

Minutes and Additional Information
Rainbow Lake Tour and Meeting, 7 June 2011
The Shores at Rainbow Lake Dock and Pinetop-Lakeside Town Hall

Interested parties met at the Shores at Rainbow Lake dock on the west side of the Lake in the Shores HOA at approximately 9:00 AM on Tuesday, 7 July. Please see list of attendees. Three pontoon boats and Mike Lopez' AZGF boat made the tour, which lasted about one hour.

Earlier in the morning, Al Crawford, Joe Hills and Jim Peterson from The Shores HOA and Terry McNabb from AquaTechnex made a comprehensive tour of Rainbow Lake.

Al Crawford's edited comments from early morning meeting with AquaTechnex, 7 June 2011:

The RFP and the contract we signed with AquaTechnex specifically called out the eradication of Eurasian Milfoil and did not include Coontail. I was responsible for the RFP and that mistake, driven by the weed survey conducted by Mike Almalfi, Tempe Aquatic Weed Testing consultant, in 2006. As you may recall it was his company which attempted to control the weeds along the shore line out some 100-200 feet (with only partial success, I might add.) His findings were that Milfoil was the dominant weed in our lake. This conclusion does conflict with the weed survey done by AZGF about 9-10 years ago in which they found Coontail to be dominant (77% coverage of the lake) and Milfoil (57%).

See article 8 of the Contract.

The treatment protocol called for about 4-5 weeks of 7-10 ppb concentration. That was accomplished with three separate applications some 10-14 days apart. We took several samples after each treatment which were sent to the herbicide supplier to determine the sample concentration and therefore the amount of herbicide needed to keep the concentration up in the required range. They informed us of the sampling results each time. Because of dilution up in the upper end of the lake, they did also apply time-release granules there on the final treatment. McNabb told us yesterday that because we/they had to delay the treatment protocol until after the irrigation season (i.e. late September-October) Sonar could not be as effective as would have been earlier in the summer. His explanation was that Coontail in late summer/early Fall, begins a process of producing over-wintering "seed pods" which are more imperious to the herbicide. I agree that they should have alerted us last fall to this fact. We did try unsuccessfully to have the Irrigation Company agree to let us start a couple weeks before their season termination by having them pump water up from Lake of the Woods and/or Show Low Lake to supply their Lakeside and Wagon Wheel users for that brief period.

AZGF did a quick weed survey Monday (7 June 2011) which concluded Coontail was still at 77%, with Milfoil now at 4%. This is fairly consistent with McNabb's visual estimate from the complete lake tour Tuesday morning with Jim Peterson, Joe Hills and me. They committed yesterday to come back and treat the 3 or 4 areas which had residual Milfoil plants. They also committed to provide us a comprehensive map of the lake showing remaining weed concentrations along with some recommended alternatives to attack the Coontail. McNabb did suggest that we not treat the areas in which AZGF will be harvesting weeds as a way to maximize use of our funds. (Unfortunately

Draft Minutes, Rainbow Lake Tour and Meeting, 7 June 2011 (Friends of Show Low Creek Watershed formerly Show Low Creek Waterweed Enhancement Partnership) and Rainbow Lake Coalition

that will NOT include the shallow areas around the shoreline and private docks.) Also that we need to agree on priority areas for treatment, given our limited funds. Finally, it is painfully clear that the community (not just the Shores HOA) must produce a realistic mid-long range plan to maintain the lake which includes securing ongoing funding. The SLCWEP and “Friends of Show Creek” or Rainbow Lake Coalition (however the name ends up) is attempting to do just that via the creation of a 501(c) 3 organization to drive the process.

David Newlin edited e-mail summary of Lake Tour and Meeting:

On Milfoil

- The Eurasian milfoil weed kill accomplished is close to the guaranteed results (see Contract). This is confirmed by Mike Lopez and AZ Game and Fish sampling (see that section of Minutes).
- The Contract was for Eurasian milfoil kill (see Contract also attached).
- A significant issue was the time of year (Fall) and the waiting period required by the irrigation company (to avoid contamination of irrigation water during the summer growing season – NOTE: the SONAR was applied systemically, that is, throughout the lake; not on a “spot” basis.
- To kill Eurasian milfoil, the *entire* lake must be treated since the milfoil is rooted in the bottom of the lake. This has the potential to affect certain “tender” plants in the irrigation company’s area and therefore application must wait until the end of the growing season.
- AZGF is bringing their weed harvester up to the lake on 15 June (See comments from Mike Lopez below). This is an effective means to get control (not eliminate) the coontail. The success of the weed harvester depends on lot of the travel time to the dock, etc. but would likely average an acre per day. For many reasons this summer season, the Lake can benefit because Mike Lopez has said the weed harvester may be used for many weeks. AZGF will not work the weed harvester this year on weekends this year since that interferes with the public use of the dock and lake on the weekends. This is an *excellent* offer.

On Coontail:

- The coontail, which is a *vast majority* of the weeds now showing in the lake, have grown far beyond what anyone thought. This was a surprise to everyone.
- Coontail *is not* rooted; that is, it floats. It overwinters in a different way than milfoil and...
- ...to kill coontail, you must apply herbicide in the May/June time frame (we were far too late last year).
- SONAR will kill coontail but it was applied too late in the year.
- REWARD seems to be the herbicide of choice at this time.
- Reward can be applied for spot treatment; that is, it does not have to be applied systemically. It does not circulate in the lake and will not move downstream into the irrigation company’s water *if applied properly*.
- REWARD may be applied by private land owners; however, since none of homeowners own the water rights, some type of agreement is going to have to be reached by everyone with the Irrigation Company.
- A volunteer from the group has stated that are going to seek certification to be able to apply this chemical.
- The cost of REWARD is about \$170 per acre.
- AquaTechnex did fulfill their contract. They are willing to work with us on eradicating the coontail, whose “invasion”, as noted above, was somewhat of a surprise.
- It is rapidly becoming too late to accomplish this during the current coontail growing season.

Comments from Mike Lopez on the AZGF Weed Surveys:

The 75% coontail we found on Monday morning was roughly the same as the coontail that we found in 2004-2005. That doesn't tell us anything about the weeds last year. The plant growth is different from year to year, although we've been seeing a general increase in all vegetation over the last several years. I couldn't say in detail how the current levels compare to last year, although we all know the weeds were very bad. But I don't know the composition of each species. It is possible that the milfoil had started to dominate last year and the coontail was crowded out and now is growing with no competition. But looking at a few loads that our weed harvesters were pulling out last year, it appeared to be mostly coontail. It is hard to say exactly what the composition was without good surveys each year.

This is my professional observation. We know what the composition was in 2004-2005. It has appeared to me that coontail has always dominated the aquatic vegetation in Rainbow Lake, including last year. But the Eurasian water milfoil had become well established and contributed greatly to the nuisance weed problems in the lake. Terry was asked to eliminate Eurasian water milfoil and it appears he has almost done that. What that leaves is a lot of coontail that will continue to create problems. Whether the coontail is 75% or 95% doesn't make that much difference, both would be unacceptable. We'd prefer approximately 25% plant coverage for the fish, thus leaving plenty of open water for boating and enjoying the lake.

Comments from Mike Lopez on the AZGF Weed Harvester use at Rainbow Lake:

I have confirmed that our large harvester and crew will be at Rainbow Lake on June 15. I do not know if they will start cutting that day or the next, as they need to travel from Phoenix and set up the harvester.

We can have them at Rainbow for quite some time, as all our other waters that we harvest in this area will likely not open to access until the monsoons start. They will begin in the public boat ramp area, and then start working out from there. The drawback with the large harvester is that they cannot get too much into the shallows, so probably won't be able to do much around individual boat docks. I anticipate that they will be here long enough to get to most of the lake including the upper end where the weeds are particularly bad, but finalizing the agreement will help maximize their efficiency on the water. FYI, Kelly is going on leave for 3 weeks starting the end of this week. I may have to take over as contact for that agreement when he is gone.

Summary of E-mail Exchanges between Al Crawford and Terry McNabb:

1) The Diquat/Chelated Copper (Reward is one trade name of this herbicide) DOES effectively treat both Milfoil and Coontail. Therefore, he confirmed that we would not have to cover the cost of treating the blue area on his map. Note his comment that will also attack the filamentous algae in the short term in the blue area.

2) Since they will have to travel here anyway to treat the Milfoil, we will NOT have to pay for their "mobilization", as they call it.

3) Regarding the area that can be harvested by AZGF, Mike Lopez's response was that they expect to be able to cover much more of the lake than the 10 acres shown on Terry's map. And that area should be a lower priority for treatment by us—as Terry did indicate during our meeting yesterday.

4) He confirmed that the proposed herbicide should NOT be a problem for the Irrigation Company, as they would not be treating the area within 400 feet of the irrigation outtake. He also talked about placing some kind of barrier around the outtake during and immediately after the treatment. He will be sending a copy of the herbicide label to the Irrigation Company for their concurrence.

5) David confirms that the dollar balance in our account with RC&D \$4H. Further, in addition I did understand that the Shores HOA budget did have a \$5K line item for lake maintenance which we were thinking might be required to control algae around our shoreline.

Again, Terry will be sending us a detailed report and set of recommendations.

Comments and information on Treatment Map from Terry McNabb

I have your map done with some suggested treatment areas and sizes. I tried to suggest zones that corresponded to the various neighborhoods in the lake. These polygons are created to estimate size of treatment areas and could be larger or smaller, but these are for your comment.

The blue polygons are areas I would suggest we treat for Eurasian Milfoil

The red polygon along your shoreline is about 26 acres

The Orange polygon on the south is about 20 acres

The yellow polygon on the northeast is about 11 acres.

The green polygon is suggested harvest zone and is about 10 acres. Depending on their production and time available, they could potentially harvest more areas.

You need to leave some plant growth in the lake for habitat so would suggest doing that in deeper waters.

AL Crawford Comments on Terry McNabb's Response to his Questions

It does appear they are giving us a fair break on the treatment cost, i.e. \$200 vs \$350/acre. Note that would apply only if we assure quick timing to coordinate with Ian Cormican's arrival to treat the Milfoil. We may get a little more of a break if AZGF can supply a boat rather than their having to drag one over from Palm Desert—but don't know about the apparatus to spread the herbicide. We were able to use AZGF's boat last fall for the third treatment.

Comments, corrections, etc., cheerfully accepted.

Respectfully Submitted;

David M. Newlin
Co-Chair/Secretary