

Board of Selectmen's Special Meeting
Water Quality Study & Pinnacle Park Impact
Informational Meeting

Minutes of January 04, 2006

Selectmen:

Robert C. Flanders, Chairman
Peter N. Miller
Frank S. Michel

Town Manager:

Carol M. Granfield

Administrative Assistant:

Wynette DeGroot

Call to Order: Chairman Flanders called the meeting to order at 5:30 PM.

Roll Call: Bob Flanders, Chairman, Peter Miller, Frank Michel, Carol Granfield, Wynette DeGroot

Bob Flanders opened the meeting at 5:30 pm and announced that the meeting is being televised and broadcast on the Lakes Region Access Station.

Frank Michel recused himself from the meeting because of his residency on Pinnacle Park Road.

Carol M. Granfield introduced the meeting; Today's meeting is the result of a variety of items that have come up over the past several months pertaining to Water Quality and the Pinnacle Park Sewer possibility, specifically Water Quality issues.

Jeffrey Schloss, Extension Professor/Specialist, Water Resources – LLMP

Jeff opened the presentation indicating that the most important questions seems to be regarding the Water Quality in Meredith Bay and what we need to know about it. Jeff will talk about what the overview of the concerns and potential future planning for Meredith Bay.

Jeff works for the Department of Agriculture through the UNH Extension.

Jeff discussed the amount of human development that can occur in the Lake's Watershed without causing a significant change in its water quality.

The typical watershed in NH actions that occur in the watershed can have an impact on that lake. One specific tab kept on the watershed includes Phosphorous. Nitrogen passes through where phosphorous is sticky an items cling onto it.

Another topic reviewed was "Nutrient Overloads" which cause Algae blooms.

Jeff reviewed various monitoring procedures including the Secchi Disk that monitors water clarity and oxygen; how much oxygen is enough to sustain various species of fish.

Algae growth was discussed. In 2004 the range was 1.13 to 3.2 in Meredith Bay. (Below 3 is good)

The 2005 data is in and will be ready within a few weeks. There is a greater variation in the chlorophyll and possibly due to the very wet 2005, this may have implications on the factors are interpreted and the influence on the lake.

Chlorophyll levels vary throughout the entire lake due to the development around the lake. The Broads and the deeper sites have better quality.

The bottom line is that the combination of all of the factors and the lake characteristics and the inflow and outflows of the lake groundwater and tributaries are going to determine what the inflake process. That is going to control, in turn, the algae and aquatic plants, which then have an impact on everything.

Jeff reviewed an area of Lake Chocura and the monitoring of that lake. One area was under protective covenants and the results of the monitoring showed much less accumulation of nutrients. Other tributary areas had the higher accumulation where there were no protective covenants.

Monitoring is to see how Winnepesaukee is doing.

Jeff further discussed Source Tracking:

Jeff suspects, in a very wet year, the inner harbor area would have worse quality than the Neck area. If surface activities created the higher loadings in Meredith Bay because the more rain you have the more stuff that gets washed in and the more nutrients appear in the water and the less clear the water is, and the more algae. The inner Harbor is washed out during the rains.

Bob: Squam Lake has very low density of development in large areas; Meredith Bay has houses on top of each other all around it. The numbers from the septic loading would be significantly higher.

Jeff mentioned the need to have septic systems pumped every 3 to 5 years.

Potential Studies to access septic systems (Source Tracking)

- Water exchange
- Ground penetration
- Nutrient source tracking
- Emerging contaminants
- Dye studies

Dave Hanson referred to the averaging of numbers from the reports over the past 15 years, in the 3 categories, Meredith being in the best one, remain very desirable numbers. Jeff does not disagree that all of Winnepesaukee is in general, has good water quality, however we are seeing evidence of a decline in the water quality. This (decline) needs to be caught earlier than later. There may be others who may be concerned of the watershed and the quality and the case that things may get worse

Chris Mega asked about alternatives.

The University of Rhode Island has a clearinghouse that looks at alternative septic systems designs.

Dave Hanson asked Bob Flanders where do we go from here?

Bob responded indicating his desire to have volunteers to work on support letters for grants and to get the information rolling. There will not be anything on this year's warrant.

Peter Miller asked what Jeff recommends.

Jeff spoke of getting a group together to determine what it will take to come to some sort of a process.

Possibly setting up monitoring stations, which are \$100 per season to set up, to begin in the spring. Bob encourages monitoring along the West shoreline because of the sewer already in existence on that shore.

Nutrient measuring – Grant would cover the cost of studying septic systems in the area however, would residents be willing to let the volunteers study their septic system.

Again, Frank Michel stated that the issue seems to be the funding of this.

Chris Mega would like the testing to include Sachem Cove down into Spindle Point not necessarily Pinnacle Park.

Peter Miller reminded that the current monitoring that has taken place has only taken place in 2 areas. That is not adequate for a sampling of the entire bay.

Frank wanted to know what water testing needs to take place?

Bob – Establishing a number of sites to take samples of, at what level. Jeff discussed; what levels can we do for monitoring. Shallow, (grab elbow) and deeper water would be integrated – with a hose lowered down. Same place samples verses source sampling.

If there is not a high nutrient concentrated, there is not a problem. What we should be more concerned about is the degradation of the Lake.

Dave Hanson suggested having an expert/designer on septic systems come in for an educational presentation on septic systems.

Waukegan Lake, being the Town’ s Water Supply, may want to be considered for sewer before Pinnacle Park.

Peter Miller moved to close the meeting. Bob seconded. Meeting closed at 8:15 pm.

Respectfully submitted,

Carol M. Granfield, Town Manager

Robert C. Flanders, Chairman

Wynette DeGroot, Administrative Assistant

Peter N. Miller

Frank S. Michel