

NOTES OF THE  
BIG BEAR LAKE TMDL TASK FORCE MEETING

April 13, 2010

Agency

Regional Water Quality Control Board  
Regional Water Quality Control Board  
San Bernardino County SW Program  
Big Bear Municipal Water District  
City of Big Bear Lake  
US Forest Service  
Brown and Caldwell  
Brown and Caldwell  
RBF Consultants  
Risk Sciences  
Santa Ana Watershed Project Authority  
Santa Ana Watershed Project Authority

Participant

Heather Boyd  
Hope Smythe  
Matt Yeager  
Scott Heule  
David Lawrence  
Mikaila Rimbenieks  
Nancy Gardiner  
Khalil Abusaba (Tele)  
Gian Villarreal  
Tim Moore  
Rick Whetsel  
Regina Patterson

Call to Order & Introductions

Big Bear Lake TMDL Task Force meeting was called to order at 9:12 a.m. at San Bernardino County Public Works, 825 East Third Street, San Bernardino, California.

Approval of March 16, 2010 Meeting Notes

The March 16, 2010, Big Bear Lake TMDL Task Force meeting notes were presented for approval. Hope Smythe requested the proposed structure for deliverables be revised to the following:

- Comments on draft to Brown & Caldwell - April 12<sup>th</sup>
- Final report to SAWPA - April 15<sup>th</sup>

Hearing no discussion or additional comments, the meeting notes were deemed acceptable as amended.

Status Update: Task Force Administration

Draft FY 2010-11 Budget

Mr. Whetsel provided the proposed FY 2010-11 Budget reporting the numbers have been scaled back as much as possible. Tim Moore stated the number for Risk Sciences will be lower. Mr. Whetsel reported he has removed \$18,000 for database management and stated that work can be done within the administration tasks between Brown and Caldwell and SAWPA. He presented a revised cost estimate of \$145,300 for watershed monitoring and \$60,000 for the model update. Mr. Moore suggested reducing his budget to \$25,000 to prepare the annual report. The carryover and the contingency were discussed. Mr. Whetsel further reported that Brown and Caldwell eliminated some of their labor charges. Follow-up will be done and reported back to the Task Force.

Status Update: Watershed-wide Nutrient Monitoring Program

Nancy Gardiner reported they are still trying to get a wet weather event. The Weather Service is predicting a warm event, which means a rain event and preparations have been made. Bottles have been delivered to Big Bear and are being stored at the Resort with 24-hour access. Coordination has been done for mobilization to take place out of Resort's headquarters. Each of the six sampling locations has a dedicated set of equipment for collecting the samples. Each day will have a start time and schedule with site assignments. Six people are being assigned from Brown and Caldwell in three teams. Forest Service assistance would be needed for Grout Creek.

Discussion arose regarding the need/benefit of purchasing an additional Horiba meter to assist in sampling, since the crews have to share meters between sampling crews. The cost to purchase the meters is between \$3,000 and \$5,000 versus renting them at \$125 per day based upon a weekly rate. An additional meter may have to be rented for dedicated use at Grout Creek.

Mr. Moore said when the data is final he will take the data report back to ReMetrix for 3D mapping so we can begin to use the visualization tools. Ms. Gardiner will provide lake and watershed data to Rick Whetsel for SAWPA to add to the SAWDMS database.

#### Status Update: 303(d) Listing for Mercury

Mr. Moore reported Big Bear Lake has been de-listed for copper. Ms. Smythe said it will stay de-listed, but that she will confirm that. Mr. Moore further reported that several of the copper listings were made to go away because the copper being measured is not bioavailable. Even if it gets listed there are several years until the TMDL shows up, but we should have enough data in place within the next listing cycle to make it go away again. The State Board is now reviewing the Regional Board's recommendations. We will see a notice from the State Board with additional listings. Ms. Smythe reported she will contact the GAMA coordinator.

#### Status Update: Sediment Nutrient Reduction Plan

The submission draft of the Plan and Schedule for In-Lake Sediment Nutrient Reduction was presented and Khalil Abusaba reported all comments were addressed. The most substantive comments centered on the schedule. Mr. Moore stated that a copy will need to be submitted from the Task Force by April 15<sup>th</sup>. Mr. Yeager inquired about who the document and comments should be formally submitted to at the Regional Board. Ms. Smythe recommended submitting everything to Gerard Thibeault.

Mr. Abusaba discussed Table 4-2 "*Proposed Comprehensive Schedule for Sediment Nutrient Management Plan Implementation*" stating the table has been broken down into stages. Stage 1 indicates completion dates, beyond that, all completion dates are stated relative to completion of earlier tasks. A Gantt chart (Plate 3) has been prepared to assist with understanding the table. All activities in the lake are under jurisdiction of BBMWD so it needs to go to their board prior to any substantive commitments being made. Reversing the two approvals between the Regional Board and the BBMWD Board was discussed and whether the dates would need to be revisited. In addition, there are other things that are not considered in this Plan that may have an impact on the implementation schedule.

Dr. Abusaba said we don't want to oversell HOS as the solution. It has great promise, but we don't know if the HOS alone would do it or whether managing on the margins alone would be sufficient to get success or a combination of the two. The planning period of Stage 1 and Stage 2 are necessary to a thoughtful assessment of what it will cost and what the expected benefits are, so there is no commitment to one plan of action. Discussion ensued. Mr. Heule said the district does not believe the HOS will solve all problems. Experience with the HOS has been beneficial to the lake, so this would be an additional benefit to the lake, fisheries and nutrient releases.

Dr. Abusaba said it may be in the interest of the district to move forward on a long term management plan for beneficially reusing sediments. This could substantially reduce the cost and increase the planning certainty of certain projects. The estimated timeframes on the table were discussed and revisions were recommended.

The revised version of the Plan will be provided by Nancy Gardiner to Rick Whetsel for emailing to the Task Force. The Plan will be hand delivered to the Regional Board by Rick Whetsel and Matt Yeager on April 15<sup>th</sup>.

Ms. Gardiner presented the “*Wet Weather Strategies for Controlling Nutrient Inputs to Big Bear Lake*” Technical Memorandum reporting she is confident all questions have been addressed. It was requested to make costs more applicable to Big Bear Lake. Due to a lack of time, we have added text that says these costs are added as guidance based on a nationwide survey and that in the future we will look more at what the actual cost of what the watershed should be. Two tables were added in Section 6 to spell out short and long term strategies focusing on things that will be done for the permit.

Mr. Yeager said he has not fully reviewed Brown and Caldwell’s Technical Memorandum. He stated there are some issues he will need to have clarified.

Mr. Yeager stated the Lake Management Plan is very well done, although he does not like the title of the Technical Memorandum.

Dr. Abusaba said the TMDL is for the dry hydrologic condition and the Plan is for managing the lake under those dry hydrologic conditions. Managing on the margin is part of that. Holes develop when the lake goes down, and when the lake starts to fill up you contain sediments in places where they can be taken out easier. It is targeting either preparation or reactive activities that take place in the dry hydrologic condition. Between that and the HOS you will be managing the assimilative capacity of the lake.

Mr. Yeager recommended that when the submittals are done, we make it clear that we have attempted to address the permit sections and make sure any deliverable provided does not commit this Task Force to something that is not a requirement in the TMDL.

The Technical Memorandum will be submitted with the Sediment Nutrient Management Plan on April 15<sup>th</sup>.

#### Status Update: Aquatic Plant Management Plan

Mr. Moore said the “Aquatic Plant Management Plan” was sent on February 26<sup>th</sup> and comments have been received from Regional Board staff. The final is to be to the Regional Board by June 15<sup>th</sup>. He addressed a requirement in the permit that reads a specific way regarding the Plan controlling noxious and nuisance aquatic plants. Ms. Smythe suggested keeping it titled as per the permit. Mr. Moore said his goal was to change the Plan as little as possible. The aquatic plant numerical index (APNI) was not changed. Ms. Boyd said she believed the APNI was written in the 2006 plan to track plants and their growth with the understanding that it would be done annually. This was a more comprehensive way of dealing with any plants that might become nuisance whether or not they were native or non native. Mr. Moore said there is a requirement for us to report percent coverage, diversity, and abundance data.

Ms. Boyd stated that currently the APNI may not serve any purpose for aquatic reporting purposes. It was used as a management tool to track whether or not any plant was going to become a nuisance. Mr. Moore said he will remove it and add discussion of how the 3D tool will be used. Ms. Boyd inquired about how you will translate what is collected into the numeric targets. Mr. Moore said that is what the 3D map was designed to do. Ms. Boyd said the last biomass was last calculated in 2006, and you wanted to update the modeling plan with new biomass data, so there are issues about how assumptions will be made about biomass changes in 5 years if you’re not monitoring it every year. Mr. Moore discussed how to judge native plant recovery, how to assure there is no other plant that is becoming a nuisance, and how often an analysis is done. We have the advantage of knowing whether it will be a wet or dry year by the time the growing season begins. Discussion ensued on whether there was an advantage to having annual data. It was determined that we would probably go to a 2-year Plan and reevaluate it for year 2016. The new Monitoring Plan would be due in 2015.

#### Status Update: Watershed Model

Mr. Moore reported the watershed model update plan went in at the end of March. We are agreeing to live with the model the way it is and run it with its assumptions and coefficients the way they are. That will be

used to calculate the natural background load and then calculate net legacy loads using the existing model. After that, it would be broken down into post processing on an acre by acre basis for who owes what to the loads both external and internal. This uses the existing model with a new input table. This year the focus is on the natural background number and calculation, done by the end of this calendar year; and by October 2011, what the incremental impact of urbanization, acre by acre, over the cumulative years. This has to be done sequentially. We will also have to calculate the rate at which phosphorous is decaying to inert conditions in the sediment. This may be done by Dr. Anderson.

Ms. Boyd said she will provide specific comments regarding calibration for the hydrology. The watershed model was never calibrated, only the hydrology portion was calibrated. Things will change because you will want to use the data to look at how close the model is.

Mr. Moore will arrange a conference call with the stakeholders to discuss how to proceed. He asked that the Regional Board prepare informal comments in a bulleted format and email to him.

#### Other Business

There was no other business to discuss.

#### Future Meeting

The next meeting is scheduled for Tuesday, May 18<sup>th</sup> at 9:00 a.m. at San Bernardino County Public Works, 825 E. Third Street in San Bernardino.

#### Adjournment

There being no further business for review, the meeting adjourned at 12:18 p.m.

#### Handout(s) available at [www.sawpa.org](http://www.sawpa.org)

1. Task Force Budget (*SAWPA*)
2. Plan and Schedule for In-Lake Sediment Nutrient Reduction (*Brown and Caldwell*)
3. Technical Memorandum - Big Bear Lake Sediment Nutrient Reduction Plan (*Brown and Caldwell*)