

Hatch Pond In-Lake Study

- ◆ **Review of Past Data**
- ◆ **Water Quality Update**
- ◆ **Sediment Assessment**
- ◆ **In-lake Options for Rehabilitation**

Hatch Pond In-Lake Study

Review of Past Data

- ◆ Surveys in 6 years between 1990 and 2012
- ◆ Elevated nutrient levels
- ◆ Excessive sediment accumulation
- ◆ High oxygen demand, low O₂ in much of volume
- ◆ Dense plant growths with dominance by invasives
- ◆ Multiple input sources, but farm at north end most obvious major source, and now gone



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Water Quality Update

- ◆ Sample main in-lake station at top, middle and bottom on monthly basis
- ◆ Assessment of phytoplankton and zooplankton with water quality
- ◆ Track loss of oxygen frequently in spring to quantify oxygen demand



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Sediment Assessment

- ◆ Probing of bottom to assess quantity and general types of sediment
- ◆ Surficial sediment sampling to assess interaction with overlying water
- ◆ Core sampling to evaluate sediment quality over depth of possible dredging



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In-lake Options for Rehabilitation

- ◆ Consideration of all applicable options
- ◆ Dredging would address internal nutrient loading, oxygen demand, and rooted plant problems
- ◆ Phosphorus inactivation would reduce internal load, reduce oxygen demand to some extent
- ◆ Oxygenation or circulation could improve oxygen levels and reduce internal loading
- ◆ Other options to be considered to meet specific needs



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