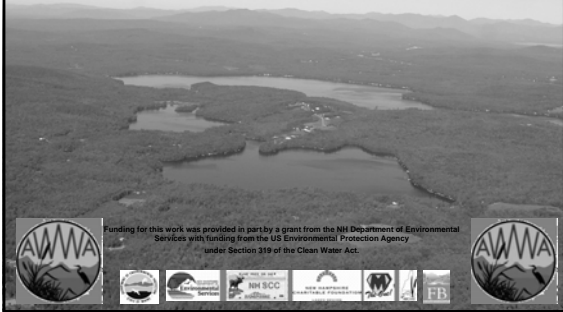


Acton Wakefield Watersheds Alliance
Water Quality Protection - It's Everyone's Job!
What's Happening at the Local Level



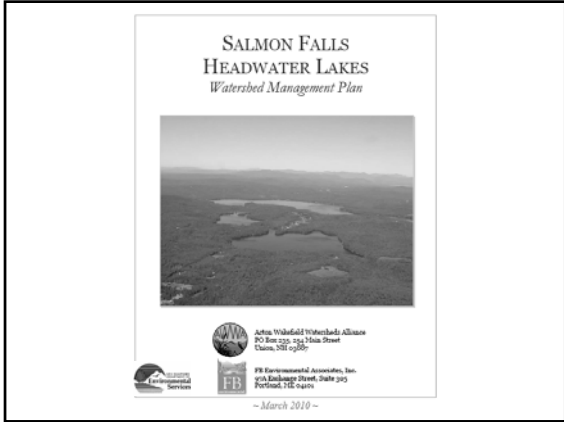
AWWA Mission

“to protect and restore water quality, by affecting land use policies and practices through education and remediation, in the border region of Acton, Maine and Wakefield, New Hampshire”.

Project Partners Assisting AWWA

- Balch Lake Improvement Association
- FB Environmental
- Great East Lake Improvement Association
- Horn Pond Association
- Lovell Lake Association
- Maine Congress of Lake Associations
- Maine Department of Environmental Protection
- Moose Mountains Regional Greenways
- New Hampshire Charitable Foundation
- New Hampshire Department of Environmental Services Watershed Assistance Program
- New Hampshire Lakes Association
- Piscataqua Region Estuaries Partnership
- Province Lake Association
- Round Pond Association
- Three Rivers Land Trust
- Town of Acton
- Town of Wakefield
- UNH Cooperative Extension
- Wilson Lake Association
- York County Soil and Water Conservation District



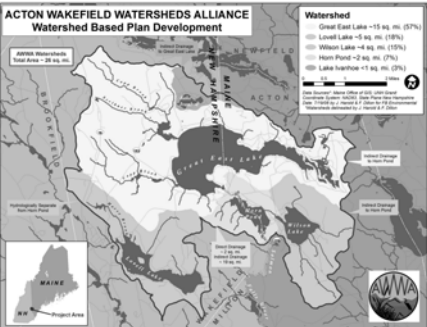


Watershed Plan Components

- Watershed Surveys
- Water Quality analysis
- Pollutant Load modeling
- Set Water Quality Goal
- Local ordinance & plan reviews
- Recommend Best Management Practices
- Develop watershed plan
- Conduct outreach, education and implementation!!



Salmon Falls Headwater Lakes



Watershed	
Great East Lake	15 sq. mi. (27%)
Little Lake	5 sq. mi. (9%)
Wilson Lake	4 sq. mi. (7%)
Heart Pond	2 sq. mi. (3%)
Lake Isadore	1 sq. mi. (2%)

5 Lakes

Numerous Streams

Flow Into the Salmon Falls River

Current AWWA Projects

- Clean Lakes Campaign
- Road Management Plan
- Local regulation review & strengthening
- Watershed Education programs with schools, libraries and community groups
- YCC and Technical Assistance Programs

Clean Lakes Campaign



ACTON WAKEFIELD WATERSHEDS ALLIANCE
CLEAN LAKES CAMPAIGN

Clean Lakes Campaign Kickoff
"Lake Protection - It's Everyone's Job!"
Saturday, June 11, 9 AM - Noon
Wakefield Opera House
2 High Street, Sanbornville, NH

Do you love your lake?
Do you want to know how to keep it clean?

Come hear inspiring speakers, play the Watershed Game, meet your fellow lake lovers and share exciting ideas for clean lakes projects.

BALCH LAKE BELLEAU LAKE GREAT EAST LAKE
HORN POND LAKE IVANHOE LOVELL LAKE
PINE RIVER POND PROVINCE LAKE WILSON LAKE

Door prizes, refreshments!

Please call (603) 479-2300 or email info@awwa-watersheds.org to register for this FREE program.

Road Best Management Practices



Community Planning & Development



Watershed Education



Watershed Conservation Corps (WCC)



YCC – Engaging Local High School Youths



- Comprised of 5 to 6 local youth workers
- Lead by 2 experienced crew leaders
- Directed by Program Manager

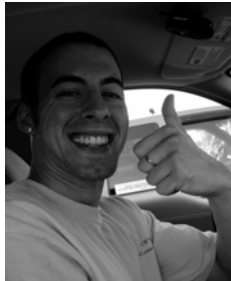
- Landowners request assistance and provide materials
- YCC does the rest: implementing erosion control measures to protect lakes from **polluted runoff**



YCC – Engaging Local High School Youths



- Gain great work experience
- Learn to be part of the community
- Understand what it means to be good lake and environmental stewards
- Extend education to others from what they learn on the job



Best Management Practices (BMPs)

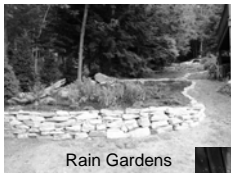


Rain Gardens

Best Management Practices (BMPs)



Best Management Practices (BMPs)



YCC Project Host Sites - Before and After



- Stabilize Trails and Walkways
- Eroded trails
 - Root and rock exposure
 - Sand and sediment visible in or near lake
 - Clear path for water runoff carrying sediment, phosphorus, and contaminants such as oils and gas straight into the lake

YCC Project Host Sites -
Before and After



BEFORE



YCC Project Host Sites -
Before and After

Infiltration Steps

-Designed to be constructed in paths,
walkways, and areas of foot traffic

-Water that would normally run down a
foot path is able to infiltrate through the
steps and into the soil before reaching
the lake



YCC Project Host Sites -
Before and After



BEFORE

Stabilize Trails and Walkways

- Eroded trails
- Root and rock exposure
- Clear path for polluted runoff to
lake

YCC Project Host Sites -
Before and After



BEFORE

AFTER

YCC Project Host Sites -
Before and After



BEFORE

Roof Runoff and Water-flow Paths

-Sediment is moved during rainfall, either in the form of rills or gulleys or areas where debris was transported as a "sheet"

-Areas where the eaves of the roof over hang poorly consolidated soils

-Direct paths for water to flow into the lake

YCC Project Host Sites -
Before and After



BEFORE

AFTER

YCC Project Host Sites - Before and After

Drywell, Stone Path, Water Bars

-Drywells allow for areas of heavy flow to store and infiltrate water before runoff occurs

-Stone paths slow the velocity of water running across them, thus slowing the erosion of the area and protect the underlying soils

-Water bars divert flowing or sheeting water towards a dry well, rain garden, or other infiltration area away from the lake.



YCC Project Host Sites - Before and After

Drywell, Stone Path, Water Bars

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YCC Project Host Sites - Before and After



BEFORE

- Steep Slopes and the Lakefront
- Slopes are often prone to erosion from high velocity water
 - Many of our lakes have steep slopes allowing sediments and polluted runoff to easily enter the lake

YCC Project Host Sites - Before and After



BEFORE



AFTER

YCC Project Host Sites - Before and After

VEGETATE!!

- Vegetated slopes are a **LONGTERM** solution to erosion problems. The roots help stabilize steep slopes for as long as the plants remain healthy.
- Vegetation acts as the last line of defense from polluted runoff
- Plant with **NATIVE** plants, as they are accustomed to the NH climate!





YCC Project Host Sites
A build-out of the work the AWWA has done



Project Host Sites 2006

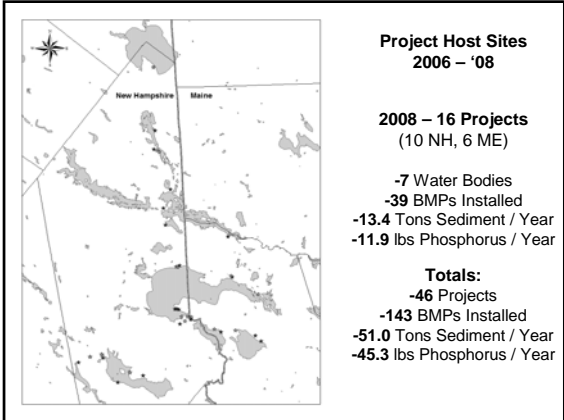
- 2006 - 10 Projects**
(8 NH, 2 ME)
- 4 Water Bodies
- 45 BMPs Installed
- 15.8 Tons Sediment / Year
- 13.5 lbs Phosphorus / Year

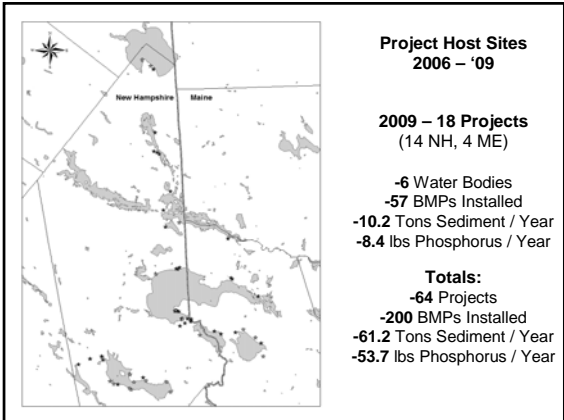


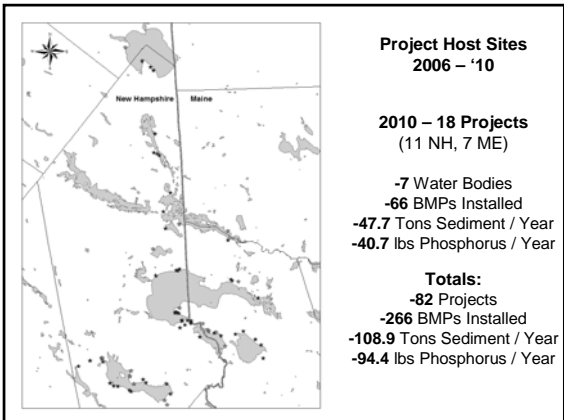
**Project Host Sites
2006 - '07**

- 2007 - 20 Projects**
(15 NH, 5 ME)
- 8 Water Bodies
- 59 BMPs Installed
- 21.8 Tons Sediment / Year
- 18.4 lbs Phosphorus / Year

- Totals:**
- 30 Projects
- 104 BMPs Installed
- 37.6 Tons Sediment / Year
- 33.4 lbs Phosphorus / Year









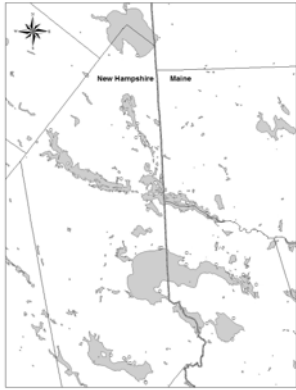




**Technical Assistance Sites
2006**

2006 – 35 Landowners
(23 NH, 12 ME)

-8 water Bodies



**Technical Assistance Sites
2006 – '07**

2007 – 24 Landowners
(16 NH, 8 ME)

-7 water Bodies

Totals
-59 Landowners



**Technical Assistance Sites
2006 – '08**

2008 – 43 Landowners
(29 NH, 14 ME)

-9 water Bodies

Totals
-102 Landowners

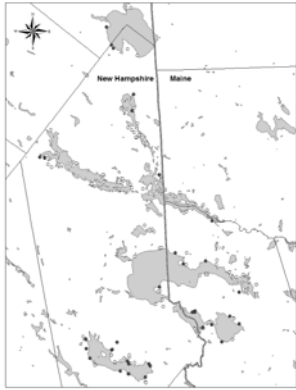


**Technical Assistance Sites
2006 – '09**

2009 – 32 Landowners
(21 NH, 11 ME)

-8 water Bodies

Totals
-134 Landowners

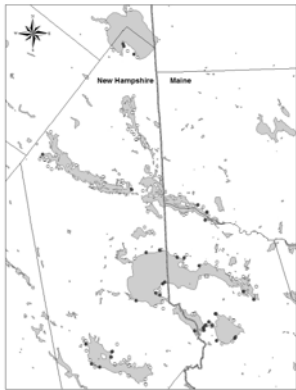


**Technical Assistance Sites
2006 – '10**

2010 – 28 Landowners
(13 NH, 15 ME)

-7 water Bodies

Totals
-162 Landowners



**AWWA Technical Assistance and Project Host
Sites**

- Completion of 82 Projects by the YCC
- YCC installed 266 BMPs across 9 water-bodies
- Given Technical Assistance to **162** landowners

GRAND TOTAL

Between the AWWA YCC and Technical Assistance programs,
concerned landowners, lake stewards, and community outreach;

108.9 TONS of sediment / year
94.4 lbs PHOSPHORUS / year

THAT DOES NOT ENTER OUR LAKES!!

How AWWA has Helped Protect the Lakes







Thank you for your time.
Questions, comments...

Acton Wakefield Watersheds Alliance
www.AWwatersheds.org
(603) 473-2500
