## **DRAFT MINUTES**

## NEW DURHAM CONSERVATION COMMISSION

## APRIL 27, 2010

Chairperson Cathy Allyn called the meeting to order at 7:05 PM. Paul Raslavicus also called to order the meeting of the Planning Board at the same time.

**Roll Call:** Cathy Allyn (Chairman), Charles Berube (Vice-Chair), Terry Jarvis (Selectmen's Representative), Bill Malay, Bob Craycraft (Alternate), Paddy McHale (left at 9:10 PM)

Others Present: David Bickford, Dot Veisel, Scott Drummey, Paul Raslavicus, Susan Raslavicus, Jeff Kratovil, Ryan Noonan, Don Kretchmer

**Protecting Lakes from Phosphorus:** Bob Craycraft introduced Don Kretchmer as a water quality specialist working with a private company and doing extensive volunteer work in Wolfeboro.

Mr. Kretchmer introduced the subject of deteriorating water quality in many lakes. He said the primary problem comes from the runoff of phosphorus into the water. Phosphorus, he pointed out, is the middle number of three numbers listed on a bag of fertilizer.

Phosphorus is the primary nutrient involved in the growth of algae and cyanobacteria. The buildup of phosphorus in a lake starts feeding the algae so that it grows much faster than the lake can manage it. There are more algae than the populations of algae eaters can handle. When the excess algae die it draws major amounts of oxygen out of the water: oxygen that fish and other lake animals need to grow. As the oxygen levels decrease, fish die, or the smaller fish and animals they eat die. The die-off in turns reduces the number of algae eating organisms and the problem expands.

Mr. Kretchmer showed photos of a simple experiment that illustrates this process. He took two jars of water from Lake Wentworth. One he left in its natural state. He added phosphorus to the second jar. Within two weeks so many algae had grown in the phosphorus jar that the water was green while the water in the untouched jar remained clear and clean.

Mr. Kretchmer went on to describe the many ways in which phosphorus gets into the water of a lake. Phosphorus has the characteristic of forming phosphates that bind easily to clay, dirt and other sediments. When a heavy rain washes sediment down rivers into the lakes it carries the phosphorus with it.

In an untouched natural environment no one is adding phosphorus to the land, and the brush, tall grass, and trees slow down the movement of stormwater sediment into the lake. When this vegetation is removed and replaced with short grass lawns, or impervious roads, culverts, and pavements rainwater will move much faster across the land and will pick up 4x to 8x as much sediment as in an undeveloped area.

Mr. Kretchmer went on to describe actions and practices that towns and landowners can take to mitigate the problem and reduce the amount of phosphorus flow into the lakes. First is to stop using fertilizers with phosphorus in them—or better yet, stop using fertilizers at all. Second is the need to replace old septic systems with new ones which filter more of the phosphorus out.

The third major step is to make minor changes in the management of roads, drainage systems, landscaping, and development practices. None of these are costly measures. Roads should incline from the middle down to the sides so the middle does not become a high speed transmission area for sediment. There should be frequent cutouts from the road to ditches. Ditches should be vegetated and designed in other ways to slow down water movement to increase the infiltration of water into the ground. Landscaping should involve less lawn and more extensive vegetation, and should include basins or rain gardens that allow the water to stop moving and infiltrate. He recommended the book "Landscaping at the Water's Edge" as an excellent guide.

The most effective way to tackle these issues is through a Watershed Plan that looks at a single watershed area and identifies the problems and the level of risk. Then, starting with those watersheds at most risk, specific remediation plans can be developed using a combination of public education, incentives, community pressure, and regulation. He estimated the cost of developing a plan at \$60-80,000 which can be generated by a combination of state grants and local in-kind services and cash as match.

Planning Board Adjournment. The Planning Board adjourned its meeting and members left.

**Palermo Shoreland Permit:** Commission members reviewed the application and a letter from abutter Anne Lyczak which raised concerns about four years of sediment flow from the Palermo property on to her property across the road. David Allen

reported that Road Agent Mark Fuller said the problem arose because Mr. Palermo had installed his driveway in a different manner than his driveway permit allowed, and that he had been attempting without success to get Mr. Palermo to remedy the problem for several years. The drawings provided with the application do not include any elevation or dimension information so Commission members were unable to discern from the drawings if the proposed plan would help or hinder the current situation. By consensus the Commission decided to

- write to DES,
- explain the situation to them,
- include a copy of Ms. Lyczak's letter,
- ask that the project only be permitted after the submission of a plan designed by a registered engineer, and
- schedule a site walk with the Road Agent and the Code Enforcement Officer.

**Mission Statement:** Terry Jarvis distributed copies of a draft mission statement for the Conservation Commission. Chair Allyn asked members to reflect on the draft and email their comments and suggestions to Ms. Jarvis by May 18 who will prepare a revised draft based on feedback from the members.

**Shirley Forest:** Terry Jarvis reported on a workshop the Board of Selectmen held on April 12 with Forestry experts to plan for management of the Shirley Forest. The Board will be seeking proposals from licensed foresters to prepare a plan for the long term management of the forest, including establishing trails, selective cutting, and clear cutting a location for the Boody House. The plan is to be sustainable over the long term. Consideration will be given to setting aside an area to be managed for old growth, depending upon recommendations from the forester.

Paddy McHale excused himself from the meeting at 9:05 PM because of other commitments.

**School Recycling:** Cathy Allyn reported she had had several conversations regarding recycling at the school, and Joe Bloskey has volunteered to pick up recycle materials from the school once a week and take it to the transfer station.

**Natural Resource Inventory:** Bob Craycraft reported. He has drafted a grant proposal so it will be ready to submit as soon as a submittal date is announced. Grants are awarded on a first come first served basis. He spoke with Chris Kane, Conservation Biologist, who informed him that grant guidelines require the grant to be focused on either a Natural Resource Inventory or a Land Conservation Plan, but not both. The Commission agreed that the Inventory should be done first. Terry Jarvis moved to authorize the Conservation Commission Chair to sign a grant proposal to the Pisquataqua Regional Estuaries Program for the Community Technical Assistance Program if necessary to submit a timely grant application. Charlie Berube seconded. Approved unanimously with no abstentions.

**ARM Grant for Birch Hill:** Cathy Allyn reported that the Forest Society is submitting grant proposals for the Aquatic Resource Mitigation Fund (ARM). If granted, the majority of the funds would help in acquiring ownership or a conservation easement on the Red Oak properties. **Bill Malay moved to send a letter of support from the Conservation Commission. Charlie Berube seconded.** Approved unanimously with no abstentions.

Minutes: Terry Jarvis moved acceptance of the minutes of March 30, 2010 as amended. Bob Craycraft seconded. Approved unanimously with no abstentions.

Terry Jarvis moved to adjourn at 9:55 PM. Bob Craycraft seconded. Approved unanimously with no abstentions.

Respectfully submitted,

David Allen Land Use Administrative Assistant