

Conservation Commission
Milfoil Committee

For Wed., Oct 11, 2013 @ 2:00 PM in the Public Safety Building Training Room

Meeting Minutes

Members Present: Chairman Peter Jensen, Secretary Ginny Gassman, Al Hoch, Scott Bartlett, Karin Nelson, Paul Daisy, Paul Ardito,

Members Absent: Bev Nelson, Cathy Cunningham

Others Present: Bill Gassman, Amy Smagula, Mark Bellaud

The meeting began at 2:05 PM.

Agenda

I. Review this year and plan for coming year

Treatment Results

Amy Smagula (DES) and Marc Bellaud (ACT) shared what they observed on the lake today:

There was a varied response to the last herbicide treatment. Sculpin and Renovate MAX G herbicides seemed to work more slowly on the plants. Also, they observed there was varying levels of control of the plants that were treated.

Herbicide concentration and exposure times rule whether the application was successful. There was not as good efficacy across the board with either type of herbicide as were expected prior to treatment.

The results of the July treatment in Lee's Mills looked okay, but Al said there was also a lot of hand picking in that area so the two treatment types may have overlapped.

The Renovate MAX G worked better in closed-in coves, where there was minimal water flow.

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Marc shared results from an earlier treatment that was done in two places on the same day. Even though permitted for herbicide application at a higher rate in Back Bay, when it was compared to the Basin, Back Bay didn't look as good. When the water was tested after 10 days, the herbicide concentration was zero at Back Bay, while there was still herbicide found at the Basin after 10 days.

If we can't keep the plants exposed to the herbicide long enough, we may have to go back to Navigate.

Green's Basin looked good.

Overall, nothing seems to be working on milfoil in rock piles. The group agreed we need to further investigate what can be done in these areas. It's very costly to hand pick in rocks. It can take fifteen minutes to get one plant as the rocks must be moved first without causing the plant stem to fragment (break).

Permitting process:

Paul Daisy asked if we could specify general treatment in the permit request or do we have to specify the exact herbicide to be used. Marc and Amy responded that we can ask to use both chemicals, and we can also define a maximum application rate. We have to justify that maximum rate which can sometimes be a challenge. Other state departments, as well as Agriculture, want to know why we have to use the higher rates. They don't want to permit using two different herbicides on the same day.

We are finding that these herbicides have different effectiveness depending on conditions. Paul D. surmised it would make sense to get a blanket permit so we have all the tools needed when it's time to do the

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application, using our recent results to show why we need to do that. According to Marc this will complicate the permitting process.

Peter suggested that we should have a pretty good year-to-year record of where we've treated and when we've had to go back and re-treat areas. Bob Wolff (state Department of Agriculture) has been open to working on these options, while other agencies may push back. We can explain that we've treated in some areas before and it looks like it is diluting and this is why we want to use this herbicide at this rate. Peter wants to make sure we can use the higher concentrations if warranted.

Marc stated: We are on the fifth or sixth year of eradication level treatments. Moultonborough has been hit hard with herbicides over these years. The plants are either hardier than expected or other factors are present. There seems to be a limit to how effective the treatments can be. There could possibly be a resistance forming or we are selecting for the plants that are not susceptible to the herbicides. If we just keep going back with higher concentrations, Marc is concerned we may be setting ourselves up for this type of situation.

At Winnisquam and Flint Pond there were treatments with MAX G that worked well but the milfoil eventually came back. Marc does not think it is re-introduction of milfoil. It is more likely re-growth from existing pieces of roots or seeds. Amy thinks it is unlikely our Winnepesaukee regrowth is from seed growth because we don't have that much flowering and seeding of milfoil, so it's more likely from incomplete root kill.

Suncook Lake was treated with Navigate and it took 3 years for it to come back. They don't know why it took so long to come back.

A contact herbicide such as Diquat is fast acting and might make sense for some areas. Marc described a one-two punch where you start by

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killing the plant with a contact herbicide so that the areas can be used for recreation, and then later you can address the roots using another product.

Paul asked, with all the experience we've had, have Amy and Marc adjusted the plan for going forward. Peter and Paul are concerned the town/voters may get frustrated with efforts. Also the town expected to see a hockey stick in the funding requirement over the years. So Paul and Peter want a plan showing why we are not throwing good money after bad. The plan needs to be arrived at scientifically. Is our current fund level what it is going to cost us long term?

Amy says this is an adaptive process, they had higher expectations for the products used this year, and she wants to assess what occurred. She likes the idea that we have combinations of products and techniques. She says we are clearly making progress and we've clearly identified our habitual areas that are going to be there, and we should try different things with those.

Paul said there's no doubt that we've made significant progress and that the community thinks it is positive. But are we doing the best we can? Is doing the shoreline enough? Bill Gassman asked, if we are never going to win at the deep milfoil, then do we want to continue to treat it. Should we be looking at maintenance level treatment vs. eradication level treatment?

Marc does not know of new products in the pipeline. Clipper is a contact herbicide for fanwort that combined with other products like Diquat seems to do a good job on milfoil. This might be appropriate if there is a water flow issue. These products need only hours or minutes of exposure rather than days of exposure. The contact-type products can be effective because the plant works hard to regenerate the green

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portion of the plant and this starves the roots. It won't eradicate the plant but it helps to control and keep small the plant area.

Marc is worried about repeatedly treating the same area with 2,4-D. Because of the experience with hydrilla in Massachusetts, he believes we need to be very careful of selectivity and resistance. It is recommended to rotate chemistries to keep this from happening.

The work of the divers could be easier because if they are working on re-growth, hopefully shrinking the area you need to retreat. However, Al advised that the divers have concern about the chemicals being in the soil when they are hand pulling re-growth. Information about the half life of the herbicide in the soil and how long it's bound with sediment is available.

Ginny asked if there is correlation between the number of times an area has been treated and the efficacy of the treatment. No matter what, an area will be more responsive the first time it is treated.

Paul D. asked if we think September treatments are working. Amy said we don't have a choice because of the limitations due to the bridle shiner and water use restrictions. It would be better to treat in July if there are unoccupied areas that could be treated then. Marc added that some September treatments have been very effective. This year was not as effective but this could be a function of the product used rather than timing.

Native Weeds:

Peter raised the issue of resident asking what they can do with native weeds and asked Amy what response would be acceptable to DES. Amy informed us that people are not supposed to rake and remove

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rooting systems of native weeds but you can cut the weeds. There can be no disturbance to the lake bottom.

Native milfoil naturally lifts up and floats this time of year, including on the Fitzwilliam ponds.

Phosphorus

Bill Gassman asked if there is a target we need to try to get to with respect to the phosphorus in the water column to help control milfoil. Amy responded that milfoil mostly gets nutrients from the muck/ lake bottom in which we can never reduce phosphorus enough to starve the milfoil.

When you pull milfoil you don't have decomposition, but if you treat it with herbicide the decomposition from the fallen plants can release phosphorus that could cause algae blooms.

Peter asked specifically if there is a link between milfoil and phosphorus levels. Amy responded phosphorus does not have any significant link to milfoil but rather it is linked to water clarity, algae blooms, and slimy rocks.

Input to Permitting Process

Paul asked for Marc and Amy's input to take to the state group that will be meeting on the permitting process. For example, a blanket permit would allow us to respond to what we see from the spring treatment during the fall treatment. We are after the flexibility and the option to respond to a condition that was not predicted. The group compiled the following input for the meeting:

- Request a multi-year permit

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- Question the need for certified letters(there are other states where it is enough for the people who send the notices to sign an affidavit that they sent the letters)
- Question the need for an independent lab to do the testing of residuals (Why not use volunteers monitoring?)
- Add an emergency permit process
- Take the 90 day permit review requirement out. This is meant to provide time for a public hearing process but most of the time we don't need a public hearing. We could still wait for the two or three weeks for someone to request the hearing but only add the rest of the time delay if a hearing is actually requested. This change would enable towns to respond much quicker to discoveries of new infestations and potentially reduce their cost of treatment.

Wrap-up

The group discussed using the same kind of strategy with permitting this year as last year. We will request permission to treat all Lees Pond and Moultonborough's Winnepesaukee water bodies, treatments in spring and fall and July, and multiple types of herbicides. Based on our outcome this year, in some areas that are very exposed, where we made a bigger footprint in deeper water, we could request higher concentration levels.

Amy and Mark observed that overall, there is a lot less milfoil out there that has to be treated or managed. We may be treating more water, but the amount of actual milfoil is much less. The costs are linked more to the volume of areas needing treatment than to the density of infestation in these areas. Our challenge is to reduce the footprint enough to enable us to reduce the amount of area treated.

There is a strategy change to keep in mind for the future, we could continue with the eradication method or change to a containment

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method using herbicides such as Diquat. This would be less expensive, but doesn't actually remove plants or prevent root-regrowth.

II. Adjournment

The meeting was adjourned at 4:00 PM.

Respectfully Submitted,

Ginny Gassman
Moultonborough Milfoil Committee, Secretary

Peter Jensen
Moultonborough Milfoil Committee, Chairman