The Acton Wakefield Watersheds Alliance

Youth Conservation Corps

2024 Season Report

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Special Thanks to Our Business Partners for 2024

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McKenzie's Farm – Sharper Image Salon – C&G Pizza

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About AWWA

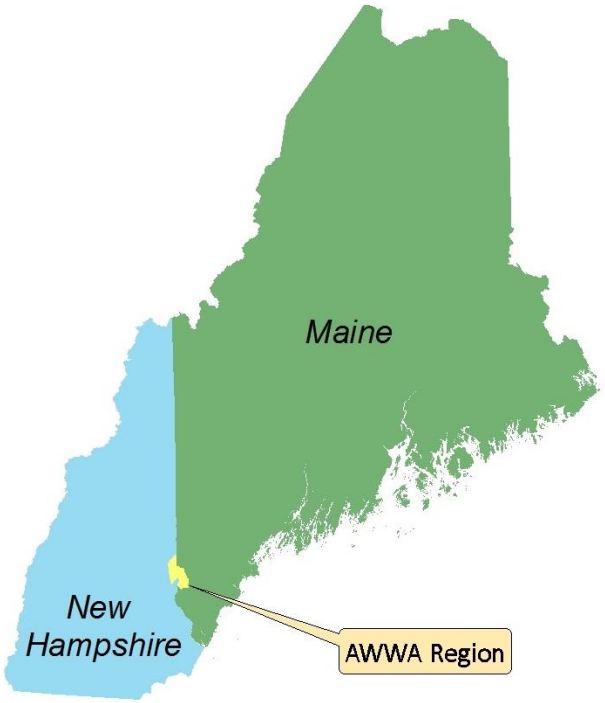
Mission

The mission of the Acton Wakefield Watersheds Alliance is to protect and restore water quality to maintain the social, economic, and environmental stability of our towns and the region.

The AWWA community includes representatives of local lake associations, members of town committees including planning boards, and local residents. Our partners include University of New Hampshire and University of Maine Cooperative Extensions, Maine Department of Environmental Protection (DEP), New Hampshire Department of Environmental Services (DES), York County Soil & Water Conservation District, and local lake associations.

Watersheds

The AWWA Youth Conservation Corps (YCC) focuses its efforts on the Salmon Falls-Piscataqua and Saco River watersheds within the towns of Acton, Maine, and Wakefield, New Hampshire. AWWA currently services ten (10) water bodies within these watersheds – Balch Lake, Belleau Lake, Branch River, Horn Pond, Great East Lake, Lake Ivanhoe, Lovell Lake, Pine River Pond, Province Lake, and Wilson Lake.



Executive Summary

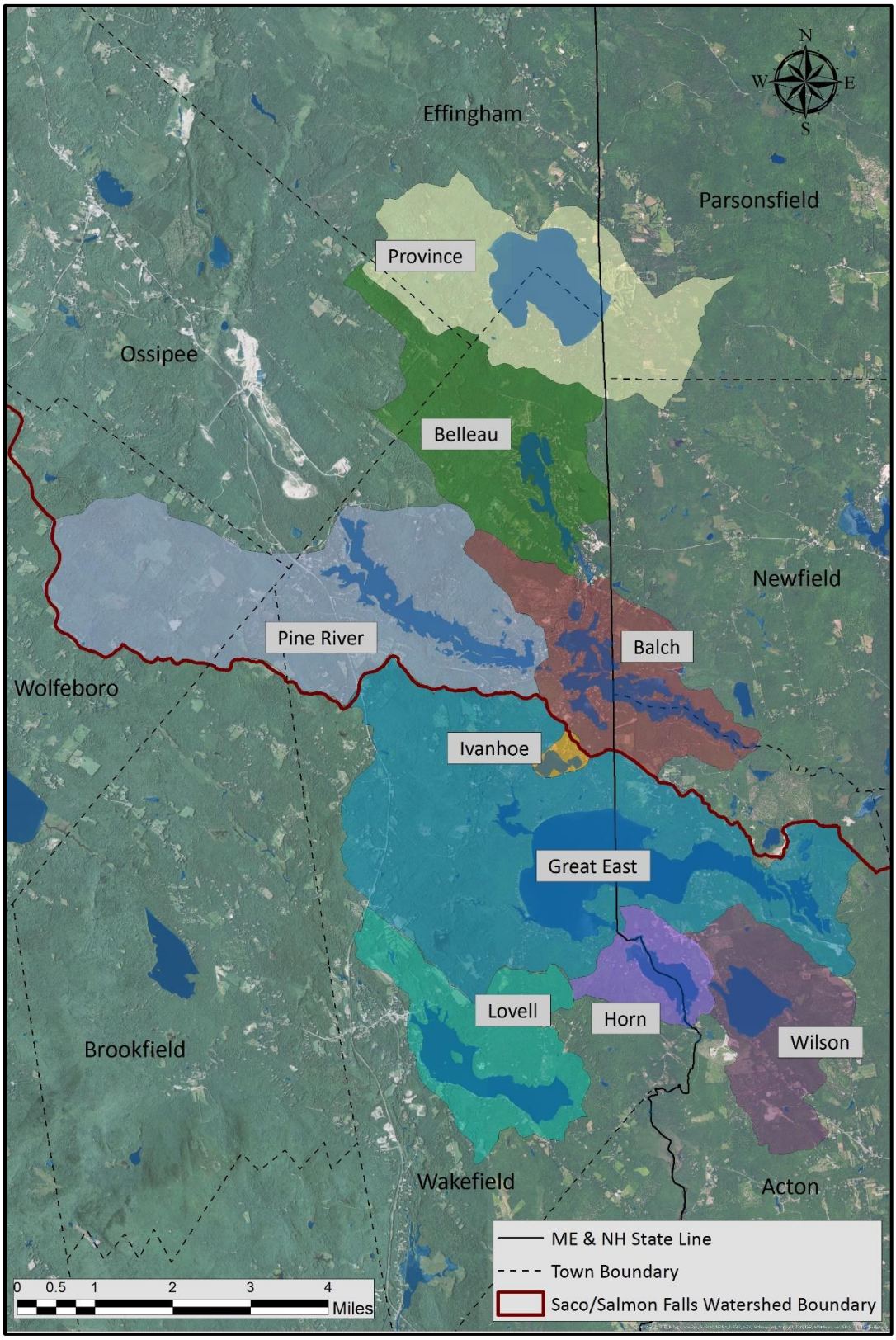
The Acton Wakefield Watersheds Alliance, a non-profit organization established in 2005, is dedicated to protecting and restoring the water quality of the lakes, ponds, rivers, and streams of Wakefield, New Hampshire, and Acton, Maine. AWWA staff members and volunteers work within the communities to strengthen the understanding that what happens on land determines the health of the local waters. Healthy waterbodies provide essential benefits to our communities as a natural resource, wildlife habitat, recreational opportunity, and economic engine.

AWWA's Youth Conservation Corps (YCC) program was developed to implement erosion control projects in the region. The program is designed to reduce pollution caused by runoff from rain events and seasonal meltwater that flows into our local lakes, rivers, and streams. We do this through the installation of Stormwater "Best Management Practices" (BMPs): landscape features that promote the infiltration of runoff or divert the runoff away from the lake toward vegetation where it can soak into the ground. Each project showcases solutions to environmental problems faced by waterfront properties that landowners can do themselves.

The process starts with a technical assistance visit between the homeowner and the AWWA program coordinator. During this initial meeting, the discussion centers on how the homeowners use their property, identifying areas with erosion, and going over potential fixes. Homeowners receive a free technical assistance packet that includes a site design, recommendations, local suppliers, and BMP fact sheets. At this point, homeowners have the option to apply to become a project host for our YCC program, or they can implement the recommendations themselves or hire a contractor. In addition to a landscape design, the program coordinator focuses on educating homeowners on why the design features were chosen, what they will accomplish, and how to maintain them. This process is essential in raising awareness of the relationship between land use and water quality. The AWWA board and staff also focus efforts on local outreach to highlight conservation practices that reduce pollution.

If a site is deemed a high priority for protecting water quality, the homeowner will be selected as a project host for the YCC, who will provide free labor to install the recommended BMPs. The homeowner is only responsible for purchasing the needed materials such as mulch, lumber, plants, and stone. Homeowners are also asked to make an optional donation of 20% of the cost of AWWA's labor. Donations and grants fund the crew's labor. Behind these projects is a crew of eager high school and college-aged youth supervised by a crew leader and the program coordinator. The YCC program gives its youth the opportunity to effect environmental solutions and empowers them to become future stewards of our water resources. Since 2006, the AWWA YCC has completed 344 projects across 13 water bodies in the Wakefield, NH, and Acton, ME regions. These past successes set the bar high, but the YCC exceeds expectations every year and does fantastic work.

Salmon Falls – Piscataqua River and Saco River Watersheds Map



2024 Technical Assistance (TA) Visits

This year, we received technical assistance requests on ten (10) different waterbodies. These requests were the result of recruitment efforts by AWWA at community events, through social media outreach, presentations at lake association meetings, the display of AWWA signs at past project host sites, and word of mouth from neighbors. All these efforts come together to further AWWA's message and grow AWWA's project host program.

In 2024, AWWA conducted 38 TA site visits for property owners who had erosion issues or wished to have their property assessed for issues that could be causing water quality issues. Not every technical assistance site visit results in a design delivered to property owners for use in correcting erosion issues on their property. In some cases, TA visits result in a project being completed in the same year. In other cases, homeowners did not receive designs, as their properties were erosion-free and in good shape. In additional cases, some problems require engineering solutions beyond the scale of a technical assistance visit.

The technical assistance design packets include an introductory letter, an outline of the recommendations, and an explanation of why those specific BMPs were chosen, a landscape design plan, a pledge sheet, a local suppliers list, and fact sheets for the recommend BMPs. The fact sheets outline the purpose, design, and instructions for constructing the BMP.

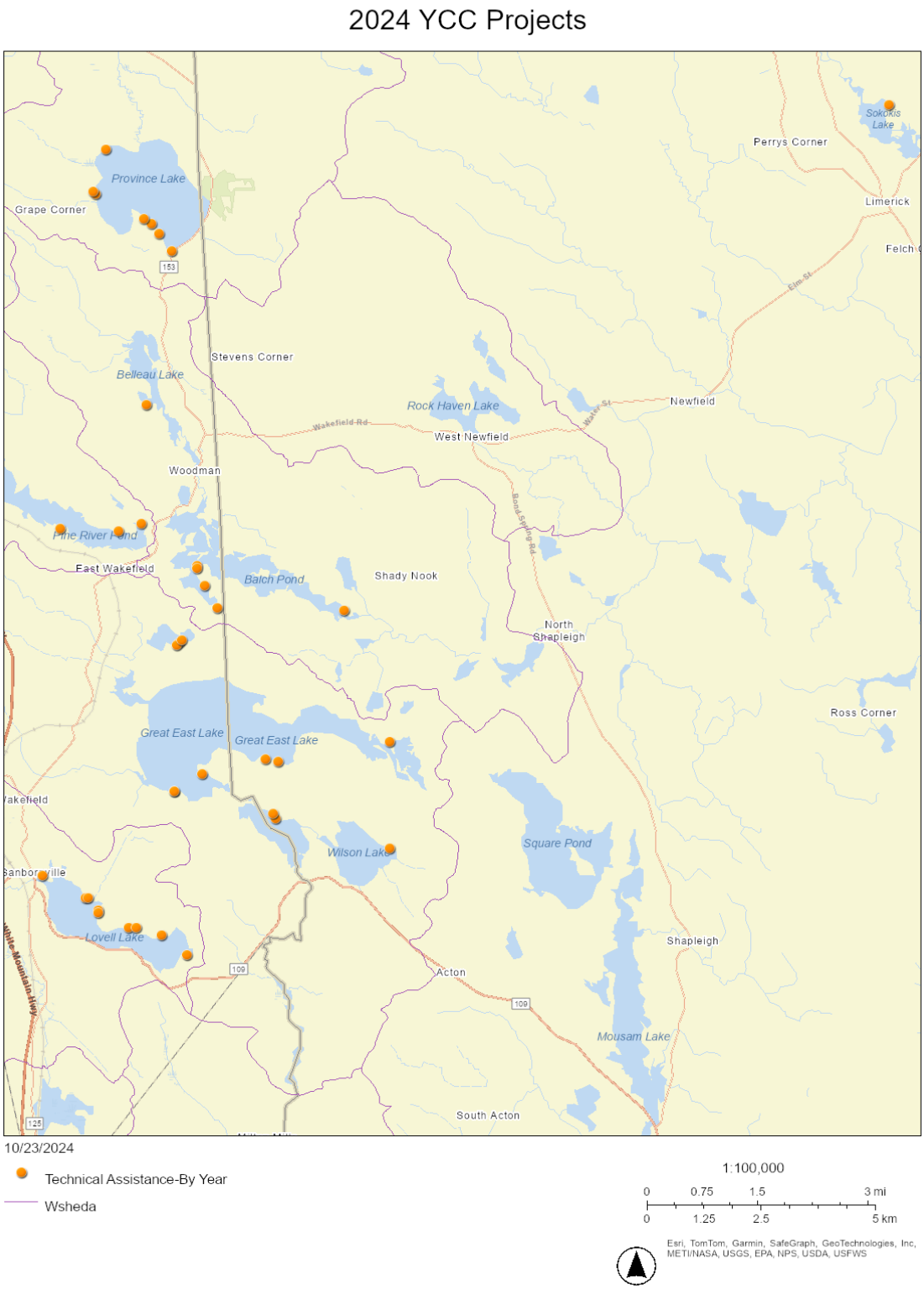
The property owners who do receive design packets sign a pledge stating that they will perform at least one of the recommended designs in the packet within 12 months. Property owners can go about this in several ways. They can do the work themselves, using the BMP fact sheets provided to them; hire a contractor to perform the work; or apply to be part of the AWWA project host program and have the YCC perform the work.

Every year, AWWA contacts the previous year's TA clients and performs reviews of their sites. This is in compliance with the pledge signed by the property owners and allows AWWA to pursue the property owner as a project host or see if the owner needs a new design to fit their budget or landscaping.

2024 YCC Technical Assistance Visits by Lake			
Balch Lake			
1.	Janet Rogers	62 E H Davis Drive	Newfield
2.	Diane Sullivan	58 Tanager Street	East Wakefield
3.	Andy Federline	70 Tanager Street	East Wakefield
4.	Dave Lafrance	85 Wyman Cove Road	East Wakefield
5.	Ed Suleski	138 Cove Road	East Wakefield
Belleau Lake			
6.	Belleau Lake Association Beach	Belleau Lake	East Wakefield
Great East Lake			
7.	Renee Chaput	861 Canal Road	Sanbornville
8.	Carol Jaque	353 Anderson Cove Road	Acton
9.	Charlene Gottlieb	333 Veazey Point Road	Sanbornville
10.	Karleen Sears	364 Ham's Camp Road	Acton
11.	Jason Whitney	273 Ham's Camp Road	Acton
12.	Kim Allat	859 Canal Road	Sanbornville
Horn Pond			
13.	Scott Jordan	73 Mountain View Drive	Acton
14.	Tracy Gaudet	117 Mountain View Drive	Acton
Lake Ivanhoe			
15.	Dal Riley	281 Round Pond Road	East Wakefield
16.	Elizabeth Brosens	309 Rounds Pond Road	East Wakefield
17.	Simon Delekta	343 Round Pond Road	East Wakefield
Lovell Lake			
18.	Vinny Nagle	498 Brackett Road	Sanbornville
19.	Area Princi	42 North Roberts Cove Road	Sanbornville
20.	Valerie Perkins	510 Brackett Road	Sanbornville
21.	Jillian Darling	322 Brackett Road	Sanbornville
22.	Alan Heacock	298 Brackett Road	Sanbornville
23.	Kathy White	72 North Roberts Cove Road	Sanbornville
24.	Stanley Davis	102 Pond Road	Sanbornville
25.	Natalie Leroux	72 Witchtrot Road	Sanbornville
26.	Dave Jacobs	48 Spruce Drive	Sanbornville
Pine River Pond			
27.	Christine Haney	530 Pinewood Shores	Sanbornville
28.	Adin Wolfgram	418 Sparhawk Terrace	East Wakefield
29.	Adele Schweizer	70 Tomahawk Trail	East Wakefield
Province Lake			
30.	David Bourque	4870 Province Lake Road	East Wakefield
31.	Janet Schmidt	134 Point Road	East Wakefield
32.	Marcia Fletcher	47 Lake Shore Drive	Effingham

33.	Mary Saraceno	94 Remick Road	Effingham
34.	Mark Sexton	70 Point Road	East Wakefeild
35.	Becky Lightizer	185 Bonnyman Road	East Wakefield
36.	Bill Brady	108 Remick Road	Effingham
Wilson Lake			
37.	Hal Stansfield	189 Eagle Road	Acton
Sokokis Lake			
38.	Diane Shepherd	17 East Shore Drive	Limerick

2024 Technical Assistance Map



2024 Youth Conservation Corps (YCC) Overview

The 2024 AWWA YCC team consisted of Program Coordinator James Shimansky, Crew Leader Jaden Dussault, and crew members Shawn White, Ava Damon, Isabel Hunt, Tommy Hickey, Sylva Gilmore, and Ellen Winderbaum. This summer, AWWA hired long-time crew member Jaden Dussault as our YCC Crew Leader. Jaden has many years of learning under his belt and was ready to take the next step with AWWA.

This year, the YCC completed 15 projects, amountingto a total of 158 individual BMPs installed on seven different lakes and a Phosphorus load reduction of 33.3 lbs./year. The crew was able to complete many exemplary projects despite multiple cancellations and a general lack of rain driving requests for our services.

Unlike last year, we were able to conduct our annual YCC Tour. We had fifteen guests along with our entire YCC Crew attend the tour. We visited sites on Lovell Lake, Wilson Lake, Balch Lake, and Lake Ivanhoe. Because last year we were unable to conduct our tour, we visited one site from 2023 to show an example of what an ideal site looks like after one year. AWWA's projects are partially funded by grant programs, the communities of Wakefield and Acton, and generous donors, and we seek to continue that support to ensure the continuation of this amazing program. The crew's efforts would not be possible without support from the community and our friends at the state.

Every year AWWA tries to work with other groups in the community to share ideas and learn new ones. This summer, AWWA's YCC Crew had the special opportunity to spend a day at the Branch Hill Farm. They worked with the farm apprentices learning about sustainable agriculture, and the day-to-day life of a farm. The crew did chores such as weeding, spreading mulch, and feeding and moving the animals on pasture. They had the chance to learn a little about the vast history of farming and the common practices during different eras in the past.

How to Count Best Management Practices for YCC Programs

The following list standardizes BMPs by size, which encourages continuity across YCC programs in New Hampshire and Maine. AWWA has adopted this method so that we are consistent with our fellow YCC programs. BMPs are grouped by type, and some types are split into size categories. Larger BMPs will control more pollutant loading from larger drainage areas and, therefore, count as more than one BMP in the "Type of BMP Installed" table. Categories are based on size or how much material is used for each project.

Three types of BMPs:

Infiltration includes trenches, drip edge drains, dry wells, erosion control berms, rain gardens, detention basins, and infiltration steps.

Diversion includes rubber razors, water bars, culverts, and turnouts.

Stabilization includes riprap, vegetative buffers, ECM, driveway stabilization, path stabilization.

Infiltration Standards

Type of BMP	Small (Counts as 1 BMP)	Medium (Counts as 2 BMPs)	Large (Counts as 3 BMPs)
Infiltration trench	<10'	10-20'	20'+
Dripline Trench	<10'	10-20'	20'+
Dry well*	<5 cubic feet	5-10 cubic feet	10+ cubic feet
ECM berm	<10'	10-20'	20'+
Rain gardens	At least 9 sq. ft	9-25 square ft	> 25 square ft
Detention basins	<6' diameter	6-10' diameter	10' diameter
Infiltration steps	<5	5-10	10+

*Dry well size refers to the capacity to store water (if the structure is filled with crushed stone, divide your capacity by 2)

Diversion Standards

Type of BMP	Small (Counts as 1 BMP)	Medium (Counts as 2 BMPs)	Large (Counts as 3 BMPs)
Rubber razors	<14'	14-28'	28'+
Water Bars	<10'	10-20'	20'
Culverts (Metal or plastic)	<15" diameter pipe	15-24" diameter pipe	> 24" diameter
Turnouts	1 road/driveway turnout	2 road/driveway turnouts	3 road/driveway turnouts
Open Top Culverts	<14'	14-28'	28'+
Speed Bumps/ Drainage Swale	<14'	14-28'	28'+
Ditches	<100'	100-200'	200'+

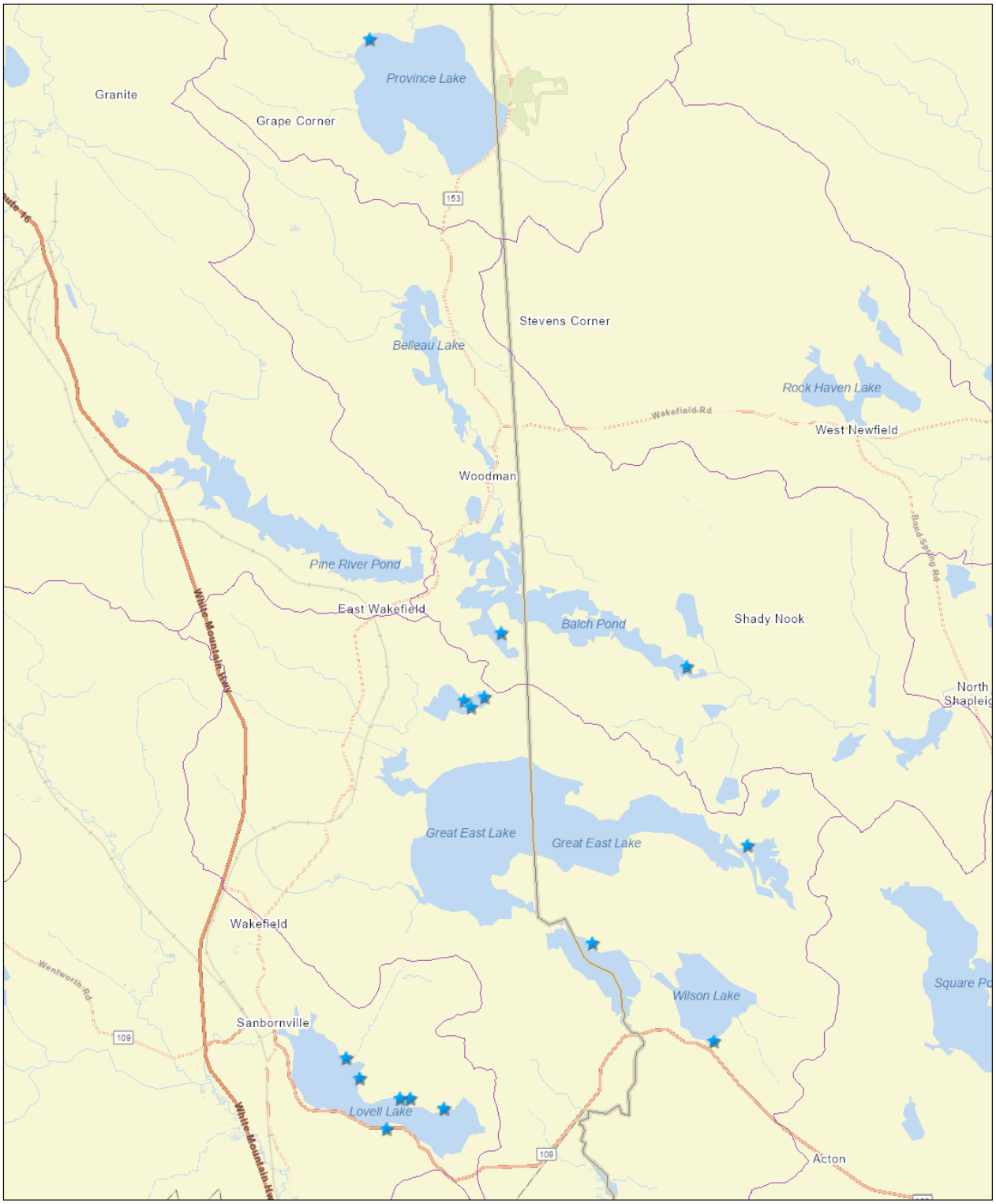
Stabilization Standards

Type of BMP	Small (Counts as 1 BMP)	Medium (Counts as 2 BMPs)	Large (Counts as 3 BMPs)
Riprap	<25sq ft	25-50 sq ft	50+ sq ft
Vegetative Buffers	< 6 plants	6 -15 plants	15+ plants
ECM	<100 sq ft	100-400 sq ft	400+ sq ft
Driveway stabilization	<30 linear ft of driveway	30-60’ linear ft	60+ linear ft
Path Stabilization	<50 linear ft	50-100 linear ft	100+ linear ft
Crown/Ramp Driveway	<30 linear ft of driveway	30-60’ linear ft	60+ linear ft
Crown/Ramp Path	<50 linear ft	50-100 linear ft	100+ linear ft
Cover Path with Erosion Control Mulch	<50 linear ft	50-100 linear ft	100+ linear ft

2024 Summary of Installed BMPs	
Best Management Practice (BMP)	**Number Completed**
Erosion Control Mulch	35
Vegetated Buffer	3
Dripline Trench	20
Waterbar	15
Infiltration Trench	5
Native Vegetation	14
Rubber Razor	15
Infiltration Pathway	10
Firehose Diverter	10
Rain Garden	3
Infiltration Steps	0
Rip Rap Trench	0
Retrofit Infiltration Steps	15
Crushed Stone	0
Dry Well	10

2024 YCC Projects by Lake			
Balch Lake			
1.	Janet Rogers	62 E.H. Davis Drive	Newfield
2.	Ed Suleski	138 Cove Road	East Wakefield
Great East Lake			
3.	Carol Jaque	353 Anderson Cove Road	Acton
Horn Pond			
4.	Tracy Gaudet	117 Mountain View Drive	Acton
Lake Ivanhoe			
5.	Simon Delekta	343 Round Pond Road	East Wakefield
6.	Chuck Shimer	96 Middle Road	East Wakefield
7.	John Varone	20 Dearborn Road	East Wakefield
Lovell Lake			
8.	Area Princi	42 North Roberts Cove Road	Sanbornville
9.	Stanley Davis	102 Pond Road	Sanbornville
10.	Valerie Perkins	510 Brackett Road	Sanbornville
11.	Kathy White	72 North Roberts Cove Road	Sanbornville
12.	Jillian Darling	322 Brackett Road	Sanbornville
13.	Lake Points of View	Lovell Lake Road	Sanbornville
Province Lake			
14.	Marcia Fletcher	47 Lake Shore Drive	Effingham
Wilson Lake			
15.	Timothy Legere	188 Hawk Road	Acton

2024 YCC Projects



Description of 2024 YCC Projects

John Varone

Lake Ivanhoe – East Wakefield, NH

This was the crew's first site of the season. This year was a little different than last as most of the crew were completely new to the job. With that came a lot of learning. Our crew leader Jaden spent much of the first few projects ensuring the crew could complete projects effectively and efficiently. It didn't help that this project ended up being one of our most difficult. The crew installed a rubber razor across the front of the driveway to help divert runoff coming from the road. Along with the razor, the crew also installed a drywell and a large rain garden in the surrounding area. Around the house, the crew installed Erosion Control Mulch (ECM) and multiple dripline trenches. There were remnants of old dripline trenches that had been installed incorrectly as much of the water flowed outside of the trench.

Total Number of BMPs	**Approximate Cost to Landowner**
12	$529.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
.5	.4
Crew Hours	**Crew Value**
143.5	$2,500.00
BMPs Installed	**Materials Used**
Rain Garden	ECM – 3 yds
Drywell	Stone – 6 yd
Dripline Trenches	Lumber – 40 ft
Rubber Razor	Rubber – 20 ft

John Varone Project Before and After Photos

Tracy Gaudet

Horn Pond – Acton ME

Our second project of the year was much shorter than the first. The crew was still getting to know each other but were working hard, nonetheless. They installed multiple waterbars along a hillside that doubled as a walking path. Crushed rock was installed throughout the waterbars to help with infiltration. Finally, the crew added ECM around the pathway to help hold the remaining bare soil together. It was a great second project for the crew as they were able to move at a slightly slower pace and get to know each other.

Total Number of BMPs	**Approximate Cost to Landowner**
9	$254.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
1.5	1.3
Crew Hours	**Crew Value**
36	$750.00
BMPs Installed and Maintained	**Materials Used**
Infiltration Pathway	ECM – 2 yds
Waterbars	Stone – 2 yds
Erosion Control Mulch	Lumber – 15 ft
	Rebar – 10 ft

Tracy Gaudet Project Before and After Photos

Ed Suleski

Balch Lake – East Wakefield, NH

For our third project, the crew moved over to Balch Lake where the crew delt with one of their more difficult projects. The house was situated closer to the water at the bottom of a large hill. This made it impossible to get any of the materials delivered directly to the location. Instead, the crew had to use buckets and wheelbarrows to cart many yards of mulch down a 35-degree slope or down a long set of stairs. Luckily, the only material we were using on this project was ECM, so the going was slightly easier than if they were moving rock. Nonetheless, the crew did an excellent job installing native plants and ECM where needed, and in a timely manner. Because of the difficulty of this project, the crew really started to work well together and produce some of their best work.

Total Number of BMPs	**Approximate Cost to Landowner**
13	$950.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
5.6	4.8
Crew Hours	**Crew Value**
73	$1,000.00
BMPs Installed and Maintained	**Materials Used**
Native Vegetation	Plants - 10
Erosion Control Mulch	Erosion Control Mulch – 13 yds

Ed Suleski Project Before and After Photos

Lake Points of View

Lovell Lake – Sanbornville, NH

The Lake Points of View project was our first and only project on a shared access property this summer. We worked with the members of the Lake Points of View Property Owners Association that use the area for lake access to come up with a design that still allowed for easy access to the various docks and beaches, while also reinforcing the thinning vegetative buffer and protecting the lake. In the end, the crew installed ECM on all of the major pathways with pavers to help with foot traffic. They also installed ECM on the main section of the access area. There were a few bumps in the road throughout the project, but the crew handled them gracefully and produced a result that left everyone at Lake Points of View satisfied.

Total Number of BMPs	**Approximate Cost to Landowner**
10	$478.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
5.6	4.8
Crew Hours	**Crew Value**
60	$1,000.00
BMPs Installed and Maintained	**Materials Used**
Vegetated Buffer	Plants - 10
Waterbar	ECM – 13 yds
Erosion Control Mulch	Lumber – 10 ft
	Rebar – 3 ft

Lake Points of View Project Before and After Photos

Chuck Shimer

Lake Ivanhoe – East Wakefield, NH

The Shimer project was one of the most time-consuming projects of the year. It was just down the road from a project we completed last year and was a continuation of the issues that affected the adjacent property. Runoff made its way down the camp road and pooled at the Shimer's front door before making its way around both sides of the house and into the lake. Our solution was to first install a rubber razor in the driveway diverting much of the runoff into the surrounding woods. Next, we installed ECM in the area where the runoff would pool, in hopes that it would help soak up any of the remaining water. The crew also installed dripline trenches and more ECM around the entire house.

This project was unique in that we were joined by the farm apprentices from the Branch Hill Farm. The crew did a great job showing the farm crew what we do and why. In the end, it took the crew slightly longer than they would have liked to complete the project, but they were able to pass some of the knowledge that they had been learning onto the apprentices.

Total Number of BMPs	**Approximate Cost to Landowner**
16	$716.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
2.5	2.1
Crew Hours	**Crew Value**
87	$1,750.00
BMPs Installed and Maintained	**Materials Used**
Dripline Trenches	ECM – 7 yds
Waterbars	Stone – 5 yds
Rubber Razor	Lumber – 72 ft
Erosion Control Mulch	Rubber – 12 ft
	Rebar – 14 ft
	Nails – 1 Box

Chuck Shimer Project Photos

Simon Delekta

Lake Ivanhoe – East Wakefield, NH

The crew was back to Lake Ivanhoe again for the Delekta project. This project took place during the hottest part of the summer, and the crew felt it. Multiple half days due to temperatures in the high 90's drew this project out longer than anticipated. The crew took multiple breaks throughout the day to ensure everyone was safe and healthy.

For the project itself, the crew retrofitted multiple waterbars going down the side of the house. The retrofitting coupled with refreshed ECM covered the bare soil that had eroded over many years. On the left side of the house, the crew installed more ECM to cover bare slope leading down to the water. The area used to be used for walking, but I was able to convince the homeowner to stick to one side of the house unless absolutely necessary to help the area renaturalize. For the final step of the project, the crew installed a dripline trench along the front of the house to catch the rainwater coming off the roof.

Total Number of BMPs	**Approximate Cost to Landowner**
10	$516.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
2.5	2.1
Crew Hours	**Crew Value**
63	$1,250.00
BMPs Installed and Maintained	**Materials Used**
Dripline Trench	Erosion Control Mulch – 9 yds
Waterbars	Crushed Stone – 5 yds
Erosion Control Mulch	Lumber – 8 ft
	Rebar – 3 ft

Simon Delekta Project Photos

Timothy Legere

Wilson Lake – Acton, ME

The Legere project was another exemplary project for the crew, and what was considered to be their best work of the summer. The homeowners were having two different stormwater issues that culminated in a torrent of sediment filled water running along the side of their house. The first issue came from the garage and grassy area across the street from the house. To fix this issue the crew installed two dripline trenches under the overhang of the roof. This, coupled with a waterbar and ECM on the steeper section of the hill, prevented the stormwater runoff from crossing the road and reaching the house. The second issue was the road itself. Runoff came down the side of the road and found a way into the Legere's yard. To solve this issue the crew installed ECM alongside the road, and a large infiltration pathway down the side of the house. This added a large storage area for the runoff to pool while seeping into the ground. A waterbar at the top and bottom and ECM around the side helped tie the project together and add some aesthetic value on top of the already highly functional project.

Total Number of BMPs	**Approximate Cost to Landowner**
8	$792.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
4.7	4
Crew Hours	**Crew Value**
82.5	$1,500.00
BMPs Installed and Maintained	**Materials Used**
Infiltration Trench/Pathway	Erosion Control Mulch – 6 yds
Waterbar	Crushed Stone – 7 yds
Erosion Control Mulch	Lumber – 16 ft
	Rebar – 4 ft

Timothy Legere Project Photos

Carol Jaque

Great East Lake – Acton, ME

Carol Jaque's project was our first and only project on Great East Lake for the year. Carol had runoff coming down her paved driveway and making its way around the left side of the house. To combat this, we installed a firehose diverter and a drywell on the driveway. This helped divert runoff. We also installed multiple waterbars and crushed rock to collect and allow runoff to infiltrate. To finalize the project, we installed ECM on the bare soil. This project ended up working out great and the homeowner loved the work we did. After the project was complete, we gave them a few lake-friendly suggestions they could implement, such as establishing a no-mow and no-rake zone and an area where they could plant native wildflowers to help bring pollinators to their yard.

Total Number of BMPs	**Approximate Cost to Landowner**
10	$453.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
.7	.6
Crew Hours	**Crew Value**
36	$640.00
BMPs Installed and Maintained	**Materials Used**
Infiltration Pathway	Erosion Control Mulch – 3 yds
Vegetated Buffer	Stone – 4 yds
Erosion Control Mulch	Firehose – 14 ft
Firehose Diverter	Lumber – 25 ft
	Rebar – 6ft

Carol Jaque Project Before and After Photos

Jillian Darling

Lovell Lake – Sanbornville, NH

The Darling project was one of our quicker projects for the year. The homeowner had runoff coming down her driveway, so the crew installed multiple firehose diverters coupled with drywells. We also installed ECM alongside the long driveway to help slow down some of the diverted runoff. The crew worked hard and finished the project in about a day.

Total Number of BMPs	**Approximate Cost to Landowner**
10	$410.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
1.3	1.1
Crew Hours	**Crew Value**
72	$1,400.00
BMPs Installed and Maintained	**Materials Used**
Firehose Diverter	Erosion Control Mulch – 12 yds
Drywell	Crushed Stone – 1 yds
Erosion Control Mulch	Firehose – 56 ft

Jillian Darling Project Before and After Photos

Kathy White

Lovell Lake – Sanbornville, NH

Kathy White's project was slightly different from our normal project scope but nonetheless helped reduce the amount of sediment-filled stormwater that was entering Lovell Lake. The crew retrofitted an existing rip rap trench that had long been overwhelmed by sediment. The crew installed ECM uphill of the trench to help stop any sediments from reaching the trench and prolong its effectiveness. While the YCC crew was working, the Wakefield Highway Department came by and installed a large detention basin above our rip rap trench. We were very pleased to see this as it will help store runoff during rain events and reduce the stress on our trench.

Total Number of BMPs	**Approximate Cost to Landowner**
8	$437.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
3.7	3.2
Crew Hours	**Crew Value**
84	$1,600.00
BMPs Installed and Maintained	**Materials Used**
Rip Rap Trench	Erosion Control Mulch – 7 yds
Erosion Control Mulch	Stone – 6 yds

Kathy White Project Photos

Janet Rogers

Balch Lake – Newfield, ME

Janet Roger's project was our final project on Balch for 2024. The homeowner had a large bare area next to the house, which turned into a torrent of sediment-filled runoff when it rained. To solve this issue the crew installed a large dripline trench that spanned the entire length of the house. In the rest of the bare area, the crew installed ECM. Two waterbars were added on the slope to help hold the soil together and act as a block for any stormwater runoff. Due to their hard work, the homeowner decided to cook the crew lunch. The crew was able to interact with the homeowner more than they would at a normal project.

Total Number of BMPs	**Approximate Cost to Landowner**
10	$472.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
6.7	5.7
Crew Hours	**Crew Value**
76	$1,500.00
BMPs Installed and Maintained	**Materials Used**
Dripline Trench	Erosion Control Mulch – 8 yds
Waterbars	Crushed Stone – 3 yds
Erosion Control Mulch	Lumber – 16 ft
	Rebar – 6 ft

Janet Rogers Before and After Photos

Marcia Fletcher

Province Lake – Effingham, NH

The crew traveled up to Province Lake for the Fletcher project, where they installed a large, vegetated buffer. The homeowner was having issues with erosion from the lake side through wave action and from the land side through sheet flow runoff, so we decided to install ECM on the steeper parts of the bank and lots of native plants up on the flatter section on the shoreline. The crew did a great job spreading the thick layer of mulch across the entire shoreline giving it the protection it needed. To help stop runoff from reaching the shoreline, the crew installed two dripline trenches and two yards of ECM around them. The homeowner was pleased with the project and shared some pictures of the project and crew on the Province Lake Facebook page.

Total Number of BMPs	**Approximate Cost to Landowner**
15	$1,048.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
.4	.4
Crew Hours	**Crew Value**
88	$1600.00
BMPs Installed and Maintained	**Materials Used**
Vegetated Buffer	Erosion Control Mulch – 30 yds
Dripline Trench	Crushed Stone – 1 yds
Erosion Control Mulch	Plants - 15

Marcia Fletcher Before and After Photos

Valerie Perkins

Lovell Lake – Sanbornville, NH

Next, the crew moved over to Lovell Lake where they would spend the rest of the season. The homeowner was having issues with stormwater running down her driveway and between the two houses that were on the property. To solve this, the crew installed multiple firehose diverters in the driveway coupled with drywells. The firehoses diverted the runoff into the drywells and woods beyond. Next, the crew moved downhill and installed a waterbar and ECM at the top of a slope leading to the lake. This would cover bare soil as well as provide a block or barrier for any stormwater runoff making its way past the firehose diverters. The homeowner was pleased with the result of the project and recommended us to her neighbor who subsequently requested a site visit.

Total Number of BMPs	**Approximate Cost to Landowner**
10	$469.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
.2	.2
Crew Hours	**Crew Value**
48	$1,000.00
BMPs Installed and Maintained	**Materials Used**
Firehose Diverters	Erosion Control Mulch – 7 yds
Drywells	Stone – 2 yds
Waterbar	Firehose – 46 ft
Erosion Control Mulch	Lumber – 8 ft
	Rebar – 6 ft

Valerie Perkins Before and After Photos

Stanley Davis

Lovell Lake – Sanbornville, NH

The Davis project was our smallest of the year, but no less important. The homeowner was having issues with runoff coming from the camp road and making its way through their front yard. The crew installed a strip of ECM along the fence and in the exposed soil area below. The crew managed to finish the project in just a few hours and moved on to our final project of the year.

Total Number of BMPs	**Approximate Cost to Landowner**
5	$347.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
.3	.2
Crew Hours	**Crew Value**
36	$750.00
BMPs Installed and Maintained	**Materials Used**
Erosion Control Mulch	Erosion Control Mulch – 9 yds
Infiltration Trench	Crushed Stone – 1 yds

Stanley Davis Before and After Photos

Area Princi

Lovell Lake – Sanbornville, NH

The Princi project was the last project of the year for the crew. AWWA had done a YCC project here in the past but with increased rain events and the severity of the issue, the old project had failed. To fix the issues the crew first reinforced an already existing vegetated buffer and extended it around thirty feet. Next, the crew extended and retrofitted the existing infiltration pathway with more crushed stone. This allowed for more water storage during rain events as well as covering more exposed soil. Around the pathway, the crew installed fresh ECM to cover the remaining bare soil. The crew worked hard right up to the last minute to complete their final project of the year.

Total Number of BMPs	**Approximate Cost to Landowner**
12	$734.00
Tons of Sediment Reduced	**Pounds of Phosphorus Reduced**
2.9	2.4
Crew Hours	**Crew Value**
96	$1,800.00
BMPs Installed and Maintained	**Materials Used**
Infiltration Steps	Plants – 15
Vegetated Buffer	Erosion Control Mulch – 8 yds
Waterbar	Stone – 5 yds
Erosion Control Mulch	Lumber – 8 ft
	Rebar – 6 ft

Area Princi After Photos

Branch Hill Farm

Branch Hill Farm – Milton Mills, NH

This summer, AWWA's YCC Crew had the special opportunity to spend a day at the Branch Hill Farm. They worked with the farm apprentices learning about sustainable agriculture, and the day-to-day life of a farm. The crew did chores such as weeding, spreading mulch, and feeding and moving the animals on pasture. They had the chance to learn a little about the vast history of farming and the common practices during different eras in the past. Every year AWWA tries to work with other groups in the community to share ideas and learn new ones.

Farm Day – Branch Hill Farm

Appendix A – 2024 Technical Assistance and Project Host Sites Map