

NOTES OF THE
BIG BEAR LAKE TMDL TASK FORCE MEETING

June 29, 2010

Agency

San Bernardino County SW Program
Big Bear Municipal Water District
CA Department of Transportation
Brown and Caldwell
Brown and Caldwell
RBF Consulting
Risk Sciences
Santa Ana Watershed Project Authority
Santa Ana Watershed Project Authority

Participant

Matt Yeager
Scott Heule
Cathy Jochai
Nancy Gardiner
Khalil Abusaba
Remi Candaele
Tim Moore
Rick Whetsel
Regina Patterson

Call to Order & Introductions

The 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 May 18, 2010 Meeting Notes

The May 18, 2010 Big Bear Lake TMDL Task Force meeting notes were presented for approval. Scott Heule asked that the term Lake Management Plan be to "TMDL Action Plan". Hearing no additional comments, the meeting notes were deemed acceptable as amended.

Discussion: Briefing to BBMWD Board on Sediment Nutrient Reduction Plan – Scott Heule and Tim Moore
Tim Moore reported there were no action items from the Big Bear MWD (District) Board. The briefing was left as a progress report workshop. It was conveyed to them that some of the solutions looked like they would require work in the lake, outside of the various dischargers' jurisdictional authority. This adds a level of complexity to the TMDL and everyone wants to know how activities can be coordinated thoughtfully.

Scott Heule reported the following of what the District plans to do for the next two calendar years. He referred to a map and indicated that of the 314 acres of Milfoil shown in red, 234 acres were actually treated. The District will in 2010 and 2011, 1) complete mapping invasive weeds; 2) continue to sample and pay laboratories \$52,000 per year for in-lake TMDL water quality sample monitoring during; 3) perform the aquatic plant census in 2011; 4) provide data showing species distribution of density at a cost of approximately \$25,000; 5) continue treating basin weeds with chemicals, weed harvester and application at \$140,000 per year; 6) continue carp reduction program targeting 50,000 pounds annually; 7) continue operating the destratification and aeration systems for about \$11,000 per year; and 8) continue to pay 25% of its budget to keep water in Big Bear Lake. Lake use statistics show that more non-residents use the lake than local residents. The District will not make legal commitments to implement the TMDL Action Plans going forward unless opportunities for the District to do work in the lake present themselves. Mr. Heule said he can provide a 2008 map for comparison purposes.

Status Update: Comments to Regional Board to Address Big Bear Lake Management Plan – Brown and Caldwell

June 15th Comment Letter

Mr. Moore reported Hope Smythe has received the June 15th letter and plans to respond favorably.

Integration of Plan Components

Khalil Abusaba stated there are four pieces, 1) a Sediment Nutrient Management Plan; 2) long term and short term Watershed Strategies Technical Memorandums; 3) an Aquatic Plant Management Plan; and 4) and a

Model Update Plan. Those four pieces have been submitted to the Regional Board as draft as part of the requirements by the TMDL and the NPDES Permit. The first two have been accepted by the Regional Board. There are some comments in the Aquatic Plant Management Plan and the Model Update Plan.

The four plans are now being integrated into the Brown and Caldwell format to the extent of formatting and consistency. The model update plan will be revised to say that we will stipulate to the existing model. This Task Force only needs to clean-up the language and make it ready for submittal as a description on a technical basis of what can be done, without speculating responsibilities.

Dr. Abusaba stated he would prepare the draft document by mid-July and that he will change the chapter title from "Aquatic Plant Management Plan" to "Current Aquatic Plant Management Practices".

The document will be reviewed by the Task Force and sent to the Regional Board on August 24th. Mr. Moore said this document will be treated as a reference document (an alternatives analysis) that informs the specific letters that go that are their commitments. Mr. Moore and Dr. Abusaba will work together to preparing the letters.

Status Update: Watershed-wide Nutrient Monitoring Program – Nancy Gardiner
Response to Regional Board Comments on 2009 Annual Report

Nancy Gardiner presented a Comment and Response Summary on the Big Bear Lake Nutrient TMDL Annual Water Quality Report and discussion of the Regional Board comments ensued. She said they are to evaluate compliance and provide a summary of the data collected for the year. It was noted that there is no obligation by the Task Force to revise the current Annual report, but that these additions and changes will be incorporated into the report to be submitted next year. After discussion, Mr. Moore suggested attaching the response summary to the meeting notes.

Ms. Gardiner reported on their annual monitoring stating they have been going out monthly and most of that monthly work has been done by the San Bernardino County Flood Control District, which went very well and saved money. There have been some recent changes in staff but Brown and Caldwell provided the necessary backup per the scope of services.

Mr. Whetsel said the idea was to look at further streamlining the annual watershed monitoring program based upon the first full year. Data has been collected since July 2009 so we will have a full year of data next month. He suggested we look at further reducing the monitoring program if we have the ability to evaluate that full year of data. Ms. Gardiner suggested reviewing the data variations to see if there are grounds to propose reduction, but to remember that some don't flow as much.

Mr. Whetsel recommended that at the next meeting, Nancy Gardiner provide a summary of the data, what we have and what it's showing us. We are now looking at continuing this existing monitoring program through 2011 as is to provide the two years of data the Regional Board wants to see.

Discussion: OWOW and Prop 84 Grant Opportunity

Rick Whetsel provided an update on the Prop 84 Grant opportunity reporting the only project that could be submitted for the TMDL is a hypolimnetic oxygenation system (HOS) funding opportunity.

Status Update: Task Force Administration
FY 2010-11 Budget

Mr. Whetsel presented the Budget reporting the carryover amount anticipated from Brown and Caldwell for FY 2009-10 could be as much as \$145,676. Cathy Jochai reported if her proposed 5% is approved Cal Trans would be allocating about \$12,000 or \$13,000.

Mr. Moore reported he has prepared an invoice of expenses only from August 2009 to present and requested the Task Force authorize paying the invoice. The Task Force approved paying the invoice submitted by Tim Moore, paying it from Task Force funds in an amount less than \$3,000.

The budget was discussed and Matt Yeager said he cannot approve the budget today because he would like to consider some other options first. Mr. Whetsel said he can move forward using carryover until the budget can be approved.

Brown and Caldwell FY 2010-11 Scope of Work

Mr. Whetsel presented Brown and Caldwell's scope of work for FY 2010-11 reporting that it has been taken to the SAWPA Commission and approved. He said Brown and Caldwell can move forward and continue with integration and monitoring using the carryover funds. However, he will not be able to authorize work beyond the available carryover funding. Therefore work on the BMP implementation strategy will wait until an approved budget.

Status Update: 303(d) Listing for Mercury

Mr. Moore said EPA is pushing to get the mercury TMDL done. Regional Board staff was not present to provide an update on this item.

Other Business

None.

Future Meeting

The next meeting is scheduled for Tuesday, September 14th, at 9:00 a.m. at San Bernardino County Public Works, 825 E. Third Street, San Bernardino.

Adjournment

There being no further business for review, the meeting adjourned at 11:29 a.m.

Handout(s) available at www.sawpa.org

1. SAWPA Letter to Regional Board – June 15, 2010
2. Comment and Response Summary - BBL Nutrient TMDL Annual Report – Brown and Caldwell
3. Monitoring and Support FY 2010-11 - BBL Nutrient TMDL Compliance Program – Brown and Caldwell
4. Task Force Plan and Schedule
5. Task Force Budget

Attachment: Comment and Response Summary – Brown and Caldwell

COMMENT AND RESPONSE SUMMARY

BIG BEAR LAKE - NUTRIENT TMDL ANNUAL REPORT

Section	Page	Comment	Response
1.1 - TMDL Monitoring and Reporting Requirement	3	There are no interim phosphorus allocations and no interim phosphorus and chlorophyll a numeric targets.	References to "interim and/or final" will not be included in future Annual Reports.
		Would like to see some mention about the TMDL, WLA and Las.	A new section and reference table listing the TMDL, WLA and LAs (based on Table 5-9a-3 of R8-2006-0023) will be included in future reports.
		A table showing the TMDL, WLA and LAs and under what conditions those loads have to be calculated (dry hydrological conditions).	
		A brief paragraph stating that 2009 did not fall under those conditions with the data to back that statement up (preferably presented in table) so that we know that you did look at the data and that this information was not overlooked.	Dry hydrologic conditions were not present in 2009 (in 2009, the precipitation at Bear Valley Dam provided by BBMWd was 30.7" (limit is 23")). A comparable evaluation and brief statement will be included in future reports.
1.3 – Numeric Targets	4	Please include Table 5-9a-c of the TMDL with all the numeric targets, including the vegetation metrics.	Reference Table 5-9a-c of R8-2006-0023 – TMDL Numeric Targets will be inserted into Section 1.3 of future reports.
		There should be some mention that the vegetation numeric targets were not calculated in this annual report because the vegetation plan that includes the procedure for calculating such targets has not been finalized.	This comment will be included in future reports until such a procedure is finalized.
Section 2.0 - Big Bear Lake: In-Lake Nutrient Monitoring Program	5	Include the Resolution No. of the finalized Monitoring Plan (MP) (2008-070) and the date of the approved MP (Nov. 2007)	The Resolution No. and date of the approved MP will be included in future reports.
		Separate the parameters into field and laboratory	In future reports, these parameters will be presented separately.
		Consistency between what is presented in MP versus TMDL versus data actually collected – e.g., alkalinity, hardness collected as both photic zone composite and bottom discrete – MP states only photic zone composite; VSS collected but not in MP; MP states TDS collected as both photic zone composite and bottom discrete, but not included in data on CD.	This comment pertains to sampling that is conducted by BBMWd. Brown and Caldwell has been tasked to summarize and discuss the in-lake data, not to collect it.
	6	Sampling schedule – consistency between what is presented in MP versus TMDL versus data actually collected. — Approved MP does not state TOC and DOC will be monitored quarterly (no data were submitted that shows these constituents were monitored at all in 2009) — Approved MP states one event per Month for March, April and November and 2 events per month for May-Oct (actual sample dates show no samples for March and April; 2 event for May-Sept; 2 events for Nov. and one event for	This comment pertains to sampling that is conducted by BBMWd. Brown and Caldwell has been tasked to summarize and discuss the in-lake data, not to collect data.

Section	Page	Comment	Response
Section 2.1 - In-Lake Annual Water Quality Summary		Oct.)	
		Include the dates of each sampling event in the sampling schedule.	The dates of each sampling event will be included in future reports.
	7	Separate all data in to 2 tables – field versus laboratory.	These data will be presented separately in future reports.
		Include standard deviation with all annual means.	Standard deviations will be calculated and provided in future reports.
		Include the sample count for all means.	Sample count will be provided in future reports.
		For range of values, instead of presenting ND – include the TRL (e.g., <0.1 – 30).	In future reports, the range will be presented using the TRL as the lowest value.
	8	Make sure the annual means reflect significant figures reported, e.g., chl a is shown with 2 decimal points, but reported data shown with one; TP shown with 2 decimal points, but reported data shows none.	Data in future reports will be submitted using consistent significant figures.
		For numeric targets (chl a and total P) would like to see the 95% CI so we know how close the reported lakewide average is to the actual numeric target.	Brown and Caldwell will request these data from BBMWD for inclusion in future reports. It is assumed that the statistics necessary to establish a 95% Confidence Interval will be prepared by BBMWD and submitted to Brown and Caldwell to include as attachments to the Annual Report.
		Include a brief note about how NDs were included in the means – was ½ the DL or TRL used to calculate the averages.	Future reports will include a note that NDs were accounted for by using ½ the TRL to calculate averages.
	7-8	Not all data that were collected or supposed to be collected are summarized. — DOC, hardness, TOC and TDS are not summarized. — DOC, TOC and TDS not included on the CD.	These data were not provided to Brown and Caldwell for use in preparing the 2009 Annual Report. Brown and Caldwell will request these data from BBMWD for inclusion in future reports. It is assumed that vertical profiles will be prepared by BBMWD or others and submitted to Brown and Caldwell to include as attachments to the Annual Report.
		Vertical profile measurements and secchi depth are not include on the CD and are not summarized.	
		The calibration records for the YSI probe should be submitted with the annual data.	Calibration forms were not provided to Brown and Caldwell for use in preparing the 2009 Annual Report. Brown and Caldwell will request these data from BBMWD for inclusion in future reports. It is assumed that these forms will be included as attachments to future Annual Reports.
		For DO and pH vertical profile measurements, want to see the data graphed, so we know when the lake is not meeting the water quality objective for the COLD beneficial use – would have 4 graphs showing each station with all dates for DO and 4 graphs for pH.	These data were not provided to Brown and Caldwell for use in preparing the 2009 Annual Report. Brown and Caldwell will request these data from BBMWD for inclusion in future reports. It is assumed that vertical profiles and graphs (DO, pH and Secchi depth) will be prepared by BBMWD or others and submitted to Brown and Caldwell to include as attachments to the Annual Report.
		Also graph the secchi disk data – one graph showing all stations and dates.	

Section	Page	Comment	Response
Section 3.0 - Big Bear Lake Watershed Nutrient Monitoring Program	9	Include the Resolution No. of the finalized Monitoring Plan (MP) (2009-043).	The Resolution No. of the final MP will be included in future reports.
		Separate the parameters into field and laboratory.	In future reports, these parameters will be presented separately.
		Consistency between what is presented in MP versus data actually collected MP states nitrate+ nitrite - the data collected were nitrate as N and nitrite as N.	The original laboratory that provided analyses for this project (E.S. Babcock) was only able to provide results as nitrate N and nitrite N. Beginning in December 2009, samples were analyzed by GEI Consultants in Denver, Co and reported as nitrate+nitrite N. Therefore, future reports will report data as nitrate+nitrite N as presented in the MP. Chlorophyll a is not being sampled in the tributaries, as was agreed by the Task Force in summer 2009. The actual frequency of the sampling was conducted according to the schedule in the approved MP; however, in future Annual Reports, Table 3-2 will be modified to be consistent with the format of Table 3-3 in the MP.
	11	Sampling schedule – consistency between what is presented in MP versus TMDL versus data actually collected. <ul style="list-style-type: none"> Approved MP sampling frequency is not what is presented in Table 3-2. Approved MP does not include chlorophyll a. 	
		Include the dates of each sampling event in the sampling schedule.	The dates of each sampling event will be included in future reports.
		Include information about why a winter storm was not collected; nor a summer storm.	Future reports will include justification for why storm event data were not collected.
		Include updated information about which constituents are sent to GEI under what conditions.	Future reports will include a paragraph explaining which analyses GEI is conducting.
		Include updated information about which parameters are collected over the hydrograph (see notes from January 6, 2010 meeting).	Future reports will include a discussion of which storm event parameters are collected and analyzed as a composite versus discrete grab samples.
Section 3.1 - Big Bear Lake Watershed Annual Water Quality Summary	12-14	Include standard deviation with all annual means.	Standard deviations will be calculated and provided in future reports.
		Include the sample count for all means.	Sample count will be provided in future reports.
		For range of values, instead of presenting ND – include the TRL (e.g., <0.1 – 30).	In future reports, the range will be presented using the TRL as the lowest value.
		Make sure the annual means reflect the actual significant figures reported, e.g., temperature is reported to one decimal point in field notes, but two decimal points in some summarized data; other summarized data show similar issues.	Data in future reports will be submitted using consistent significant figures.
		Consistency of reported data among sampling dates – some pH, DO and temperature data reported with two decimal points, some with one - if using the same instrument shouldn't these all be reported the same way?	Data in future reports will be submitted using consistent formats.
		Include a brief note about how NDs were included in the means – was ½ the DL or TRL used to calculate the averages.	Future reports will include a note that NDs were accounted for by using ½ the TRL to calculate averages.
		Is the Horiba instrument being used to obtain all field measurements because there is also notation of a Hach meter on the field notes (not included in the MP).	In preparing future reports, Brown and Caldwell will verify the actual instruments used for obtaining field measurements.

Section	Page	Comment	Response
		The pre and post calibration notes only show the pH parameters and none of the other parameters being collected.	Future reports will include calibration notes for all field constituents.
Section 4.0 - Nuisance Aquatic Plant Eradication Program	15	The two maps submitted have no title and no legends and are unclear in what they are attempting to depict.	Future reports will include executable files of the maps, as it is not possible to show all of the information effectively in a pdf file.
		The report states that there are maps and charts included as Appendix C – only see maps and no charts.	In preparing future reports, Brown and Caldwell will verify whether there are charts in addition to maps.
		Not clear how these maps show that eradication of nuisance plants is conducted in accordance with Table 5-9a-c of the TMDL.	Future reports will include executable files of the maps, as it is not possible to show all of the information effectively in a pdf file.
		This section should describe what is being done to meet the vegetation numeric targets. In this instance, there should be some mention that the vegetation numeric targets were not calculated in this annual report because the vegetation plan that includes the procedure for calculating such targets has not been finalized.	Future reports will include a discussion of efforts being conducted to achieve the vegetation numeric targets and will state that no procedure to calculate the targets has yet been developed. This comment will be included in future reports until such a procedure is finalized.