ROGERS LAKE AUTHORITY
MINUTES OF THE MEETING OF June 25, 2005

A meeting of the Rogers Lake Authority (RLA) was convened at the Rogers Lake Community Center on June 25, 2005 at 12:00 PM. The following members were present; Fredrik Holth, Walter Buck, Rob Roach and Elizabeth Sunshine (secretary) of Lyme, and Roger Breunig, Brian Kyle, of Old Lyme. Also noted in attendance was, Old Lyme First Selectman, Tim Griswold Approximately 60 lake area residents were in attendance.

The RLA Chair, Fredrik Holth, called the meeting to order at 12:05 pm.
The Minutes of the March 22 meeting were passed out and approved.
The RLA Chair noted that a number of meetings on the topic of weed control had been held however in the interest of getting as many of the summer residents as possible to attend this meeting was being held to offer maximum transparency and offer maximum exposure to all the residents of the area.
The agenda for the meeting was outlined with weed management as noted as top priority.

AGENDA

1. Approval of minutes of past March 22, 2006 meeting.
2. Aquatic weed control measures.
3. Letter to town residents RE enforcement.
4. Discussion of Navigational and police patrol activity.
5. New business.

The taxonomist who was originally scheduled to be here to answer questions could not make it and Gerry Smith was called and agreed to be available for public questions.

The Chair acknowledged that Aquatic Control conducted the feasibility study and is also a contractor providing hydroraking, harvesting and chemical treatments. As such Gerry is available to answer any questions with regards to the methodology used in the feasibility study and the recommendations that came out of that study. He is not here in the interest of getting work, and ought not be criticized to that effect. Any expenditures of town funds would go out to a bidding process by the town.

Brad Robinson from the DEP is also scheduled to speak to you. He is from the office of pesticides division that is the office in charge of permitting if that process were to continue.

A recap of the process involved with the feasibility study and recent meetings was discussed.

The towns of Lyme and Old Lyme had cooperated with the DEP in sponsoring a full scale evaluation of the lake and that was done by ACT. Questioning that came up in the wake of that revealed an understandable reluctance on the part of the pesticides division of the DEP to attend meetings when they would be responsible for the approval process. The lake authority itself is not the agency that approves or disapproves the use of pesticides on the lake; that is a function exclusively held by the pesticides division of DEP, the lake authority would be an applicant.

The focus of this meeting is to take a straw poll as to what percentage of the people present feel that the weed management problem in general is sufficient to require remedial activity. Secondly if that activity is desirable, what is the position with regards to the different means of control, i.e. hydroraking, harvesting, herbicide application, draw downs, and dredging. As a recap, back in March we met with the towns finance boards and there was a sense that there would not be a problem with the financial needs if there was an wholesale endorsement of the chosen weed management process and the permit process were approved.

Contrary to any inference that may have arisen in the press or otherwise there is no commitment on the part of the Lake Authority at this juncture to engage in herbicide treatment in of Rogers Lake. The RLA has sought continuously to have full transparency and explore all the alternatives. The watershed management addressed in this feasibility assessment include potential sources that would infect the lake and produce further deterioration of the lake. Those include: management practices, slope stabilization, behavioral modifications, and public education. The feasibility study discusses a great deal that can be done with regard to the properties around the lake to help abate the source of weed development around the lake and the deterioration that occurs including; monitoring of transport, mitigation, waste water, mgt catch basins, street sweeping, detention ponds, and weed abatement in terms of mechanical options such as hydroraking harvesting, dredging, and draw downs hand pulling and aeration. Chemical options to target the milfoil infestations such as Diquat Reward and Aquathol Enthrall..
In terms of budgeting from any of these avenues the early view of herbicide application was noted to be approximately $15,000 to $25,000 for the first year and a second year expenditure of about $16,000 to 23,000 and third year of $15,000 to $20,000 for spot treatment and retreating areas of earlier years, monitoring and permitting. Another option for harvesting was discussed for annual harvesting approximately 50 acres primarily in the center of the lake at an approximate cost of $30,000 per year. There are applications for hydroraking which is very different from harvesting. Hydroraking is a very localized and would be contracted for by individual property owners at approximately $165.00 per hour

The RLA chair introduced Gerry Smith who is an Aquatic Biologist and the owner of Aquatic Control Technology. ACT has been in business for 28 years and Mr. Smith has over 30 years in the profession. ACT employees 7 full time biologists, they work on over 400 lakes and ponds throughout New England, approximately 100 of those are in Connecticut.

Gerry Smith gave an overview of his company and its integrated approach to weed management. He stated that ACT has one of the largest fleets of harvesting equipment in the country and they do about 80% of the harvesting and hydroraking work in New England. ACT also chemically treats waters and sells more aeration equipment and bottom barriers than any one else in the New England. The point being that ACT is not pushing due to any lack of ability to manage weed infestation by mechanical means. ACT does more non chemical work than any other company in weed management however they have to look at each body of water in its own unique situation. With the background, knowledge, 28 years of experience and ability to come up with the recommendation unique to the needs of Rogers Lake.
A very comprehensive feasibility study was conducted. Gerry discussed the lake in general and the specifics of the study including the plant life, stating that Rogers Lake has over 1,015 different species of plant life, all but one of which are native plants, the one that is not is variable water milfoil. Milfoil is an invasive plant native to Florida. Milfoil is a gradual and eventual spread. Milfoil looks like a Christmas tree and grows in water depths of up to 8 feet of water.

The approach that was recommended in the feasibility study was an integrated approach using both chemical and mechanical means of control. The recommendation was to work where the milfoil was most dense and the boat traffic the highest first, treat 30 to 55 acres with Reward herbicide. Brad Robinson from DEP pesticides division will answer any questions regarding the Reward herbicide. Reward is the most commonly used herbicide in Connecticut, ACT has been approved to and has applied Reward on over 200 lakes New England with no experience of fish mortality in 28 years. Reward is the herbicide of choice to remove milfoil. Reward is a contact herbicide and it does not attack the root system. Therefore reductions of the plant are usually seen in the 2nd and 3rd years. During the 2nd and 3rd years the costs are reduced due to the reduction in the population of the plant infestation In year two of the program the recommendation was to retreat areas with heavy infestation of milfoil in combination with harvesting in areas that have a high concentration of pondweed (broad leafed brown colored pond leaf plant). Harvesting is very much a repetitive action one or two times per season. - like mowing your lawn you cut it low and over the season it grows back. There are lakes where through harvesting they have seen

reduction of the plant by the reduction of the seed bank. There is a second option or chemical treatment to control the pondweed through the use of Aquathol K
WE DO NOT RECOMMEND HARVESTING MILFOIL as milfoil is an invasive plant and when fragmented can spread, it also grows tremendously fast (over one inch per day) which makes it cost prohibitive to continually harvest manage this plant.

In the 3rd year maintenance spot treatments and monitoring

Hydroraking is also available to individual property owners with a minimum of 20 hours collectively and 1.5 hrs each at a cost of $165.00 per hour in order to mobilize the unit There is also a $1,000.00 mobilization fee to get the equipment here and back. In order for a hydroraking project to move forward someone needs to coordinate the project collect forms, money get permits from wetlands, and coordinate with us on this project at present the first available dates for the equipment would be the first or second week of August. ACT would need a commitment within two weeks to reserve the time.

Liz Sunshine offered to coordinate efforts to make an application for hydro raking for anyone interested in having it done. Phone 434-1434

The RLA Chair introduce Brad Robinson from the pesticides division of DEP.

Brad discussed the procedure that DEP uses in evaluating an application for a permit for the use of pesticides in state waters. "We in the pesticides division want to make sure that public health and the environment are not damaged or endangered by the use of any chemical. With regards to herbicides that are used directly in the water, there is a site specific permit program. The applicant needs to provide us with very specific site information, where is it going, what is the problem, what pesticide do you want to use, Are there any other uses for the water, irrigation, drinking water, watering livestock can the water outlet be controlled, where does the water drain to. All of these things are taken into consideration in the application process. The other side of this is we register the chemicals. The chemicals are first registered with the Federal EPA , This is a very extensive registry it is then registered on the state level where we look at the data to make sure that the chemical fits the state requirements as well. The state is often more restrictive on what is allowed in the water, and what would be classified as restricted use. Restricted use applies to the applicator who needs to be licensed to disburse the chemicals. We try to determine what the overall effect will be on the body of water. There will be some sort of redistribution of aquatic floral life.
Milfoil is a common invasive plant and on the top ten do not transport list. Diquat is the most common chemical used to treat for milfoil and although I don't have an exact number of permits given for this chemical for this purpose I can say it is in the hundreds, overall we do about 500 to 550 aquatic herbicide permits pr year

Brad Robinson opened the floor for questions

Q Is Diquat a concentrated chemical? can you swim in the lake after it is disbursed?
A In its concentrated form it is very toxic. However when disbursed and diluted it is not toxic and you can swim.

Q I have a shallow well, will it get into my drinking water?
A Diquat chemically binds with soil instantly and irreversibly and it can not penetrate soil or infiltrate groundwater. It acts very quickly to bind with any kind of sediment so much so that it can not be used in murky lakes or on plants that have sediment on them as it binds instantly and irreversibly to the sediment.

Q Are there any restrictions to the use of the lake after treatment?
A Yes, There is a three day irrigation restriction of the lake water.

Q How long have you been studying the effects of Diquat? Are there any Neurological studies? Or long term effects?
A This product has been on the market my entire career which is over 26 years. Diquat has been re evaluated over the years by the EPA

Q Does the state allow the use of 24D?
A Yes under certain circumstances, In this application I would worry more about groundwater infiltration and shallow wells with 24D.

Q What happened at lake Pocotopaug?
A What happened at lake Pocotopaug had nothing to do with milfoil or with Diquat because it was not used there, but… there were had giant algae plants that were causing a change in ph levels in the lake which caused a small fish kill and the lake was treated with a chemical, alum, to correct the pH levels there was another fish kill over the winter the levels of alum were adjusted and the lake has been treated successfully since. The alum was not applied to kill the algae it was designed to adjust pH levels so that there would not be a massive fish kill due to the plant growth and ph imbalance.

Q When the Diquat bonds to the soil does it accumulate over the years of application? Is it irreversible? What is the half life of the chemical?
A It degrades over time. At the proposed levels of implementation the soil would be able to continue its bonding ability. The half life is approx 1000 days

The floor was opened to comments:

A comment was read: Regarding what tests had actually been conducted regarding the use of Diquat, that the EPA has been wrong in the past about safety of chemicals that Danish EPA has banned the use of Diquat and other herbicides and that adverse effects of reproductive systems and birth defects and organ damage has been related to herbicide use. Given the unknowns, if the towns' insurance would not cover any future health issues that may arise that he company should provide a bond that they will be responsible for any future health risks.

In an attempt to get an idea of the feeling of the residents the RLA chair asked:

With regards to weed management how many people favor of some form of weed control expenditure for the management and control of milfoil in the lake? Any form of weed control at public expense.

Response - 46 hands in favor
21 hands against

How many people that are present here today are against the application of any herbicide in the Lake?

Response was approximately 30 of the residents present.

How many people that are present here today are for the application of any herbicide in the Lake?

Response was approximately 35 of the residents present.

The RLA has received 5 letters against the use of chemicals in the lake.
Essentially making the vote 35 for and 35 against.

The RLA Chair noted that we have passed the time that any weed control activity for the forthcoming summer could be reasonably budgeted. Any weed management budgeting at this point would be for the year 2006 at the earliest.

In the past, the only weed management ever attempted on the lake was Hydro Raking, which had been done by individuals with the approval of the RLA.

The optimal solution is, of course, dredging until you look at the math involved. At about $150.per sq/yd It runs about 2.5 million dollars to remove 10 acres of material to a depth of 15 feet (a level where weeds won't grow.) There may be a possibility to reduce the cost of dredging if the material that is good bank washed gravel that can in turn be sold.

The idea of a draw down was discussed, in order to remove the vegetation, possibly drinking water could be supplied to those with shallow wells during the operation, this may cause problems with the department of fisheries as drawdown tend to kill off nesting or breeding areas of some species. At this point many ideas are being explored.

The next meeting is scheduled for Sept 13, 2005 at 7:00 pm at the Rogers Lake Community Center.

Motion to Adjourn at 8:14 motion seconded and moved.

Respectfully submitted,

Elizabeth Sunshine
Secretary