

Drinking Water Source Protection Committee

Approved Minutes of Meeting 05/04/09

Members present: Dave Shinnlinger, Chairman; Bob Reagan, Selectman; Edward Berger; John Bergeron, Secretary.

Meeting called to order at 7:05 PM by chairman Shinnlinger below the library in the conference room.

Minutes of April 6, 2009 were read and approved.

A revised two-page cover letter to watershed landowners was reviewed along with several DES fact sheets listed here. The cover letter is attached.

Septic Systems

<http://des.nh.gov/organization/commissioner/pip/factsheets/ssb/documents/ssb-2.pdf>

Lake Protection

<http://des.nh.gov/organization/commissioner/pip/factsheets/bb/documents/bb-9.pdf>

Phosphorus

<http://des.nh.gov/organization/commissioner/pip/factsheets/bb/documents/bb-20.pdf>

Soaps

<http://des.nh.gov/organization/commissioner/pip/factsheets/bb/documents/bb-54.pdf>

Fireworks

<http://des.nh.gov/organization/commissioner/pip/factsheets/bb/documents/bb-60.pdf>

John provided a list of about 160 landowners in the watershed. Dave showed some brochure progress done by the high school students. If they have something ready by the next meeting we will include it in this mailing. Otherwise we will use their product in a later mailing. At the next meeting we will stuff envelopes, which will be large flat, approximately 9 x 12 inch.

Ed Berger and Dave Shinnlinger suggested doing a promotion at local realtors, with low phosphate dishwashing detergent and slow release/low phosphate fertilizer. It was suggested that we supply some sample dishwashing products to the realtors.

The signs at the reservoir are in need of replacement and John will contact Jay Waldner to determine where the last reservoir signs were obtained. John will contact Canaan Lake Association to coordinate placement of a drinking water sign on the town beach kiosk. Bob will contact Crescent Campsites about placement of a drinking water sign on their property.

Bob confirmed that the two booth locations used last year for old home day celebrations would be available again this year.

Bob will invite Major Tim Acerno of NH Fish and Game to a future meeting to discuss winter trespassing on the reservoir, primarily by snowmobiles.

Meeting adjourned at 8:10 PM

Respectively submitted,

John Bergeron

Town of Canaan, NH
Water Department
And
Drinking Water Source Protection Committee

Dear Canaan Street Lake Watershed Landowner,

The southeast cove of Canaan Street Lake is a drinking water reservoir for Canaan Village. There are marginal problems with trihalomethanes and haloacetic acids, which are caused by high levels of organic carbon, and which in turn are caused by phosphorous. In the Canaan Street Lake watershed, several decades of human activity have increased phosphorous levels above those normally found in remote lakes, and this is impacting Canaan Village's drinking water. Cardigan Mountain School, Crescent Campsites, and many private residences draw drinking water through wells adjacent to the lake, and presently there are no known problems with these water wells.

There are some steps we can take to minimize the Canaan Village drinking water problem, and we ask all watershed landowners to consider the following:

- 1 Have your septic system cleaned at least every three years.
- 2 Use low phosphorous dishwashing detergent.
- 3 Avoid domestic animal waste near streams and lake.
- 4 Use slow release, low phosphorous fertilizer at minimum application levels.
- 5 Allow natural vegetation and leaf litter to accumulate near water bodies.
- 6 Minimize high-speed traffic or boat wakes near the reservoir.
- 7 When using fireworks, please minimize waterbody contact.

Phosphorus is a major risk to the water supply because it increases the amount of organic matter in the lake and leads to rapid plant growth, which negatively affects water treatment processes. Phosphorous comes from contaminants such as human, animal, and wildlife waste products, decaying plant matter, fertilizer and soil components. These are washed directly into the lake during snowmelt and rain events or gradually moved into the groundwater and then to the lake. This will occur throughout the watershed, but it is especially important to minimize phosphorous if you are near any water including brooks, wetlands, intermittent streams, or the lake. Once phosphorous reaches one of these waterbodies it is generally carried quickly downstream to the lake. Phosphate is another version of phosphorous and is just as harmful.

1. While we think of septic systems as a sanitary solution, they do discharge contaminants into the soil and into the groundwater (nitrates, bacteria, and pathogens as well). Older septic systems, which are not raised mounds, are poor at removing phosphorus, so most of it goes to the groundwater and then to the water supply.
2. A major household source that you can easily control is automatic dishwashing detergent. Low phosphate dishwashing detergents are available.

3. Pet and farm animal waste contains phosphorous, and should be minimized near streams or the lake. We can do little to control wildlife's phosphorous contribution.
4. Fertilizers should be both slow release and low phosphorous. If fertilizer is marked 29-2-4, the middle number "2" represents phosphorous, and smaller is better. Within 25 feet of the lake, no fertilizer is allowed, but lime is acceptable.
5. Stormwater runoff contains silt and sand, which contains considerable phosphorus. Maintaining a vegetative buffer along streams and the lake, such as native plants, groundcovers, bushes, saplings, trees, leaf litter, roots, and fallen limbs helps to capture most phosphorus. Lawns, however, are not very effective at removing phosphorous from stormwater runoff, and they tend to accumulate fecal material from Canadian Geese. Planting native low shrubs or groundcover near the lake will discourage these waterfowl and preserve your lake view. Existing cleared areas may be maintained, but please give consideration to reducing them.
6. Wind, waves, boat wakes, and boat propellers churn the lake water and raise both phosphorous and organic matter from the lake bottom. When possible, it is desirable to minimize boat traffic near the reservoir boundary. Nature will continue to churn the waters, but we can help by reducing our portion.
7. Fireworks contain a number of toxic chemicals (lead, barium, dioxin, cadmium, perchlorate, and others). Keeping debris out of the lake best protects water quality.

No matter where you live in the watershed, phosphorous from your land is travelling along the surface to the nearest stream, or moving down to groundwater and then to the lake. Please help us minimize the amount of phosphorous reaching the lake, as this will mitigate the Village water problem and preserve lake recreation for years to come.

Thank you for your consideration and please contact Edward Berger, John Bergeron, Bob Reagan, or Dave Shinnlinger with questions,

Bob Reagan, Chairman
Canaan Water Department

Dave Shinnlinger, Chairman
Drinking Water Source Protection Committee