

**MINUTES OF THE  
BIG BEAR LAKE TMDL TASK FORCE MEETING**

June 17, 2009

**Agency**

Regional Water Quality Control Board  
California Department of Transportation  
California Department of Transportation  
City of Big Bear Lake  
San Bernardino County SW Program  
Brown and Caldwell  
Big Bear Mountain Resorts  
Big Bear Municipal Water District  
US Forest Service  
US Forest Service  
Floating Islands West  
Inland Engineering Consultants  
Risk Sciences  
Santa Ana Watershed Project Authority  
Santa Ana Watershed Project Authority

**Participant**

Hope Smythe (teleconference)  
Cathy Jochai  
Gian Villareal (RBF)  
David Lawrence  
Matt Yeager  
Randy Marx  
Karl Klouzer  
Scott Heule  
Mike Stephenson  
John Eminger  
Skip Suhay  
Marc Stamer  
Mikaila Rimbenieks  
Darrell Smith  
Dan Livesey  
Tim Moore  
Rick Whetsel  
Regina Patterson

**Call to Order & Introductions**

Big Bear Lake TMDL Task Force meeting was called to order at 1:30 p.m. at Big Bear Municipal Water District, 40524 Lakeview Drive, Big Bear Lake, California.

**Approval of April 22, 2009 Minutes**

The April 22, 2009, Big Bear Lake TMDL Task Force meeting minutes were presented for approval. Hearing no comments, the meeting minutes were received and filed.

**Update: Task Force Administration – Task Force Agreement, TMDL Schedule of Deliverables, Budget and FY 2009-10 Consultant Contracts**

Task Force Agreement – Rick Whetsel reported all signatures have been received and copies have been forwarded to all Task Force members.

Deliverables – None.

Budget – Cathy Jochai reported that following the April Task Force meeting, where the FY 2009-10 Task Force budget was approved, she was informed by her superiors that their statewide commitments were too large for the next fiscal year, that the discrete amount that is in the Governor's budget to cover the environmental mandates could not be increased for the new fiscal year. Therefore, they may not have sufficient funds to cover the activities planned. She was asked to inform this Task Force and revisit the 10% payment to make sure it was justified and see if the cost could be reduced. The initial assessment was reduced to \$19,000. Ms. Jochai reported that she does not have a target number to meet, but will come back to the Task Force when she has more information.

Mr. Whetsel said depending on the outcome of the field training by Brown and Caldwell, there could a significant portion of the work budgeted to Brown and Caldwell that could be transferred to the stakeholders in-kind services either through the Forest Service or the Resort in doing some of the field monitoring. There

is the potential of reducing budget. There may be available contingency available from this year's budget carryover (approximately \$20,000) to cover any short fall by CalTrans, which could be made up in a future year. He invited suggestions. Discussion ensued and the consensus was that the only work that would be done is what could be funded from what the Task Force has available. Tim Moore said he will put the tasks on a critical path list because there are some things that can be delayed. Mr. Whetsel will provide an up to date carryover number at the next meeting.

FY 2009-10 Consultant Contracts – Mr. Whetsel presented Task Orders for Brown and Caldwell and Risk Sciences reporting the SAWPA Commission has approved them.

### **Status Update: Watershed-Wide Nutrient Monitoring Program – Draft Monitoring Plan and QAPP, Field Training Schedule**

Draft Monitoring Plan and QAPP – Mr. Whetsel reported the draft Monitoring Plan was taken to the Regional Board workshop. Hope Smythe reported the Monitoring Plan has been approved by the Regional Board with one provision added, that it allows the flexibility to work on defining what appropriate detection limits would be, which would be worked out when the QAPP is developed. She requested a submittal no later than June 30<sup>th</sup>. Mr. Whetsel requested a draft monitoring Plan be submitted to the Task Force by Brown and Caldwell no later than June 22<sup>nd</sup>.

Field Training Schedule – Randy Marx suggested July 8<sup>th</sup> and 9<sup>th</sup> for the possible dates to conduct the two-day training. Mr. Whetsel asked what entities would be participating? Mr. Matt Yeager said he would try to send two from Flood Control and one county inspector.

Further discussion ensued regarding the need for the more precise detection limits. Mr. Moore stated he will discuss this issue with Erica with a regulatory decision making perspective rather than a modeling perspective. Ms. Smythe said that the recommendation came from the TetraTech model for the 2007 data had numerous non-detects.

### **Status Update - Big Bear Lake QAPP**

Mr. Heule reported Nancy Gardiner has received the information she needed to prepare a proposal for the Big Bear Lake QAPP. It was reported that she is working on a proposal that will be delivered to Big Bear Municipal Water district by Friday.

### **Status Update - Mercury TMDL**

Ms. Smythe reported Regional Board staff is trying to look at it as a Category 5 issue, which is a special 303(d) list subcategory that is specifically for mercury TMDLs caused by atmospheric deposition. EPA has allowed some states to not do TMDLs for mercury and just remain on the Category 5 list. They first said we could not do this but we have since been contacted by them stating that they may be open to us exploring that as an option for Big Bear Lake. It would mean that we would not have to do a TMDL, but there would be some demonstrations we would have to make. We would have to demonstrate there is a statewide mercury deposition or air reduction plan in place to address mercury emissions. Mr. Yeager asked if there is an effort to do a mercury fish tissue sampling on the upper Santa Ana River or Santa Ana River Mainstem? Mr. Moore said there has been fish flesh sampling on the mainstem of the Santa Ana River for 10 or 15 years. It is coordinated by the dischargers and done annually in July or August. Details will be worked out next year.

Mr. Moore said we may want to add a couple of extra constituents to our watershed-wide monitoring program in Rathbone Creek only for the purpose of gathering enough data to support a delisting of copper and iron. Details will be provided at the next meeting. The TMDL is not due until 2021, so if by 2012 we have better data and a better decision that's worth the time and effort to do that. Discussion will continue at the next meeting.

## **Status Update - Big Bear Lake Management Plan**

Mr. Moore reported the Big Bear Lake Management Plan was modeled and approved on an existing plan for Lake Elsinore, which was originally due in August 2008 and a Draft version was submitted in December 2008. Since then Mr. Moore has been working to address a number of detailed comments from the Regional Board.

The next version will set the foundation for how we define success and failure. We will do what stormwater permits require, and that is to achieve the load reductions through best management practices to the maximum extent practical. Approximately 96% of the nutrients that enter the water column in the dry weather years are already in the lake, in the sediment, and in the plants in the lake. So we either have to get rid of the sediment or neutralize the nitrogen and phosphorous that are in the sediment. That's dredging to get the sediment out, alum to sequester the phosphorous, put in the right kind of plants to suck up the nutrients so that it doesn't go to the algae, and dilute what nutrients we have to reduce the overall concentration. The first two and most effective strategies are also the most least likely to happen based on our pilot projects. Of the four major strategies we are doing two, we've tried two and rejected them as regulatorily approvable solutions. It is stated here more clearly than it is stated in the document.

Ms. Smythe said she believes the TMDL could be addressed best through bio-criteria and The Task Force should establish appropriate bio-criteria for the lake. Mr. Moore said we can achieve the biological response targets, but we'll probably never achieve the full nutrient reductions. In dry years, we would have to get a huge reduction of phosphorous leaching from the sediments. We do not have a plan for that. Discussion ensued regarding bio-criteria and numerical targets for water quality.

Mr. Moore said the first step is to prove that our problem is not as bad as we thought and the second is, whatever residual problem we have, we have reduced to a level that is better than natural background. Those two things together will get us to a bio-criteria that says this is the best that can be done and it is better than what could occur naturally. This is our definition of success. Ms. Smythe said that is the approach we wanted the Task Force to take in the TMDL. She asked that when Mr. Moore evaluated appropriate or alternate treatment mechanisms, was another aeration system looked at? Mr. Moore said that it was on the list as a high probability inclusion that that would very likely to be done, especially at the east end. Ms. Smythe asked if he assessed what type of reduction you would get from another aeration system? Mr. Moore said no. It was assumed that it would be the same kind of reduction as what we were seeing at the dam now. It would be an improvement in DO and not necessarily a reduction in phosphorous. Ms. Smythe said it would be a reduction and that the argument should be based on that. Mr. Moore said it will be clearer in the next version.

Mr. Moore said the Regional Board letter dated January 16, 2009, is based on the assumption that our strategy is to achieve the nutrient reductions specified in the load allocations and the Task Force is not proceeding with the same assumptions. Ms. Smythe said she does not completely agree with that. The TMDL clearly states what is expected in the Lake Management Plan is supposed to be. She suggested looking at those requirements and make sure they are addressed in the Lake Management Plan. Mr. Moore discussed Task 6 as he referred to page 2 of the letter. In particular, Item B, there are no new programs planned. All of the programs that can be implemented are being implemented. Ms. Smythe said you can put those existing strategies in context with regard to how much nutrients you think would be reduced. Mr. Moore said that is what he will do. He referred to a letter from Michael Perez and responded that we are not expecting to meet the nutrient reduction requirement, that is why we are not investigating putting much effort into new technologies. The idea is to use the available technologies to mitigate the adverse impacts of the nutrient loads. There is no plan for achieving the 26,000 pounds per year of the required specific load reductions. Further discussion ensued.

Mr. Moore said fixing the impact and not the cause is a different kind of approach, and EPA may be uncomfortable with it. But, it is our only practical alternative for protecting the beneficial uses today. A similar approach is being proposed and implemented in Lake Elsinore. The translator that makes the

exchange work, has to be done by the end of this year. The question is whether EPA will let us do it that way.

Mr. Moore said at this stage there is a real question about the value of the lake model. The watershed model is designed to talk about loads to the lake and refining that model and doing it with more precision doesn't change any of our decision making. He suggested putting more effort into the lake model and less effort into the watershed model. Let's wait to see what the new data does and then update the existing model. We will defer it for a 3-year cycle. Updates may not be needed except to account for the wet year data.

Mr. Moore said we will submit to the Regional Board, a plan for achieving the response targets and if we are successful then the causal targets may become obsolete and need to be changed. If they're not, we may have to revise the Lake Management Plan. Ms. Smythe said she doesn't have a problem with that, but be aware the first compliance date is 2015. Mr. Heule said focusing on response targets is better for the lake. Mr. Moore said he is somewhat confident we can hit the DO number, but not as confident about the algae target number in the TMDL for the growing season. It would be good to accelerate the Tetra Tech re-analysis that will tell us what sort of natural background loads would have occurred under natural conditions and whether those loads would also have caused DO problems. In any event, we ought to be planning to install another aerator by 2015.

Mr. Yeager asked who is responsible for implementing the Lake Management Plan? Mr. Moore said the district's job is to write the Lake Management Plan and the obligation to do load reductions is shared among the dischargers.

Mr. Moore said we should be on track to build more retention ponds and build another aeration system at the east end. All of the work may show the value and we may receive a credit for it. We may qualify for funding on a match basis.

### **Other Business**

Ms. Smythe reported the San Bernardino County MS4 Permit will be reviewed at a Regional Board Workshop in July. It could be out for public review the week of June 25<sup>th</sup>. Mr. Yeager reported he has received a draft and that he is in the process of reviewing it. Ms. Smythe suggested paying attention to that permit when it comes out next week.

### **Future Scheduled Meeting**

The next Big Bear Lake TMDL Task Force meeting is scheduled for Wednesday, August 5, at 10:00 a.m. at Big Bear MWD located at 40524 Lakeview Drive, Big Bear Lake, California.

### **Adjournment**

There being no further business for review, the meeting adjourned at 3:45 p.m.

### **Handouts**

1. Implementation Plan/Schedule Due Dates
2. Task Force Budget
3. Task Order - Brown and Caldwell
4. Lake Management Plan - Draft 12/08
5. CRWQCB Letter re Comments of Lake Management Plan dated 1/16/09