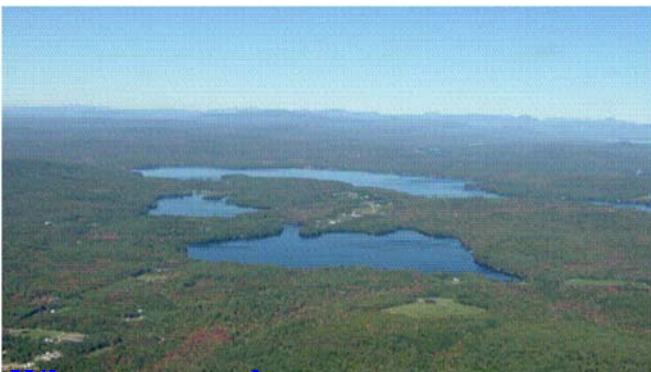


Province Lake



AWWA YCC project on Province Lake - Water bars and Erosion Control Mulch (ECM)

What you can do...

1. Always check your boat, trailer, and equipment for plant material.
2. Respect shoreland zone restrictions.
3. Control polluted run-off from roads, paths, driveways, and roof.
4. Cultivate flowers, shrubs, or trees as a shoreline buffer.
5. Limit lawn size AND:
 - A. Don't use fertilizers.
 - B. Use phosphorus-free or low-phosphorus fertilizers.
 - C. Use low, slow release nitrogen fertilizers.
6. Don't stress the septic system.
7. Dogs, humans, and boats should never be washed in the lake.
8. Observe headway speeds within 200 feet of Maine shores and 150 feet of NH shores.
9. When replacing a boat motor, choose a clean 4-stroke engine.
10. Pick up pet wastes.
11. Volunteer as a lake host.
12. Get a free AWWA site assessment.
13. Support your local and regional lake associations.

This brochure was produced by the
Acton Wakefield Watersheds Alliance

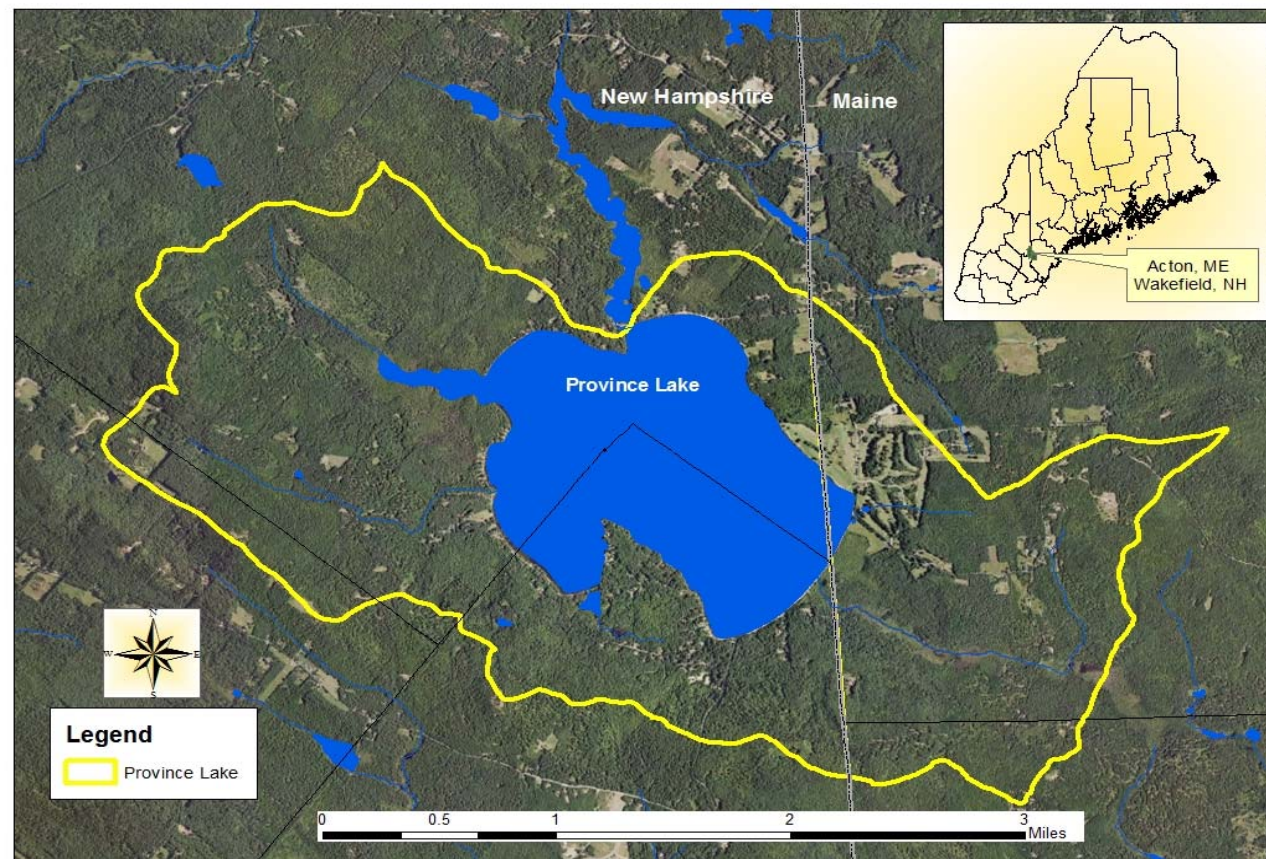
with funds provided in part by a grant from the NH Department of Environmental Services with funding from the US Environmental Protection Agency under Section 319 of the Clean Water Act.

www.AWwatersheds.org

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References:

- ◆ NH Granit Database
- ◆ www.provincelake.org
- ◆ www.lakesofmaine.org
- ◆ NH Fish and Game
- ◆ Maine Department of Inland Fisheries and Wildlife



**Get to Know Your Lake,
Your Lake's Watershed,
and the People Who Support It**



Province Lake Association
PO Box 24
Effingham, NH 03882
Telephone: (207) 200-3234
President@Provincelake.org

Province Lake Association: The PLA is a group of people interested in maintaining the quality of Province Lake. It is a non-profit organization of approximately 100 members paying dues of \$25 annually. There are many volunteers who provide water testing, weed watching, loon observation and other valuable services to the association.



View of Province Lake during the fall. Photo courtesy of the Province Lake Association (www.provincelake.org)

Programs:

- ◆ Province Lake started a **Lake Host Program in 2012** with funding from the Town of Wakefield, NH Lakes, and membership dues. The PLA is seeking funding and volunteers for their Weed Watchers Program.
- ◆ **Acton Wakefield Watersheds Alliance:** Since 2005, AWWA has been protecting and restoring water quality in the Wakefield, NH and Acton, ME lakes region by affecting land use policies and practices through education and remediation of polluted runoff.
- ◆ **Youth Conservation Corp:** The AWWA employs local high school students for summer work in their YCC program. The YCC installs erosion control measures to prevent polluted runoff from degrading the health of the lakes. The program also offers technical assistance for homeowners wishing to help protect the lake on their own.



AWWA YCC Project on Province Lake - Infiltration Steps and Rip Rap.

Physical Synopsis:

Province Lake does not **stratify** (in other words, the lake is so shallow that in winter and summer, the lake remains at a relatively constant temperature throughout). **Stratification** refers to distinct layers of water in a lake differing in temperature and density. Deep lakes commonly stratify into three distinct layers: the epilimnion (upper), the metalimnion (middle), and the hypolimnion (bottom).

Watershed Characteristics:

Location: Parsonsfield, York County, ME and Wakefield and Effingham, Carroll County, NH
Coordinates: 43°41'24"N 70°59'32"W
Major Drainage Basin: Saco River, Saco Bay, ME
Subdrainage Basin: South River to the Ossipee River
Drains to: South River
Inlets: Hobbs Brook
Outflows: South River
Watershed Area: 3,903 acres



AWWA YCC project on Province Lake - Rubber razors.

Wildlife: Province Lake is home to several fish species including; large and smallmouth bass, chain pickerel, yellow perch, sunfish and horned pout. The lake also has a populations of Common Loon, eagles, great blue herons, the occasional merganser and also has otters and snapping turtles!

Fishing Rules and Regulations:

For information regarding daily bag, possession limits, minimum legal lengths, and seasonality please visit www.wildlife.state.nh.us/Fishing/fishing.htm for the New Hampshire Fish and Game Department.

Cyanobacteria: Province Lake has had major issues cyanobacteria blooms in the past decade. Cyanobacteria blooms occur when nutrients such as phosphorus are present in high enough concentrations to lead to an explosive growth of the photosynthetic bacteria in short amounts of time. These cyanobacteria can potentially produce toxins which are harmful to children, pets and wildlife. The PLA is working with AWWA and the NH DES to reduce the nutrient loading in Province Lake and prevent or reduce the number of cyanobacteria blooms through implementation of a watershed management plan.

Lake Characteristics:

Mean Depth: 9 feet
Max Depth: 17 feet
Max Length: 1.7 miles
Max Width: 1.4 miles
Surface Elevation: 480 feet
Surface Area: 968 acres
-Parsonsfield, ME: 58 acres (6%)
-Wakefield and Effingham, NH: 910 acres (94%)
Volume: 11.3 million m³ (~2.9 Billion gallons)
Perimeter (Shoreline): 5.3 miles
Flushing Rate: 1 yr
-It takes 1 year for water that enters the lake to leave the lake.
Average Transparency: 7.2 feet
Lake Classification: The lake is classified as mesotrophic or partially not supporting by NH water quality standards.
Water Quality Monitoring Began: 1991
Phosphorus Concentration: 15 parts per billion
**Phosphorus Concentration needs to be lowered*
Dissolved Oxygen: Higher than adequate due to lack of lake stratification.