

LBCA Executive Committee Response to OTAK Tech Memos 1 & 2

March 24, 2009

LBCA appreciates the attention that Lake Ballinger has been receiving. We also appreciate how many jurisdictions and governmental agencies are involved whether we like it or not. We have learned much about lakes and creeks and the complexity of various causal factors and potential solutions. And despite the speed at which this process is flowing, and recognizing that “perfect” solutions may not exist, we trust that more than enough air has been generated, so we can now focus on positive actions and obstructions to be overcome.

Lake Level and Flooding

1) **Lake Forest Park and Lyons Creek flooding**

We appreciate the OTAK studies that show that Lake Ballinger and McAleer Creek are minor contributors to the flooding history in Lake Forest Park (LFP). We acknowledge that LFP has a major problem that needs assistance from higher levels of government. We appreciate LFP needs to be aware of what the Lake Ballinger Forum is finding and deciding. We do not think that **this** Forum should take responsibility to solve LFP’s problems. The LBCA called on Mountlake Terrace and Edmonds to fix Lake Ballinger flooding and water quality problems 4 years ago. We expect them to focus on these problems and not Lake Forest Park’s problems. Based on the studies conducted, we think that the down-stream flow rate of water into McAleer Creek needs to not exceed the adjudicated rate. We have not and will not press for any change in that order.

2) **OTAK Conclusions**

We agree that the OTAK suggested solution to use public money to raise the houses on Lake Ballinger that were flooded in 1996 is a good one. This, however, should include one not on the OTAK report, that of the Yarnell's, parcel #00488800701902, which had one inch of water in their one-level house in the 1996 flood event. While probably cost-prohibitive to each individual owner, the total government/taxpayer cost of this remedy is far less than any other solution, except permanently lowering the level of the Lake, as mentioned by Clear Creek Solutions study, a very unacceptable solution to the rest of the property owners on the Lake.

This would also be preferable to the City buying the properties, because the houses would have to be removed, no one currently wants to sell, the county and city would lose long term revenue, and there is no access for alternate use, such as any park-like idea, because there is no parking anywhere nearby.

We need to be clear that this possible solution was never thought of, requested, or mentioned by anyone in the LBCA and is purely the creative idea of OTAK.

We have already seen a lot of taxpayer money spent on studies without making one step forward in progress towards a solution. The estimate is that it would cost far less to just raise the houses than studying the lake level issue more.

3) **Year Around Permit**

We request that the City of Mountlake Terrace obtain a year around permit for keeping Hall's Creek and McAleer Creek free of obstructions. We believe the flood of December 2007 might have been avoided if the beaver dam had been removed in a timely manner, let alone it not being discovered months before while the permit was still active.

4) **Clear Creek Hydrology Study**

We were led to understand that the hydrology study was in preparation to determining of what design the new weir should be. We think they fell short. They showed that the more water we have to hold, the higher the lake will be, and the lower the lake level, the more water it can hold until we flood. The only weir level that would prevent flooding would be set at the elevation of the I-5 culvert (as in don't bother with a weir). This "solution" would also decrease the size of the lake surface and average volume, contribute to the lake pollution (concentration), expose the lakeshore sludge, be aesthetically very unpleasant, eliminate Lake use for recreation of all sorts, and be generally unacceptable.

We do not believe the adjudicated Lake levels should be changed in any way. We are not asking for complete protection against a "100 year flood event."

5) **The Weir**

We believe that that the current weir, which should have been repaired with our Lake Ballinger Maintenance Taxes 15 years ago, needs to be replaced with a flexible wider weir, and now. It has been two years since Mountlake Terrace agreed it needed to be replaced. We all agreed it needed to be redesigned and be flexible again, as it was in its initial design. We agreed it could be better than the old one. The current makeshift replacement of 15 years only limits the outflow until the lake level overflows the weir and then the culvert restricts the flow to a level three times the allowed flow rate.

We have reviewed the original engineering drawings for the weir and hypolimnetic pipe system, and now understand that the current elevation of the Nile Road culvert restricts the creek flow, but there appears to be no reason why the lowest level of the weir (currently at 276.5') need be any higher than the entrance to the Nile Road culvert (currently at 275.02') especially if the DOE (Creek Division) continues their order.

In addition, a wider weir would allow an increased volume of water to exit early during a storm yet still be set at the adjudicated level while adjustable gates would control the flow to not exceed the 60 cubic feet/second limitation. This should help to decrease the

risk of flooding both on the lake and downstream.

We understand that the only way the Lake level could be temporarily and pre-emptively lowered with control would be a large pipe set lower than the entrance to McAleer Creek and taken lower than the entire Creek bed until reaching a significantly lower outfall the other side of I-5. We would understand this to be very disruptive and cost-prohibitive at this point. This would be a bypass similar to what has been proposed for Lyons Creek flooding.

6) Impervious Surfaces

We encourage the Forum municipalities to move forward now with requirements to make parking lots permeable. We think it would be a good idea to use public money to partly support any increased cost associated with these installations. This would help with both the increased run-off documented to be a major factor in flooding as well as helping control pollution.

Lake Quality Issues

The two major categories of LBCA concerns from the very beginning were Lake Level and Lake Quality. They are easily separable issues and require different solutions. It appears that the OTAK Tech Memos 1 & 2 do not really contribute to the water quality or its solutions in any meaningful scientific way. It is our understanding that they were not requested to study or report on this issue and based on statements from the leading OTAK engineer, Water Quality was only included in the original study's remit "because it sounded good and was politically correct but there was no intent to ever really address it." We encourage the Forum to stay focused on this issue.

1) Hypolimnetic Pipe System Closure by the DOE

We request that our letter of response to the December 15, 2008 letter from the Department of Ecology Order to the City of Mountlake Terrace to close the hypolimnetic pipe system be included in the official documents of the Lake Ballinger Forum. We also request that this Forum and/or the member municipalities make a public statement now on this specific issue to the DOE.

The fact that the DOE apparently elects to not respond to our letter does not mean it was not distributed and delivered widely. The letter requests the immediate reversal of that order because it was retrogressive, unscientific, untimely, and without common sense, and it favors the miniscule adverse effect on the dissolved oxygen health of 2,700 feet of McAleer Creek over the health of Lake Ballinger. It has been working as it was originally designed and approved and construction-funded by the DOE in 1981-3, and shown to improve and stabilize the phosphorus levels as an indicator of pollution in Lake Ballinger. In the words of one DOE employee involved in this decision, "I know nothing about lakes, only streams." He also said, "The real reason we did this was to make the municipalities address the original causes of Lake pollution upstream." This

presupposes that the municipalities were not already concerned about that, the issue being addressed in this Forum, hopefully with conclusions and actions that the DOE will find acceptable to the fish in McAleer Creek. As to the pipe closure contributing to making the very same lake pollution problem worse, in the words of yet another employee of the DOE reading this order, "It is insanity." We agree.

2) **Oxygenation**

We believe there are solutions for providing adequate oxygenation to the Lake and Creek. The failure of the hypolimnetic outflow pipe aeration pump tried in 1998 to make a significant difference in the dissolved oxygen levels at the weir should not be accepted as the end to that idea. New methods need to be tried again. There are now better diffusers available.

There are also better methods for aerating the lake including passive oxygen diffusers requiring no pump but ongoing refillable oxygen tanks. For less than the cost of the studies conducted, three solar powered pumps that raise the hypolimnetic water to the surface for aeration could have provided Lake Ballinger with the badly needed oxygen for months now.

We request a first response from Edmonds or Mountlake Terrace to the repeated request by the LBCA to explore existing, cost effective, and environmentally effective technologies to provide the lake with the required oxygen to improve water quality and stop the continued release of nutrients from the lake's sediment, especially now that the DOE funded mechanism to provide relief to the lake Hypolimnion was shut off by the DOE.

We **still** believe that the operation of the original aerators in the detention swales at the Ballinger Commons apartment property in Shoreline receiving the run-off from the huge Aurora Village parking lot should always be required for whatever level of improvement they contribute to water quality.

3) **Pollution**

We ask **again** that the businesses on US 99 and the entire basin be required to not dump soap and other polluted water into the storm system, that they be fined regularly until they comply, that storm water detention vaults and oil separators be cleaned annually, tracked by the cities, and monitored as required by law. All we requested repeatedly is that laws and ordinances in place be enforced.

We **again** ask that all businesses be informed to not have fund-raising car washes on their property without catch basin traps and pumping into the sanitary sewers.

We request that the **Army Corps of Engineers** be asked to participate in a stronger way to both save taxpayer money and avoid repetition of work. They have offered to find the sources of pollution at no cost because it is their job. They also would be a

major help with the weir design.

Alternately we request the DOE to focus DOE resources on investigations of the sources of inflow of pollutants into Lake Ballinger rather than focusing on re-concluding that the lake's water cannot be tolerated by fish at the outflow. We asked for help with the Lake pollution, they gave us a self-professed creek expert that has left the hypolimnetic pipe system "up the creek."

5) Sewage Spills

We request that in the future the Environmental Protection Agency be called in to help direct clean up of all sanitary sewer spills into Lake Ballinger. The last spill was during the last flood. The sanitary sewers automatically fill when the Lake gets to their level and we assume there is backwash even when not reported. We have yet to have a report back on the sewer spill of December of 2007 which is especially of interest because it apparently only happened at one house toward the north end of the Lake, meaning that manhole opening was lower than all the others along the lake despite it being "upstream." This means it must have been installed wrongly in the first place and needs to be fixed and the entire system along the lake resurveyed for "as-built" accuracy.

We were also not notified in December of 2007 by Edmonds that a sewage spill occurred, something we all agreed was the right thing to do, and was promised by Mountlake Terrace, no matter what time of year it happened. Reporting to the Department of Health is not enough.

Additional Comments

We strongly object to the conclusion in the recent Herald article about Lake Ballinger pollution saying, "No clean-up of PCBs at Lake Ballinger is now being considered...."

We need to include the comments on the recent studies by of one of the original property owners, UW Fisheries professor Bob and Peggy Boye. "There is nothing here that wasn't already done back in the late 70's and early 80s."