



LLLA Water Quality Project List

<http://www.lakeleelanau.org/>

Mapping & Sampling

- Construct bathymetric map of north and south Lake Leelanau with emphasis on location and aerial expanse of weed beds
- Summarize lake data from earliest sampling through last year at two sites. Look especially at trends in nutrients and thermocline movement.
- Summarize tributary stream data on nutrient (total phosphorus) trends
- Summarize MDNR and tribal fishery reports and any trends observed
- Continue our lake and stream sampling in conjunction with the Conservancy and MDEQ

Invasive & Other Nuisance Species

- Characterize snail distribution (ID and quantification) in north and south Lake Leelanau. Determine accepted sampling techniques and provide training on snail identification (with backup Snail ID with known expert taxonomist).
- Swimmers itch:
 - continue and expand on efforts to establish reporting data and to promote swimmers itch guard
 - develop more efficient report and maps
- Cladophora survey—do trial shoreline survey this fall after dock removal
- Invasive plant species—recruit and train volunteer group to start with boat ramp surveys and expand to others areas of the lake
- Develop better techniques to sample and track abundance of Zebra mussels
- Expand current lake monitoring to include phytoplankton and zooplankton
- Investigate ways to evaluate threat of microcystin (preliminary data show levels in macroinvertebrates and fish significantly above World Health Organization guidelines)

Education

- Prepare informational fliers (and website links) of above summaries for public education
- Develop flier on BMP for septic systems, trouble shooting and corrective action
- Initiate local school programs to sample stream macroinvertebrates
- Relate above items to watershed plan and integrate into long-range tasks of planning framework
- Work with other lake associations and conservancy on best way to address wetland loss during home construction (i.e. possible county wetlands bank)
- Work with fish committee to develop information that would support MDNR (& tribe) to support improvement in Lake Leelanau fisheries
- Evaluate best approach to address potential development of natural gas fracturing wells in Solon Township
- Begin concerted effort to identify and apply for grants to support projects
- Initiate small-scale “outings” to educate public