area, had no adequate filtering area for run-off before it reached the stream.

Manure cleanup from this feeding area was extremely difficult. Years of feeding in

the same spot created a concentration of nutrients. Overgrazing and livestock access to streams also posed challenges to water quality.

In 2010, the Small Farms Program installed a riparian buffer with fencing, alternative water supply, and plantings. This simple BMP excluded the cattle and horses from the farm's streams. Additional grazing paddocks, another easy fix, alleviated overgrazing issues. Lastly, an outlet was constructed to capture the spring and pipe it safely underground, thereby preventing any clean water from reaching the manure pile and feeding areas. Roof runoff controls of clean water like drip trenches and gutters were installed on the existing barns to divert clean water away from the concentrated manure sources.

The second stage, funded through USDA's Agricultural Water Enhancement Program (AWEP), included a covered manure storage and a covered feeding area to control the manure runoff from these areas.

The 40'x40' covered manure storage consisted of a concrete wall for containment, concrete floor to facilitate clean up, and space for three months storage of manure. A ramp allows easy access to empty the storage as part of the farm's Nutrient Management Plan.

A 30'x72' covered, concrete heavy-use area allows for the feeding of the beef herd through winter. The roof also excludes clean water from entering the area. A heated water trough placed on the pad provides a sheltered place for animals to drink. Rodney installed headlocks at his own expense to help in feeding the cattle. Improved gravel access lanes between the structures



New facilities allow for manure to be collected, stored, and spread in accordance with a Nutrient Management Plan. The Whole Farm Plan incorporates water quality practices that prevent nutrient-laden run-off from entering nearby streams.

now facilitate machinery movement of manure from the barnyard to the storage.

Both facilities allow for manure to be collected, stored, and spread in accordance

with a Nutrient Management Plan. This allows for effective nutrient distribution

across the farm's land base and prevents runoff of nutrient-laden water into nearby ponds and streams, thus improving water quality.

The project was constructed by SB Enterprises of Bainbridge. Owner Sam Byler and his crew worked extensively with the farmer and the planning/implementation team: NRCS Planner Dan Flaherty, SWCD Civil Engineering Technician Henry Sander, and Jason Skinner, P.E.

The Carmans are pleased with the project outcome and feel that the improvements will help in their winter feeding and manure management. They also feel that water quality will be greatly improved with the BMPs implemented on their farm.

## Delhi, Delaware County

### Covered Barnyard

The water quality issue on Tom Kaufman's beef farm in the Town of Delhi involved an existing 25' x 48' heavy-use area concrete pad, situated at the end of the barn and base of a hill. The site allowed runoff water to collect where beef cows stepped off into pasture creating a very muddy situation. A pond 30 feet away downhill from the area received the sediment-laden runoff.

The solution called for a covered barnyard. New construction added 10 feet of concrete floor, a one foot perimeter curb to catch runoff, and 4-foot corner buckwall. The floor space is roofed with clear sky panels, staggered at every third interval. A crushed-stone drip trench collects both roof water and sub-surface seeps, and drains clean water to the pond, keeping the animal walkway to pasture dry and stable. "I'm impressed with the quality construction," says Tom. "It will keep my cows more comfortable, the insulated water trough provides cows fresh water, and manure cleanup will be much easier with the buckwall."



The project was constructed by Loitsch Construction Co. of Otego. The WAP team included WAC Assistant Planner Dan Vredenburgh, DCSWCD Certified Engineering Specialist Jeffrey Russell, and Jason Skinner, P.E.



## Roxbury, Delaware County Covered Manure Storage

In the Town of Roxbury, a covered manure storage was built for Bill VanValkenburgh. “We have been struggling with an earthen storage pad for years” stated Bill. “Every year rocks would get scraped up with the manure which is hard on the spreader.” Not only that but spring seep in the pit caused a plume of manure laden water to flow out into the pasture below, stated SWCD Civil Engineering Technician, Brian Danforth.



Earthen Storage - Before

To remedy this situation, a concrete manure storage was built 300 feet across the road from the dairy barn. Because the barn is next to a stream and other out buildings are close by, it was not feasible to pump the manure into a slurry tank. It was the VanValkenburgh’s desire to continue dealing with a semi-solid manure and storing manure only when field conditions would not allow daily spreading. That necessitated the roof with two and half foot eaves. Shade cloth on the chain link safety fence will keep snow from drifting into the storage.

The manure storage is 50’ wide by 136’ long with a 60’ long ramp going down into the 6’ storage depth. There is a 72’ flat bottom which gives enough volume for six months of storage from the 120 milkers and youngstock. The 50’ width gives ample room to drive the spreader into the storage to deposit or remove manure.



Covered Storage - After

Aside from the environmental benefits, the best part is, Bill will never have another stone run through the manure spreader.

This project was partially funded through the partnership agreement with the USDA Natural Resources Conservation Service (NRCS) through provisions of the Agricultural Water Enhancement Program (AWEP) which allowed NYC Watershed Agricultural Program funds to extend to additional BMP implementation.

## Farming East of the Hudson

At the start of 2012—with 62 farms enrolled in the East of Hudson (EoH) Program, 250 BMPs on the books and five EoH Agricultural Program staff members—it was clear that priorities needed to be established for the Program to deliver water quality protection measures as efficiently as possible with the resources at hand.

This first year, a comprehensive prioritization strategy was implemented, not only for the EoH Agricultural Program but organization-wide. Through a peer-reviewed and Committee-approved process, the scheduling of BMP installation took on a whole new set of considerations. Each participant was now ranked according to water quality risk. Several factors were evaluated including soil phosphorus levels in fields, the number of horses or livestock per acre, pasture and farm locations within priority reservoir basins. Once the farms are ranked, BMPs are prioritized based on the pollutant they were planned to control.

Riparian buffer establishment took the highest priority followed by the control of parasites and phosphorus from animal waste storage areas. Thirty-six structural and eighteen non-structural BMPs were implemented on the most at-risk farms in 2012 totaling \$578,130. Of that, \$98,276 were non-WAC contributions in the form of landowner or USDA Environmental Quality Incentives Program cost shares.

This new science-based approach to BMP scheduling was considered a success. Throughout the entire process, we gratefully acknowledge and appreciate the patience of our participants while we work our way through planned, lower priority BMPs in the coming years.



**BEFORE:** This pile represents years of manure accumulation in a hydrologically sensitive area within the East Branch Reservoir basin. Storm water enters the pile area uncontrolled and leaves the pile untreated.

**AFTER:** This completed storage facility in Putnam County now effectively contains manure while directing runoff to a vegetated treatment area. A local plant nursery owner in need of compost now hauls out the material for free. The area adjacent to the facility was seeded and now serves as a buffer between the facility and a watercourse. Clean storm water from an indoor riding arena roof upslope from the facility is now diverted around the area with the installation of a drip trench and underground outlet.



Riparian buffer work at this Westchester County farm turned a muddy, messy, sediment laden waterway (inset) into a stable streambank and healthy ecosystem that benefits water quality (above).

## 2013 Planning Goals

Catskill/Delaware Large Farms	Catskill/Delaware Small Farms	Croton Watershed
Goal	Goal	Goal
<b>Annual Status Reviews</b>		
245	104	61
<b>New Whole Farm Plans</b>		
as identified	10	7

## 2013 Projected Design & Implementation Workload

BMP - Funding Sources	Catskill/Delaware Large Farms	Catskill/Delaware Small Farms	Croton Watershed	Total
<b>Watershed Agricultural Program</b>				
- Non-CREP BMPs	\$ 2,227,388	\$ 808,759	\$ 1,140,025	\$ 4,176,172
- CREP (WAP)	\$ 152,822	\$ 113,013	\$ -	\$ 265,835
<b>Total Watershed Agricultural Program Funding</b>	<b>\$ 2,380,210</b>	<b>\$ 921,772</b>	<b>\$ 1,140,025</b>	<b>\$ 4,442,007</b>
<b>Other Funding Sources</b>				
- CREP (FSA)	\$ 152,822	\$ 113,013	\$ -	\$ 265,835
- AWEP	\$ 42,950	\$ 2,520	\$ -	\$ 45,470
- DCSWCD	\$ 57,656	\$ 81,475	\$ -	\$ 139,131
- EQUIP	\$ -	\$ -	\$ 3,012	\$ 3,012
- Landowner	\$ -	\$ -	\$ 129,622	\$ 129,622
- Other Miscellaneous	\$ -	\$ -	\$ -	\$ -
<b>Total Other Funding Sources</b>	<b>\$ 253,428</b>	<b>\$ 197,008</b>	<b>\$ 132,634</b>	<b>\$ 583,070</b>
<b>Total Projected Workload*</b>	<b>\$ 2,633,638</b>	<b>\$ 1,118,780</b>	<b>\$ 1,272,659</b>	<b>\$ 5,025,077</b>

\* The Total Projected Workload represents BMPs in various stages of implementation. Not every BMP will be implemented (certified and paid) in 2013. For the calendar year 2013, the Catskill/Delaware Watershed Agricultural Program projects total BMP implementation in the amount of \$2,200,000.

## 2013 Projected Design & Implementation Workload – Number of BMPs

NRCS/WAC BMP Code	Best Management Practices	Catskill/Delaware Large Farms	Catskill/Delaware Small Farms	Croton Watershed	Total
313	Waste Storage Facility *	4	2	3	9
314	Brush Management		1		1
317	Composting Facility	1		5	6
340	Cover Crop			2	2
350	Water & Sediment Control Basin			2	2
360	Closure of Waste Impoundment	1			1
362	Diversion	5	4	4	13
378	Pond *	2			2
382	Fencing *	24	33	10	67
390	Riparian Herbaceous Cover (EQIP)			1	1
410	Grade Stabilization Structure	1		1	2
411	Grasses and Legumes	1			1
412	Grassed Waterway	2	1	3	6
468	Lined Waterway		2	3	5
472	Use Exclusion			1	1
510	Pasture Planting	1			1
512	Pasture & Hayland Planting	2		1	3
516/614	Pipeline and Trough *	6	11	1	18
528	Prescribed Grazing		1	3	4
533	Pumping Plant	1			1
558	Roof Runoff Management System *		7	9	16
560	Access Road Improvement	2	3	4	9
561	Heavy Use Area Protection *	3	15	17	35
574	Spring Development *	15	7		22
575	Animal Trails and Walkway *	20	9	1	30
578	Stream Crossing		3		3
580	Streambank Stabilization *	4	3		7
587	Structure for Water Control	1	3	6	10
590	Nutrient Management Plan	50	33	5	88
595	Pest Management			2	2
606	Subsurface Drain	1	1	2	4
612	Tree & Shrub Planting	2	3	1	6
614	Watering Facility *	5	6	1	12
620	Underground Outlet *	3	7	4	14
634	Waste Transfer System *	2			2
635	Wastewater Treatment Strip *	1		10	11
642	Well		2		2
701	Agricultural Chemical Handling Facility			4	4
3010	Roofed Barnyard *		4		4
3050	Covered Manure Storage/Barnyard	2	6		8
3100	Calf Kennel	2			2
3110	Solar Calf Housing *	3			3
3120	Calf Hutches *	1			1
3178	Manure Transportation Credit	4			4
3410	Manure Spreader	2			2
3420	Front-End Loader		1		1
3440-03	Manure Chute	1			1
3730	Solar Pump Repair *	1			1
4100	Washwater Infiltration System			1	1
	Irrigation Water Management			1	1
	Bio Retention Area			1	1
<b>Total</b>		<b>176</b>	<b>168</b>	<b>109</b>	<b>453</b>

\* Contains a modification, emergency repair, repair or repair and replacement BMP.

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