

# **Thompson Lake Watershed Survey - Southern and Northern Sections (Casco, Poland, Oxford, Northern Otisfield, and Norway)**



**Thompson Lake Environmental Association  
Fiddlehead Environmental Consulting  
Maine Department of Environmental  
Protection**

**March 2011**

# Dedication

This report is dedicated in part to Chris Pottle, a long-term director and treasurer of Thompson Lake Environmental Association, who died unexpectedly on February 15, 2011. He was 79. From childhood, he developed an abiding love for Thompson Lake. He spent summers in Oxford and Otisfield where he and numerous cousins camped, sailed, fished, and enjoyed the rustic life of Camp Loseekum. The lake was never far from his thoughts, and he returned often throughout the years.



Chris (third from left), his parents and brother on the shore of Thompson Lake in 1939. Chris was nicknamed "Kit".

Born in New Haven, Connecticut, Chris's list of educational achievements is long and distinguished. He graduated from Phillips Exeter Academy in 1949, earned a B.S. degree in Electrical Engineering from Yale, and a Ph.D. in Electrical Engineering from the University of Illinois. In the late 1950s, Chris was a Fulbright Scholar at the Max Planck Institute in Munich, Germany, where he met his future wife, Marcia Suthon, also a Fulbright scholar. They married in 1961, and produced two sons and a daughter.

After earning his Ph.D., Chris joined the faculty at Cornell University where he taught Electrical Engineering until he retired in 1998. He was a founder of the university's Computer Science Department, and well-known for his innovative outlook, passion for teaching, and dedication to students.

Upon retirement, Chris and Marcia moved to Oxford, his mother's family home for generations. He assumed leading roles in the Episcopal Peace Fellowship, Maine Council of Churches, Maine Interfaith Power and Light, and Thompson Lake Environmental Association.

Chris served on the TLEA Board for more than 10 years and as treasurer for most of those, until his unexpected death. At TLEA, he had a direct hand in protecting the lake he loved so dearly by expertly managing the organization's finances. Fellow directors credit him with giving crucial support to TLEA's investment in its pontoon boat, the Hipobottumus, and otherwise spearheading the initiative to eliminate milfoil from the lake. Never afraid to tackle problems personally, Chris participated in three recent erosion surveys and was also a faithful Volunteer Lake Monitor for invasive milfoil.

# Dedication

This report is also dedicated to the memory of Jim Bishop of Otisfield, the long-term TLEA director who spearheaded efforts to undertake the three-year survey of Thompson Lake for erosion issues.

Jim, who died in January, 2009, at the age of 79, was known for his bulldog approach to solving problems. He volunteered to manage TLEA's Courtesy Boat Inspection program from its inception. He chaired the steering committee of TLEA's Youth Conservation Corps and devoted untold hours to grant writing in support of that endeavor.

For years he served as a liaison between TLEA and the Town of Otisfield and shortly before his death witnessed the success of his lengthy effort to create a town Conservation Committee.

Jim was born and educated in Michigan. With his wife Ellen and their three children, the family lived in many different places during Jim's career as an engineer for firms such as General Electric and Digital Computers. In 1986, the Bishops purchased a tract of lakefront property in Otisfield that is now Sand Island Lane. They retired there in 1997. Jim became a TLEA director about 1998.



To those who knew him, Jim was remarkable for his thoughtful, deliberate, and diplomatic manner, often displayed when he confronted a thorny issue: "You know," he would begin, "there are two or three more things we really ought to be doing..." Jim was always the first to volunteer to do them.

# Acknowledgments

*The following people were instrumental in the Thompson Lake Watershed Survey – southern & northern sections – and deserve special thanks for their efforts.*

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Cover photo of Thompson Lake from the air by Tom Ray



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# Table of Contents

Introduction.....	1
Purpose of the watershed survey.....	4
Why is it important to protect the Thompson Lake Watershed from polluted runoff?.....	5
What is being done to protect the Thompson Lake Watershed?.....	5
Results.....	6-7
Site Examples	
Residential.....	8
Town Road.....	9
Private Road & Driveway.....	10
Path.....	11
Boat Access.....	12
Important Points.....	13
Recommendations.....	14
Appendix	
Site location maps	
Spreadsheets	
Conservation Practices for Homeowners	
Permitting ABC's	
Additional sources of information	

# Introduction

## Is there a water quality problem in the Thompson Lake Watershed?

Thompson Lake sprawls across four towns – Oxford, Poland, Casco and Otisfield – in southwestern Maine. This huge lake has a surface area of 4,225 acres and an even larger **watershed** that drains into it (see box, and Figure 1). The watershed even extends north into Norway. Thompson Lake is vital to the economy and quality of life in surrounding towns. Think of all the great opportunities the lake affords us for fishing, boating and sailing, swimming and camping. The lake provides important wildlife habitat. It is the setting for 1,200 seasonal and year-round residences, and three summer youth camps.

Thompson Lake Environmental Association (TLEA), with assistance from Colby College and the Maine Volunteer Lake Monitoring Program, has tested water quality in the lake since 1971. Water quality in the lake, in general, is excellent, but there have been dramatic downturns in water quality – especially clarity, a key indicator – in recent years after severe storms. As Lake & Watershed Resource Management Associates concluded in a report, fluctuating water quality “may be an indication that...the lake is sensitive to pressures from its developing watershed”.

### Watershed

All the land surrounding a lake that drains or sheds its water into the lake through tributaries, ditches, directly over the ground surface or through ground water.

The Thompson Lake Watershed is 35 square miles (Figure 1).

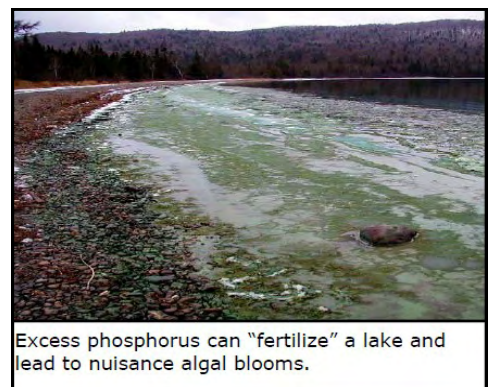
### NONPOINT SOURCE POLLUTION

Also called NPS or polluted runoff. Pollution that can not be traced back to a discharge from a particular direct source (e.g., an industrial outfall pipe).

One way to visualize NPS pollution is to think of rain and snow melt as a giant broom that sweeps over the watershed, moving debris and soil into the lake from the surrounding land and streams.

In the past few years, Thompson Lake has experienced significant soil runoff from the surrounding land during heavy spring and summer rainstorms. This storm water runoff is a type of **nonpoint source pollution** (see box). Rain and snowmelt sweeps over the watershed, moving debris and soil into the lake from the surrounding land and streams.

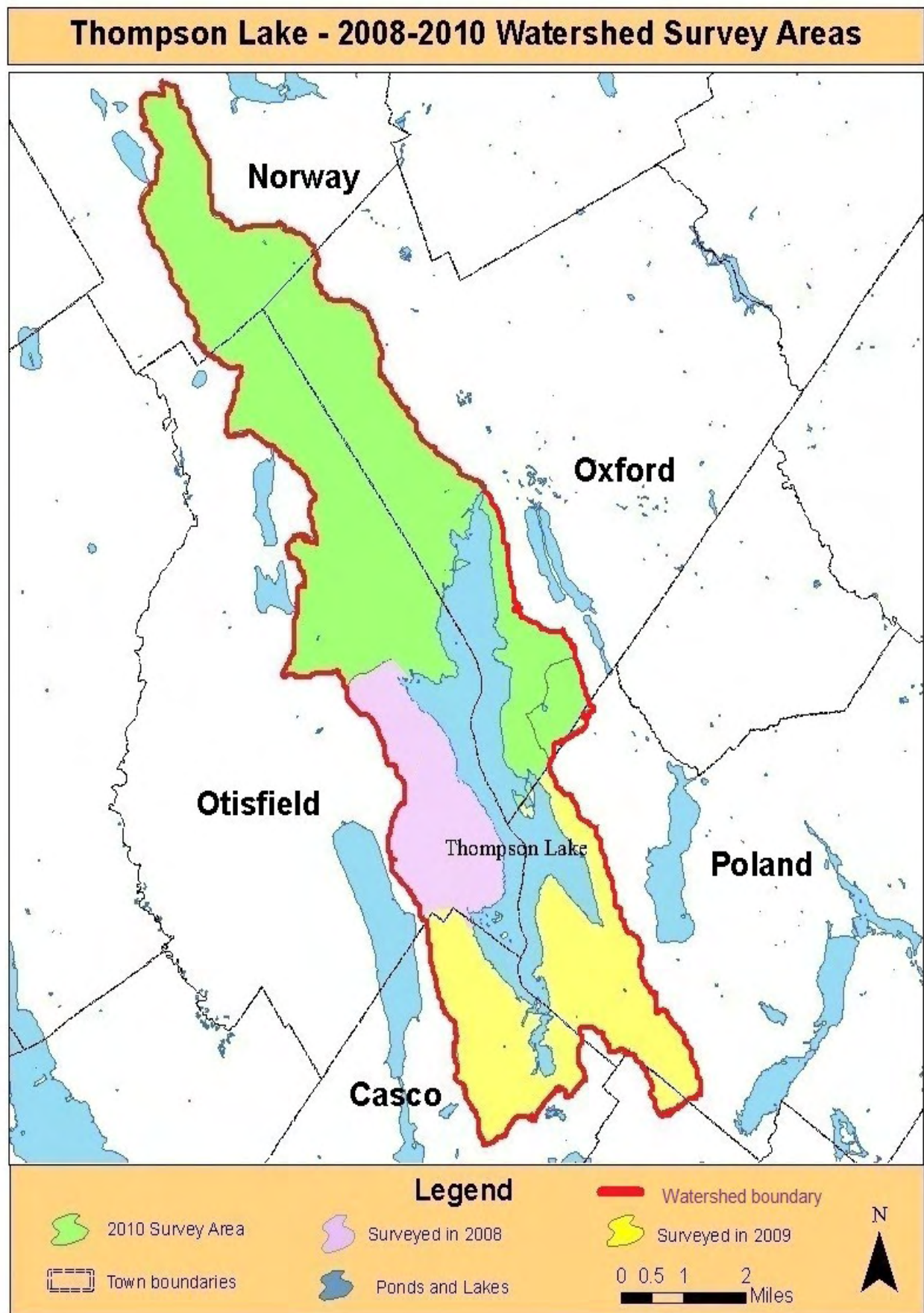
In an undeveloped, forested watershed, storm water runoff (rain and snowmelt) is slowed by trees and shrubs. It is then filtered through the soil and soaks into the uneven forest floor. In this way, nonpoint source pollution is trapped on land so it doesn't flow into the lake. But in *developed* watersheds, the velocity of storm water runoff increases on impervious surfaces like rooftops, compacted and bare soil, gravel roads, and pavement. Therefore, storm water does not receive the filtering treatment the forest once provided.



Excess phosphorus can “fertilize” a lake and lead to nuisance algal blooms.

(continued on page 3)

# Figure 1



## INTRODUCTION ( continued from page 1)

Soil particles carry **phosphorus** as a “hitch hiker”. Phosphorus is a plant nutrient. If eroding soil carries too much phosphorus into a lake, it upsets the natural balance, and algae in the lake gorge on it like junk food. This does not only affect the shore of the lake. Soil erosion that occurs high in the surrounding hills can flow downhill via streams and surface runoff and enter the lake. Algae growth explodes, and the lake is covered with a thick mat of slimy green plant matter. Goodbye swimming, boating, fishing and quality wildlife habitat!

Algae “blooms” like this have already occurred in lakes around Lewiston and Auburn. Once algal blooms occur they are enormously expensive to fix. Restoring a lake’s clarity may take decades. That’s why minimizing soil erosion is so important; we want to keep Thompson Lake clear and blue for the enjoyment of all. But in order to fix erosion problems we first need to find out where they are.



In 2008, TLEA and volunteers surveyed the southern part of Otisfield for soil erosion “hotspots”. Ninety-six sites were found (the results were documented in a previously-issued report). Since then, TLEA received a large grant that allows it to work cooperatively with the Town of Otisfield, private road associations and landowners to address many of these erosion issues. Also, in 2009 and 2010, TLEA completed the survey in the remainder of the watershed (see Figure 1) – Casco, Poland, northern Otisfield, Oxford and Norway. The 2009-10 survey results are the subject of this report.

# Purpose of the Watershed Survey

The primary purpose of the watershed surveys was to identify and prioritize existing sources of polluted runoff, particularly soil erosion sites, in the Thompson Lake Watershed. However, these goals were equally important:

- Raise public awareness of the connection between land use and water quality, and the impact of polluted runoff.
- Inspire people to become active stewards of the watershed.
- Use the information gathered as one component of a long term lake protection strategy.
- Make general recommendations to landowners for fixing erosion problems on their properties.

Local citizen participation was essential in completing the watershed survey and will be even more important in coming years. Through the leadership of the Thompson Lake Environmental Association, and with assistance from groups and agencies concerned with lake water quality, the opportunities for stewardship are limitless! We hope that you will find this report interesting and informative.



*Several lakeshore properties were observed to have little or no **vegetated buffer** at the water's edge. It is important to note that buffers of shrubs and trees do a much more effective job than bare ground or grass at keeping NPS pollution from entering lakes. Deep shrub and tree roots also help hold the shoreline.*

*( Bear Pond, Hartford, Maine)*

*Buffers can be installed inexpensively. You can either stop mowing , stop raking to the water's edge and let plants grow up naturally (as in the picture on the right). Or you can plant the area with native trees and shrubs.*

*Buffers enhance the appearance of shore-front property, increase privacy, and attract birds and other wildlife without ruining the landowner's view.*

*(MDEP file photo)*



## **Why is it important to protect Thompson Lake from polluted runoff?**

- Thompson Lake provides recreational opportunities to watershed residents and to visitors. It is an important contributor to the local economy.
  - Thompson Lake contains valuable habitat for fish, birds and other wildlife.
  - A 1996 University of Maine study demonstrated that lake water quality affects property values. For every meter (3 ft) decline in water clarity, shorefront property values can decline as much as 10 to 20 percent! Declining property values affect individual land-owners as well as the tax revenue of the entire community.
  - Once water quality problems occur in a lake, they can be difficult or impossible to fix.
- 

## **What is being done to protect Thompson Lake?**

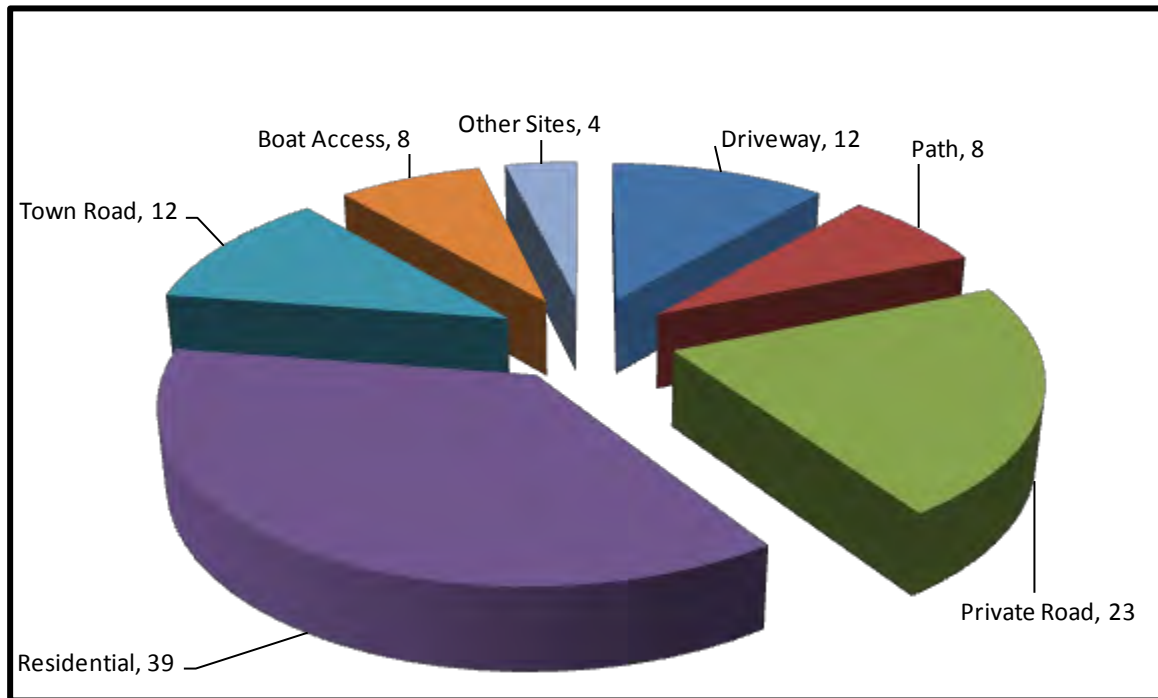
TLEA works with the Maine Volunteer Lake Monitoring Program to test water quality in Thompson Lake. Water quality data are shared with Maine Department of Environmental Protection.

Five hundred members strong, TLEA's environmental programs include weekend inspections for invasive plant fragments (milfoil) on boats and boat trailers entering and leaving the lake. Divers and a specially-equipped pontoon boat removed 22 tons of milfoil from the lake in 2008, 20 tons in 2009, and 37 tons in 2010. Additionally, TLEA educates the public, cooperates with municipalities to control erosion, and runs the Thompson Lake Youth Conservation Corps (YCC).

Volunteer watershed surveys are one of the most effective ways to protect lake water quality because they get citizens involved in identifying existing and potential sources of polluted runoff. The 2010 watershed survey completed a 3-year process in which TLEA updated its database of erosion problems throughout the entire Thompson Lake Watershed.

# Southern Section Watershed Survey Findings (Casco and Poland)

Volunteers and technical staff identified **106 sites** that may have an impact on Thompson Lake.



## Statistics

### Sites by Land Use:

Residential	39	(37%)
Private Road	23	(22%)
Town Road	12	(11%)
Driveway	12	(11%)
Boat Access	8	( 8%)
Path	8	( 8%)
Beach Access	3	( 2%)
Construction Site	1	( 1%)
<b>TOTAL</b>	<b>106</b>	<b>(100%)</b>

### Sites by Sector:

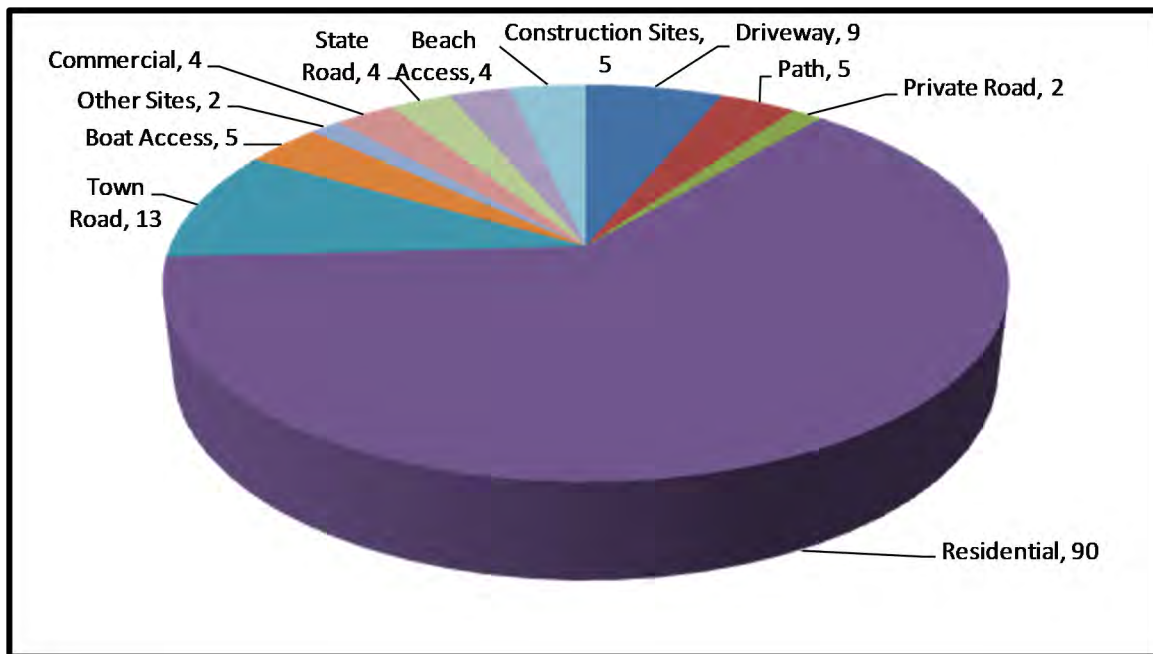
Sector 1	5
Sector 2	13
Sector 3	3
Sector 4	21
Sector 5	9
Sector 6	0
Sector 7	15
Sector 8	10
Sector 9	30
<b>TOTAL</b>	<b>106</b>

### Sites by Impact:

High	17
Medium	34
Low	55
<b>TOTAL</b>	<b>106</b>

# Northern section Watershed Survey Findings by Land Use (Oxford, Northern Otisfield, and Norway)

Volunteers and technical staff identified **143 sites** that may have an impact on Thompson Lake



## Statistics

### Sites by Land Use:

Residential	90	(62%)
Town Road	13	(9%)
Driveway	9	(6%)
Boat Access	5	(4%)
Path	5	(4%)
Construction Sites	5	(4%)
State Road	4	(3%)
Beach Access	4	(3%)
Commercial	4	(3%)
Private Road	2	(1%)
Other	2	(1%)
<b>TOTAL</b>	<b>143</b>	<b>(100%)</b>

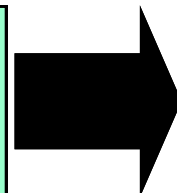
### Sites by Sector:

Sector 1	21
Sector 2	29
Sector 3	21
Sector 4	20
Sector 5	25
Sector 6	12
Sector 7	6
Sector 8	8
Sector 9	1
<b>TOTAL</b>	<b>143</b>

### Sites by Impact:

High	16
Medium	48
Low	79
<b>TOTAL</b>	<b>143</b>

A total of 11 land uses were associated with the identified sites in the Southern and Northern surveys. Detailed descriptions of **residential, town road, private road, driveway, path and boat access** sites are on the following pages.



# Residential

129 Residential sites were found in the northern and southern sections.

## Common Problems Identified:

- Slight or moderate surface erosion.
- Bare soil.
- Inadequate vegetation along the shoreline.
- Direct flow of sediment into Thompson Lake.
- Roof runoff erosion.
- Inadequate erosion control at construction sites.

## Recommended Solutions:

- Seed and mulch bare soil.
- Establish or enhance shoreline buffer.
- Limit foot traffic in eroding areas, place mulch or stone on heavily used paths.
- Install waterbar, open-top culvert, rubber razor or other runoff diverters.
- Use dripline trench to catch roof runoff.

Below is an example of Residential problems identified on Thompson Lake in this survey.



## Problems:

- Bare soil down to lakeshore.
- Roof runoff hits bare soil and carries it to the lake.
- Inadequate vegetation along shoreline.

## Solutions:

- Cover bare soil by seeding and haying or apply erosion control mulch.
- Install infiltration trench to catch roof runoff.
- Enhance buffer along shoreline.

Residential areas were associated with 52% of the identified sources of polluted runoff to Thompson Lake in these surveys. These problems pose a significant threat to water quality. Fortunately, most can be corrected easily.

# Town Roads

25 town road sites were found in the northern and southern sections.

## Common Problems Identified:

- Moderate to severe shoulder erosion.
- Severe ditch erosion.
- Direct flow of sediment to streams or Thompson Lake.
- Unstable culvert inlet and outlet.
- Winter sand build-up.
- Poor shaping and inappropriate surface material.

## Recommended Solutions:

- Clean, reshape and armor ditches with stone or plant grass.
- Armor culvert inlets and outlets.
- Install plunge pools below culverts to hold runoff and catch sediment before it enters streams or Thompson Lake.
- Properly size and align culverts.
- Properly shape road and install appropriate surface material.

Below are examples of town road problems identified on Thompson Lake in this survey.



## Problems:

- Winter sand runoff.
- Bare soil in and along ditches.
- Road shoulder erosion.
- Evidence of soil & sediment entering ditch, which flows to Thompson Lake.

## Solutions:

- Remove winter sand, and armor ditch with grass or rip-rap (large rocks).
- Install plunge pool at culvert outlet to catch soil before it enters the ditch and flows to the lake.

## Problems:

- Evidence of soil and sediment flowing into Greeley Brook which is a major tributary of Thompson Lake.
- Eroding culvert under road.

## Solutions:

- Stabilize town road where it crosses Greeley Brook to prevent soil and sediment from flowing into the lake (see above).



## Private Roads & Driveways

25 private road and 21 driveway sites were found in the northern and southern sections. Conservation practices are often similar for private roads and driveways.

### Common Problems Identified:

- Poor shaping
- Moderate to severe surface erosion.
- Sediment flowing directly to stream or lake.
- Grader berms trapping flow on road.

### Recommended solutions:

- Reshape road (crown), allowing it to shed water.
- Install water bars, open-top culverts or rubber razors to divert flow off road.
- Clean, reshape and armor ditches with angular stone rip rap, or plant grass.

Below is an example of private road problems identified on Thompson Lake in this survey.

### Problems:

- Poorly shaped road has developed ruts that trap runoff on the road.
- Eroding soil washes into Thompson Lake.
- Berm traps flow on road, causing greater erosion.

### Solutions:

- Reshape road with proper crown.
- Install water bars across the road to divert soil runoff into the woods so it doesn't enter Thompson Lake.
- Remove roadside berms.



*Unpaved roads are a big source of pollution to Maine lakes. Building the road correctly in the first place will save money in the long run by reducing water pollution and maintenance costs on your road, ditches and vehicle.*

*Remember ... It is the cumulative impact of all small, medium and large erosion sites that causes water quality to deteriorate.*

# Path

13 path sites were found in the northern and southern sections.

## Common problems identified:

- Heavy foot traffic creates channels for storm water runoff.
- Soil flows directly into Thompson Lake.
- Surface material is highly erodible.
- Lack of defined pathway.

## Recommended solutions:

- Define and create narrow, winding pathways to replace paths that head directly to the lake.
- Install water bars to divert runoff into the woods.
- Apply appropriate, non-erodible surface material.

Below are examples of path problems identified on Thompson Lake in this survey.



## Problem:

- Heavy foot traffic causes erosion on path that washes soil into Thompson Lake.

## Solution:

- Create and define path to cabin that doesn't erode.

## Problems:

- Poor shaping of snowmobile trail traps runoff in the road which causes erosion.
- Roadside berm prevents runoff from entering buffer.

## Solutions:

- Properly shape (crown) the trail.
- Install a water bar across the trail to divert runoff into the woods.



# Boat Access

13 boat access sites were found in the northern and southern sections.

## Common Problems Identified:

- Moderate to severe surface erosion.
- Direct flow of sediment to Thompson Lake and the Heath.
- Heavy foot traffic.
- Minimal vegetated buffer along shore-line.

## Recommended Solutions:

- Establish or enhance buffer.
- Seed and mulch bare soil.
- Minimize bare areas.
- Create defined pathway.
- Stabilize road shoulder.

Below is an example of boat access problems identified on Thompson Lake in this survey.



## Problems:

- Direct flow of sediment into the Heath.
- Severe surface erosion.
- Asphalt road shoulder is chipping.

## Solutions:

- Install infiltration steps for hand-carry boat launch.
- Stabilize road shoulder.
- Enhance buffer at sides of boat launch.

## DID YOU KNOW?...

*Even the most ambitious erosion control efforts may fail over time if they are not properly maintained. Periodic inspection and upkeep is necessary to make sure erosion controls remain effective.*

## Important Points!

- A full summary of all erosion sites identified in the survey are contained in spread sheets in the appendix. Sites are grouped in order by survey sector. Each listing shows the map site number, the type of problem(s) encountered, location, size or area, and recommended solutions.
- In addition to the surveyed sites, numerous lakeshore properties were observed to have little or no vegetated buffer at the water's edge. Since the primary purpose of this survey was to document erosion, not all of these sites were included in the survey results. However, it is important to note buffers of shrubs and trees do a much more effective job than bare ground or grass to keep NPS pollution from entering lakes.
- During the survey, we found that many landowners in the Thompson Lake Watershed have already taken steps to protect water quality. Surveyors found numerous open top culverts and waterbars across driveways, as well as dripline trenches under roof edges. These simple conservation measures do an effective job of minimizing, and in some cases eliminating, soil erosion. Landowners' concern for protecting Thompson Lake bodes well for future efforts to continue the great erosion control work.

## Site Rankings

Sites in the spreadsheet were ranked according to these criteria:

- Impact was assigned by considering factors such as the size of disturbed area, slope, soil type, amount of soil that's eroding, proximity to water, and size of buffer. **Low** impact eroding sites are those with limited transport off-site. At **medium** impact sites, sediment is transported off-site, but the erosion does not reach a high magnitude. Large sites where there is significant erosion that flows directly into a stream, lake or ditch, were rated **high** impact.
- Cost is an important factor in planning for restoration. **Low** cost sites were estimated to cost less than \$500 to fix. An estimate of \$500 to \$2,500 was rated **medium**. If the estimated cost to fix a site exceeded \$2,500, a **high** rating was assigned.

With a few exceptions, virtually all of the sites identified in the survey are significant to one degree or another. The cumulative effect of many "low" and "medium" impact sites can exceed that of any one "high" impact site. This should be considered when a strategy is developed to address problems in the watershed.

## Recommendations

Fixing the erosion sites identified in this survey will require efforts by the entire community. Below are some suggestions for individuals and groups.

### Individual Citizens

- Prevent runoff from washing sediment into the lakes. Detain runoff in depressions or divert flow to vegetated areas. Call TLEA or MDEP for free technical assistance.
- Minimize the amount of cleared land and road surfaces on your property.
- Stop mowing and raking, and let lawn and raked areas revert back to natural plants. Deep shrub and tree roots help hold the shoreline.
- Avoid exposing bare soil. Seed and mulch bare areas. Use erosion control around construction projects which involve excavation.
- Don't bring in sand or rebuild beaches. Call TLEA, Fiddlehead Environmental Consulting or MDEP for technical assistance with beach or shoreline erosion.
- Call the town code enforcement officer before cutting vegetation within 250 feet of the shoreline.
- Join the TLEA. TLEA's purpose is to protect the lake. TLEA conducts water testing and provides erosion control assistance to landowners and the town.

### Thompson Lake Environmental Association

- Develop an active membership, provide educational materials and guidance to members of the Thompson Lake Watershed community and to town officials.
- Organize workshops and volunteer "work parties" to start fixing identified erosion problems and teach citizens how to fix similar problems on their own properties.
- Educate municipal officials about lake issues and work cooperatively to find solutions.
- Use updated watershed surveys to keep track of fixed sites and new problems.

### Road Associations and Private Roads without associations

- Form a road association if one does not already exist to properly maintain your road and reduce erosion.
- Minimize road runoff by doing regular, comprehensive maintenance.
- Decrease water velocity in steep ditches by installing check dams.
- Get a copy of "*Camp Road Maintenance Manual – A Guide for Landowners.*" This reference is a must for anyone managing a gravel road. (Visit the MDEP website [www.maine.gov/dep/blwq/docwatershed/roads/gravel\\_road\\_manual.pdf](http://www.maine.gov/dep/blwq/docwatershed/roads/gravel_road_manual.pdf).)
- For more extensive problems, seek technical help. Contact TLEA, Fiddlehead Environmental Consulting or MDEP to request technical assistance. Contact information is on back page of this report.

### Municipal Officials

- Enforce shoreland zoning standards to assure full protection of Thompson Lake.
- Conduct regular maintenance on town roads in the watershed, and fix town road problems identified in this survey.
- Participate in and support long term watershed management projects.
- Promote training for road crews, planning boards and conservation commissions. Decrease water velocity in steep road ditches by installing check dams.
- Use hard packing road material and regularly grade gravel roads to allow water to drain into ditches and adjacent vegetation.

# **Appendix**

- **Site Location Maps**
- **Spreadsheets**
- **Conservation Practices for Homeowners**
- **Permitting ABCs**
- **Where To Go For More Information**

## **Map Key:**

BE = Beach Access

BT = Boat Access

C = Commercial

CS = Construction Site

D = Driveway

P = Path/Trail

PR = Private Road

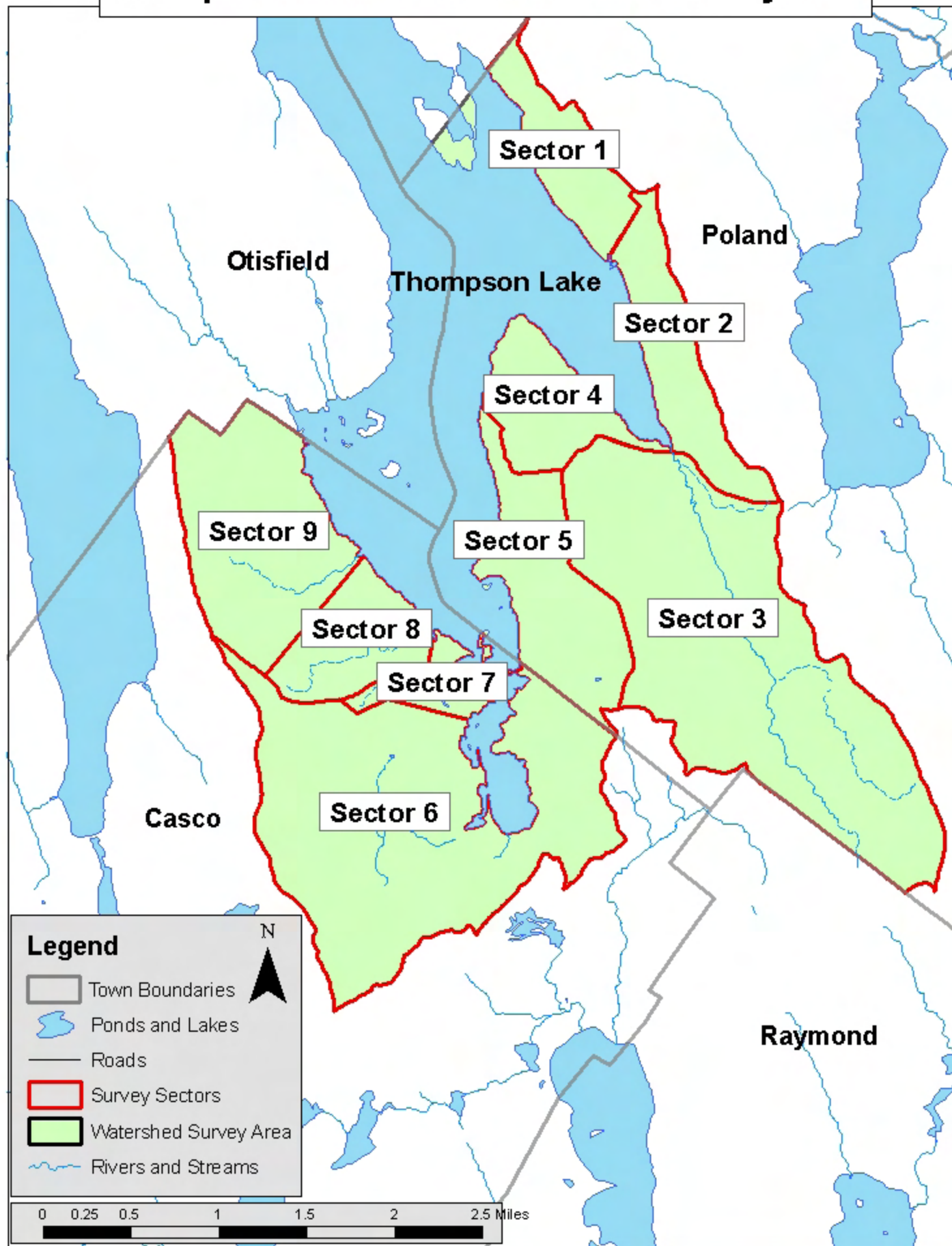
R = Residential

SR = State Road

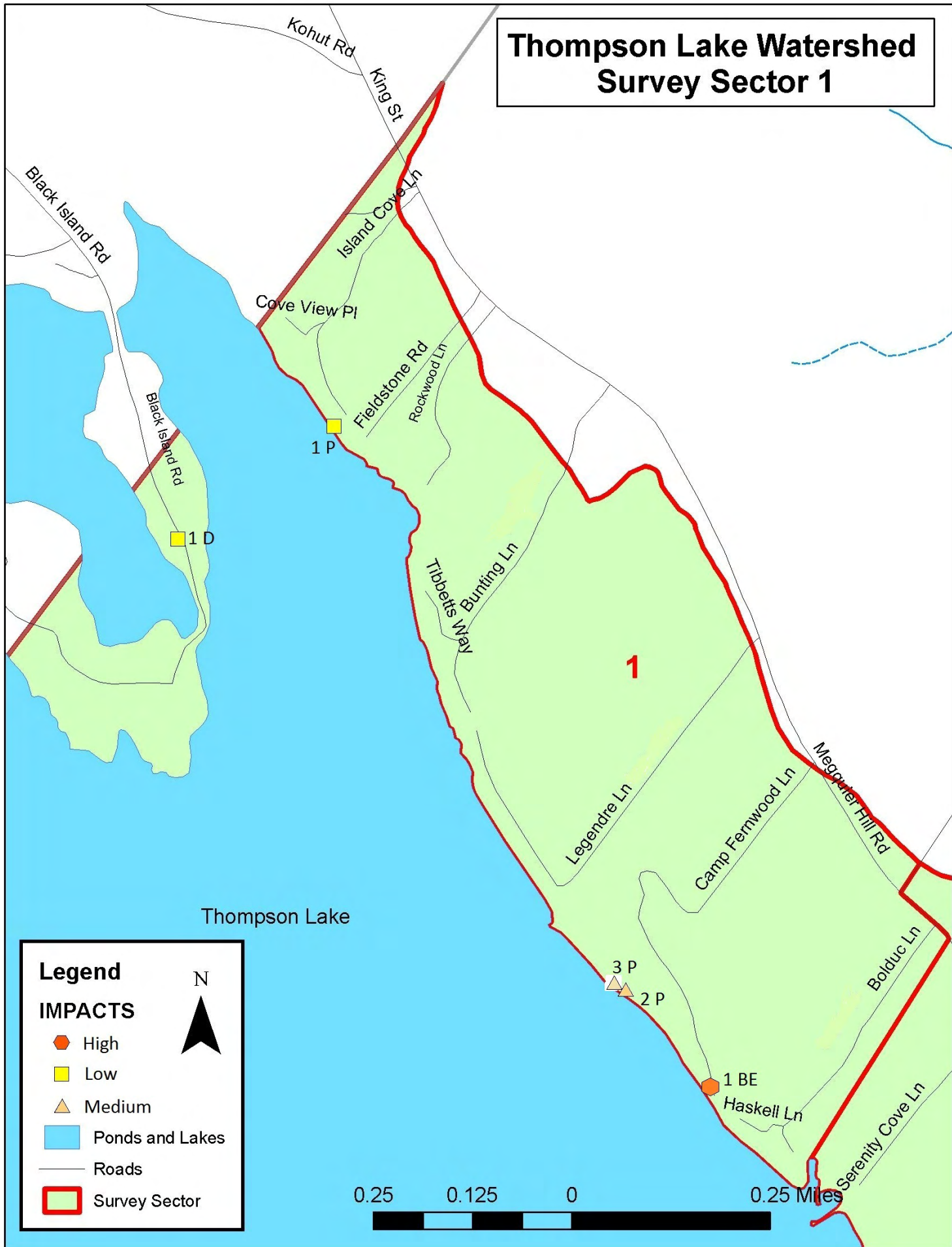
TR = Town Road

X = Other

# Thompson Lake - 2009 Watershed Survey Area

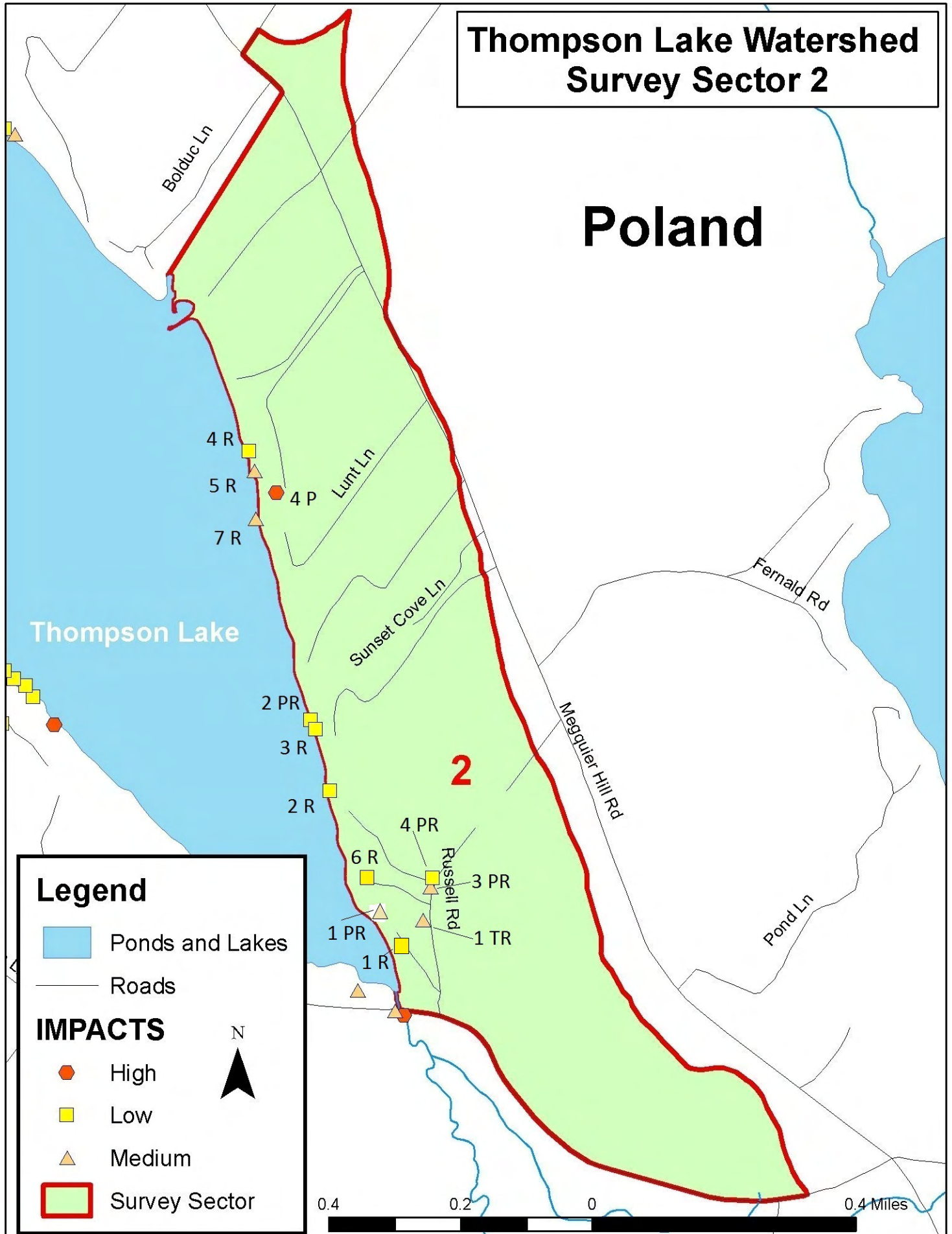


# Thompson Lake Watershed Survey Sector 1

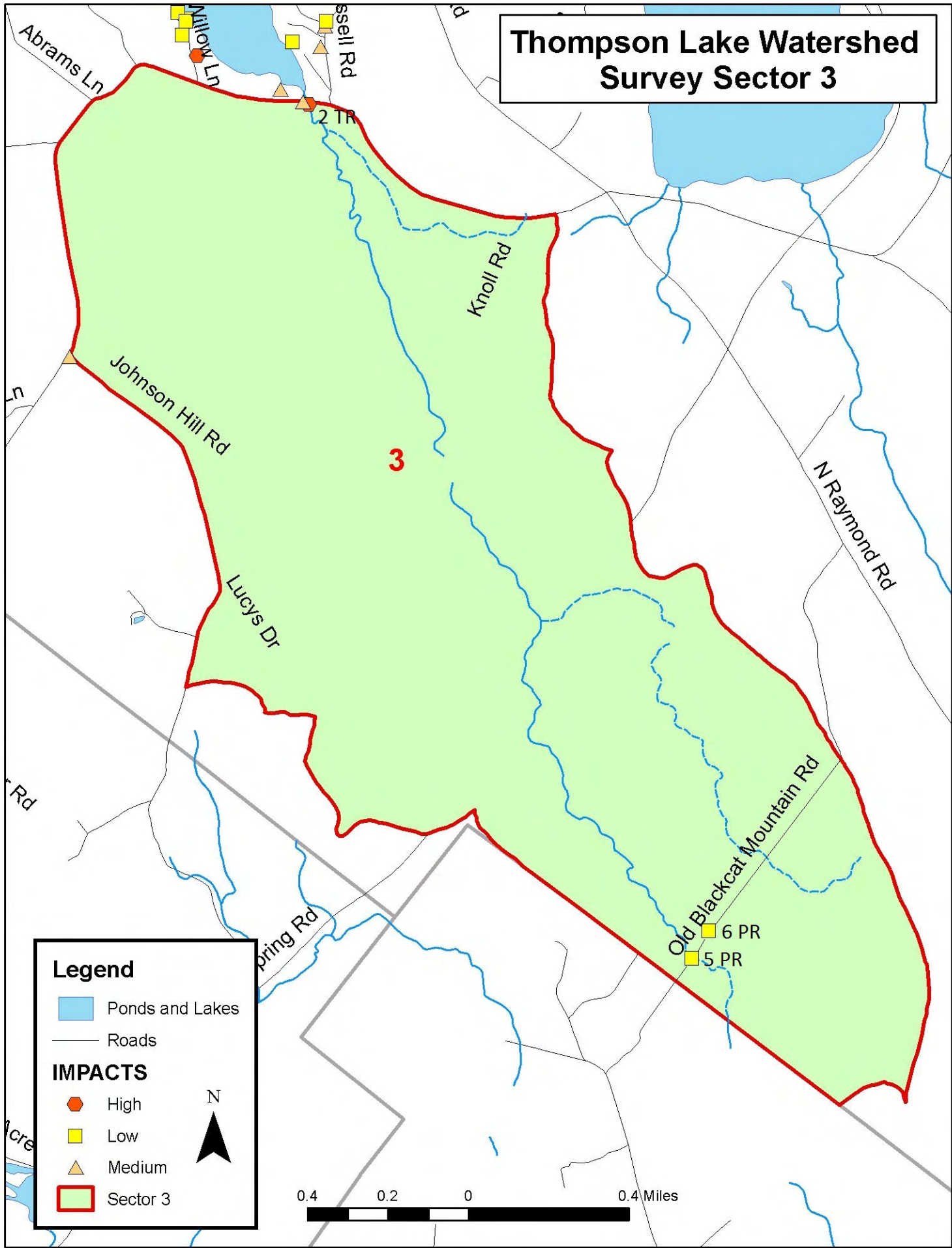


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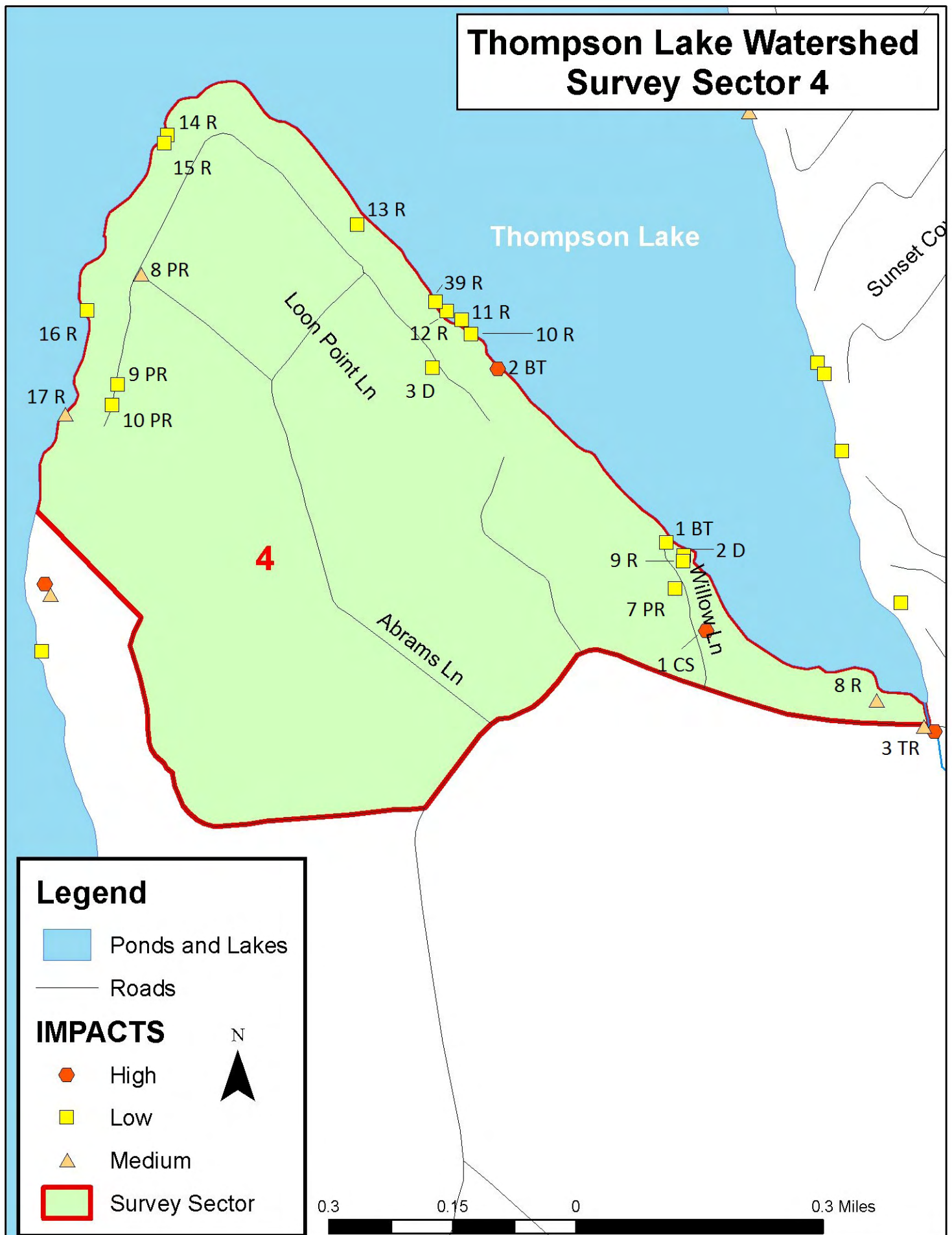
## Poland



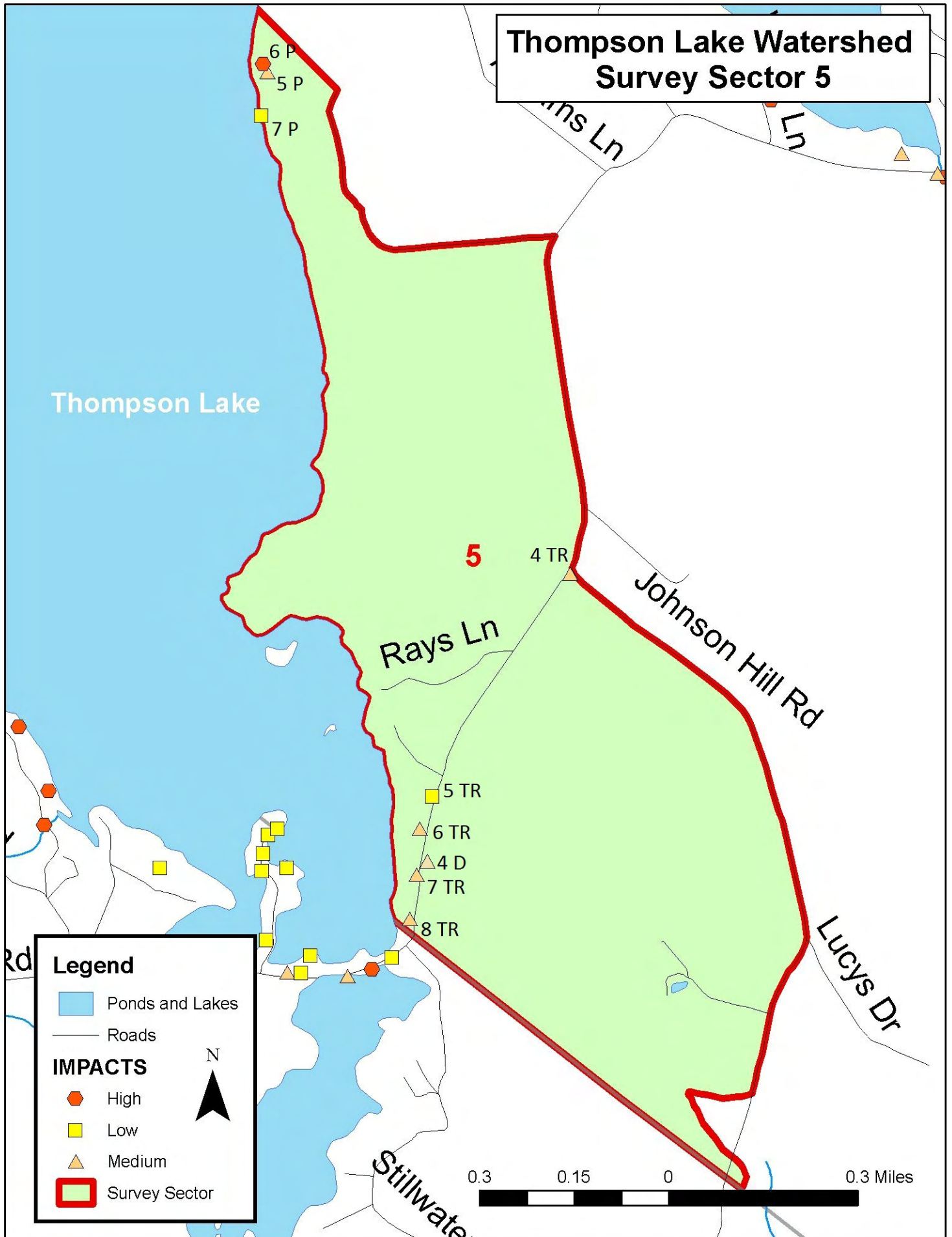
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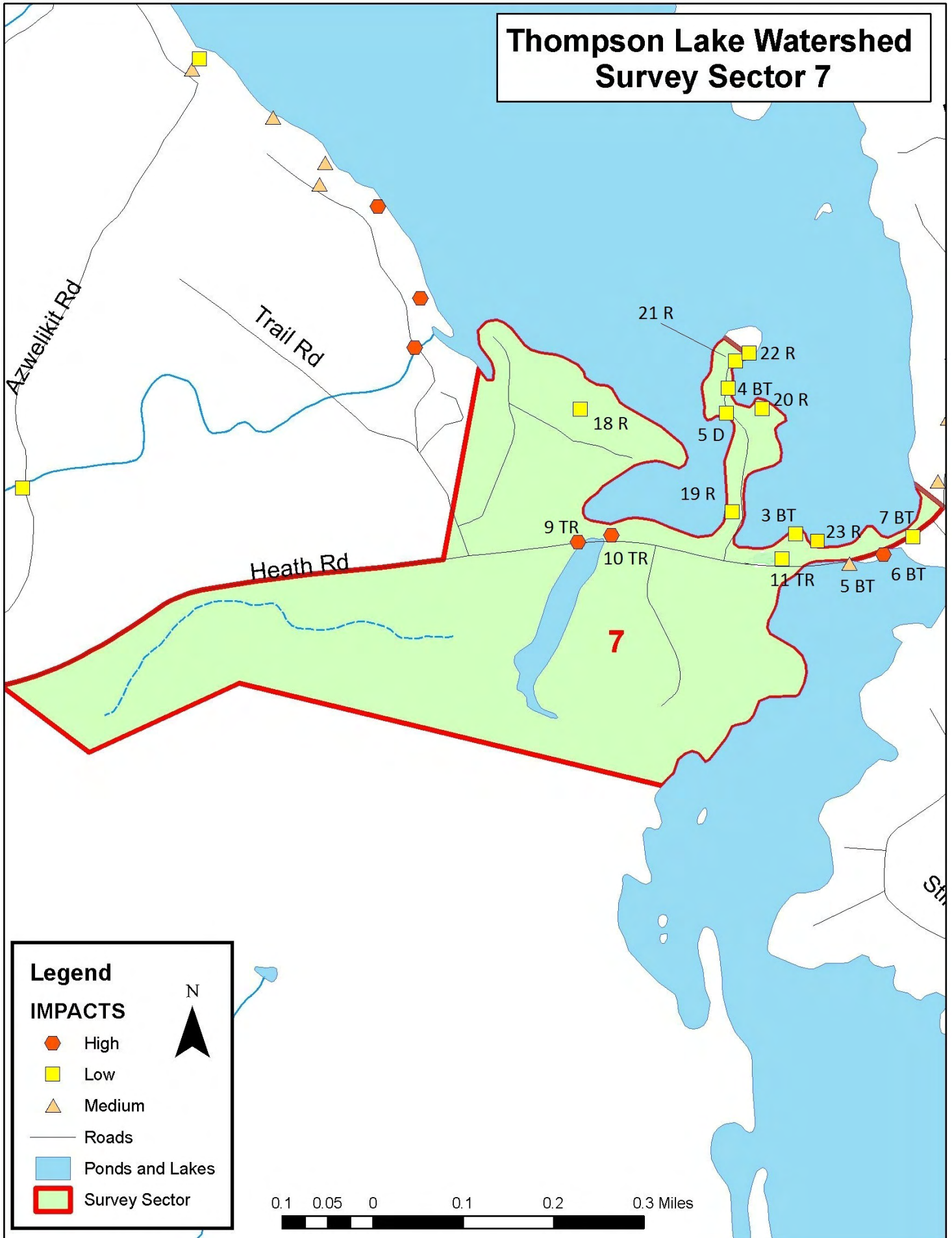
# Thompson Lake Watershed Survey Sector 4



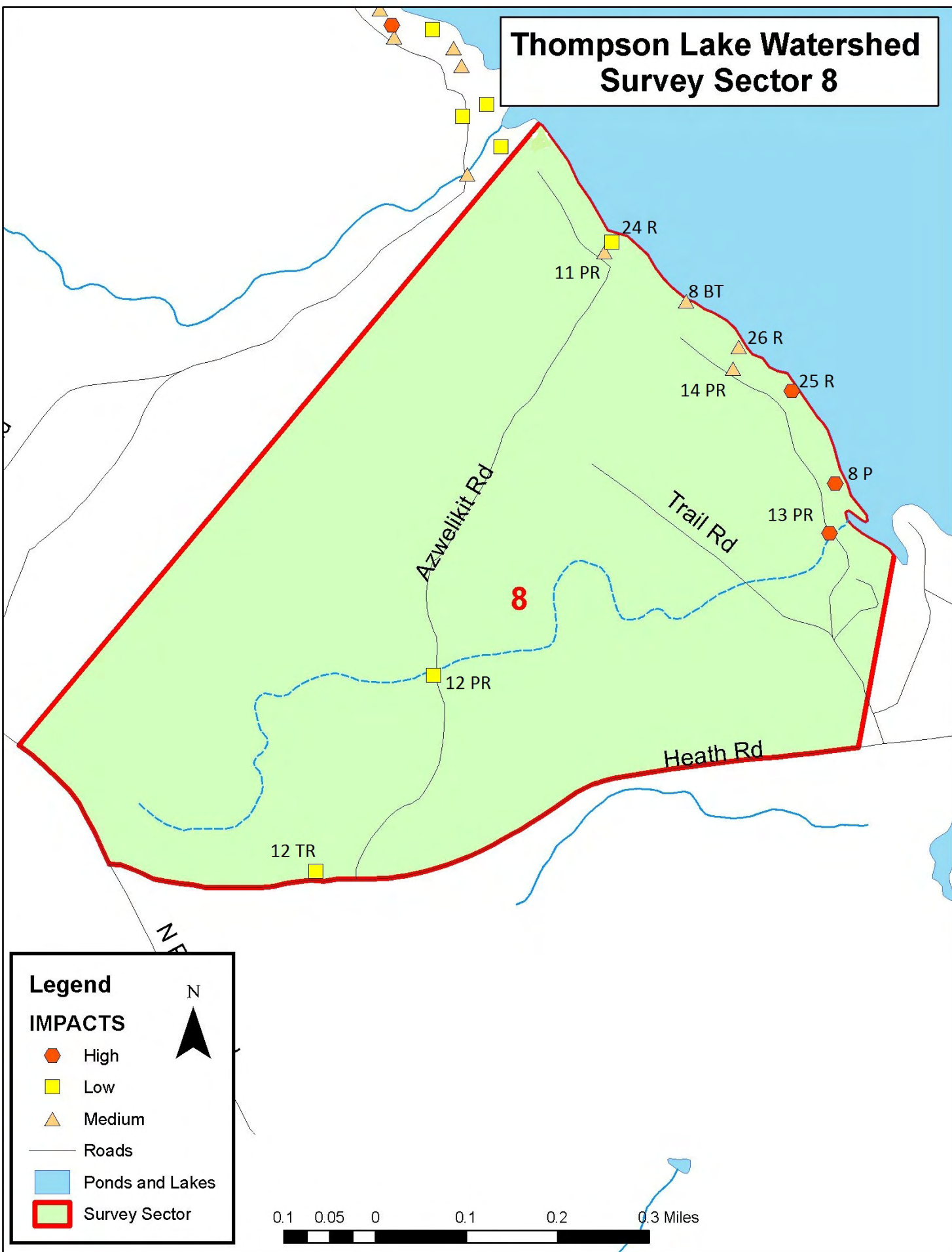
# Thompson Lake Watershed Survey Sector 5



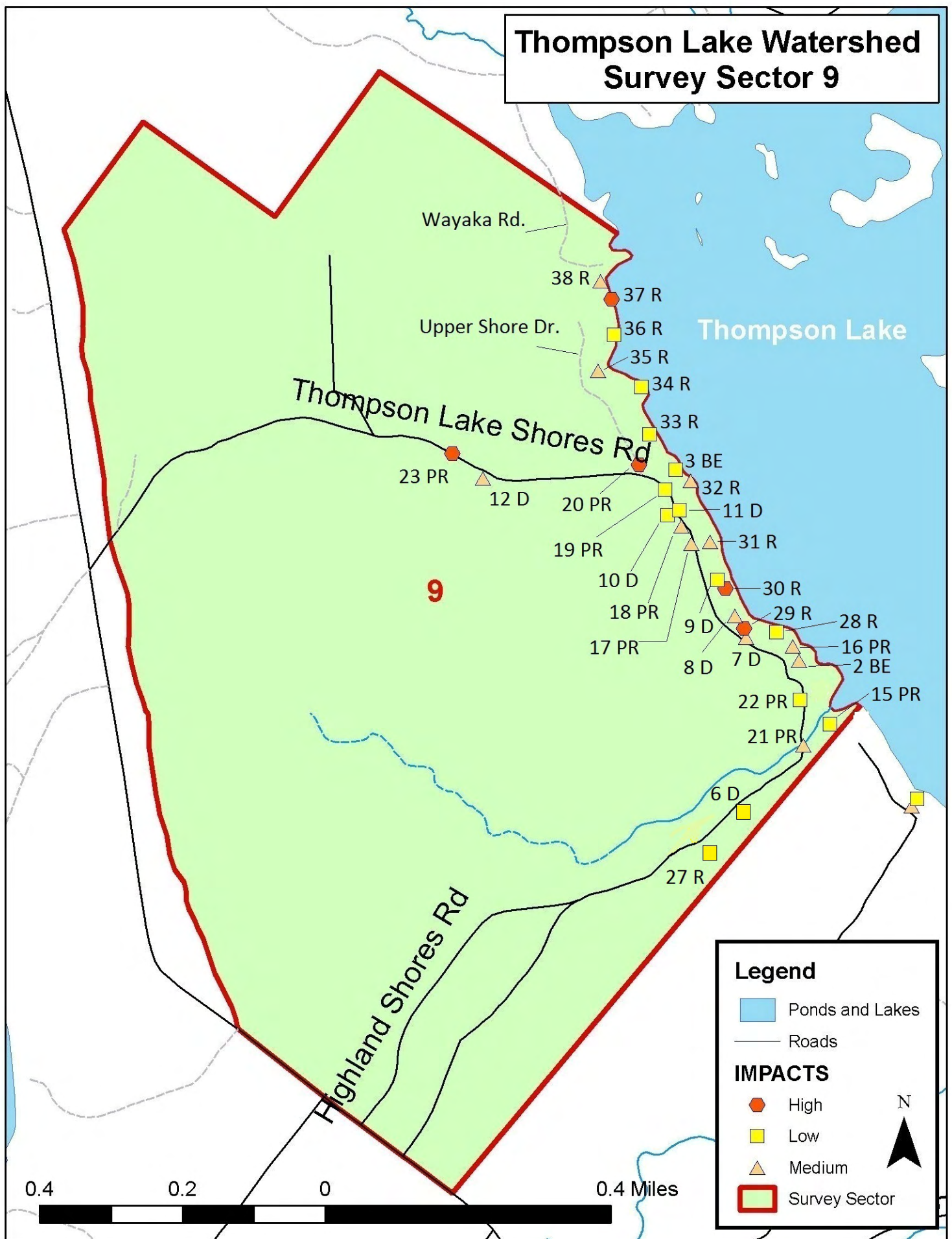
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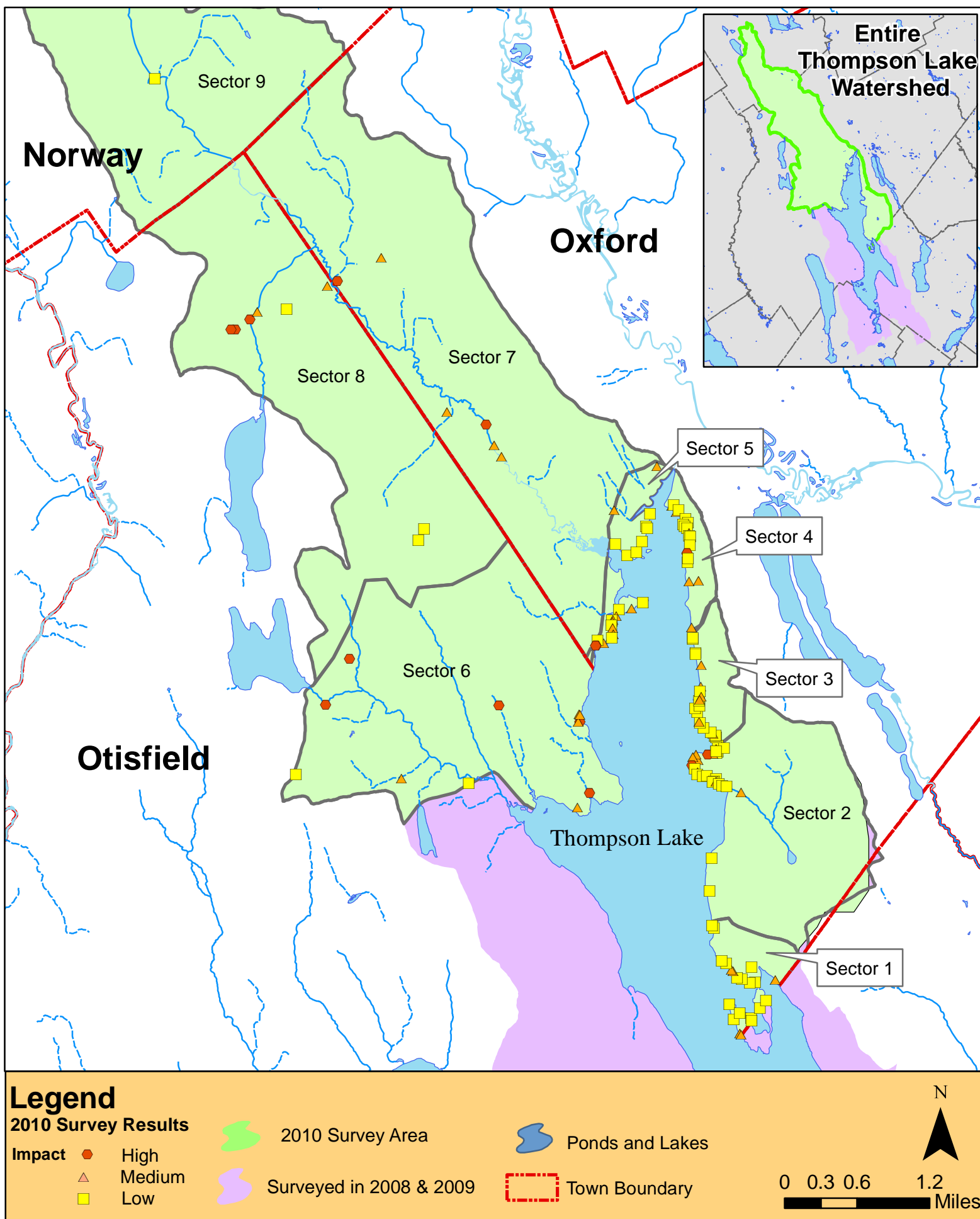
# Thompson Lake Watershed Survey Sector 8



# Thompson Lake Watershed Survey Sector 9

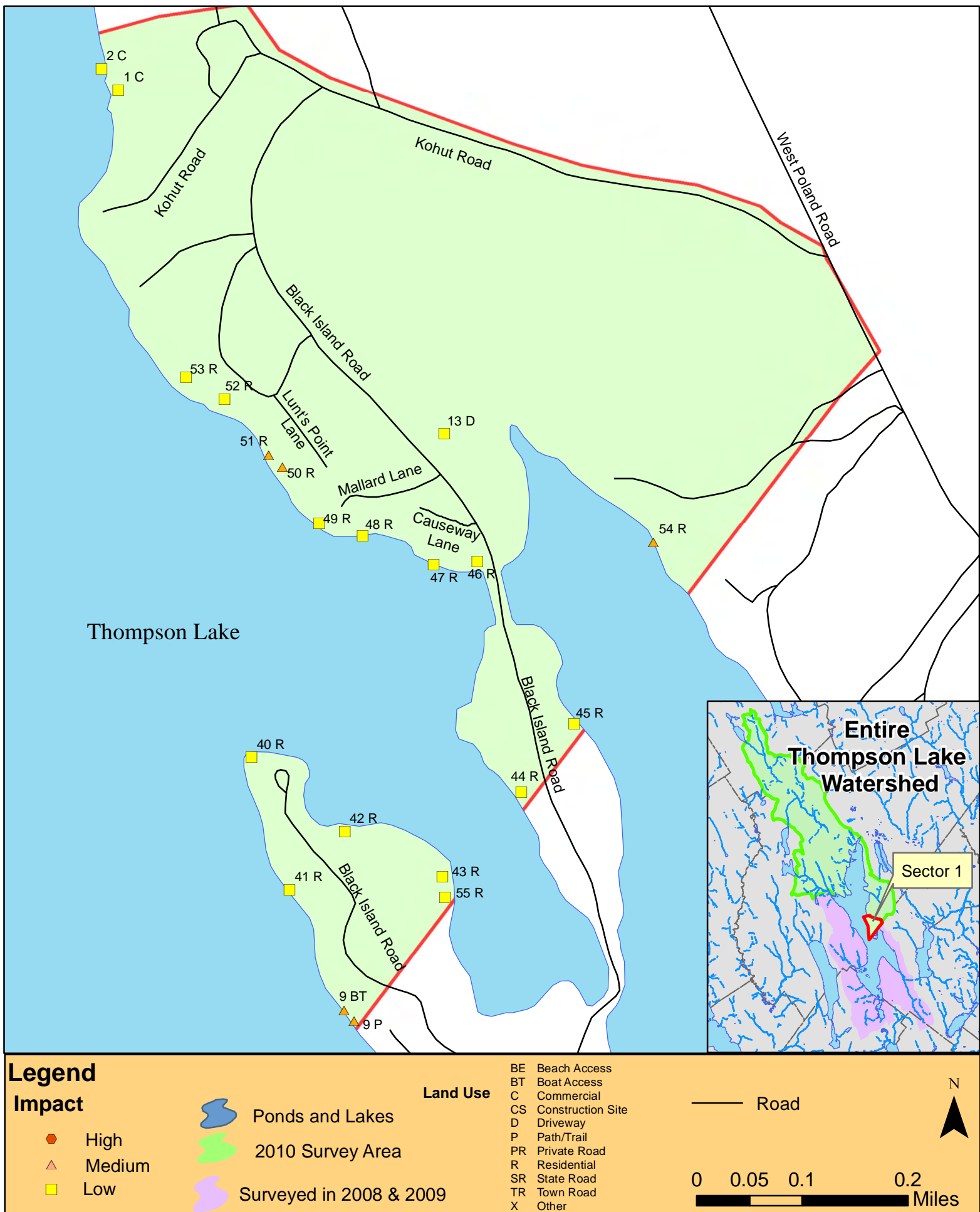


# Thompson Lake 2010 Survey Results



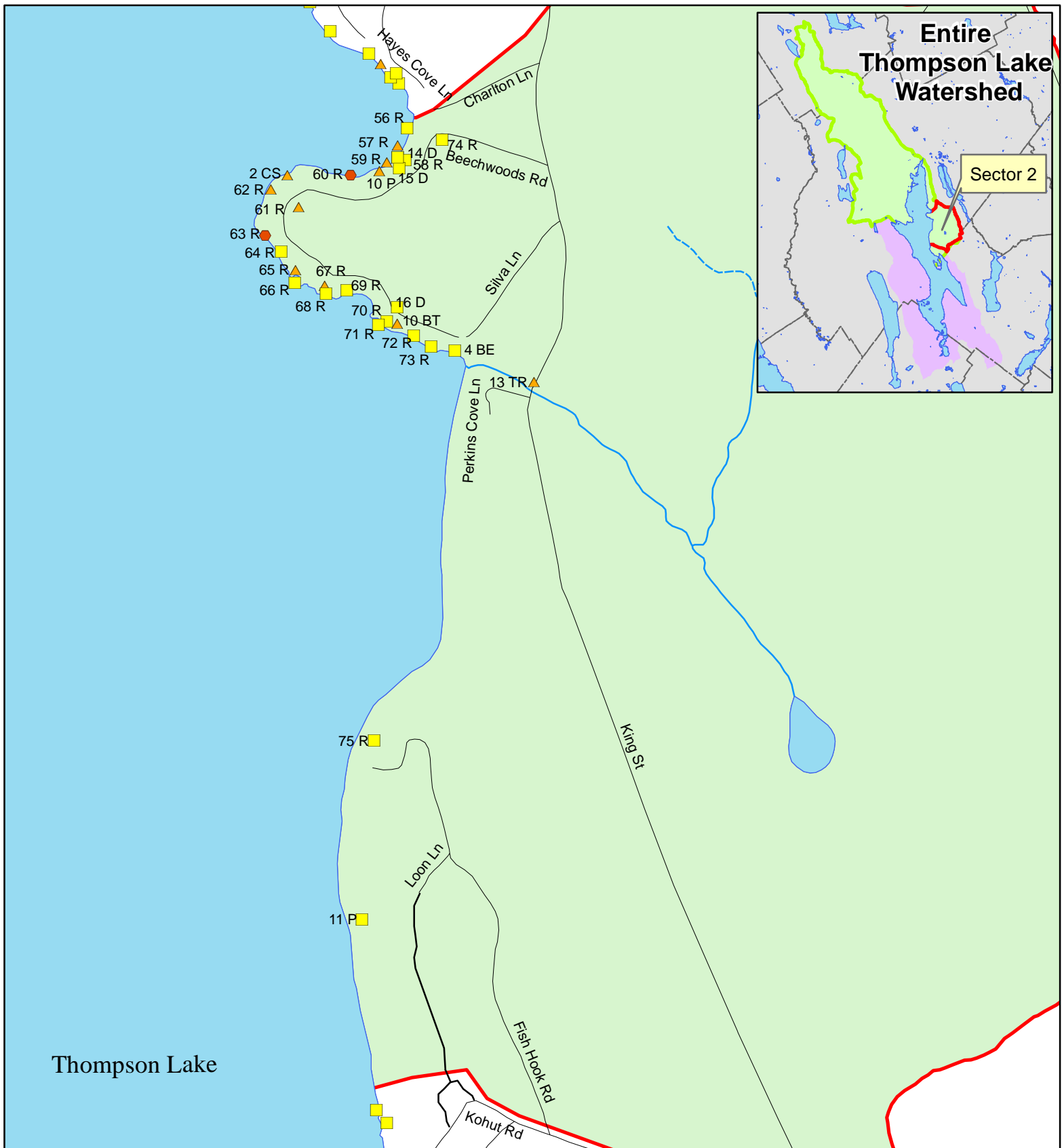
# Thompson Lake 2010 Survey Results

## Sector 1



# Thompson Lake 2010 Watershed Survey

## Sector 2



### Legend

#### 2010 Survey Results

Impact	High
	Medium
	Low

	2010 Survey Area
	Ponds and Lakes
	Surveyed in 2008 & 2009

#### Land Use

BE	Beach Access
BT	Boat Access
CS	Construction Site
D	Driveway
P	Path/Trail
PR	Private Road
R	Residential
TR	Town Road

— Road

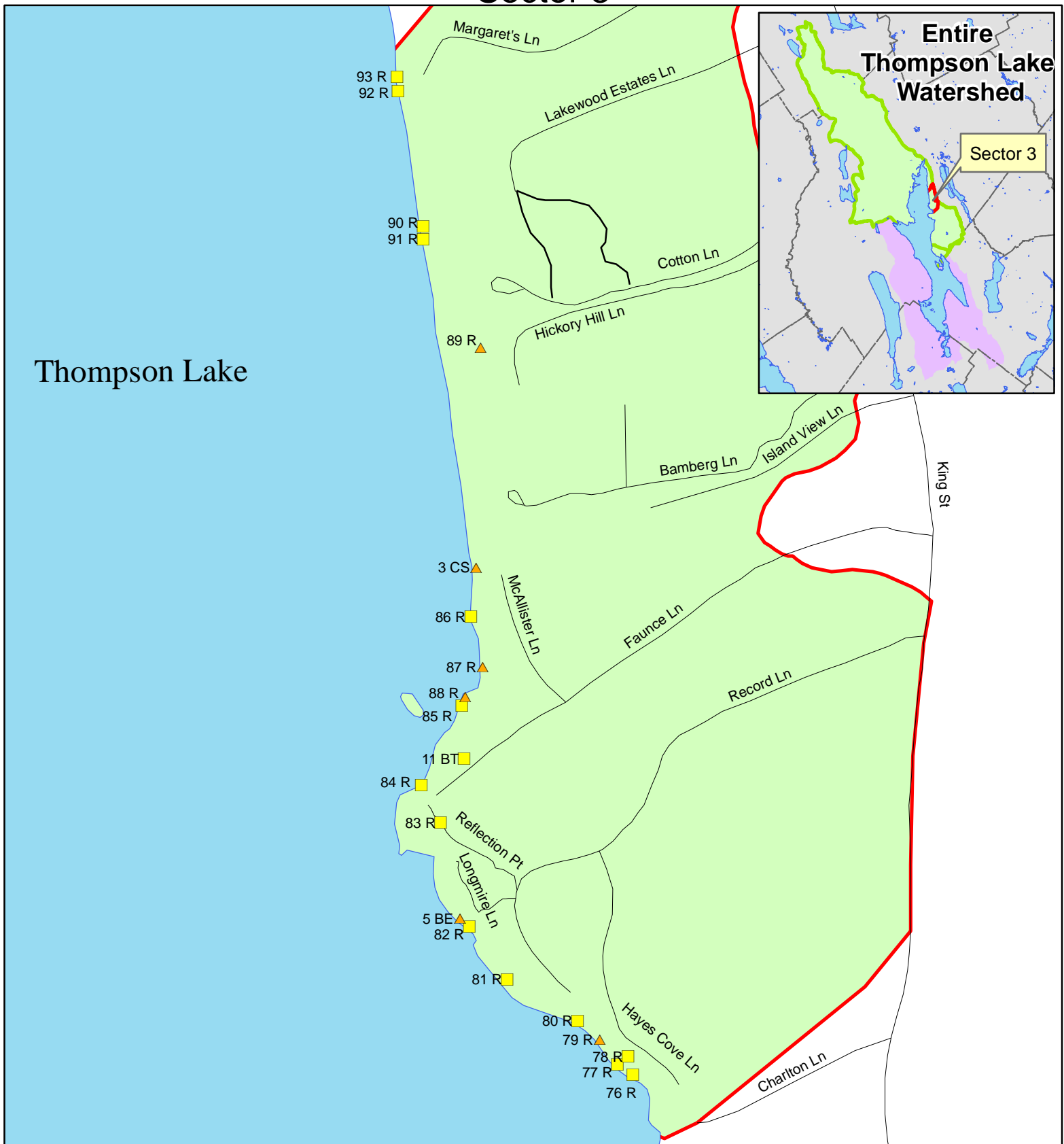
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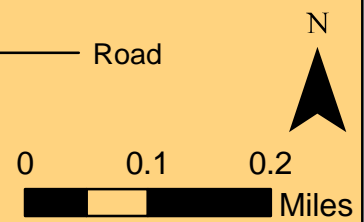
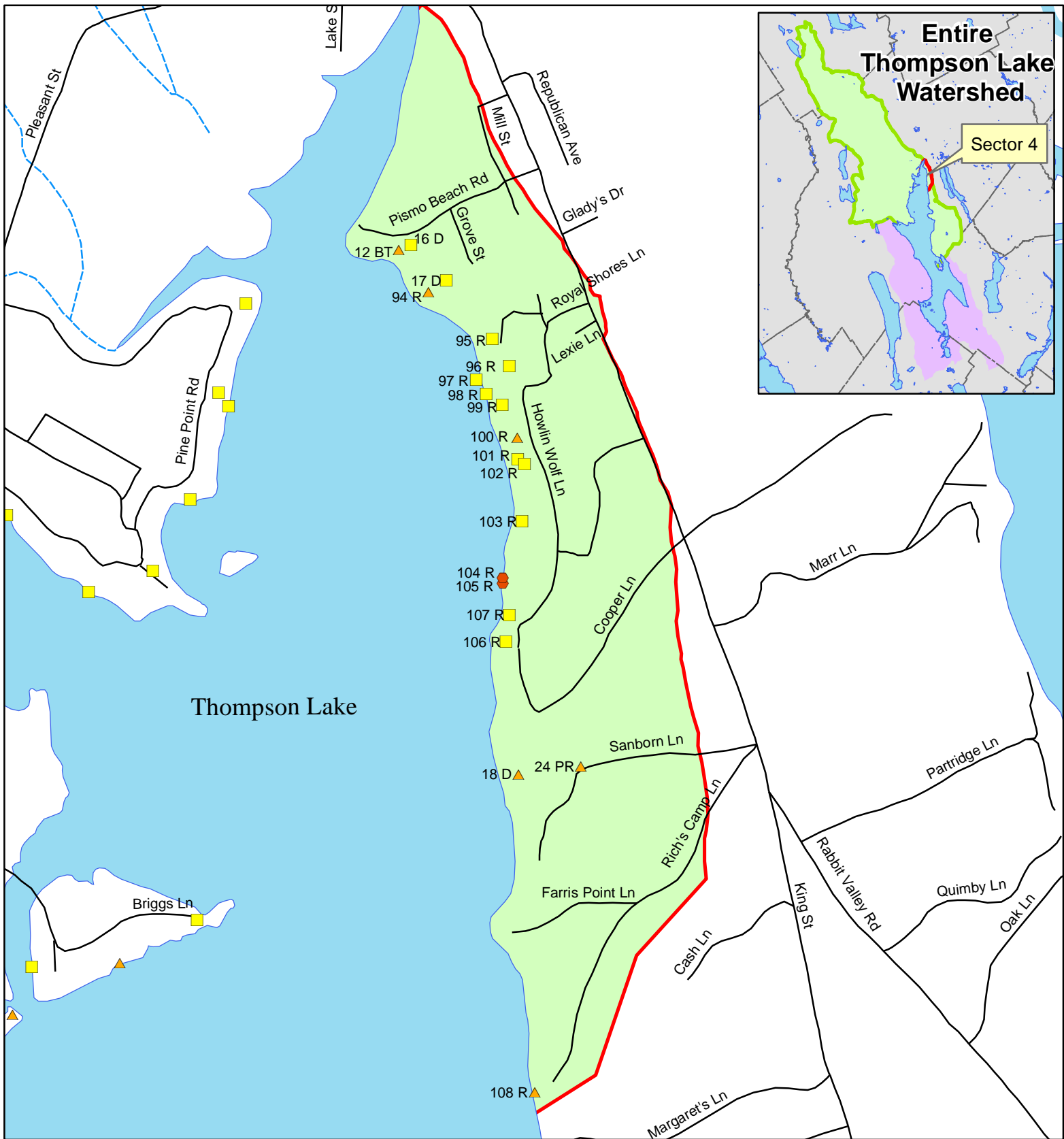
# Thompson Lake 2010 Survey Results

## Sector 3



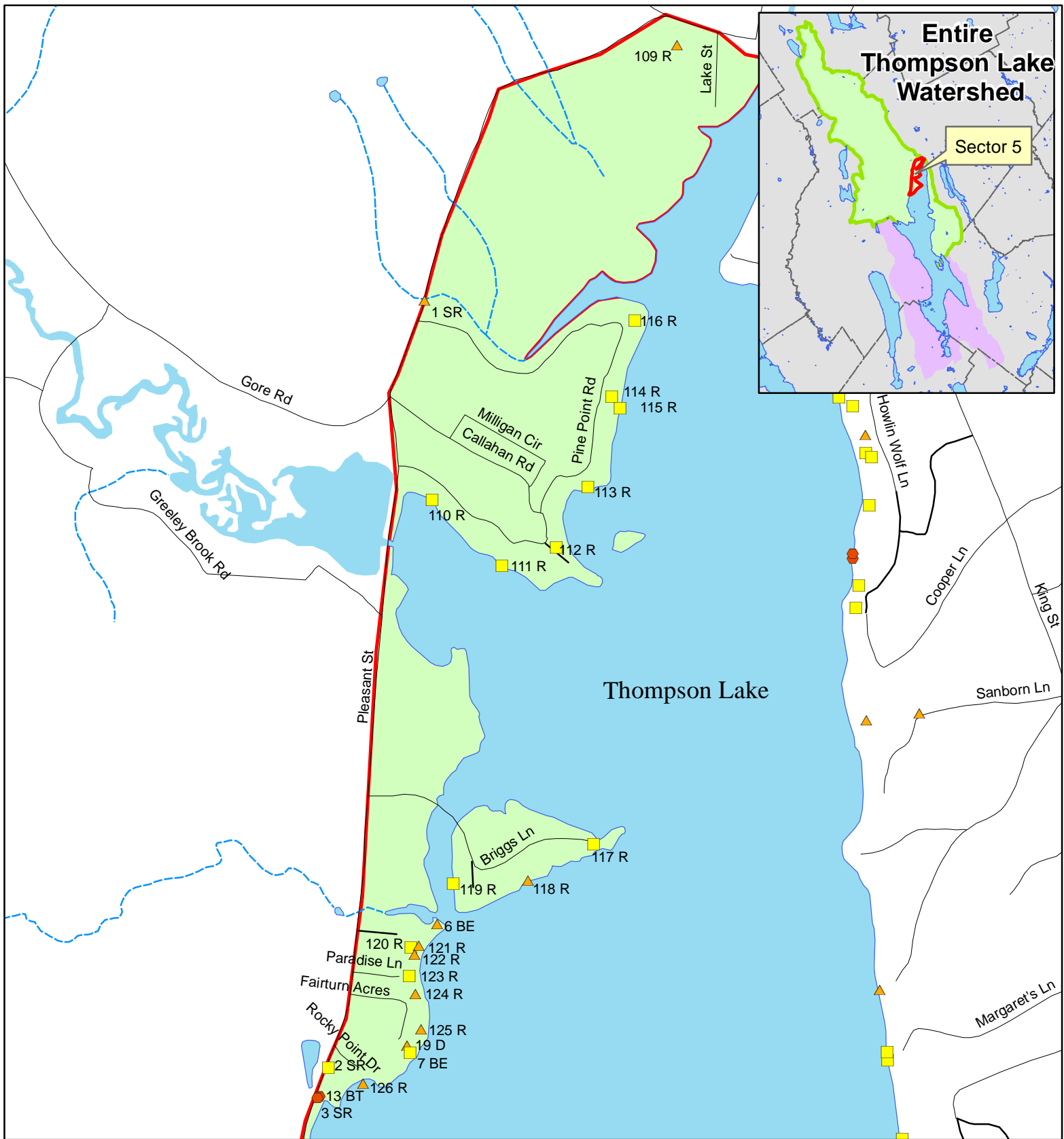
# Thompson Lake 2010 Survey Results

## Sector 4



# Thompson Lake 2010 Survey Results

## Sector 5



### Legend

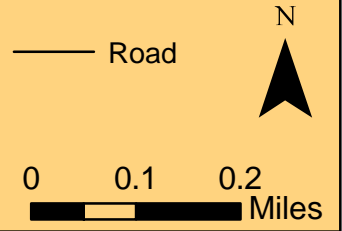
#### 2010 Survey Results

Impact	High
	Medium
	Low

	Ponds and Lakes
	2010 Survey Area
	Surveyed in 2008 & 2009

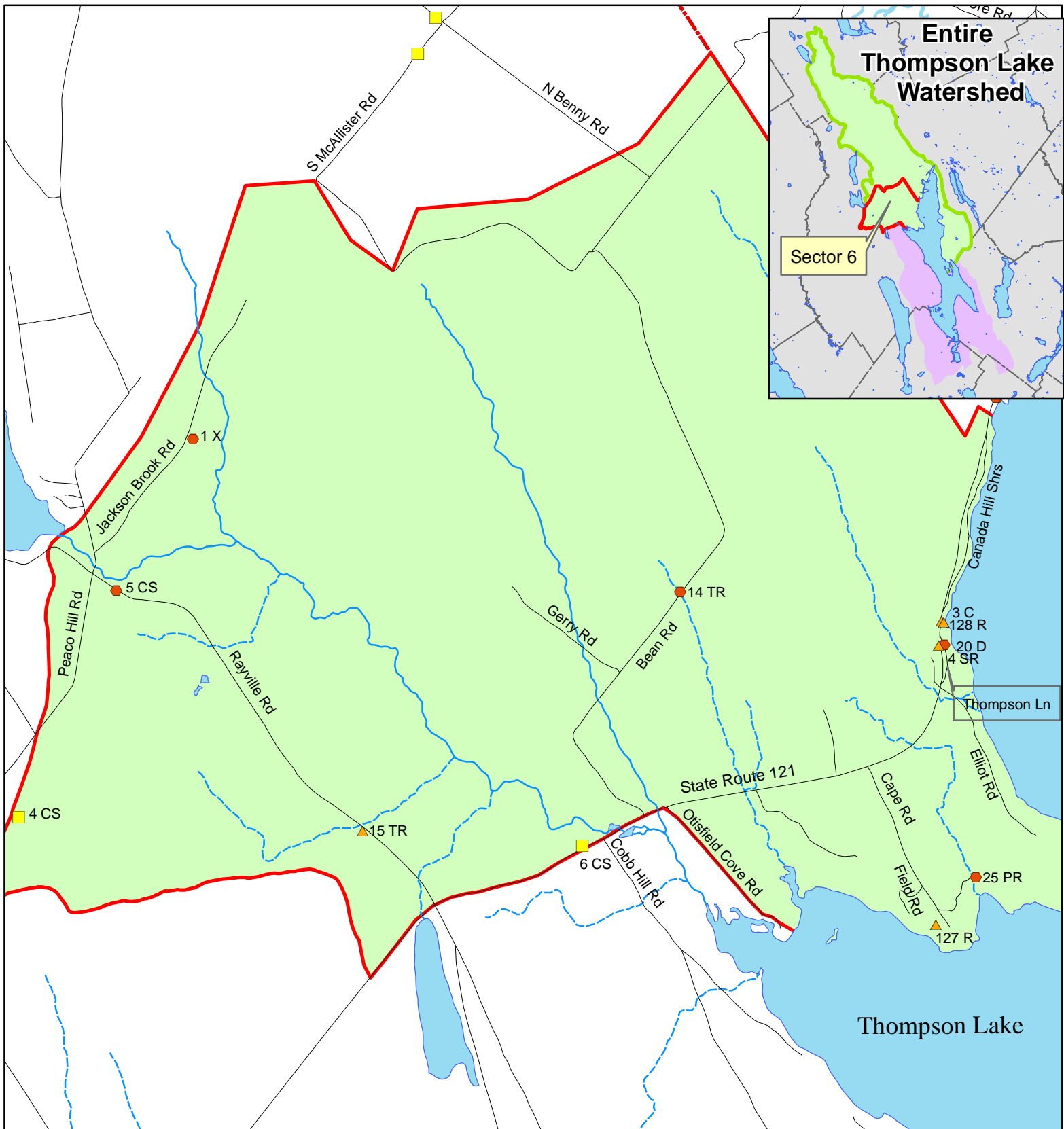
#### Land Use

BE	Beach Access
BT	Boat Access
C	Commercial
CS	Construction Site
D	Driveway
P	Path/Trail
PR	Private Road
R	Residential
SR	State Road
TR	Town Road
X	Other



# Thompson Lake 2010 Survey Results

## Sector 6



### Legend

#### 2010 Survey Results

Impact		
High	●	
Medium	▲	
Low	■	

	Ponds and Lakes
	2010 Survey Area
	Surveyed in 2008 & 2009

#### Land Use

BE	Beach Access
BT	Boat Access
C	Commercial
CS	Construction Site
D	Driveway
P	Path/Trail
PR	Private Road
R	Residential
SR	State Road
TR	Town Road
X	Other

— Road

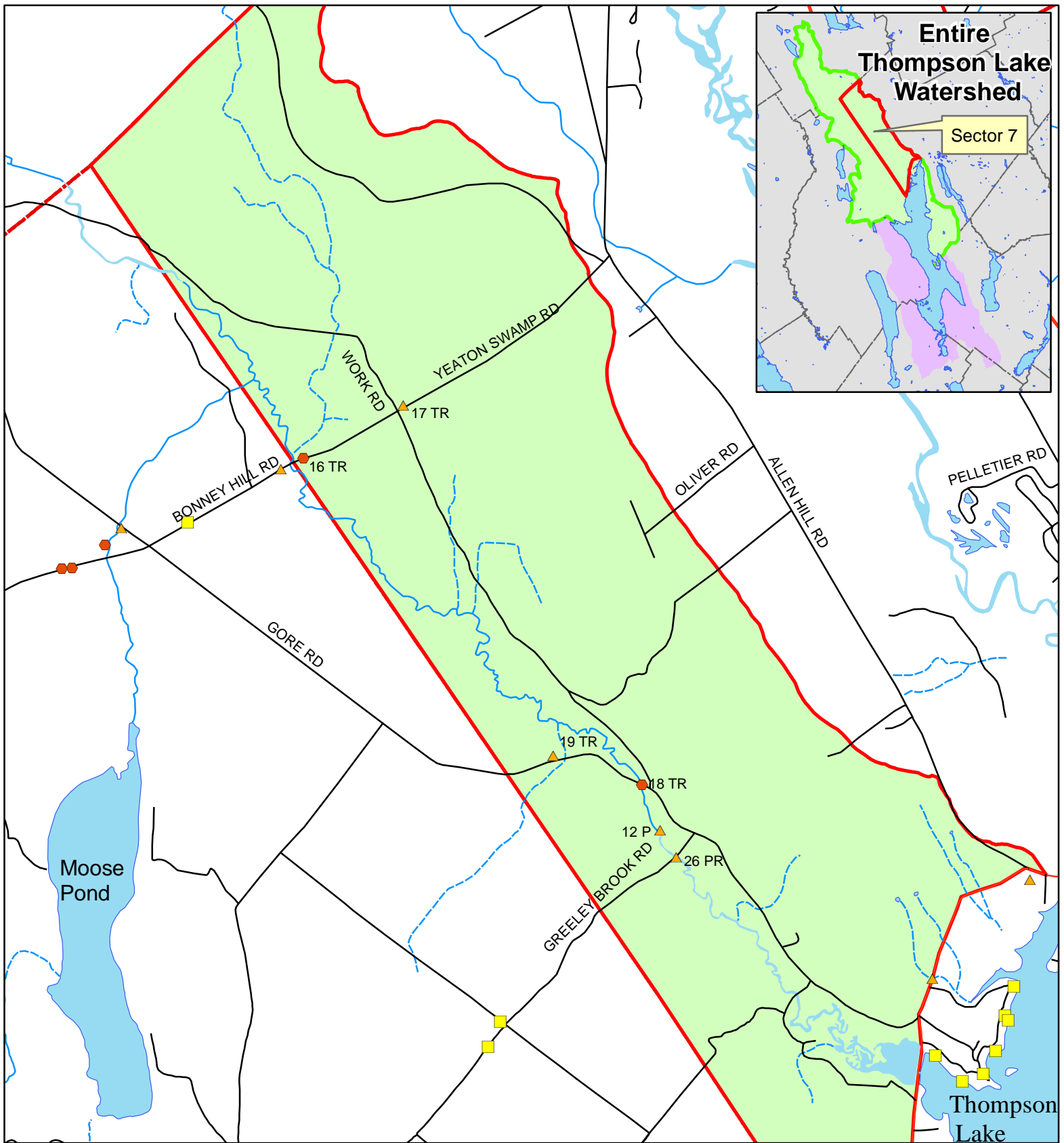
0 0.1 0.2  
Miles

N



# Thompson Lake 2010 Survey Results

## Sector 7



### Legend

#### 2010 Survey Results

- Impact**
- ◆ High
  - ▲ Medium
  - Low

- Ponds and Lakes
- 2010 Survey Area
- Surveyed in 2008 & 2009

#### Land Use

- BE Beach Access
- BT Boat Access
- C Commercial
- CS Construction Site
- D Driveway
- P Path/Trail
- PR Private Road
- R Residential
- SR State Road
- TR Town Road
- X Other

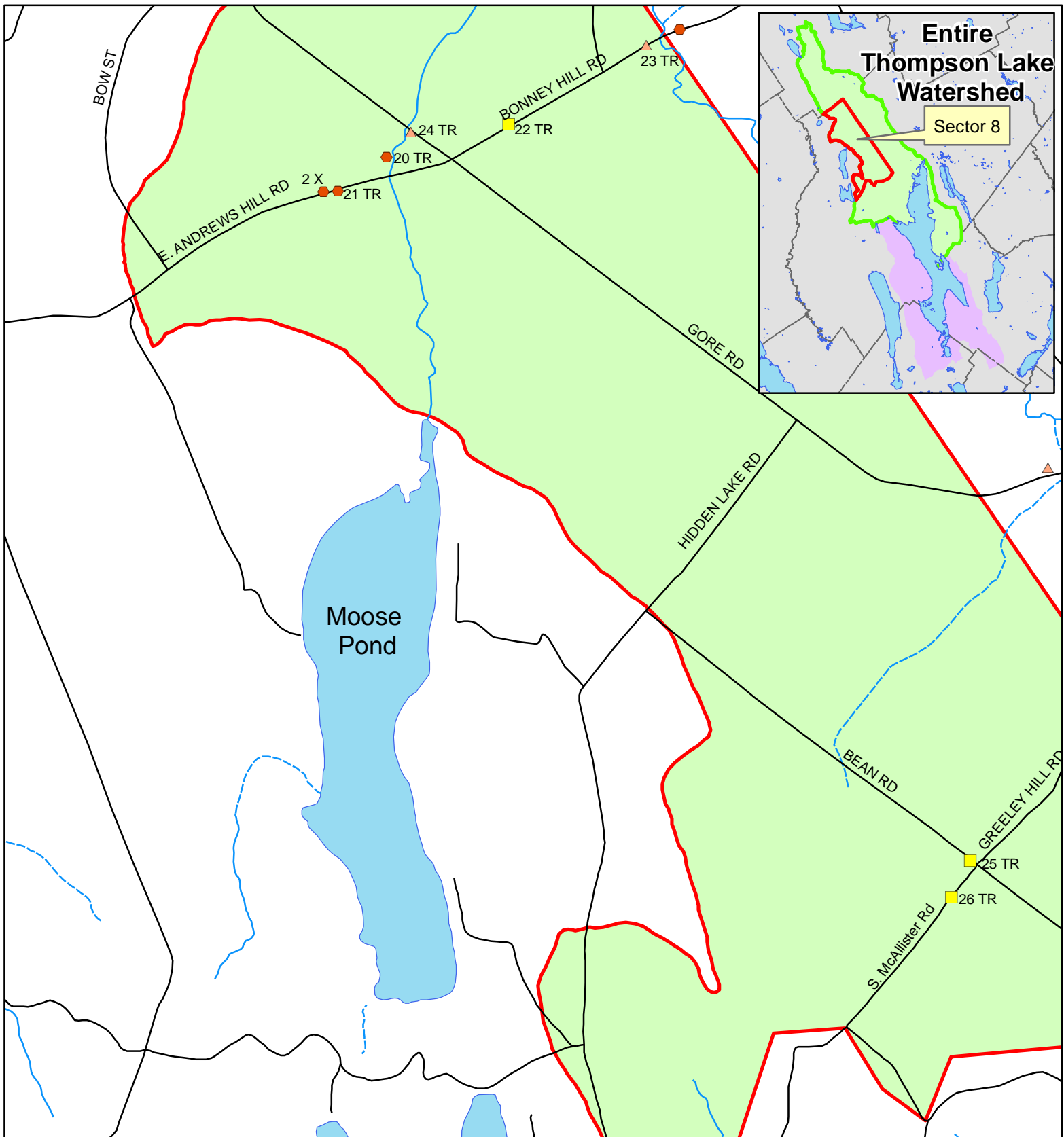
— Road

0 0.25 0.5  
Miles

N



# Thompson Lake 2010 Survey Results Sector 8



## Legend

### 2010 Survey Results

Impact	●	High
	△	Medium
	■	Low

	Ponds and Lakes
	2010 Survey Area
	Surveyed in 2008 & 2009

### Land Use

BE	Beach Access
BT	Boat Access
C	Commercial
CS	Construction Site
D	Driveway
P	Path/Trail
PR	Private Road
R	Residential
SR	State Road
TR	Town Road
X	Other

— Road

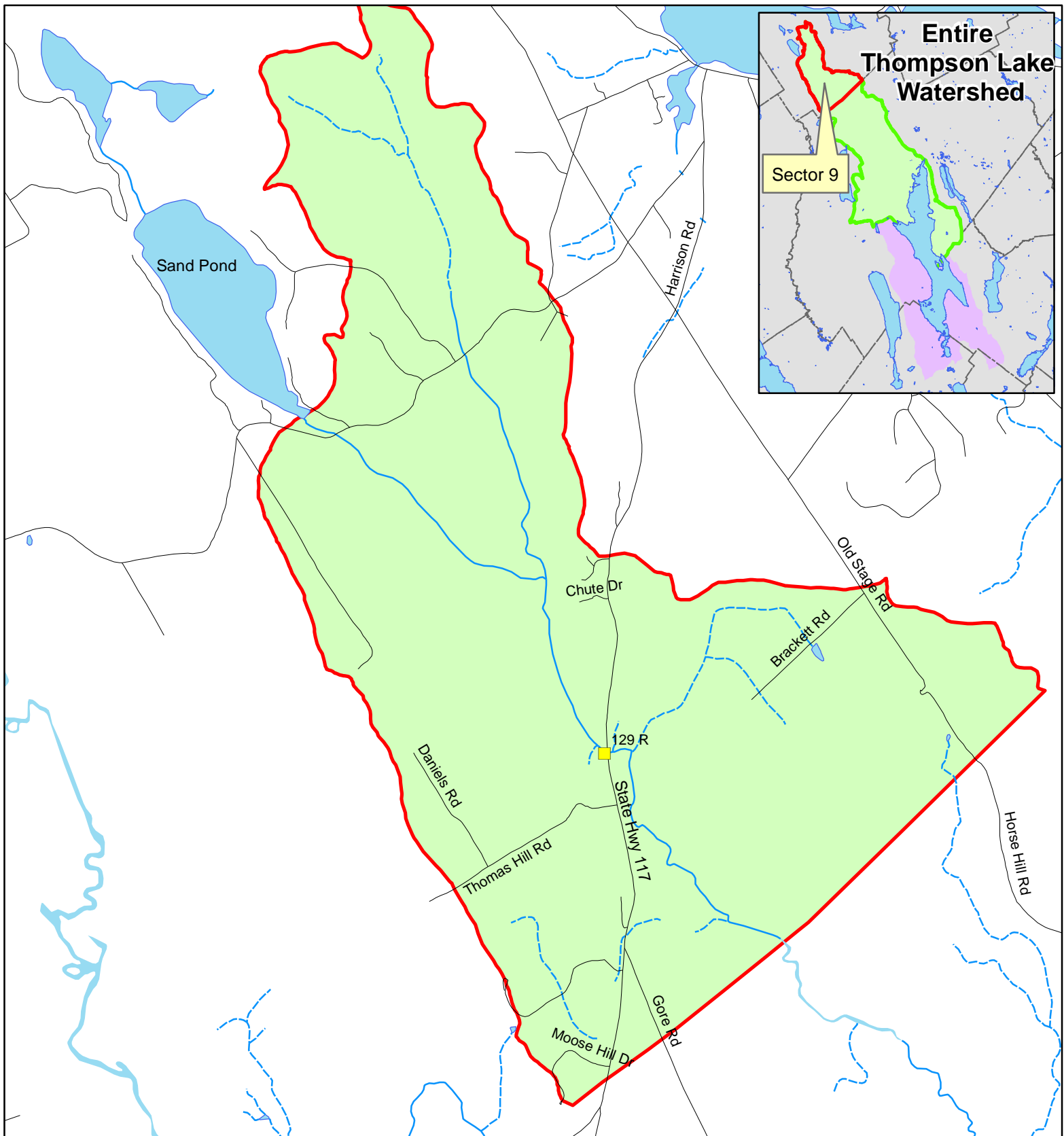
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# Thompson Lake 2010 Survey Results

## Sector 9



### Legend

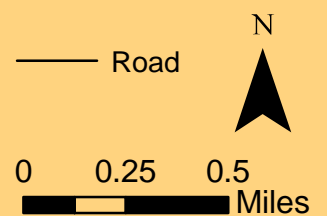
#### 2010 Survey Results

Impact		
High	●	
Medium	▲	
Low	■	

	Ponds and Lakes
	2010 Survey Area
	Surveyed in 2008 & 2009

#### Land Use

BE	Beach Access
BT	Boat Access
C	Commercial
CS	Construction Site
D	Driveway
P	Path/Trail
PR	Private Road
R	Residential
SR	State Road
TR	Town Road
X	Other



## Thompson Lake Watershed Survey – Southern Section (Casco & Poland)

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
1D	1	Driveway	Slight Surface Erosion, direct flow to lake	182 Black Island Rd. Tax Map 25, Lot 6 0381672 4880925	15 ft. x 50 ft.	Install Ditch, Vegetate Shoulder, Install Mulch/ Erosion Control Mix, Rain Garden, Establish Buffer, No Raking	Low	Low
1P	1	Path	Moderate Surface Erosion, Bare Soil, direct flow to lake	67 Island Cove Rd. Tax Map 17, Lot 2c 0381989 4880275	10ft. x 50 ft.	Install Waterbar, Infiltration Steps	Low	Low
2P	1	Path	Shoreline Erosion, direct flow to lake	48 Camp Fernwood Lane Tax Map 23, Lot 17 0382554 4879373	55 ft. x 2 ft.	Install Runoff Diverters (2 rubber razor bars), road shaping may be needed.	Medium	Low
3P	1	Path	Moderate Surface Erosion, Bare Soil, direct flow to lake	Fernwood Swimming Area Tax Map 23, Lot 17 0382580 4879359	100 ft.	Define Foot Path using Timbers, Mulch/ Erosion Control Mix	Low	Medium
1BE	1	Beach Access	Severe Surface Erosion, Bare Soil, direct flow to lake	Fernwood Storage (South Boundary) 0382679 4879244	100 ft. x 1.5 ft.	Reshape (Crown and Grade Road) , Install Runoff Diverters (2 waterbars)	High	High

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
1R	2	Residential	Bare Soil, Winter Sand, Roof Runoff Erosion, Overflowing Well, direct flow to lake	15 Potash Lane Tax Map 20, Lot 16 A 0383513 4877365	75 ft. x 100 ft.	Armor Ditch with stone, Add Stone to ditch from overflowing well down to lake, Infiltration Trench @ roof dripline, Buffer planting on first terrace below parking area retaining wall to capture winter sand	Low	Medium
1PR	2	Private Road	Moderate Ditch Erosion, Bank Failure Ditch, Undersized Ditch, Severe Road Shoulder Erosion, Roadside Plow/ Grader Berm, direct flow to lake	15 Potash Lane Tax Map 20, Lot 16 A 0383559 4877339	200 ft. x 15 ft.	Armor with Stone, Reshape Ditch, Install Check Dams, Remove debris/sediment, Remove Grader/Plow Berm, Reshape (Crown), Install Runoff Diverters (Open Top Culvert)	Medium	High
2R	2	Residential	Slight Surface Erosion, Bare Soil, direct flow to lake	44 Storm Cove Lane Tax Map 20, Lots 21 and 22 0383351 4877752	100 ft. x 75 ft.	Define Foot Path, Establish Buffer, Reseed bare soil & thinning grass	Low	Low
2PR	2	Private Road	Moderate Road Shoulder Erosion, direct flow to lake	91 Sunset Cove Lane Tax Map 21, Lot 3 0383304 4877925	8 ft. x 25 ft.	Install Runoff Diverters (Open Top Culvert )	Low	Low
3R	2	Residential	Moderate Surface Erosion, Roof Runoff Erosion, direct flow to lake	Sunset Cove Lane Tax Map 21, Lot 3 A 0383317 4877903	100 ft. x 70 ft.	Infiltration Steps, Infiltration Trench @ roof dripline, Mulch/ Erosion Control Mix, Establish Buffer, No Raking, Reseed bare soil & Thinning grass	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
4R	2	Residential	Slight Surface Erosion, direct flow to lake	Half Moon Lane, Next to # 67 0383137 4878509	3 ft. x 30 ft.	Vegetate Shoulder, Install Runoff Diverter (waterbar), Mulch / Erosion Control Mix, Rain Garden, Establish Buffer	Low	Low
5R	2	Residential	Moderate Surface Erosion, Bare Soil, Lack of Shoreline Vegetation, direct flow to lake.	67 Half Moon 0383095 4878530	10 ft. x 70 ft.	Establish Buffer, No Raking, Reseed bare soil & thinning grass	Medium	Medium
3PR	2	Private Road	Moderate Surface Erosion, Erosion enters ditch on roadside, direct flow to ditch	Off Russell Rd., Poland @ Storm Cove Lane 0383598 4877516	15 ft. x 50 ft.	Install Runoff Diverters (Open top Culvert)	Medium	Medium
4PR	2	Private Road	Slight Surface Erosion, Moderate Ditch Erosion, direct low to Ditch	Russell Rd. Extension (dirt) after Storm Cove La. 0383603 4877538	12 ft. x 100 ft.	Armor ditch with stone, Reshape Ditch ( Enlarge)	Low	Medium
1TR	2	Town Road	Severe Ditch Erosion on right side (facing up hill), Moderate Road Shoulder Erosion, Winter Sand, direct flow to Ditch	Russell Rd., paved from Potash Lane up to Storm Cove Lane 0383580 4877435	24 ft. x 400 ft.	Reshape Ditch on right (facing up hill), Install Turnouts, Install Check Dams, Clean Existing Sediment Pools or Install New ones	Medium	High
6R	2	Residential	Slight Surface Erosion, Inadequate and Lack of Shoreline Vegetation, direct flow to lake	End of paved part of Cliff lane 0383467 4877455	100 ft. x 100 ft.	Install Plunge Pools on both inlet and outlet, Rain garden, Establish Buffer, Limit lawn mowing	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
4P	2	Path	Severe Surface Erosion, direct flow to stream	91 Lunt Lane uphill from house 0383220 4878481	250 ft. x 10 ft.	Reshape (Crown), Install Runoff Diverters (Rubber Razor)	High	Medium
5PR	3	Private Road	Moderate Surface Erosion, Crushed/ Broken Rock Culvert, Bare Soil, ATV Road with ruts and boulders exposed, direct flow to stream	Black Cat Rd. 0385073 4873773	300 ft. x 10 ft.	Replace Culvert, Build up and reshape road	Low	High
6PR	3	Private Road	Severe Surface, Unstable Culvert Inlet/ Outlet, Needs additional culverts, Bare Soil, direct flow to stream	Black Cat Rd. 0385140 4873884	300 ft. length	Install Culverts, Armor Inlet/ Outlet of existing culvert, Build up and reshape (crown) road	Low	High
2TR	3	Town Road	Moderate Surface Erosion, Moderate Ditch Erosion, Moderate Road Shoulder Erosion, Winter Sand , direct flow to stream	Johnson Hill Rd. @ Potash Brook 0383533 4877202	100 ft. x 8 ft.	Armor ditch with Stone, Install Check Dams, Install Sediment Pools	High	Medium
8R	4	Residential	Moderate Surface Erosion, Bare Soil, direct flow to lake	179 Johnson Hill Rd. white trailer in front Tax Map 20, Lot 12 0383420 4877263	50 ft. x 2 ft.	Install Runoff Diverters, Install Mulch/ Erosion Control Mix. Establish Buffer	Medium	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
1CS	4	Construction Site	Severe Surface Erosion, Bare Soil, Roof Runoff Erosion on side of house, failing silt fence, direct flow to lake	First driveway on right when you enter Willow Lane 0383086 4877400	30 ft. x 25 ft.	Mulch bare areas, Silt Fence/ EC Berms, Seed / Hay , Establish and Add to Buffer	High	Low
9R	4	Residential	Moderate Surface Erosion, Bare soil, Erosion along Shorefront retaining wall in 2 spots, direct flow to lake	31 Willow Lane 0383042 4877547	50 ft. x 8 ft.	Establish Buffer	Low	Low
1BT	4	Boat Access	Moderate Surface Erosion, direct flow to lake	Past 31 Willow Lane – Boat ramp at end of Willow Lane 0383007 4877573	54 ft. x 3 ft.	Add gravel on side, Install Rubber Razor at top.	Low	Low
2D	4	Driveway	Moderate Surface Erosion, Bare Soil, direct flow to lake	Willow Lane, before 31 0383040 4877536	10 ft. x 100 ft.	Reshape (Crown), Define and Stabilize Foot Path, Establish and Add to Buffer, shorten driveway	Low	Low
7PR	4	Private Road	Slight Surface Erosion, Existing Rubber Razor are buried or broken, Grader Berm, direct flow to vegetation	Entire Length Willow Lane 0383025 4877483	Entire Road	Remove Grader Berms, Replace Rubber Razor	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
3TR	4	Town Road	Moderate Surface Erosion, Moderate Ditch Erosion, Moderate Road Shoulder Erosion, Winter Sand, direct flow to stream	Johnson Hill Rd. @ Potash Brook 0383512 4877212	Brook Crossing: 30 ft. x 5 ft. Ditch: Several hundred feet from Willow Lane down to brook	Armor with Stone, Reshape Ditch, Install Check Dams, Remove winter sand, Vegetate Shoulder	Medium	High
2BT	4	Boat Access	Severe Surface Erosion, Bare soil, Delta in Lake, direct flow to lake	End of Loon Pt. Lane near Lake and shack, Right – of – way for Loon Pt. Lane Association 0382677 4877913	200 ft. x 10 ft.	Reshape (Crown), Install Runoff diverters (Open Top Culverts, rubber razors or waterbars)	High	Medium
3D	4	Driveway	Moderate Surface Erosion, Grader Berm, Bare and Uncovered Pile Soil, direct flow to ditch	152 Loon Pt. Lane Tax Map 47, Lot 2 0382549 4877916	50 ft. x 150 ft.	Remove Grader/ Plow Berms, Reshape (Crown), Install Runoff Diverter (waterbar) at end of driveway, Vegetate or mulch bare mound	Low	Medium
10R	4	Residential	Slight Surface Erosion, Inadequate Shoreline Vegetation, Slight Erosion at Shoreline, direct flow to lake	149 Loon Pt. Lane Tax Map 47, Lot 8 0382625 4877981	10 ft. x 10 ft.	Define Foot Path, Install Mulch/ Erosion Control Mix, Establish Buffer	Low	Low
11R	4	Residential	Moderate Surface Erosion, Bare Soil, Delta in lake, Inadequate Shoreline Veg., Erosion at Shoreline, Exposed roots, direct flow to lake	147 Loon Pt. Lane Tax Map 47, Lot 9 0382606 4878009	300 ft. x 10 ft.	Reshape (Crown) Driveway, Install Runoff Diverters, Define meandering Foot Path, Mulch/Erosion Control Mix, Establish Buffer	Low	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
12R	4	Residential	Slight Surface Erosion, Bare Soil, Exposed Roots, direct flow to lake	141 Loon Pt. Lane Tax Map 47, Lot 10 0382577 4878026	20 ft. x 10 ft.	Define and narrow Foot Path, Mulch/ Erosion Control Mix on bare area, Add to Buffer, No Raking	Low	Low
13R	4	Residential	Moderate Surface Erosion, Lack of Shoreline Vegetation, Inadequate Shoreline, Vegetation, Erosion at Shoreline, Unstable Access, direct flow to lake	111 Loon Pt. Lane Tax Map 47, Lot 18 0382401 4878196	50 ft. x 100ft.	Establish and Add to Buffer (allow vegetation to grow naturally), No Raking	Low	Low
14R	4	Residential	Slight Surface Erosion, Bare Soil, direct flow to lake	67 Loon Pt. Lane Tax Map 47, Lot 32 0382030 4878371	15 ft. x 5 ft.	Mulch/ Erosion Control Mix, Establish and Add to Buffer, No Raking, Add Mulch and let vegetation grow up in lowest terrace level	Low	Low
15R	4	Residential	Moderate Surface Erosion, Bare Soil, Exposed roots, Path is gullied, direct flow to lake.	63 Loon Pt. Lane "Camp Dick" Tax Map 47, Lot 33 0382024 4878356	20 ft. x 20 ft.	Define Foot Path, Stabilize Foot Path, Install Infiltration Steps, Install Mulch/ Erosion Control Mix, No raking	Low	Low
8PR	4	Private Road	Moderate Surface Erosion, direct flow to stream	Junction Abrams and Loon Pt. Lanes 0381978 4878098	15 ft. x 100 ft.	Reshape (Crown), Clean existing turnouts.	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
16R	4	Residential	Moderate Surface Erosion, Bare Soil adjacent to ramp, Inadequate Shoreline Vegetation, Shoreline Erosion, direct flow to lake	21 Loon Pt. Lane Tax Map 48, Lot 13 0381873 4878027	6 ft. x 6 ft.	Install Runoff Diverter (waterbar), Add to Buffer (Plant ground cover or other buffer plants)	Low	Low
9PR	4	Private Road	Slight Surface Erosion, Unstable Culvert Inlet/ Outlet , Sinkhole in middle of road, direct flow to stream	Loon Pt. Lane between CMP Poles 506 and 507 @t culvert crossing 0381932 4877883	1 ft. x 1 ft.	Armor Culvert Inlet/ Outlet, Install Plunge Pool at culvert outlet, Build up Road and add New Surface Material	Low	Low
17R	4	Residential	Moderate Surface Erosion, Bare Soil, Undercut Shoreline, Lack of and Inadequate Shoreline Vegetation, Erosion at Shoreline, direct flow to lake	1 Loon Pt. Lane (end of road) Tax Map 48, Lot 20 0381830 4877824	40 ft. x 15 ft.	Install Plunge Pool at Outlet of foundation drain pipe, Define a Narrow Foot Path, Establish and Add to Buffer, No Raking, Stabilize shoreline	Medium	Medium
10PR	4	Private Road	Slight Surface Erosion, Road slumping over culvert inlet, direct flow to stream	CMP Pole # 507 Loon Pt. Lane, culvert under road 0381921 4877842	4 ft. x 12 ft.	Armor Culvert Inlet , Install Plunge Pool at outlet, Reshape Shoulder	Low	Low
5P	5	Path	Unstable Culvert Inlet/ Outlet, Crushed Culvert, Severe Ditch Erosion, Delta in Stream, direct flow to lake	Agassiz Village, along path to water house, northern edge of property, near shore 0381800 4877470	400 ft. x 20 ft.	Armor Culvert Inlet/ Outlet, Install Plunge Pool, Install Check Dams, re- orient culvert at new angle	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
6P	5	Path	Severe Surface Erosion, direct flow to lake	Agassiz Village, path to water house, northern edge of property, near shore 0381789 4877491	200 ft. x 10 ft.	Install Turnouts, Stabilize Foot Path, Install Runoff Diverter ( waterbar)	High	Medium
7P	5	Path	Slight Surface Erosion, direct flow to lake	Agassiz Village, near dock 0381784 4877359	20 ft. x 200 ft.	Define Foot Path, Install Runoff Diverter (waterbar) at top of path	Low	Low
4TR	5	Town Road	Severe Ditch Erosion, Severe Road Shoulder Erosion, direct flow to stream	Johnson Hill downhill to Heath Rd. 0382574 4876189	1056 ft. x 6 ft.	Armor Ditch with Stone, Reshape Ditch, Install Turnouts or Check Dams, Remove debris/ sediment, remove winter sand	Medium	High
5TR	5	Town Road	Unstable Culvert Inlet/ Outlet, Severe Road Shoulder Erosion, direct flow to stream	Heath Rd. Opposite # 88 0382221 4875621	10 ft. x 10 ft.	Armor Culvert Inlet/ Outlet	Low	Medium
6TR	5	Town Road	Unstable Culvert Inlet/ Outlet, Moderate Ditch and Shoulder Erosion, direct flow to stream	At 97 Heath Rd. 0382189 4875538	1300 ft. x 6 ft.	Armor Culvert Inlet/ Outlet	Medium	Medium
7TR	5	Town Road	Unstable Culvert Inlet/ Outlet, Moderate Ditch and Shoulder Erosion, direct flow to stream	Next to 118 Heath Rd. 0382181 4875420	225 ft. x 6 ft.	Armor Culvert Inlet/ Outlet, Vegetate and Reshape Ditch, Install Sediment Pool	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
4D	5	Driveway	Moderate Surface Erosion, direct flow to ditch	118 Heath Rd. 0382181 4875420	60 ft. x 20 ft.	Add New Surface Material, Reshape (Crown), Install Runoff Diverter (Rubber Razor), Reseed bare soil & thinning grass on hill to side of house	Medium	Medium
8TR	5	Town Road	Unstable Culvert Inlet/ Outlet, direct flow to stream	Heath Rd. next to Tax Map 18, Lot 1 near Casco line 0382163 4875308	20 ft x 20 ft.	Armor Culvert Inlet/ Outlet	Medium	Low
18R	7	Residential	Slight Surface Erosion, Clogged Culvert, Bare Soil, direct flow to lake	20 East Beach Rd. Tax Map 11, Lot 15-3 0381525 4875437	175 ft. x 3 ft.	Remove Clog in Culvert, Install Plunge Pool, No Raking, Reseed bare soil & thinning grass, Elevate mulched garden area that already exists	Low	Low
9TR	7	Town Road	Severe Road Shoulder Erosion, direct flow to lake	Heath Rd. from jct. with Trail Rd. downhill to cove. 0381521 4875200	5 ft. x 300 ft.	Install Ditch with Turnouts and Armor with Stone, install check dams.	High	High
10TR	7	Town Road	Moderate Road Shoulder Erosion, Bare Soil, direct flow to lake	Heath Rd. (North side) pole # 462- 33 0381581 4875212	40 ft. x 20 ft.	Establish and Add to Buffer, Install Catch Basin, add crushed stone to bare areas.	High	High

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
19R	7	Residential	Slight Surface Erosion, Bare Soil, Slight Undercut Shoreline, Inadequate Shoreline Vegetation, Wave action disturbance, direct flow to lake	Parsons Pt. Rd., first house on left Tax Map 49, Lot 10 0381796 4875254	50 ft x 6 ft.	Mulch/ Erosion Control Mix, Add to Buffer, No Raking	Low	Low
20R	7	Residential	Slight Surface Erosion, Bare Soil, Undercut Shoreline, Inadequate Shoreline Vegetation, direct flow to lake	31 Parsons Pt. Rd. Tax Map 49, Lot 19 0381849 4875438		Mulch/ Erosion Control Mix, Add to Buffer, No Raking	Low	Low
5D	7	Driveway	Bare Soil, Slight Surface Erosion, direct flow to lake	38 Parsons Pt. Rd. Tax Map 49, Lot 16 0381786 4875429	63 ft. x 6 ft.	Install Runoff Diverter (Rubber Razor), Reseed bare soil & thinning grass, Minimize parking area	Low	Low
4BT	7	Boat Access	Slight Surface Erosion, Bare Soil, Erosion at Shoreline, driveway runoff, Cement Wall cracking and undercut, direct flow to lake	42 Parsons Pt. Rd. Tax Map 49, Lot 17 0381789 4875474	Boat Access: 30 ft. x 10ft. Driveway: 10 ft. x 5 ft.	On driveway, add New Surface Material, Mulch/ Erosion Control Mix or leave pine needles, No Raking, Reseed bare soil & Thinning grass, Stabilize boat access	Low	Low
21R	7	Residential	Slight Surface Erosion, Bare Soil, Roof Runoff Erosion, Inadequate Shoreline Vegetation, direct flow to lake	46 Parsons Pt. Rd. Tax Map 49, Lot 18 0381802 4875522	20 ft. x 15 ft.	Infiltration Trench @ roof dripline, Add to Buffer	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
22R	7	Residential	Slight Surface Erosion, Inadequate and Lack of Shoreline Vegetation, (Lawn goes right to lake), direct flow to lake	End of Parsons Pt. Rd. in Poland Tax Map 16, Lot 6 0381826 4875537	30 ft. x 10 ft.	Add to Buffer	Low	Low
11TR	7	Town Road	Slight Road Shoulder Erosion, Winter Sand, Inadequate Shoreline Vegetation, direct flow to lake	339 Heath Rd., across from # 344 0381885 4875170	20 ft. x 15 ft.	Vegetate Shoulder, Add to Buffer	Low	Low
5BT	7	Boat Access	Moderate Surface Erosion, Moderate Road Shoulder Erosion, Bare Soil, Delta in Lake, Winter Sand, direct flow to lake	South side of Heath Rd. @ boat ramp 0382005 4875162	30 ft. x 15 ft.	Add New Surface Material, Vegetate Shoulder	Medium	Medium
6BT	7	Boat Access (hand carry)	Moderate Surface Erosion, Moderate Road Shoulder Erosion, Bare Soil, Delta in Lake, Winter Sand, Asphalt chips from road in lake, direct flow to lake	Heath Rd. opposite 360 0382066 4875178	15 ft. x 15 ft.	Install infiltration steps, remove mounds of asphalt that are currently present.	High	Medium
7BT	7	Boat Access	Moderate Surface Erosion, Slight Road Shoulder Erosion, Bare Soil, Winter Sand, (Town Road shoulder Erosion contributes), Exposed roots, direct flow to lake	Heath Rd. 0382118 4875209	20 ft. x 15 ft.	Vegetate Shoulder, Mulch / Erosion Control Mix, Add to Buffer	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
23R	7	Residential	Slight Surface Erosion, Bare Soil, Delta in Lake, direct flow to lake	North Side of Heath Rd. on east side of marina 0381909 4875214	15 ft. x 8 ft.	Mulch/ Erosion Control Mix, Add to Buffer	Low	Low
11PR	8	Private Road	Slight Surface Erosion , Undersized Culvert too Short, Slight Ditch Erosion, Slight Road Shoulder Erosion, direct flow to stream	Azwelikit Rd. Tax Map 11, Lot 11- 2 0380833 4876043	180 ft. x 12 ft.	Lengthen Culvert, Install Plunge Pool, Install Turnouts, Reshape (Crown)	Medium	Medium
24R	8	Residential	Slight Surface Erosion, Unstable Access on both path to well and to lake, direct flow to stream	163 Azwelikit Rd. Tax Map 11, Lot 10 0380846 4876061	80 ft. x 6 ft.	Stabilize Foot Path top and bottom, Install Runoff Diverter (waterbar) to send water into Buffer, Add Mulch/Erosion Control Mix, Stop Raking at top of driveway	Low	Low
12PR	8	Private Road	Slight Surface Erosion, Unstable Culvert Inlet/Outlet, Moderate Road Shoulder Erosion, direct flow to stream	Azwelikit Rd.- stream crossing near top of road 0380531 4875296	50 ft. x 12 ft.	Armor Culvert outlet/ Inlet @ stream crossing, Install Plunge Pool @ ditch culvert outlet, Reshape (Crown)	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
13PR	8	Private Road	Severe Surface Erosion, Unstable Culvert Inlet/Outlet, Moderate Ditch Erosion, Moderate Road Shoulder Erosion, Bare Soil , Roadside Plow/Grader Berm, Delta in stream, direct flow to stream	Cottage Rd., First stream crossing at CMP pole # 6 0381230 4875547	1000 ft. x 15 ft.	Armor Culvert Inlet/ Outlet, Lengthen Culvert, Install Several Plunge Pools, Armor Ditch with Stone, Reshape Ditch, Install Turnouts at top of hill, Remove Grader/ Plow Berms, Add New Surface Material (Gravel, Recycled Asphalt), Reshape (Crown), Install Runoff Diverters (waterbars)	High	High
25R	8	Residential	Slight to Moderate Surface Erosion, Bare Soil, direct flow to lake	57 Cottage Rd. 0381164 4875798	95 ft. x 8 ft.	Install Runoff Diverters (Rubber Razor), Infiltration Steps, Establish Buffer, no Raking, Add Crushed stone under deck	High	Medium
14PR	8	Private Road	Moderate Surface Erosion, Unstable Culvert Inlet/ Outlet, Partially Clogged Culvert, Partially Crushed/ Broken Culvert, Slight Ditch Erosion, Moderate Road Shoulder Erosion, direct flow to stream	Stream crossing Next to 71 Cottage Rd. 0381060 4875838	200 ft. x 12 ft.	Armor Culvert Inlet/outlet, Replace Culvert, Install Plunge Pool, Armor Ditch with Stone, Reshape Ditch, Install Turnouts, Add New Surface Material, Reshape ( Crown)	Medium	High
8BT	8	Boat Access	Moderate Surface erosion, Clogged Culvert, Crushed/ Broken Culvert, direct flow to lake	71 Cottage Rd. 0381070 4875876	60 ft. x 10 ft.	Replace Culvert, Install Plunge pool, Infiltration Trench @ roof dripline, Install Runoff Diverter (waterbar)	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
26R	8	Residential	Moderate Surface Erosion on Path to lake, bare soil, direct flow to lake	87 Cottage Rd. 0380977 4875957	75 ft. x 6 ft.	Stabilize Foot Path, Install Runoff Diverter (waterbar) at top of path	Medium	Low
12TR	8	Town Road	Unstable Culvert Inlet/ Outlet, Moderate Shoulder Erosion, direct flow to stream	Just Up Hill from 121 Heath Rd. 0380323 4874949	25 ft. x 20 ft.	Armor Culvert Inlet/ Outlet Armor Ditch with Stone, Vegetate Road Shoulder	Low	Low
8P	8	Path	Bare Soil, Delta in lake (much sand), Undercut bank and erosion at shoreline, direct flow to lake	Path off of Cottage Rd. near Hancock Beach 0381240 4875635	20 ft. x 100 ft.	Stabilize Bank	High	High
27R	9	Residential	Moderate Surface Erosion, Bare Soil, direct flow to lake	179 Highland Shores Rd. Tax Map 27, Lot 11 0380720 4876241	10 ft. x 20 ft.	Define Foot Path, Install Runoff Diverter (waterbar), Mulch/ Erosion Control Mix	Low	Medium
6D	9	Driveway	Moderate Road Shoulder Erosion, direct flow to stream	181 Highland Shores Rd. Tax Map 27, Lot 12 0380650 4876229	10 ft. x 10 ft.	Add New Surface Material, Reshape (Crown), Install Runoff Diverters ( Rubber Razor)	Low	Medium
15PR	9	Private Road	Moderate Surface Erosion	Common Area along Highland Shores Rd. 0380625 4876304		Reshape (Crown), Install Runoff Diverters	Low	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
2BE	9	Beach Access	Moderate Surface Erosion, Bare Soil, Undercut Shoreline, direct flow to lake	Common Area Highland Shores- Behind Sign for " Private Facility" 0380580 4876372	10 ft. x 50 ft., 250 ft. of shore line	Add New Surface Material, Reshape (Crown), Install Runoff Diverters, Rip rap undercut shoreline, Buffer planting	Medium	Medium
16PR	9	Private Road	Moderate Surface Erosion, Delta in Lake, direct flow to lake	Thompson Lake Shores Rd.– Common Area for boat access 0380566 4876404	10 ft. x 125 ft.	Add New surface Material, Reshape (Crown), Install Runoff Diverters	Medium	Medium
28R	9	Residential	Moderate Surface Erosion, direct flow to lake	248 Thompson Lake Shores Rd. Tax Map 55, Lot 3 0380529 4876436	4 ft. x 12 ft.	Define Foot Path, Infiltration Steps, Mulch/ Erosion Control Mix	Low	Low
7D	9	Driveway	Severe Surface Erosion, direct flow to lake	246 Thompson Lake Shores Rd. Tax Map 55, Lot 4 0380461 4876423	200 ft. x 20 ft.	Add New Surface Material, Reshape (Crown), Install Runoff Diverters	Medium	Medium
29R	9	Residential	Moderate Surface Erosion, direct flow to lake	240 Thompson Lake Shores Rd. Tax Map 55, Lot 5 0380457 4876444	14 ft. x 60 ft.	Define Foot Path, Infiltration Steps, Mulch Erosion/ Control Mix, Rain Garden	High	Medium
8D	9	Driveway	Moderate Surface Erosion, direct flow to lake	236 Thompson Lake Shores Rd. Tax Map 55, Lot 6 0380436 4876472	15 ft. x 40 ft.	Add New Surface Material, Reshape (Crown), Install Runoff Diverters, Build Rain Garden and divert cellar water to it	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
30R	9	Residential	Moderate Surface Erosion, Bare Soil, direct flow to lake	230 Thompson Lake Shores Rd. Tax Map 55, Lot 8 0380414 4876534	30 ft. x 30 ft.	Reshape (Crown) and Install Runoff Diverters (waterbar) on driveway, Mulch/ Control Mix, Rain Garden, Establish Buffer, Reseed bare soil	High	Medium
9D	9	Driveway	Moderate Surface Erosion, direct flow to lake	226 Thompson Lake Shores Rd. Tax Map 55, Lot 9 0380397 4876553	12 ft. x 30 ft.	Add New Surface Material, Reshape (Crown), Install Runoff Diverters	Low	Medium
17PR	9	Private Road	Severe Surface Erosion, Undersized Culvert, Severe Ditch Erosion, Ditch Bank Failure, direct flow to lake	Ditch next to Thompson Lake Shores Rd. across from 210 TLS Rd. 0380337 4876635	5 ft. x 10 ft.	Armor Culvert Inlet/Outlet, Enlarge Culvert, Install Plunge Pool, Armor Ditch with Stone, Reshape Ditch,	Medium	High
31R	9	Residential	Moderate Surface Erosion, Bare Soil, direct flow to lake	210 Thompson Lake Shores Rd. Tax Map 55, Lot 12 0380380 4876639	10 ft. x 40 ft.	Infiltration Steps, Mulch/ Erosion Control Mix	Medium	Medium
18PR	9	Private Road	Slight Surface Erosion, Clogged and Undersized Culvert, Moderate Ditch Erosion, Bare Soil, (Driveway on uphill side of road contributes to problem in ditch)	Thompson Lake Shores Road from # 199 downhill to cross- culvert 0380315 4876674	250 ft. x 12 ft.	Armor Culvert Inlet/Outlet, Remove Clog, Enlarge Culvert, Vegetate or Armor Ditch with stone, Reshape Ditch , Clean out ditch, Install Sediment Pools	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
10D	9	Driveway	Moderate Surface Erosion	201 Thompson Lake Shores Rd. Tax Map 55, Lot 13-A 0380284 4876699	30 ft. x 2 ft.	Reshape (Crown) driveway, Install Runoff Diverter further uphill than existing one	Low	Low
11D	9	Driveway	Open Top Culvert at bottom of driveway discharges a lot of material into woods, some of which appears to enter lake	Thompson Lake Shores Road, A - frame house, Big "M" by front door Tax map 55, Lot 14 0380311 4876710	12 ft. x 75 ft.	Install Runoff Diverters, Install 1 more waterbar across driveway farther uphill toward road	Low	Low
32R	9	Residential	Moderate Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Clogged Open Top Culvert, Exposed roots, direct flow to lake	202 Thompson Lake Shores Rd. big "P" on side of house, across from beach parking and next to beach Tax Map 55, Lot 17 0380336 4876776	30 ft. x 200 ft.	Unplug and extend Open Top culvert, Define and Stabilize Foot Path, Install Runoff Diverter(waterbar) across path, Add to Buffer, No Raking, Reseed bare soil	Medium	Medium
3BE	9	Beach Access	Moderate Surface Erosion, Bare Soil, direct flow to lake	Thompson Lake Shores Association Beach Common Area 0380303 4876801	Below steps: 2 ft. x 15 ft. Above steps: 20 ft. x 30 ft.	Define and Stabilize Foot Path, Install Infiltration steps below existing stairs, Mulch/ Erosion Control Mix, Reseed bare soil	Low	Medium
19PR	9	Private Road	Slight Surface Erosion, Unstable Culvert inlet/ Outlet, Clogged and Undersized Culvert, Moderate Ditch Erosion	Between beach and 202 Thompson Lake Shores Rd. 0380279 4876756	Ditch: 50 ft. x 10 ft. Cross – culvert: 1 ft. x 25 ft.	Armor Culvert Inlet/ Outlet, Remove Clog from outlet, Enlarge culvert , Install Plunge Pool at outlet, Armor Ditch with Stone	Low	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
20PR	9	Private Road	Moderate Surface Erosion, Severe Ditch Erosion, Moderate Road shoulder Erosion, Delta in lake, Winter sand, direct flow to vegetation and then lake	Junction Upper Shore Dr. & Thompson Lake Shores Rd. 0380220 4876813	400 ft. x 15 ft.	Install Plunge Pool, Armor Ditch with Stone, Reshape Ditch, Install Turnouts, Install Check Dams, Reshape (Crown) road, Vegetate Shoulder	High	High
33R	9	Residential	Slight Surface Erosion, Roof Runoff Erosion, Exposed roots at shoreline, direct flow to lake	9 Upper Shore Dr. Tax Map 55, Lot 22 0380243 4876881	45 ft. x 15 ft.	Define Foot Path, Add to Buffer, Reseed bare soil & thinning grass	Low	Low
34R	9	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, direct flow to lake	Upper Shore Dr., circular driveway with second house Tax Map 55, Lot 25 0380226 4876988	45 ft. x 15 ft.	Infiltration Steps, Infiltration Trench @ roof dripline, Mulch Erosion/ Control Mix, Add to Buffer, No Raking	Low	Low
35R	9	Residential	Moderate Surface Erosion, Bare Soil, Well is 25 ft. from lake. Water comes to surface about 10 ft. down from well, Suspect leak in well casing or overflow pipe. Owner says no leak, Spring bubbling up, from pipe, direct flow to lake	35 Upper Shore Dr. Tax Map 55, Lot 28 0380128 4877024	200 ft. 50 ft.	Install Runoff Diverters ( Rubber Razor) across driveway and other bare areas, Establish Buffer	Medium	Medium
36R	9	Residential	Slight Surface Erosion, Bare Soil, Roof Runoff Erosion, Inadequate Shoreline Veg., Exposed roots, direct flow to lake	45 Upper Shore Dr. Tax Map 55, Lot 31 0380164 4877106	100 ft. x 100 ft.	Define Foot Path, Infiltration Trench @ roof dripline, Mulch/Control Mix, Add to buffer, No Raking	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
37R	9	Residential	Slight Surface Erosion, Undercut Shoreline, Inadequate and Lack of Shoreline Vegetation, Erosion at shoreline, Unstable Access	End of Upper Shore Dr. Tax Map 55, Lot 33 0380158 4877185	Shoreline site: 12 ft. x 30 ft.	Define Foot Path, Install Runoff Diverter (waterbar), Add to Buffer. For Undercut Bank, cut back to gentler angle and add rock, plant shrubs and trees.	High	High
38R	9	Residential	Moderate Surface Erosion, Bare Soil, Lack of Shoreline Vegetation, Exposed roots, direct flow to lake	End of Wayaka Rd. in Casco 0380133 4877226	100 ft. x 100 ft.	Define Foot Path, Infiltration Steps, Mulch/ Erosion Control Mix, Establish Buffer, No Raking, Reseed bare soil & thinning grass	Medium	Medium
21PR	9	Private Road	Winter Sand, Moderate Road Shoulder Erosion, direct flow to stream	Highland Shores Rd. at big brook crossing 0380590 4876181	250 ft. x 10 ft.	Install Turnouts, Stabilize slumping over Culvert, vegetate Shoulder	Medium	Medium
22PR	9	Private Road	Moderate Surface Erosion, Moderate Ditch Erosion, Slight Road Shoulder Erosion, Bare Soil, Winter Sand, direct flow to Stream	Opposite box # 194, Highland Shores Rd. 0380582 4876283	Inlet: 25 ft. x 10 ft. Outlet; 10 ft. 3 ft.	Armor Culvert Inlet/ Outlet, Install Plunge Pools, Vegetate Ditch, Reshape Ditch, Vegetate Shoulder	Low	Medium
23PR	9	Private Road	Moderate Surface Erosion, Severe Ditch Erosion, Bare Soil, Delta in Stream, direct flow to Stream	Before CMP Pole # 6 – Thompson Lake Shores Rd. 0379800 4876838	Ditch: 480 ft. x 8 ft.	Armor Culvert Inlet/ Outlet, Armor Ditch with Stone, Reshape Ditch, Install Turnouts, Install Check Dams, Install Sediment Pools, Reseed bare soil & thinning grass	High	High

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
12D	9	Driveway	Severe Surface Erosion, Direct flow to ditch then to stream, partial cause of site #23 PR	137 Thompson Lake Shores Rd. 0379868 4876782	20 ft. x 200 ft.	Install Runoff Diverters	Medium	Medium
7R	2	Residential	Moderate Surface Erosion, runoff diverted from neighboring property on to this one, direct flow to lake	91 Lunt Lane, deck on edge of property @ lakeshore 03833170 4878417	5 ft. x 15 ft.	Add rip-rap to bank, work with neighbor to figure out how to divert runoff into a stable area	Medium	Medium
39R	4	Residential	Slight surface erosion, bare soil, direct flow to stream	139 Loon Point Lane Tax Map 47, Lot 11 0382555 4878045	4 ft. x 15 ft.	Establish buffer in two places: along lakeshore and between lower end of driveway and brook, install waterbar across lower end of driveway	Low	Low

## Thompson Lake Watershed Survey – Northern Section

### (Oxford, northern Otisfield and Norway)

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
40 R	1	Residential	Slight Surface Erosion, Bare Soil, Exposed roots and direct flow to lake	North end of Megquier Island Tax Map U-18, Lot 17 0381168 4880449	30 ft. x 30 ft.	Install Runoff Diverters @ top of path, Define Foot Path, Infiltration Trench behind existing timbers, Install Mulch/ Erosion Control Mix, No Raking	Low	Low
41 R	1	Residential	Slight Surface Erosion, Bare Soil @ lakeside of house, direct flow to lake	304 Black Island Rd. Tax Map U-18, Lot 16 0381226 4880247	4 ft. x 50 ft.	Define Foot Path, Install Runoff Diverter ( waterbar), No raking.	Low	Low
42 R	1	Residential	Moderate Ditch Erosion, Bare Soil, Undercut Shoreline, direct flow to lake	297 Black Island Rd. 0381310 4880336	15ft. x 15 ft.	Stabilize Foot Path to water (stepping stones)	Low	Low
43 R	1	Residential	Slight Surface Erosion, Exposed roots, direct flow to lake	279 Black Island Rd. Tax Map U-18, Lot 14 0381466 4880208	5 ft. x 36 ft.	Define Foot Path and stepping stones.	Low	Low
9 BT	1	Boat Access	Slight Surface Erosion, Bare Soil, Bare areas above Boat Access drain to it	266 Black Island Rd. Tax Map U-18, Lot 13 0381347 4880034	15 ft. x 18 ft.	Install Mulch/Erosion Control Mix, No Raking, Narrow the exposed beach area	Medium	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
9 P	1	Path	Moderate Surface Erosion, Bare Soil, Runoff from steep portion of roof makes the problem worse, direct flow to lake.	254 Black Island Rd. Tax Map U-18, Lot 11 0381397 4879952	9 ft. x 57 ft.	Install Runoff Diverters (waterbar), Stabilize Foot Path, Install Mulch/Erosion Control Mix, No Raking, Reseed bare soil & thinning grass	Medium	Medium
44 R	1	Residential	Bare Soil, Roof Runoff Erosion, Bare soil around dock storage, direct flow to lake.	163 Black Island Rd. Tax Map U-18, Lot 6 0381600 4880373	50 ft. x 50 ft.	Define Foot Path (stepping stones or Erosion Control Mix), Infiltration Trench @ roof dripline on side of house, No Raking.	Low	Low
45 R	1	Residential	Slight Surface Erosion, Roof Runoff Erosion, direct flow to lake.	160 Black Island Rd. Tax Map U-18, Lot3 0381684 4880474	18 ft. x 40 ft.	Infiltration Trench @ roof dripline, Extend and reinforce wood "barriers".	Low	Low
13 D	1	Driveway	Moderate Surface Erosion, direct flow to vegetation.	88 Black Island Rd. 0381462 4880942	2 areas: 2 ft. x 60 ft. 2 ft. x 70ft.	Install Runoff Diverters (Rubber Razor)	Low	Low
46 R	1	Residential	Slight Surface Erosion, Bare Soil, Exposed roots, direct flow to lake.	4 Causeway Lane 0381512 4880747	30 ft. x 20 ft.	No Raking	Low	Low
47 R	1	Residential	Moderate Surface Erosion, Undercut.	6 Causeway Lane 0381445 4880743	4 ft. x 10 ft.	Fill "gulch" with stone	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
48 R	1	Residential	Undercut, Lack of Shoreline Vegetation, Unstable Access, direct flow to lake.	14 Mallard Lane 0381337 4880787	3 ft. x 90 ft.	Establish Buffer, Put Rip-Rap in undercut areas.	Low	Medium
49 R	1	Residential	Roof Runoff Erosion, Inadequate Shoreline Vegetation, Exposed roots, direct flow to lake.	87 Black Island Rd. 0381271 4880805	9 ft. x 20 ft.	Install Runoff Diverters uphill of lake shore, Add to Buffer (either let grow in or plant a few shrubs), No Raking.	Low	Low
50 R	1	Residential	Moderate Surface Erosion, Bare Soil, Roof Runoff Erosion, Inadequate Shoreline Vegetation, direct flow to lake.	27 Lunts Point Lane 0381215 4880891	45 ft. x 45 ft.	Define and Stabilize Foot Path, Infiltration Steps, Install Runoff Diverters (waterbar), Infiltration Trench @roof dripline, Install Erosion Control Mix, Add to Buffer	Medium	Medium
51 R	1	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Unstable Access at beach, direct flow to lake.	25 Lunts Point Lane 0381194 4880910	30 ft. x 35 ft.	Install Runoff Diverter (waterbars- timbers to hold back soil), Erosion Control Mix, Add to Buffer, No Raking, Minimize bare areas, "Step down" on stairs to picnic table.	Medium	Medium
52 R	1	Residential	Roof Runoff Erosion, direct flow to lake.	Lunts Point Lane (Boutin Lane). Brown house with white trim. 0381127 4880995	30 ft. x 30 ft.	Install Runoff Diverter (waterbar), Infiltration Trench@ roof Dripline.	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
53 R	1	Residential	Slight Surface Erosion, Bare Soil, direct flow to lake.	#45 at the end of dirt road that goes past Kamp Kohut. Brown log house with a green metal roof. 0381068 4881028	5 ft. x 20 ft.	Define Foot Path, Install two Runoff Diverters (waterbars), Erosion Control Mix on bare area.	Low	Low
1 C	1	Commercial	Slight Surface Erosion by north side stairs, Bare Soil.	Kamp Kohut Beach 0380965 4881466	10 ft. x 5 ft.	Erosion Control Mix or re-sod bare area.	Low	Low
2 C	1	Commercial	Moderate Surface Erosion, direct flow to lake (wheel ruts funnel water to lake)	Kamp Kohut Beach 0380939 4881498	4 ft. x 50 ft.	Reshape ramp area, Install Runoff Diverter (waterbar), Install Mulch/Erosion Control Mix	Low	Low
54 R	1	Residential	Moderate Surface Erosion, Bare Soil, Roof Runoff Erosion, Driveway Erosion, direct flow to lake	Red house on Bell Lane 0381780 4880777	Driveway: 10 ft. x 75 ft., Roof edge on front of house: 10ft. x 20ft.	Driveways, Reshape (Crown), Install Runoff Diverters, Infiltration Trench @ Roof dripline, Cut off lower area below basketball net and Install Rain Garden	Medium	Medium
55 R	1	Residential	Moderate Surface Erosion, Roof Runoff, Lack of shoreline vegetation, Exposed roots.	271 Black Island Rd. 0381470 4880116	50 ft. x 50ft.	Erosion Control Mix, Define Foot Path, Establish buffer, Install Diverter on path to send H <sub>2</sub> O into buffer. Install rain garden in low spot (between face tree and path)	Low	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
56 R	2	Residential	Slight Surface Erosion, Bare Soil, Some Undercut and Eroding shoreline, Inadequate Shoreline Vegetation, direct flow to lake	41 Beechwoods Lane Tax Map U-13, Lot 87 0381015 4883894	100 ft. x 2 ft.	Define Foot Path, Install Mulch/Erosion Control Mix, Rain Garden, Establish Buffer, No raking, Less lawn	Low	Low
57 R	2	Residential	Moderate Surface Erosion, Bare Soil, Lack of Shoreline Vegetation, Erosion, Sand pathway added, direct flow to lake	47 Beechwoods Lane Tax Map U-13, Lot 85 0380991 4883851	6 ft. x 25 ft.	Add Recycled Asphalt to driveway, Mono-slope to "ditch", Enlarge existing "ditch", Install Runoff Diverter (Rubber Razor bar).	Medium	Medium
58 R	2	Residential	Slight Surface Erosion, Uncovered Soil Pile, Lack of Shoreline Vegetation, Erosion, Unstable Access, direct flow to lake.	51 Beechwoods Lane Tax Map U-13, Lot 84 0380987 4883819	6 ft. x 50 ft.	Establish Buffer, Reseed bare soil & thinning grass.	Low	Low
14 D	2	Driveway	Slight Surface Erosion, Bare Soil, direct flow to lake	51 Beechwoods Lane Tax Map U-13, Lot 84 0380987 4883819	10 ft. x 20 ft.	Add New Surface Material, Reshape (Crown), Install Catch Basin.	Low	Low
15 D	2	Driveway	Moderate Surface Erosion, Bare Soil, Waterbars installed previously needs to be fixed up, direct flow to lake.	57 Beechwoods Lane Tax Map U-13, Lot 83 0380996 4883795	30 ft. x 15 ft.	Add New surface Material (Gravel), Establish Buffer, Reseed bare soil & Thinning grass.	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
59 R	2	Residential	Severe Surface Erosion, Undercut shoreline slumping into lake, Lack of Shoreline Vegetation, Eroding shoreline, Unstable Access, Concrete wall at shore is collapsing, direct flow to lake.	57 Beechwoods Lane Tax Map U-13, Lot 82 0380965 4883811	15 ft. x 6 ft.	Establish Buffer, Rebuild wall or rip-rap to stabilize bank.	Medium	Medium
10 P	2	Path (Right-Of-Way)	Slight Surface Erosion, Bare Soil, Uncovered Soil Pile, direct flow to lake.	Between 61 and 65 Beechwoods Lane. Tax Map U-13, Lot 81 0380947 4883789	30 ft. x 6 ft.	Install Mulch/ Erosion Control Mix, Establish Buffer, No Raking.	Medium	Low
60 R	2	Residential	Severe Surface Erosion, Bare Soil and Uncovered Soil Pile, Delta in Stream/Lake, Undercut, Inadequate and Lack of Shoreline Vegetation, Eroding Shoreline, Sand in big piles, direct flow to lake.	71A Beechwoods Lane Tax Map U-13, Lot 79 080877 4883779	20 ft. x 10 ft.	Establish Buffer or add rip-rap to shoreline, Remove sand piles.	High	High
61 R	2	Residential	Slight Surface Erosion, Bare Soil, Lack of Shoreline Vegetation, Eroding Shoreline, Unstable Access, direct flow to lake.	91 Beechwoods Lane Tax Map U-13, Lot 63 0380750 4883701	2 areas both: 30 ft. x 10 ft.	Install Mulch/Erosion Control Mix, Vegetation, No Raking, Reseed bare soil & thinning grass.	Medium	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
2 CS	2	Construction Site	Moderate Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Erosion, Unstable Access, direct flow to lake.	93 Beechwoods Lane Tax Map U-13, Lot 78 0380723 4883779	30 ft. x 15 ft.	Establish and Add to Buffer, No Raking, Reseed bare soil & thinning grass, Mulch, Silt Fence/ Erosion Control Berms.	Medium	Medium
62 R	2	Residential	Moderate Surface Erosion, Bare Soil, Lack of Shoreline Vegetation, Erosion, direct flow to lake.	101 Beechwoods Lane Tax Map U-13, Lot 71 0380682 4883744	30 ft. x 20 ft.	Infiltration Steps, Install Mulch/Erosion Control Mix, Establish Buffer, No Raking	Medium	Medium
63 R	2	Residential	Severe Surface Erosion, Bare Soil, Lack of Shoreline of Vegetation, Erosion, Unstable Access, direct flow to lake.	107 Beechwoods Lane Tax Map U-13, Lot 68 0380669 4883631	90 ft. x 20 ft.	Define Foot Path, Install Mulch/ Erosion Control Mix, Vegetation, No raking, Reduce size of beach	High	Medium
64 R	2	Residential	Slight Surface Erosion, Bare Soil, Undercut, Lack of Shoreline Vegetation, Erosion, direct flow to lake	111 Beechwoods Lane Tax Map U-13, Lot 65 0380708 4883592	20 ft. x 6 ft.	Install Mulch/ Erosion Control Mix, Establish and Add to Buffer, No Raking, Reseed bare soil & thinning grass.	Low	Low
65 R	2	Residential	Slight Surface Erosion, Bare Lack of Shoreline Vegetation, Erosion, direct flow to lake	119 Beechwoods Lane Tax Map U-13, Lot 61 0380743 4883547	20 ft. x 6 ft.	Infiltration Steps, Establish and Add to Buffer, No Raking, Reseed bare soil & thinning grass.	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
66 R	2	Residential	Slight Surface Erosion, Undercut stone wall, Lack of Shoreline Vegetation, Eroding shoreline, Exposed roots, direct flow to lake.	123 Beechwoods Lane Tax Map U-13, Lot 60 0380741 4883517	Along Shoreline: 3 ft. x 3ft., "Lawn" area: 40 ft. x 30 ft.	Define Foot Path, Install Mulch/ Erosion Control Mix, Add to Buffer, Reseed bare soil & thinning grass, Stop mowing on "spit" of land	Low	Low
67 R	2	Residential	Moderate Surface Erosion, Bare Soil, Roof Runoff Erosion, Lack of Shoreline Vegetation, direct flow to lake.	127 Beechwoods Lane Tax Map U-13, Lot 58 0380813 4883509	Entire back lot	Define Foot Path, Infiltration Trench @ roof dripline, Install Mulch/ Erosion Control Mix, Establish and Add to Buffer, No Raking, Reseed bare soil & thinning grass, Clean out and extend open top culvert, Rain Garden for OT culvert to drain into.	Medium	Medium
68 R	2	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Eroding Shoreline, direct flow to lake	129 Beechwoods Lane Tax Map U-13, Lot 57 0380817 4883490	5 ft. x 5 ft.	Define Foot Path, Install Mulch/Erosion Control Mix, Add to Buffer, No Raking, Reseed bare soil & thinning grass. Add berm or diverter on uphill side of house to keep storm water from running underneath	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
69 R	2	Residential	Slight Surface Erosion, bare Soil, Undercut (Exposed roots at shoreline), Lack of Shoreline Vegetation, erosion, Unstable Access, Broken concrete pad funnels water to lake, direct flow to lake.	135 Beechwoods Lane Tax Map U-13, Lot 54 0380868 4883499	25 ft. x 40 ft.	Define Foot Path, Establish and Add to Buffer, No Raking, Reseed bare soil & thinning grass.	Low	Medium
16 D	2	Driveway	Moderate Surface Erosion, direct flow to lake	156 Beechwoods Lane Tax Map U-13, Lot 33 0380990 4883456	10 ft. x 50 ft.	Reshape (Crown), Install Runoff Diverters (Rubber Razor).	Low	Medium
70 R	2	Residential	Slight Surface Erosion, Bare Soil, direct flow to lake	153 Beechwoods Lane Tax Map U-13, Lot 51 0380965 4883421	100 ft. x 2ft.	Install Runoff Diverters, Install Mulch/Erosion Control Mix, Establish Buffer, No Raking.	Low	Low
71 R	2	Residential	Slight Surface Erosion, Uncovered Soil Pile , Inadequate Shoreline Vegetation, direct flow to lake	155 Beechwoods Lane Tax Map U-13, Lot 50 0380945 4883413	40 ft. x 5 ft.	Install Runoff Diverter (waterbar) and Mulch /Erosion Control Mix, Establish Buffer, No Raking, Reseed bare soil & thinning grass.	Low	Low
10 BT	2	Boat Access	Moderate Surface Erosion ( two tracks), direct flow to lake	Beechwoods Lane Tax Map U-13, Lot 49 0380990 4883417	10 ft. x 70 ft.	Add New Surface Material, Reshape(Crown), Install Runoff Diverters	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
72 R	2	Residential	Moderate Surface Erosion, Bare Soil (exposed roots), direct flow to lake.	165 Beechwoods Lane 0381031 4883388	5 ft. x 4 ft.	Stabilize Foot Path possibly with stepping stones.	Low	Low
73 R	2	Residential	Slight Surface Erosion, Bare Soil, Uncovered Soil Pile, Lack of Shoreline Vegetation, Erosion, direct flow to lake.	171 Beechwoods Lane 0381073 4883361	20 ft. x 35 ft.	Define Foot Path, Install Runoff Diverter and Mulch/Erosion Control Mix, Establish Buffer, No Raking, Reseed bare soil & thinning grass, Minimize bare areas.	Low	Low
74 R	2	Residential	Slight Surface Erosion, Bare Soil, Roof Runoff Erosion, Undercut and Inadequate Shoreline Vegetation, Erosion, direct flow to lake.	175 Beechwoods 0381100 4883865	100 ft. x 50 ft.	Define Foot Path, Infiltration Trench @ roof dripline, Establish and Add to Buffer, No Raking, Reseed bare soil & thinning grass.	Low	Low
4 BE	2	Beach Access	Moderate Surface Erosion, Undercut and Lack of Shoreline Vegetation, Eroding shoreline, direct flow to lake.	The only house at the end of Silva Lane. 0381130 4883351	8 ft x 50 ft.	Define Foot Path, Establish Buffer.	Low	Low
75 R	2	Residential	Moderate Surface Erosion, Bare Soil, Exposed roots, direct flow to lake.	137 Fishhook Lane Tax Map U-14, Lot 7 0380934 4882400	Left 20ft. x 3 ft. Right 100ft. x 10 ft.	Driveways, Reshape (Crow), Install Mulch/ Erosion Control Mix. Replace old timber water bars at end of driveway near lake.	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
11 P	2	Path	Slight Surface Erosion, Pathway funnels water to lake, direct flow to lake.	Loon Lane Tax Map U-14, Lot 1F 0380905 4881964	100 ft. x 2 ft.	Install Runoff Diverters, Remove rocks on side of path and in water bars.	Low	Low
13 TR	2	Town Road	Moderate Road Shoulder Erosion, Bare and Uncovered Soil Pile, direct flow to stream.	Perkins Cove at King Street, at culvert inlet. 0381324 4883274	15 ft. x 100 ft.	Add to Buffer, Riprap shoulder area	Medium	Medium
76 R	3	Residential	Moderate Surface Erosion, Bare Soil, Erosion, Unstable Access, direct flow to lake	Hayes Cove Lane (4 <sup>th</sup> house from the end) Tax Map U-12, Lot 25 0380994 4884003	8 ft x 12 ft.	Amor Ditch with Stone, Install Check Dams, Stabilize Foot Path.	Low	Low
77 R	3	Residential	Inadequate Shoreline Vegetation, Erosion, direct flow to lake.	Hayes Cove Lane (Red house with white trim 5 <sup>th</sup> from the end) Tax Map U-12, Lot 24 0380974 4884017	18ft. x 10 ft.	Define Foot Path, stabilize Foot Path, Install Mulch/ Erosion Control Mix, Establish Buffer.	Low	Low
78 R	3	Residential	Inadequate Shoreline Vegetation, Erosion, Exposed roots, direct flow to lake.	Hayes Cove Lane (6 <sup>th</sup> from end) Tax Map U-12, Lot 23 0380988 4884028		Infiltration Steps, Infiltration Trench @ roof dripline, install Mulch/Erosion Control Mix, Rain Garden	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
79 R	3	Residential	Bare Soil, Roof Runoff Erosion, Lack of Shoreline Vegetation, Erosion, Exposed roots, direct flow to lake.	95 Hayes Cove Road Tax Map U-12, Lot 22 0380950 4884050	115 ft. x 8 ft.	Install Runoff Diverters, Define and Stabilize foot Path, Infiltration Trench @ roof dripline if you can avoid roots and rocks, Install Mulch/Erosion Control Mix, Infiltration Trench, Establish Buffer.	Medium	Low
80 R	3	Residential	Undercut Shoreline, Eroding Shoreline, and direct flow to lake.	Hayes Cove Road (Green house). Tax Map U-12, Possibly Lot 21 0380921 4884075	15 ft. x 3 ft.	Rip-Rap on Shoreline, Establish Buffer.	Low	Low
81 R	3	Residential	Slight Surface Erosion, Roof Runoff Erosion, direct flow to lake.	95 Record Lane Tax Map U-12, Lot 20 0880827 4884130	25 ft. x 15 ft.	Define and Stabilize Foot Path, Infiltration Trench @ roof dripline, Install Runoff Diverter (waterbar) and Mulch/Erosion Control Mix, Rain Garden, reseed bare soil & thinning grass.	Low	Low
82 R	3	Residential	Moderate Surface Erosion, Bare Soil, Eroding Shoreline, Exposed roots, direct flow to lake.	6 Longmire Lane Tax Map U-12, Lot 17 0380777 4884200	40 ft. x 10 ft.	Define and Stabilize Foot Path, Install Mulch/ Erosion Control Mix.	Low	Low
5 BE	3	Beach Access	Moderate Surface Erosion, Bare Soil, Eroding Shoreline, Exposed roots, direct flow to lake.	Right-Of-Way north of 6 Longmire Lane, and next to 9 Longmire Lane 0380765 4884211	240 ft. x 10 ft.	Build up Road, Add New Surface Material, Stabilize Foot Path, Infiltration Steps, Install Mulch/Erosion Control Mix	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
83 R	3	Residential	Moderate Surface Erosion, Bare and Uncovered Soil Pile, direct flow to lake	16 Longmire Lane (end of road) 0380739 4884338	75 ft. x 20 ft.	Build up Runoff diverters, Install Mulch/Erosion Control Mix, Cover or Remove soil piles.	Low	Low
84 R	3	Residential	Moderate Surface Erosion, Bare Soil, Roof Runoff Erosion, direct flow to lake.	End of Faunce Lane Tax Map U-12, Lot 4 0380706 4884392	27 ft. x 4 ft.	Infiltration Trench @ roof dripline, Install Mulch/Erosion Control Mix.	Low	Low
11 BT	3	Boat Access	Moderate Surface Erosion, Bare Soil, Undercut and Eroding Shoreline, Unstable Access, direct flow to lake.	By CMP Pole # 86 on Faunce Lane 0380770 4884423	125 ft. x 8 ft.	Install Runoff Diverter (waterbar), Stabilize water line with rip-rap.	Low	Low
85 R	3	Residential	Moderate Surface erosion, bare Soil, Lack of Shoreline Vegetation, Eroding shoreline, direct flow to lake	87 Faunce Lane 0380758 4884499	20 ft. x 10 ft.	Rain Garden, Establish Buffer, No Raking.	Low	Low
3 CS	3	Construction Site	Slight Surface Erosion, Bare and Uncovered Soil Pile, direct flow to lake	65 McAllister – end of road Tax Map U-11, Lot 14 0380786 4884677	20 ft. x 2 ft.	Build Driveways, Install Runoff Diverters, Construction Site (Mulch, Seed/Hay), Add Vegetation to Buffer	Medium	Medium
86 R	3	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Eroding Shoreline, direct flow to lake	25 McAllister Tax Map U-11, Lot 13 0380779 4884612	25 ft. x 10 ft.	Define and Stabilize Foot Path, Install Mulch/Erosion Control Mix, Add Vegetation to Buffer.	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
87 R	3	Residential	Moderate Surface Erosion, Bare Soil, Roof Runoff Erosion, Undercut and Lack of Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	McAllister Tax Map U-11, Lot 11 0380795 4884545	15ft. x 137 ft.	Define and Stabilize Foot Path, Infiltration Trench @ roof dripline, Install Mulch/ Erosion Control Mix, Add to Buffer or allow shoreline vegetation to grow up naturally, No Raking.	Medium	Medium
88 R	3	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Eroding Shoreline, direct flow to lake	1 McAllister (By CMP Pole #88) 0380772 4884505	10 ft. x 20 ft.	Remove Clog and Clean out culvert inlet, Define and Stabilize Foot Path, Rain Garden( Enhance existing wet area), Add to Buffer, No Raking.	Medium	Low
89 R	3	Residential	Moderate Surface Erosion, Eroding Shoreline, Unstable Access, direct flow to Vegetation.	71 Hickory Hill Lane 0380792 4884969		Armor Ditch with Stone, Install Runoff Diverters (Rubber Razor), Install Runoff Diverter(waterbar).	Medium	Low
90 R	3	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Eroding Shoreline, Unstable Access, direct flow to lake.	Hickory Hill 0380716 4885130	10 ft. x 30 ft.	Infiltration Steps, Install Runoff Diverter (waterbar), Infiltration Trench @ roof dripline, Mulch/Erosion Control Mix, Add to Buffer	Low	Medium
91 R	3	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	Cotton Lane (by CMP Pole #04) Tax Map U-11, Lot 5 0380716 4885113	10 ft. x 20 ft.	Stabilize Foot Path, Infiltration Steps, Install Runoff Diverter (waterbar).	Low	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
92 R	3	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Eroding Shoreline, Unstable Access, direct flow to lake.	45 Margaret Lane Tax Map U-10, Lot 17 0380677 4885310	6 ft. x 30 ft.	Stabilize Foot Path, Infiltration Steps, Mulch/Erosion Control Mix, Add to Buffer.	Low	Medium
93 R	3	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, direct flow to lake.	73 Margaret Lane Tax Map U-10, Lot 15 0380674 4885329	12 ft. x 20 ft.	Infiltration Trench @ roof dripline, Mulch/Erosion Control Mix, Add to Buffer.	Low	Medium
12 BT	4	Boat Access	Moderate Surface Erosion, Moderate and Severe Road Shoulder Erosion, Roadside Plow/Grader Berm, direct flow lake.	Pismo Beach Road (Parking area and Boat Launch) 0380404 4887090	110 ft. x 4 ft.	Reshape and Deepen Ditch, Remove debris/sediment, Remove Grader/Plow Berms.	Medium	Medium
16 D	4	Driveway	Moderate Surface Erosion, Direct flow to Lake.	38 Pismo Beach Road (close to boat ramp) Tax Map U-7, Lot 37 0380427 4887098	30 ft. x 40 ft.	Remove debris/sediment, Add New Surface Material, Reshape Driveway.	Low	Low
94 R	4	Residential	Undercut and Lack of Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	Grove Street Tax Map U-7, Lot 39 0380461 4887009	100 ft. x 3 ft.	Establish Buffer, Rip- Rap undercut bank, Less intensive mowing, Do not mow to edge of shore.	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
17 D	4	Driveway	Slight Surface Erosion, direct flow to vegetation.	17 Grove Street Tax Map U-7, Lot 39 0380495 4887030	5 ft. x 10 ft.	Rain Garden, Vegetate Driveway.	Low	Low
95 R	4	Residential	Moderate Surface Erosion, Bare Soil, Roof Runoff Erosion, direct flow to Vegetation.	54 Royal Shores Lane Tax Map U-8, Lot 23 0380584 4886918	30 ft. x 20 ft.	Drywell @ gutter downspout, Add small crushed stone under deck.	Low	Low
96 R	4	Residential	Slight Surface Erosion, Bare Soil, Roof Runoff Erosion, direct flow to lake and vegetation.	52 Royal Shores Lane Tax Map U-8, Lot 22 0380617 4886865	200 ft. x 100 ft.	Infiltration Trench @ roof dripline, Mulch/Erosion Control Mix, No Raking.	Low	Low
97 R	4	Residential	Undercut and Lack of Shoreline Vegetation, Erosion under steep steps, Eroding Shoreline, direct flow to lake	Royal Shores Lane Tax Map U-8, Lot 21 0380553 4886840	Shoreline: 100 ft. x 3 ft. Under Steps: 5 ft. x 20 ft.	Add Rip-Rap to undercut shoreline, Possible add Rip-Rap or Erosion Control Mix under steps.	Low	Medium
98 R	4	Residential	Undercut shoreline, Eroding Shoreline, direct flow to lake.	44 Royal Shores Lane Tax Map U-8, Lot 20 0380572 4886813	100 ft. x3 ft.	Install Rip-Rap along shoreline.	Low	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
99 R	4	Residential	Moderate Surface Erosion, Undercut Shoreline, Eroding Shoreline, direct flow to lake.	40 Royal Shores Lane Tax Map U-8, Lot 19 0380603 4886792	30 ft. x 3 ft.	Define Foot Path, Infiltration Steps, Enlarge Infiltration Trench @ roof dripline, Establish and Add to Buffer along Trench, No Raking, Install Rip-Rap along shore, clean out open-top culvert on driveway.	Low	Medium
100 R	4	Residential	Slight Surface Erosion, Bare Soil, Roof Runoff Erosion, Undercut and Eroding Shoreline, overland flow contributes to unstable bank, direct flow to lake	19 Howlin Wolf Lane Tax Map U-8, Lot 15 0380632 4886728	200 ft. x 200 ft.	Add New Surface Material, Install Trench, Infiltration Steps or retrofit existing steps, Infiltration Trench @ roof dripline, Mulch/ Erosion Control Mix, Add to buffer, Reseed bare soil & thinning grass, Install Rip-Rap along Shore.	Medium	High
101 R	4	Residential	Roof Runoff Erosion.	5 Howlin Wolf Lane Tax Map U-8, Lot 16 0380633 4886687	20 ft. x 3 ft.	Infiltration Steps or Erosion Control Mix, Infiltration Trench @ roof dripline.	Low	Low
102 R	4	Residential	Slight Surface Erosion, Bare Soil, Erosion from gutter downspout at main house and roof of shed.	Howlin Wolf Lane (@ CMP pole #5) Tax Map U-9, Lot 5 0380646 4886678	20 ft. x 40 ft.	Infiltration Trench @ roof dripline, Drywell @ gutter downspout, Rain Barrel, Mulch/ Erosion Control Mix.	Low	Low
103 R	4	Residential	Moderate Surface Erosion, Bare Soil, Roof Runoff Erosion, Inadequate Shoreline Vegetation, direct flow to lake	End of Howlin Wolf Lane 0380641 4886567	Driveway: 75 ft. x 100 ft. Shoreline: 10 ft. x 30 ft.	Infiltration Trench @ roof dripline, Mulch /Erosion Control Mix, Add to Buffer, No Raking, Reseed bare soil & thinning grass, Minimize parking area.	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
104 R	4	Residential	Moderate Surface Erosion, Undercut and Inadequate Shoreline Vegetation, Eroding Shoreline, Trees falling in lake, direct flow to lake.	64 Lexie Lane Tax Map U-9, Lot 7 0380583 4886448	20 ft. x 400 ft.	Add to Buffer, No Raking, Add large Rip-Rap.	High	High
105 R	4	Residential	Bare Soil, Undercut and Eroding Shoreline, direct flow to lake.	Howlin Wolf Lane Tax Map U-9, Lot 7 0380583 4886448	100 ft. x 3 ft.	Install Rip-rap along shoreline, Reseed bare soil & thinning grass, Add hay Mulch.	High	High
18 D	4	Driveway	Moderate Surface Erosion.	Sanborn Lane at first big curve (there is a stone bridge on this property) 0380634 4886081	40 ft. x 3 ft.	Install Runoff Diverters (Broad-based Dip, Open Top Culvert, Waterbar), Stabilize Foot Path, Mulch /Erosion Control Mix, No Raking, Consider additional waterbar higher up, Maintain existing structures.	Medium	Low
24 PR	4	Private Road	Moderate Surface Erosion, Grader Berm.	51 Sanborn Lane Tax Map U-9, Lot 1 0380754 4886096	40 ft. x 4 ft.	Reshape (Crown) driveway, Install Runoff Diverters, Turn out flow to vegetation, Remove grader Berm.	Medium	Medium
106 R	4	Residential	Slight Surface Erosion, Inadequate Shoreline Vegetation, direct flow to lake.	Cooper Lane Extension (very old house) 0380610 4886335	20 ft. x 40 ft.	Add to buffer on top of slope.	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
107 R	4	Residential	Roof Runoff Erosion, Inadequate Shoreline Vegetation, and direct flow to lake.	End of Cooper Lane Extension ( Yellow Bungalow) 0380617 4886387	30 ft. x 100 ft.	Infiltration Trench @ roof dripline, Mulch/ Erosion Control Mix, Add to Buffer.	Low	Low
108 R	4	Residential	Moderate Surface Erosion, Roof Runoff Erosion and direct flow to lake.	Rich's Camp Road (CMP Pole # 27 is in driveway) 0380665 4885469	40 ft. x 2 ft.	Infiltration Trench @ roof dripline.	Medium	Medium
109 R	5	Residential	Bare Soil, Uncovered Soil Pile.	122 Pleasant St. Tax Map U-4, Lot 9 0380205 4887611	75 ft. x 50 ft.	Slit Fence/EC Berms, Seed/Hay.	Medium	Low
1 SR	5	State Road	Severe Ditch Erosion (West Side), Moderate Road Shoulder Erosion (East side), Winter Sand, direct flow to Stream.	Pleasant St./ Route 121 (Near CMP pole 22). Stream Crossing by Pine Point Rd. entrance. Tax Map U-4, Across from Lot 6A 0379633 4887033	50 ft. x 5 ft.	Armor Ditch with Stone, Reshape Ditch, Amor Shoulder.	Medium	Medium
110 R	5	Residential	Slight Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Exposed roots, direct flow to lake.	182 Pine Point Rd. Tax Map U-3, Lot 34 0379650 4886580	50 ft. 25 ft.	Define and Stabilize Foot Path, Mulch/ Erosion Control Mix on slope, Add to Buffer, No raking, Place Timber @ bottom edge of driveway to trap Runoff.	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
111 R	5	Residential	Slight Surface Erosion, Bare Soil and sand Pile, direct flow to lake.	156 Pine Point Rd. 0379808 4886431	75 ft. x 100 ft.	Mulch/Erosion Control Mix, Add to Buffer.	Low	Low
112 R	5	Residential	Slight Surface erosion, Bare Soil, Roof Runoff Erosion, Lack of Shoreline Vegetation, Unstable Access, direct flow to lake.	138 Pine Point Rd. Tax Map U-3, Lot 23 0379931 4886472	25 ft. x 40 ft.	Drywell @ gutter downspout, Mulch/ Erosion Control Mix, Add to Buffer, Terracing across slope to docks.	Low	Low
113 R	5	Residential	Slight Surface Erosion, Roof Runoff Erosion, Inadequate Shoreline Vegetation, direct flow to lake.	Pine Point Rd. 0380003 4886610	35 ft. x 20 ft.	Infiltration Trench @ Corner of driveway, Drywell @ gutter downspout, Mulch/ Erosion Control Mix, Establish Buffer.	Low	Low
114 R	5	Residential	Undercut and Lack of Shoreline Vegetation, direct flow to lake.	92 Pine Point Rd. Tax Map U-13, Lot 92 0380057 4886815	50 ft. x 5 ft.	Establish Buffer.	Low	Low
115 R	5	Residential	Bare Soil, Inadequate Erosion Controls, and direct flow to lake.	84 Pine Point Rd. Tax Map U-13, Lot 10 0380113 4886788	100 ft. x 50 ft.	Mulch/Erosion Control Mix on banks, Establish and Add to Buffer, Limit Sand area, do not import sand.	Low	Low
116 R	5	Residential	Bare Soil, Lack of shoreline Vegetation, direct flow to Lake.	72 Pine Point Rd. Tax Map U-13, Lot 7 0380110 4886987	50 ft. x 10 ft.	Define Foot Path, Infiltration Steps, Infiltration Trench @ roof dripline, Drywell @ bottom, Mulch/Erosion Control Mix, Plant Buffer.	Low	Low

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
117 R	5	Residential	Moderate Surface Erosion, Bare Soil, Roof Runoff Erosion, Inadequate Shoreline Vegetation, direct flow to lake	75 Briggs Lane Tax Map U-2, Lot 4-1 0380033 4885181	15 ft. x 40 ft.	Define Foot Path, Infiltration Steps, Infiltration Trench @ roof dripline, Drywell @ gutter downspout, Mulch/ Erosion Control Mix, Add to Buffer.	Low	Low
118 R	5	Residential	Undercut Shoreline, Inadequate Shoreline Vegetation, Unstable Access, direct flow to lake.	48 Briggs Lane Tax Map U-2, Lot 4-7 0379867 4885717	6 ft. x 8 ft.	Stabilize Foot Path, Rip-Rap at Water Access.	Medium	Medium
119 R	5	Residential	Moderate Surface Erosion, Bare Soil, Inadequate and Lack of Shoreline Vegetation, direct flow to lake.	424 Pleasant St. Tax Map U-2, Lot 6 0379698 4885710	200 ft. x 25 ft.	Define and Stabilize Foot Path, Infiltration Steps, Mulch/ Erosion control Mix, Establish and Add to Buffer, No Raking.	Low	Medium
6 BE	5	Beach Access	Moderate Surface Erosion, Bare Soil, Inadequate and Lack of Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	Common area at Paradise Lane Tax Map U-1, Lot 1 0379661 4885618	40 ft. x 50 ft.	Define and Stabilize Foot Path and sitting area, Mulch/ Erosion Control Mix, Establish Buffer, No Raking	Medium	Medium
120 R	5	Residential	Inadequate and Lack of Shoreline Vegetation, direct flow to lake.	16 Paradise Lane Tax Map U-1, Lot 6 0379602 4885566	Two areas: 30 ft. x 40 ft., 6 ft. x 15 ft.	Establish Buffer, No Raking, Reseed soil & thinning grass.	Low	Low
121 R	5	Residential	Moderate surface erosion, Bare Soil, Inadequate & Lack of shoreline Veg, Eroding Shoreline, direct flow to lake.	18 Paradise Lane Tax Map U-1, Lot 1-5 0379620 4885569	20 ft. x 50 ft.	Define & Stabilize Path, Mulch/Erosion Control Mix, Est. & Add to Buffer, No Raking/mowing, Reseed bare soil & thinning grass.	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
122 R	5	Residential	Moderate Surface Erosion, Bare Soil, Inadequate and Lack of Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	20-22 Paradise Lane Tax Map U-1, Lot 001B-4 Tax Map U-1, Lot 001B-3 0379610 4885549	20 ft. x 50 ft.	Define and Stabilize Foot Path, Mulch/Erosion Control Mix, Establish and Add to Buffer, No Raking, Reseed bare soil & thinning grass.	Medium	Medium
123 R	5	Residential	Moderate Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	18 Fairturn Acres. Tax Map U-1, Lot 3 0379598 4885501	10 ft. x 4 ft.	Mulch/Erosion Control Mix, No Raking.	Low	Medium
124 R	5	Residential	Moderate Surface Erosion, Bare Soil, Lack Of Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	Pleasant St. Tax Map U-1, Lot 2 0379612 4885460	10 ft. x 12 ft.	Mulch/ Erosion Control Mix, Establish and Add to Buffer.	Medium	Low
125 R	5	Residential	Moderate Surface Erosion, Bare Soil, Inadequate and Lack of Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	20 Fairturn Acres Tax Map U-1, Lot 4A 0379625 4885380	10 ft. x 20 ft.	Mulch/Erosion Control Mix, Rain Garden, Establish Buffer, No Raking.	Medium	Medium
19 D	5	Driveway	Moderate Surface Erosion, Direct flow to lake.	24 Fairturn Acres Tax Map U-1, Lot 6A 0379593 4885343	60 ft. x 25 ft.	Add New surface Material (Gravel), Rubber Razor Bar to Rain Garden at edge of pavement, Formalize Berms with hard-packing gravel.	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
7 BE	5	Beach Access	Lack of shoreline vegetation, inadequate shoreline vegetation, shoreline erosion, unstable access, direct flow to lake.	Beach at the end of Fairturn Acres Road 0379600 4885327	40 ft. x 60 ft.	Establish buffer, Mulch/Erosion Control Mix	Low	Low
126 R	5	Residential	Moderate Surface Erosion, Bare Soil, Inadequate Shoreline Vegetation, Eroding Shoreline, direct flow to lake.	478 Pleasant St. Tax Map U-1, Lot 8 0379494 4885257	20 ft. x 50 ft.	Define and Stabilize Foot Path, Add to buffer.	Medium	Medium
2 SR	5	State Road	Clogged Culvert.	Rte 121 (near 482 Pleasant St.) 0379415 4885293		Armor Inlet/Outlet, Remove Clog, Enlarge Culvert.	Low	Medium
13 BT	5	Boat Access	Severe Surface Erosion, Delta in Lake, Culvert empties into lake, Unstable culvert outlet Eroding Shoreline, direct flow to Lake.	Boat Launch on Rte 121 0379395 4885227	10 ft. x 40 ft.	Armor Culvert Outlet, Armor Ditch with Stone, Install Sediment Pools, Install Detention Basin, Install Runoff Diverters ( Broad-based Dip)	High	High
3 SR	5	State Road	Severe Surface Erosion, Clogged Culvert, Severe Ditch Erosion, Moderate Road Shoulder Erosion, Delta in Lake, Eroding Shoreline, direct flow to lake, Cause of problem at 13 BT.	Rte. 121 0379390 4885225	50 ft. x 10 ft.	Armor Ditch with stone, remove debris/sediment, Install Sediment Pools, Install Catch Basin or Detention Basin.	High	High

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
14 TR	6	Town Road	Unstable Culvert Inlet, Moderate Ditch Erosion, Direct flow to Stream.	Bean Rd. between CMP Poles #23 and 24. 0378100 4884430	100 ft. x 30 ft.	Repair Culvert Inlet /Outlet, Reshape Ditch, Install Turnouts, Install Sediment Pools.	High	High
15 TR	6	Town Road	Erosion from Unstable Culvert Outlet, Moderate Road Shoulder Erosion, direct flow to stream.	Rayville Rd. at Pole NETT #6, at stream crossing. 0376802 4883453	6ft. x 10 ft.	Repair culvert outlet.	Medium	Medium
4 CS	6	Construction Site	Moderate Surface Erosion, Slight road Shoulder Erosion, No Erosion control Practices.	Across from blueberry patch on Peaco Hill 0375206 4883509	8 ft. x 75 ft.	Install Silt Fence/ Erosion Control Problems.	Low	Low
127 R	6	Residential	Slight Surface Erosion.	The Cape Cabin # 1 0379146 4883070	18 ft. x 12 ft.	Stabilize Foot Path or Infiltration Steps, Install Runoff Diverter (waterbar), Infiltration Trench @ roof dripline, Mulch/Erosion Control Mix, Add to Buffer, remove large rock by porch entrance and re-orient bar to increase diversion to side.	Medium	Medium
20 D	6	Driveway	Severe Surface Erosion, Clogged and Undersized Culvert under Rte. 121, Bare soil, Moderate Road Shoulder Erosion and direct flow to lake.	Before 6 Thompson Lane at CMP Pole #82. 0379180 4884216	15ft. x 150 ft.	Remove Clog And Enlarge Culvert, Install Runoff Diverter on Driveway.	High	High

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
4 SR	6	State Road	Unstable Culvert Inlet/Outlet, Undersized Culvert, Slight Road Shoulder Erosion, Direct flow to lake.	Across Rte. 121 from the Thompson Lane Exit. 0379157 4884212	8 ft. x 200 ft.	Armor Culvert Inlet/Outlet, Remove Clog, Enlarge Culvert, Install Plunge pool, Remove debris/ sediment from Ditch, Install concrete catch basins.	Medium	High
3 C	6	Commercial	Moderate Surface Erosion, Uncovered Soil Pile, Roof Runoff Erosion from two roofs., direct flow to lake.	Downhill of Outpost on State Rte. 121 at beach. 0379169 4884312	30 ft. x 150 ft	Cover bare Soil Pile, Rip-Rap along shoulder above Beach.	Medium	Medium
128 R	6	Residential	Severe Surface Erosion, direct flow to lake.	State Rte.121 below Outpost. 0379178 4884308	15 ft. x 4 ft.	Stabilize Foot Path with large stones, Extend Rip-Rap.	Medium	Medium
25 PR	6	Private Road	Moderate to Severe Surface Erosion, delta in Stream, direct flow to stream.	Off Cape Road, small Road to left @ stream crossing. 0379309 4883266	10ft. x 400 ft.	Reshape (Crown) Road, Install runoff Diverters or turnouts.	High	Medium
1 X	6	Other (Town Stump dump)	Moderate Surface Erosion, Bare Soil, Delta in Stream, Uncovered Pile, direct flow to stream and wetland.	Jackson Brook Road (End of drivable portion) 0376108 4885056	500 ft. x 400 ft.	Install Silt fence/Erosion Control Berms, Cover Bare Soil Piles, Stabilize slope to wetland, Minimize bare area	High	High
5 CS	6	Construction Site	No erosion control, severe Ditch Erosion, Severe Road Shoulder Erosion, Bare Soil, Winter Sand, Direct flow to Stream.	Junction of Rayville Road and Peaco Hill Road. 0375794 4884438	Two areas: 200 ft. x 200 ft., 5 ft. x 300 ft. (Ditch)	Armor Culvert Inlet/Outlet, Vegetate Ditch or Armor with Stone, Clean Sand from Ditch, Install sediment Pools, Mulch, Silt Fence/ EC Berms, Seed/Hay.	High	High

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
6 CS	6	Residential	Severe Surface Erosion, Bare Soil, No Erosion Control, direct flow to Intermittent stream or spring.	353 State Rte. 121 0377699 4883394	300ft. x 300ft.	Reshape (Crown) Driveway, Install Runoff Diverters, Mulch, Silt Fence, Erosion Control Berms, Seed/Hay, Mulch/ Erosion Control Mix, Establish Buffer	Low	High
16 TR	7	Town Road	Moderate Surface Erosion, Roadside Plow/ Grader Berm, Bare Soil, Winter Sand, Huge amount of accumulated sand between bridge and stream, direct flow to stream.	Bridge # 0237 on Yeaton Swamp Rd. across Greeley Brook, SE Corner. 0375826 4890035	15ft. x 150ft.	Remove debris/sediment, Remove grader/Plow Berm, Reshape(Crow), Install Ditches and turnouts.	High	High
17 TR	7	Town Road	Moderate Surface Erosion, Unstable Inlet/Outlet, Crushed/Broken/ Moderate Road Shoulder Erosion, Roadside Plow/Grader Berm, Sand gets plowed/graded directly into small stream, direct flow to Stream.	1/3 mile East of 16 TR on Yeaton Swamp Rd. 0376532 4890391	15 ft. x 200 ft.	Armor Culvert Inlet /Outlet, Replace Culvert, Lengthen Culvert, Install Plunge Pool, Remove Grader/Plow Berms, Vegetate Shoulder.	Medium	High
26 PR	7	Private Road	Moderate Surface Erosion (2 tracks have developed), Slight Road Shoulder Erosion at bridge (sides are crumbling), direct flow to Stream.	Mapledale Lane Bridge over Greeley Brook. 0378132 4887743	Two areas: 10 ft x 50 ft. 10 ft x 100 ft.	Reshape (Crown), Install Runoff Diverters (Turnouts), Repair bridge sides so sediment does not enter stream.	Medium	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
18 TR	7	Town Road	Severe Shoulder Erosion, Roadside Plow/Grader Berm, Bare Soil, Delta in Stream, Winter Sand, Severe Road Shoulder Erosion, Roadside Plow/Grader Berm, direct flow to Stream.	Gore Rd. at Greeley Brook crossing (Near mailbox #274) 0377930 4888170	15 ft. x 60 ft. On both sides of road	Armor Culvert Inlet/Outlet, Replace and Lengthen Culvert, Vegetate Shoulder, Install Runoff Diverters (Turnouts), Continue Berm across bridge on upstream side,	High	High
12 P	7	Path (ATV/snowmobile Bridge)	Severe Surface Erosion, Trail above bridge is eroding down to stream, direct flow to stream.	ATV Trail off Gore Rd. over Greeley Brook 0378037 4887900	10 ft. x 120 ft.	Reshape (Crown), Install Runoff Diverters (Turnouts and Rubber Razor), Install Runoff Diverter (waterbar),	Medium	Medium
19 TR	7	Town Road	Unstable Outlet, Severe Road Shoulder Erosion, direct flow to Stream.	Gore Rd. @ CMP Pole # 38. 0377410 4888339	8 ft. x 400 ft.	Armor Culvert Outlet, Install Plunge Pool at Outlet, Vegetate Shoulder, Install Runoff Diverters (Turnouts)	Medium	Medium
20 TR	8	Town Road	Severe Surface Erosion, Unstable Culvert Inlet/Outlet, Roadside Plow/Grader Berm, direct flow to Stream.	East Andrews Hill Rd. @ stream crossing. 0374784 4889574	15ft. x 4 ft.	Armor Culvert Inlet/Outlet, Install Turnouts, Remove Grader/Plow Berms, Add New Surface Erosion, Reshape (Crow), Install Runoff Diverters.	High	Medium
21 TR	8	Town Road	Severe Surface Erosion, Unstable Culvert Inlet/Outlet, direct flow to Stream.	End of East Andrews Hill Rd. 0374590 4889440	15 ft. x 25 ft.	Armor Culvert Inlet/Outlet, Stabilize area.	High	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
2 X	8	Other (Old Road Has become stream channel)	Severe Surface Erosion, direct flow to Stream.	From stream @ End of East Andrews Hill Rd. uphill almost to Bow Street. 0374533 4889436	800 ft. x 20 ft.	Install Runoff Diverters, Divert ATV trail around stream.	High	High
22 TR	8	Town Road	Moderate Ditch Erosion, Bank Failure, Roadside Plow/Grader Berm, direct flow to Ditch.	Bonney Hill Rd. around box # 37 0375270 4889704	200 ft. x 8 ft	Armor Ditch with Stone.	Low	Medium
23 TR	8	Town Road	Moderate Surface Erosion, Bank Failure/Erosion/ Undercutting in Ditch, Roadside Plow/ Grader Berm, Winter Sand, Sediment in Ditch, Poor Road material, direct flow to Stream.	Bonney Hill Rd. at Brook to top of ridge. 0375849 4890029	1.5 mile.	Armor Ditch Bank with Stone, Install Turnouts, Remove debris/sediment, Remove Grader/Plow Berms, Add New Surface Material or Pave, Remove winter Sand from bridge so it does not drain into stream.	Medium	High
24 TR	8	Town Road	Severe Road Shoulder Erosion at Culvert, direct flow to Stream.	Gore Rd. at stream near Little Green Acres. 0374880 4889675	50 ft. x 5 ft.	Armor Culvert Inlet/Outlet and Armor shoulder.	Medium	Low
25 TR	8	Town Road	Severe Ditch Erosion, Roadside Plow/Grader Berm, direct flow to Ditch and Vegetation.	McAllister Rd. 0377101 4886781	1.5 mile.	Vegetate Ditch or Armor with Stone, Reshape (Crown).	Low	Medium

Map Site	Sector	Land Use	Type of Problem	Location & GPS coordinates	Area	Recommendations	Impact	Cost
26 TR	8	Town Road	Ditch Banks are Bare.	South McAllister Rd. (¼ mile south of McAllister Rd.) 0377028 4886634	250 ft.	Armor Ditch with Stone, Install Turnouts.	Low	Medium
129 R	9	Residential	Slight Surface Erosion, Lack of Shoreline Vegetation, direct flow to Stream.	539 Harrison Rd. 0373520 4892775	45 ft. x 100 ft.	Add to Buffer, Let grass on lawn grow.	Low	Low

# Conservation Practices for Homeowners

After reading this report, you probably have a general idea about how to make your property more lake-friendly. However, making the leap from concept to construction may be a challenge. TLEA offers YCC and technical assistance to help homeowners.

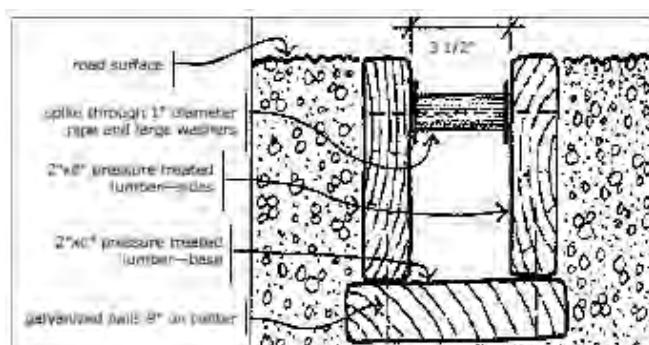
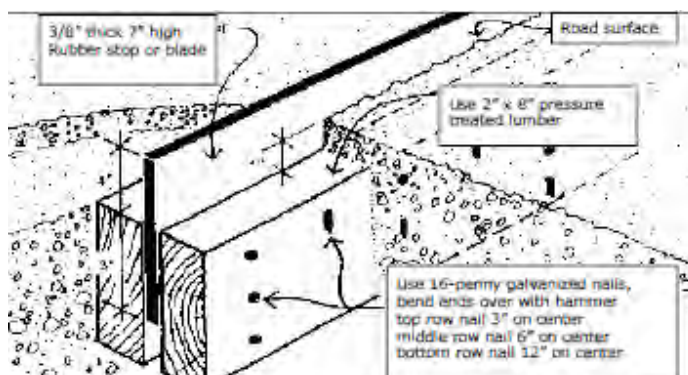
The MDEP and Portland Water District completed a series of fact sheets that answer many common how-to questions. The fact sheets profile common conservation practices and include detailed instructions, diagrams and color photos about installation and maintenance.

The series also includes six native plant lists. Each one is tailored to different site conditions (e.g., full sun and dry soils). The lists include plant descriptions from the MDEP's *Buffer Handbook* and small color photos of each plant to make plant selection easier.



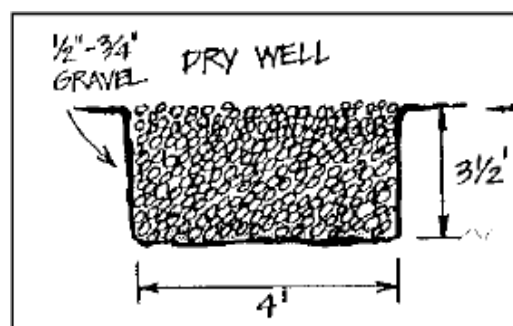
**Fact sheets are available to help you install conservation practices on your property**  
Download at <http://www.maine.gov/dep/blwq/docwatershed/materials.htm>

**Rubber Razor**—Use this structure in a gravel driveway or camp road. It can be plowed over only if the plow operator is aware of its presence and lifts the plow blade slightly. Place it at a 30 degree angle to the road edge and direct the outlet toward a stable vegetated area.



**Drywell**—Use a drywell to collect runoff from roof gutter downspouts. Drywells can be covered with sod or left exposed for easy access and cleanout. Drywells and infiltration trenches work best in sandy or gravelly soils.

**Open Top Culvert**— Use this structure in a gravel driveway or camp road that does not get plowed in the winter. Place it at a 30 degree angle to the road edge and point the outlet into stable vegetation. Remove leaves and debris as needed.



# Permitting ABCs

Protection of Maine's watersheds is ensured through the goodwill of lake residents and through laws and ordinances created and enforced by the State of Maine and local municipalities. The following laws and ordinances require permits for activities adjacent to wetlands and waterbodies.

## Shoreland Zoning Law—

Construction, clearing of vegetation and soil movement within 250 feet of lakes, ponds, and many wetlands, and within 75 feet of most streams, falls under the Shoreland Zoning Act, which is administered by the Town through the Code Enforcement Officer and the Planning Boards.

## Natural Resources Protection Act (NRPA)—

Soil disturbance & other activities within 75 feet of the lakeshore or tributary stream also falls under the NRPA, which is administered by the MDEP. Contact the MDEP and Town Code Enforcement Officer if you have any plans to construct, expand or relocate a structure, clear vegetation, create a new path or driveway, stabilize a shoreline or otherwise disturb the soil on your property. Even if projects are planned with the intent of enhancing the environment, contact the MDEP and town to be sure.

## How to apply for a Permit by Rule with MDEP—

To ensure that permits for small projects are processed swiftly, the MDEP has established a streamlined permit process called **Permit by Rule**. These one page forms (shown here) are simple to fill out and allow the MDEP to quickly review the project.

- Fill out a notification form before starting any work. Forms are available from your town code enforcement officer, MDEP offices, or online at <http://www.state.me.us/dep/blwq/docstand/nrpa/pbrform.pdf>
- The permit will be reviewed by MDEP within 14 days. If you do not hear from MDEP in 14 days, you can assume your permit is approved and you can proceed with work on the project.
- Follow all standards required for the specific permitted activities to keep soil erosion to a minimum. It is important that you obtain a copy of the standards so you will be familiar with the law's requirements.

52066 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
PERMIT BY RULE NOTIFICATION FORM  
(For use with DEP Regulation, Chapter 305)

PLEASE TYPE OR PRINT IN BLACK INK ONLY

Name of Applicant: (owner)	Sandy Waters			Appl/ord Mailing Address:	123 Blueberry Lane		
Town/City:	Brunswick			State:	Maine		
Zip Code:	04011	Daytime Telephone No: (include area code)	(207) 555-1234	Project Location: (town)	New Gloucester		
County:	Cumberland	Map R:	20	Lot R:	50	Name of Wetland or Waterbody:	Sabbathday Lake
Name of Agent:				Agent's Telephone No: (include area code)			
Detailed Directions to Site:							
121 Outlet Road, Rte 26 North, turn right onto Outlet Road. 121 Outlet Road is on the left 4th to 5th houses before Barefoot Beach.							
Description of Project:							
Installation of a drywell to allow infiltration of roof runoff							
Part of a larger project? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>							

(CHECK ONE) This project: does ☐ does not ☒ involve work below mean low water.

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Rules, Chapter 305. I and my agents, if any, have read and will comply with all of the standards in the Sections checked below.

<input checked="" type="checkbox"/> Sec. (2) Act. Adjacent to Protected Natural Res.	<input type="checkbox"/> Sec. (8) Shoreline Stabilization	<input type="checkbox"/> Sec. (14) REPEALED
<input type="checkbox"/> Sec. (3) Intake Piles	<input type="checkbox"/> Sec. (9) Utility Crossing	<input type="checkbox"/> Sec. (15) Public Boat Ramps
<input type="checkbox"/> Sec. (4) Replacement of Structures	<input type="checkbox"/> Sec. (10) Stream Crossing	<input type="checkbox"/> Sec. (16) Coastal Sand Dune Projects
<input type="checkbox"/> Sec. (5) REPEALED	<input type="checkbox"/> Sec. (11) State Transportation Facilities	<input type="checkbox"/> Sec. (17) Transfer of Permit Extension
<input type="checkbox"/> Sec. (6) Movement of Rocks or Vegetation	<input type="checkbox"/> Sec. (12) Restoration of Natural Areas	<input type="checkbox"/> Sec. (18) Maintenance Dredging
<input type="checkbox"/> Sec. (7) Outlet Pipes	<input type="checkbox"/> Sec. (13) P&W Creation/Enhance/Water Quality Improvement	

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.

I have attached the following required submittals. NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:

☒ Attach a check for \$55 (non-refundable) made payable to: "Treasurer, State of Maine".

☒ Attach a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.

☒ Attach all other required submittals as outlined in the PBR Sections checked above.

By signing this Notification Form, I represent that the project meets all applicability requirements and standards in the rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.

Signature of Agent or Applicant:	Sandy Waters			Date:	3/4/06		
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Keep a copy as a record of notice. Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection at the appropriate regional office listed below. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. Work carried out in violation of any standard is subject to enforcement action.

AUGUSTA DEP STATE HOUSE STATION 17 AUGUSTA, ME 04333-6617 (207) 287-3111	PORTLAND DEP 312 CANCO ROAD PORTLAND, ME 04103 (207) 832-6300	BANGOR DEP 136 HOGAN ROAD BANGOR, ME 04401 (207) 641-4050	PRESQUE ISLE DEP 1226 CENTRAL DRIVE PRESQUE ISLE, ME 04769 (207) 764-0477
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OFFICE USE ONLY	CL#	Date	Staff	Staff	Other
PBR #	77		Acc. Date	Del. Date	Photos

DEP/V6334-0305

# Where To Go For More Information

## **Thompson Lake Environmental Association**

P.O. Box 25  
Oxford, ME 04270  
207-539-4535

Kathy Cain, Co-President  
tlea@fairpoint.net  
www.thompsonlake.org

TLEA is a non-profit organization with almost 500 members. Its environmental programs include water testing of the lake, a Youth Conservation Corps that has completed more than 200 erosion control projects in its nine years, and, a major milfoil eradication effort using divers and a pontoon boat, which removed 22 tons of milfoil in 2008, 20 tons in 2009 and 37 tons in 2010. Most recently, TLEA embarked on a major erosion control project in Otisfield that reduced erosion into the lake by an estimated 52 tons in 2010. Erosion control efforts will continue in 2011.

## **Fiddlehead Environmental Consulting**

P.O. Box 783  
Harrison, ME 04040  
207-583-2723

Jeff Stern, Watershed Specialist  
sternjm@hotmail.com

Fiddlehead Environmental Consulting assists property owners, lake and river protection associations, and towns, with watershed planning and survey work, reports, water quality testing, environmental education, training, and grant writing.

## **Maine Department of Environmental Protection**

312 Canco Road  
Portland, ME 04103  
207-822-6300  
1-888-769-1036 (toll free)

Wendy Garland, Watershed Manager  
Wendy.Garland@maine.gov  
www.maine.gov/dep/blwq

MDEP provides technical assistance, reference materials, permitting, environmental education, project funding opportunities, and stewardship activities for streams, lakes and marine waters.

## **Maine Nonpoint Source Training and Resource Center**

17 State House Station  
Augusta, ME 04333  
207-287-7726

Bill Laflamme  
william.n.laflamme@maine.gov  
www.state.me.us/dep/blwq/training/index

Offers courses in erosion control for contractors, including a primer and exam for Certified Professional in Erosion and Sediment Control, camp road maintenance and storm water management.

## **Additional Information**

<http://pearl.maine.edu/resources.htm>

<http://www.mlci.org/Students/default.aspx>

<http://www.mainevolunteerlakemonitors.org/waterquality/indicators.php>

[http://www.avcog.org/documents/Phosphorus%20\\_and\\_Landowners.pdf](http://www.avcog.org/documents/Phosphorus%20_and_Landowners.pdf)