

Tackling the Comprehensive Lake Inventory

Laura Alexander, Assistant Professor
Colby-Sawyer College

Our lake inventory experience

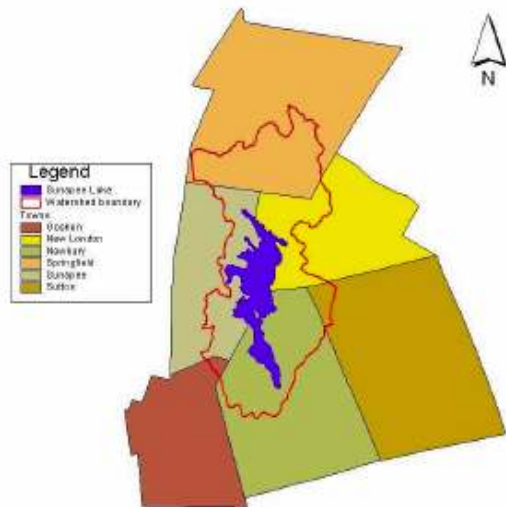
- Lake Sunapee – 2003/2004
- Pleasant Lake – 2005/2006
- Blaisdell Lake – 2007/2008

What do you need to do this work?

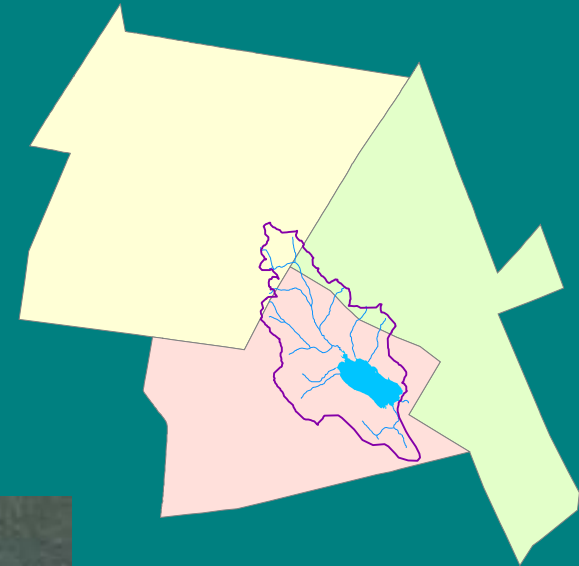
- Committed individuals
- Time
- Comfort with and access to the Internet
- Documentation skills

Size matters

Lake Sunapee
Watershed Towns



Pleasant Lake
Watershed towns



Blaisdell Lake watershed

Planning for completion

- Divide questions/team assignments
- Set deadlines to complete questions
- Set aside discussion time for reviewing answers/results/scoring
- Discuss how to utilize the inventory

There is a map

Clear directions and rationale are provided.

Completed inventories are on-line.

[http://www.colby-sawyer.edu/environmental/curriculum/
thirdyearprojects/index.html](http://www.colby-sawyer.edu/environmental/curriculum/thirdyearprojects/index.html)

Send up a flare.

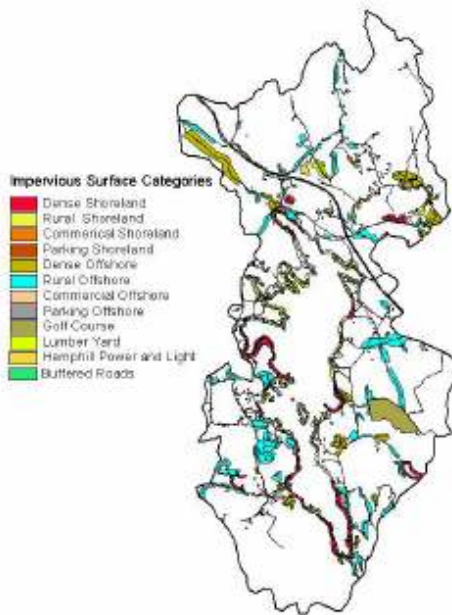
Challenging questions

- Impervious surface
- Rate of development

These are the most challenging questions to answer, and are also the ones most likely to impair your water quality.

Lake Sunapee example

Impervious Surface Areas



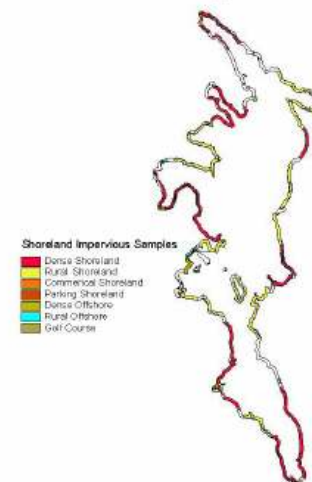
1998 Ortho photos to look for development patterns

Field-measured development types

Calculated averages for development types

Field check

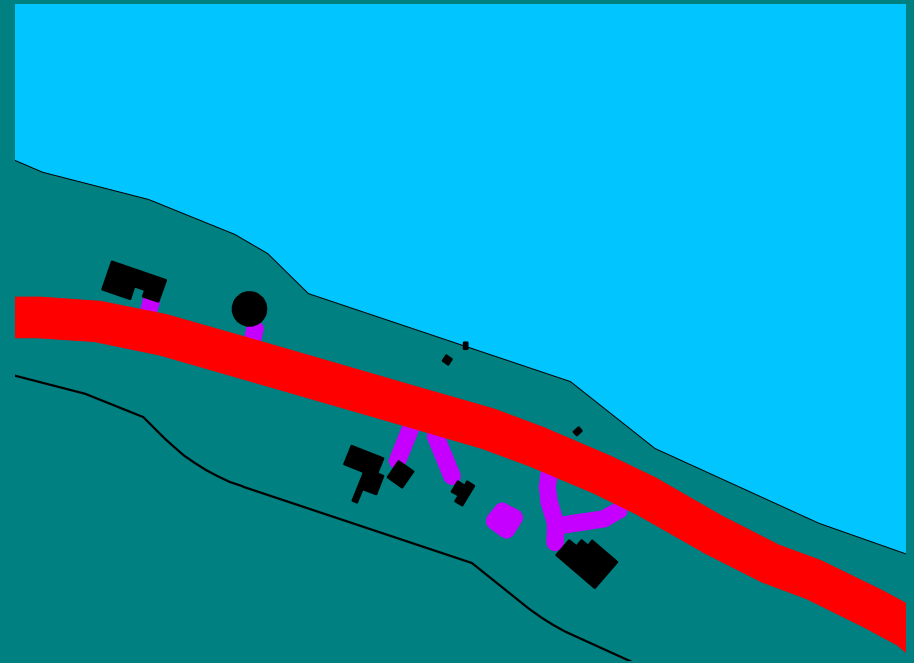
Shoreland Impervious Areas



Pleasant Lake example

GIS layers for building footprints and driveways

- Windshield surveys to verify
- Digitized missing structures
- Buffered roads and driveways
- Calculate



Be prepared to wander

- Impervious surface
- Conductivity
- Build-out analysis
- Flow (spring melt)
- Conservation priorities

Completing the inventory

- Review the inventory and determine areas of concern
- Report results to stakeholders
- Develop an action plan