

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL WATER BOARD
CENTRAL COAST REGION
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COMPILATION OF SUPPLEMENTAL SHEETS FOR THE WATER BOARD
MEETING OF MARCH 18, 2010

Introduction

This attachment to the staff report compiles three Supplemental Sheets that were written for the Water Board meeting of March 18, 2010. The supplemental sheets identify nonsubstantive changes incorporated into the basin plan amendment documents prior to the March 18, 2010 Water Board meeting, as well as staff responses to additional comments received in February and March of 2010 after the formal comment period which ended in January 2010.

1. Supplemental Sheet 1

SUPPLEMENTAL SHEET FOR MEETING OF MARCH 18, 2010
Prepared on March 9, 2010

ITEM NO: 12

SUBJECT: TMDLS FOR FECAL COLIFORM IN LOWER SALINAS RIVER
WATERSHED

KEY INFORMATION

Staff recommends the following changes to clarify TMDL implementation.

1. Staff recommends adding the following underlined language to Page-5 of the Staff Report:

Implementation is required pursuant to existing regulatory authority through currently held waste discharge requirements and NPDES permits, the NPDES General Permit for stormwater discharges from municipalities, the proposed Human Fecal Material Discharge prohibition, and the proposed Domestic Animal Waste Discharge prohibition.

The proposed prohibition for human fecal material discharges requires zero loading from this source. Staff fully appreciates the difficulty in complying with this prohibition, particularly with respect to discharges from homeless persons. In addition, homelessness is a social problem affecting homeless people, private landowners and municipalities.

Staff is aware of these issues and will work with responsible parties to achieve reasonable and realistic solutions.

2. Staff recommends deleting the following language, shown in ~~strikeout~~, and adding the following language, shown in underline, in Page-14 of Attachment-1 (Resolution) of the Staff Report:

~~Within three years of approval of these TMDLs by the Office of Administrative Law, the~~
The Executive Officer will notify owners of lands containing homeless persons of the requirement to comply with the Human Fecal Material Discharge Prohibition.

2. Supplemental Sheet 2

SUPPLEMENTAL SHEET FOR MEETING OF MARCH 18, 2010 Prepared on March 11, 2010

ITEM NO: 12

**SUBJECT: TMDLS FOR FECAL COLIFORM IN LOWER SALINAS RIVER
WATERSHED**

This supplemental sheet responds to comments received from Darlene Din on March 10, 2010. Ms. Din asserts that the report was not available for review until March 4, 2010, and that the deadline for providing comment was March 10, 2010. The formal comment period for the Salinas River Fecal Coliform TMDL project commenced on December 7, 2009, and ended on January 21, 2010. The notice soliciting public comment was sent to the interested parties list; the notice is provided as Attachment 4 of the Staff Report. Ms. Din is on the interested parties list. Staff verified that the return address Ms. Din provided in her comment letter is consistent with the address we have for Ms. Din on the interested parties list. Ms. Din did not provide written comment during the comment period.

Ms. Din refers to an expansion of 150 pages of the draft report. However, staff did not substantially modify the project report in the agenda relative to the version released for public comment and review. Regarding our last stakeholder outreach meeting, TMDL program staff held a stakeholder meeting in August 2009 in the project area. Staff provided project information and expectations prior to the meeting, including a time-line of staff activities leading up to Regional Board consideration of the TMDL. We regret that

Ms. Din could not attend the meeting. The materials provided at the meeting were available on our website. Ms. Din also asserts that the Regional Board staff is simply trying to "regulate landowners in order to collect fees and fines..." Staff has provided a regulatory option that does not require a fee. The opportunity to demonstrate compliance with the proposed animal waste prohibition is consistent with the approach the Regional Board took in the Pajaro River Fecal Coliform TMDL, the Aptos Creek Fecal Coliform TMDL, and the Soquel Lagoon Fecal Coliform TMDL, all which the Regional Board

approved in the last year, and which Ms. Din had opportunity to review and comment on, and in some cases, did provide comment on. The regulatory approach we are proposing, i.e., a prohibition, does not impose a fee, and is not a new approach.

Regarding Ms. Din's request for a legal explanation of why TMDL projects do not trigger a full EIR, please refer to Finding 16 of Attachment 1 (the Resolution) of the Staff Report, which explains our requirements regarding the California Environmental Quality Act. Finally, regarding Ms. Din's "confusion about why staff is rushing this TMDL for adoption without adequate time for stakeholder review." As stated earlier, staff notified stakeholders in our August 2009 stakeholder meeting that staff was finalizing the project documents for stakeholder review, and they would be available in December 2009. The full set of documents was provided on December 7, 2009, and the comment period ended on January 21, 2010. Many written comments were received (see Attachment 6 of the Staff Report); Ms. Din did not take the opportunity to provide comment during the comment period.

3. Supplemental Sheet 3

SUPPLEMENTAL SHEET FOR MEETING OF MARCH 18, 2010

Prepared on March 15, 2010

ITEM NO: 12

SUBJECT: TMDLS FOR FECAL COLIFORM IN LOWER SALINAS RIVER WATERSHED

KEY INFORMATION

Water Board staff received additional public comments on the proposed Basin Plan Amendments package from the following individuals.

1. Rob Hoffman, Monterey County Department of Public Health, in an email attachment received on February 3, 2010.
2. Scott Violini, Livestock Producer, Salinas, in an email attachment received on March 9, 2010.
3. Kay Mercer, Executive Director, Central Coast Agricultural Water Quality Coalition, in an email attachment received on March 10, 2010.

A summary of the comments and staff responses to these comments are provided below. A few of the comments submitted by Mr. Violini are essentially the same as comments he previously submitted during the public comment period. As such, staff will not address those comments here; we will rely on staff responses contained in Attachment 6 of the staff report with regard to those comments. Where direct transcriptions of comments are provided in this supplemental sheet, these transcriptions are identified with quotation marks.

Staff Responses to Comments of Rob Hoffman – Monterey County Dept. of Public Health

Mr. Hoffman, commenting on behalf of the Monterey County Department of Health, wrote that the onsite disposal systems (septics) associated with the Bolsa Knolls community¹ “should at least be considered a potential threat for fecal coliform contamination on Santa Rita Creek.” Mr. Hoffman reports that the proximity of septics to Santa Rita Creek, the nature of the local hydrogeologic and drainage conditions, and the fact that County staff have observed daylighted effluent along the creek suggest that this is a problem and that it “can be expected to get worse as more people move into these already crowded homes and as systems continue to fail. Many parcels are already using the last septic system that will fit on the property and these are not people who can afford alternative wastewater treatment systems should their system fail.”

During TMDL development Water Board staff identified Bolsa Knolls as a potential problem area with respect to septics; however, at that time we received information from the county and from septic repair professionals familiar with Bolsa Knolls that there was little evidence to indicate that failing septics were discharging to Santa Rita Creek. However, based on this newer reporting submitted by Mr. Hoffman, Water Board staff may obtain further information to further assess the level of indicator bacteria contribution from septics during the TMDL implementation phase, and identify any actions necessary to reduce loading. This is consistent with the TMDL Final Project Report (Attachment 2 of the Staff Report). Staff indicated in the Final Project Report that during the implementation phase of the TMDL, further assessment of indicator bacteria-loading from septics would be evaluated (as merited) and actions to reduce loading if appropriate would be coordinated with stakeholders and other public agencies. Water Board staff spoke to Monterey County Health Department staff on March 10, 2010, and County staff indicated that they were comfortable with this approach.

Staff Responses to Comments of Scott Violini – Livestock Producer

Mr. Violini questions the “target for fecal coliform at 200mpn/100ml on rangeland when the REC 1 standard for water contact at the beach is 235mpn/100ml.”

Staff does not concur with the premise of the comment that inland surface streams are being held to a higher REC-1 standard than ocean waters. It is important to recognize that the 235 mpn/100ml standard Mr. Violini is evidently referring to is not a REC-1 standard in the Central Coast basin plan for beaches. The 235 mpn/100 mL standard is a U.S. Environmental Protection Agency (USEPA) *E. coli* criteria for water contact recreation. In contrast, the State Water Resources Control Board Ocean Plan (Ocean Plan) actually specifies fecal coliform water quality objectives for ocean waters.

In addition, this USEPA *E. coli* criteria and the Basin Plan’s REC-1 fecal coliform water quality objective are not directly comparable. Compliance with the Basin Plan’s fecal coliform water quality objective is assessed as a geometric mean of a *suite* of samples. The USEPA *E. coli* criterion was originally used as a single-sample instantaneous maximum, or more recently as a percentile-based interpretation. Finally, the Ocean Plan water contact water quality objectives for ocean waters are indeed *more* stringent than what is required for REC-1 designated inland surface streams (Central Coast Basin Plan). The California Ocean Plan specifies a single-sample, instantaneous maximum

¹ Bolsa Knolls – an unincorporated community located just north of the City of Salinas.

concentration for fecal coliform (400/100mL). Note that a single-sample maximum is a more stringent threshold to meet than the Basin Plan's 30 day geometric mean (200/100mL), or percentile-based criteria (400/100mL) for a suite of samples for inland surface streams.

Also, Mr. Violini questions some of the wildlife estimates found in the Project Report. Similar comments from Mr. Violini were addressed in Attachment 6 of the Project Report. However, because Mr. Violini and a few other interested parties have recurring questions about the tule elk in the TMDL project area, staff concluded that it would be prudent to provide further clarification and information on this topic.

First, it is important to emphasize that implementation of the TMDL aims at regulating the controllable sources of fecal indicator bacteria, regardless of the contribution from non-controllable wildlife. In addition, as outlined in the Project Report, staff emphasizes that the estimated inventory of warm-blooded fecal coliform producers (humans, domestic animals, wildlife) in the TMDL Project Area are approximations based on available scientific or census data, and are used to assess the *relative* pollutant loading *risk* from various source categories². It is not practical or possible to precisely quantify project area-specific populations of humans, wildlife and livestock in most TMDL projects.

With regard to tule elk, based on information available from California Dept. of Fish and Game it does not appear to be plausible that elk are a significant contributor or cause of the sustained and widespread exceedances of bacteria water quality objectives observed at the basin-scale or subwatershed-scale in the Lower Salinas River watershed. This does not preclude the possibility that elk can cause water quality objective exceedances at localized scales, or within brief and intermittent temporal scales. However, the number of elk that can plausibly be approximated to range in the TMDL Project Area is insignificant compared to the estimated inventory of other warm-blooded fecal coliform producers in the project area³. As such, elk fecal coliform contribution at the watershed-scale and at annualized temporal time scales is almost undoubtedly insignificant relative to the source categories of fecal coliform presented in the project report. To illustrate this point, staff presents habitat range and population estimates for elk in the TMDL project area in Table 1 and Figure 1 below. These estimates are based on data from the Department of Fish and Game. It is worth noting that overwhelming majority of the elk habitat range that Dept. of Fish and Game identifies in the Gabilan Mountains is in areas that actually drain to the San Benito River watershed, *not* to the TMDL Project Area of the lower Salinas River watershed (see Figure 1).⁴

² Note: Staff used assessment methodologies and techniques that have widely been applied in USEPA-approved pathogen TMDLs.

³ For reference, see Table 4-1 in Attachment 2 of the Staff Report (i.e., the Final Project Report)

⁴ Note: The TMDL Project Area boundary on the map in Figure 1 delineates drainage into the lower Salinas River valley.

Table 1. Elk Population Estimates in TMDL Project Area.⁵

Dept. of Fish and Game Elk Range and Population Estimates				TMDL Project Area Elk Population Estimate	
Elk Habitat Range (Region)	Area (sq. miles) ^A	Population Estimate ^B	Population Density (Elk per sq. mile) ^C	Elk Habitat Range Falling Within TMDL Project Area (sq. miles) ^D	Estimated Number of Elk Within TMDL Project Area ^E
Gabilan Mountains	136.7	200	1.46	17.6	26
Fort Hunter Liggett-Monterey County	1454	500	0.34	42.3	15
				Total Estimated Elk in TMDL Project Area	<u>41</u>

A California Dept. of Fish and Game GIS spatial data set for elk habitat range

B Personal Communication, Jeff Cann, wildlife biologist, Calif. Dept. of Fish and Game

C Estimated elk population divided by identified habitat area (mi²)

D GIS area geometry calculation, based on elk habitat range (mi²) falling within TMDL project area – see Figure 1.

E Elk population density (no. per mi²) multiplied by Elk habitat range (mi²) that falls within TMDL project area.

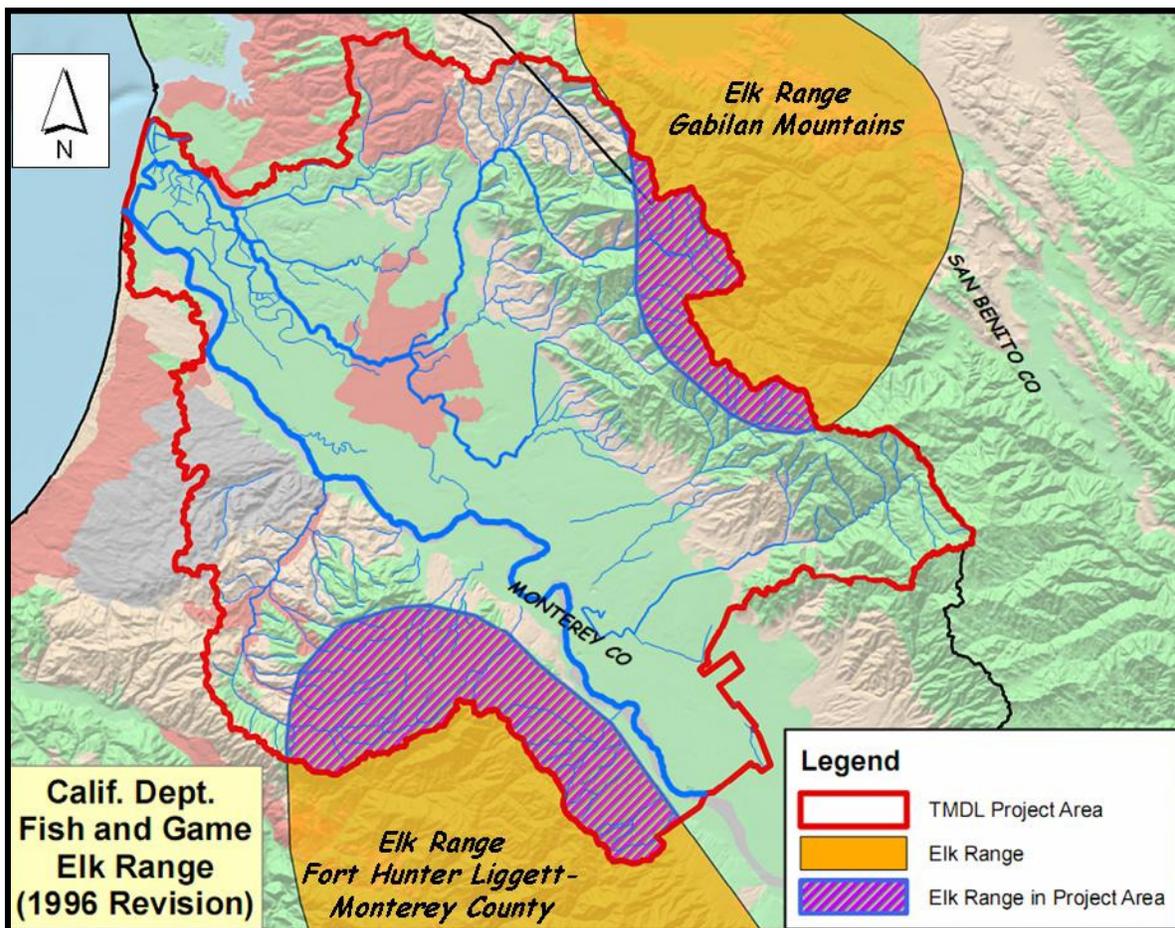


Figure 1. Elk Habitat Range – from Dept. of Fish and Game GIS Spatial Dataset

⁵ Assumes average uniform distribution of elk across all identified habitat range. As such, this represents a screening-level approximation of the average number of elk actually ranging in the Project Area at any given time over the long term.

Mr. Violini also comments that water quality data from the Arroyo Seco River exhibited typically lower fecal bacteria concentrations than stream reaches in the Lower Salinas River watershed TMDL Project Area, and states that since land use in the Arroyo Seco is “not that different in habitat and land use with the exception the Lower Salinas has considerably more rural residential properties that could impact water quality standards.” Staff provided responses to comments about the Arroyo Seco in Attachment 6 of the Staff Report and will rely for the most part on those responses to address this comment. Also, staff concur that there is a higher density of rural residences and farmsteads in the lower Salinas River watershed relative to the Arroyo Seco River watershed. Consequently waste discharges from farm animals, pets, livestock, and illegal dumping associated with this higher density of rural residences could likely account for the higher indicator bacteria concentrations observed in water samples from Lower Salinas River rural stream reaches relative to the Arroyo Seco River. Lastly, staff does not concur that land use and land cover in the Arroyo Seco River watershed is substantially the same as the Lower Salinas River TMDL Project Area subwatersheds. Land cover is indeed substantially different in the Arroyo Seco River watershed relative to TMDL Project Area subwatersheds, as shown in Figure 4-14 of Attachment 2 of the Staff Report.⁶

- 1 Mr. Violini commented on the cost estimates for structural management measures such as fencing and corals that are provided in Attachment 2 of the Staff Report. He notes that the cost estimates for fencing as reported in Attachment 2 of the Staff Report are from the U.S. Environmental Protection Agency’s (USEPA) *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* (1993) are estimated in 1993 dollars. Mr. Violini states that “Livestock Exclusion Barriers (Fences) are estimated at \$4015.00/mi...when reality is more like \$30,000.00/ mile.” Mr. Violini also noted the detrimental economic consequences of erecting exclusionary barriers such as fences.

With regard to fencing cost estimates, staff acknowledges that the USEPA fencing cost estimates are from the agency’s 1993 guidance document and staff did not adjust the costs to 2009 dollars. Staff concurs that these estimates should have been adjusted from 1993 dollars. However, considering this comment, staff conducted a cursory review for more recent fencing cost estimates from credible sources. Table 2 provides fencing cost estimates as provided by the Iowa State University (ISU) Extension office. ISU reports that all configurations of fencing shown in Table 2 “can be used with cattle, and that woven wire and high tensile electrified fencing can be used with sheep, and woven wire can be used with hogs.” The ISU fencing cost estimates range from 50% *higher* relative to the maximum fencing cost estimate staff provided in Attachment 2 of the Staff Report, to 61% *lower* than the minimum fencing cost estimate staff provided. As such, there appears to be a wide range of fencing configurations and materials which result in a wide range of possible costs. Therefore, the fencing cost estimates in Attachment 2 of the Staff Report – while unfortunately not adjusted to 2009 dollars – do not appear to be grossly or unreasonably outside the range of the more recent estimates reported by ISU. Indeed, based on the ISU reporting in Table 2, it appears probable that fencing costs could range either higher, or lower than the costs estimates staff provided in Attachment 2 of the Staff Report.

⁶ For further information, refer to Section 4.3.3 of Attachment 2 of the Staff Report (i.e., the Final Project Report)

Table 2. Estimated Costs for Livestock Fencing (source: Iowa State University - University Extension, 2005)⁷

Type of Fencing	Total Construction Costs per foot	Total Construction Costs per mile
Woven Wire Fence	\$1.51	\$7,972.80
Barbed Wire Fence	\$1.23	\$6,494.40
High-tensile non-electric Wire Fence	\$1.12	\$5,913.60
High-tensile electrified Wire Fence	\$0.70	\$3,696.00
Electrified polywire fence	\$0.18	\$950.40

Finally, with regard to Mr. Violini's concerns about economic burdens associated with erecting exclusionary barriers or fences, note that the Water Board cannot specify the nature of compliance to achieve the load allocations. These concerns were addressed in significant detail of Attachment 6 of the Staff Report (Staff Response to Public Comments).

Mr. Violini provided comments on the costs of corrals, stating: "I am confused with staffs comment on page 160 in relation to Corral Costs. "A corral (excluding the headgate) can cost less than \$7000.00. Gates cost (at the most) between \$3000 and \$4000. I do not understand the headgate reference. A corral replacement is a minimum of \$15,000.00; materials only, not including labor, for a safe working facility."

Staff provided corral cost estimates from a credible agricultural trade publication and presumes that the authors of said article are qualified to present cost estimates and describe corral configurations. As such staff is unable to clarify Mr. Violini's question about headgates; staff do not have expertise in corrals. Please note that staff would welcome from interested parties at any point during TMDL development, public meetings, or public comment periods any credible cost estimates that are preferably supported by reporting in the literature or from agencies with expertise in agricultural economics. Staff was unable to ascertain the source of Mr. Violini's estimate of \$15,000 to *replace* a corral. Staff can appreciate that Mr. Violini may have experience and knowledge regarding this matter. Undoubtedly, corral construction cost can vary due to size, materials, and configuration. However, to the extent possible, staff endeavored to provide economic cost estimates that are reported or published and can be verified from credible professional literature sources or technical reports. Where possible, staff opted to not use anecdotal information. As such, staff maintains that the corral cost estimates provided in Attachment 2 of the Staff Report are justified on the basis of professional literature reporting, although undoubtedly corral construction costs can vary widely.

Staff Responses to Comments of Kay Mercer – Central Coast Agricultural Water Quality Coalition

Ms Mercer comments that the Final Project Report was posted on the Board Agenda web page on March 4, 2010, and she states that the subsequent deadline for submitting comment letters was March 12, 2010. Ms. Mercer goes on to state that this "is less than four business days for review of a 300+ page document and is not sufficient time for adequate stakeholder review." Ms. Mercer states that "the Coalition does not know

⁷ Iowa State University Extension, 2005, "Estimated Costs for Livestock Fencing". File B-175. Prepared by Ralph Mayer, former extension farm management specialist and revised by Tom Olsen, extension ag business management specialist.

whether new information or substantive changes to the project report have occurred as we have not had adequate time to review the document.”

The Final Project Report, the Staff Report, and the other associated attachments have not substantially changed from the versions posted for public comment on December 7, 2009. The formal comment period for the Salinas River Fecal Coliform TMDL project commenced on December 7, 2009, and ended on January 21, 2010. The notice soliciting public comment was sent to the interested parties list; the notice is provided as Attachment 4 of the Staff Report. Staff made minor modifications to the Project Report based on public comments received in January 2010, but there were no substantive changes and no regulatory consequences associated with those modifications. Minor changes to the Project Report based on stakeholder input are reported in Attachment 6 of the Staff Report (Public Comments and Staff Response). As such, the Project Report and other associated Basin Plan Amendment package documents have been available in substantially unchanged form since December 7, 2009; consequently staff do not concur with Ms. Mercer that there were only four business days to review the proposals and the documentation.

Ms. Mercer states that “when The Coalition asked staff about the comment timeline and implied concern about the short time period, staff replied that since the Coalition had submitted previous comments on January 21 to the Lower Salinas River Watershed Fecal Coliform TMDL project that we did not need to make additional written comments.”

With regard to this comment, staff is unaware of any direction or guidance from Water Board staff to the Coalition that they did not need to submit additional written comments after January 21, 2010. Please note that interested parties and stakeholders can submit written or verbal comments to staff anytime they like - staff encourages interested party and stakeholder interest and communication regarding TMDL development. Indeed, during the month of February 2010 staff was in contact with several TMDL stakeholders and staff informed these stakeholders that they could submit comments *after* the formal comment period, and that staff would take those comments under consideration but that we could not guarantee that written responses would be provided in the final Agenda package.

Ms. Mercer comments that “the Coalition does not recommend that the Lower Salinas River Fecal Coliform TMDL be adopted at the March 18, 2010 hearing. Instead, adoption should be postponed until adequate time has lapsed for technical and program review by stakeholders.” Ms. Mercer also refers to an alleged expansion of 150 pages of the draft report. However, as noted previously, staff did not substantially modify the project report in the meeting agenda item relative to the version released for public comment in December 2009. As such, staff is unable to ascertain the source of Ms. Mercer’s assertion regarding 150 extra pages in the report. The draft Final Project Report, web-posted December 7, 2009, was approximately 178 pages. The Final Project Report web-posted on March 4, 2010, was 200 pages; some of the 22-page expansion was a consequence of adding some new figures and graphics to the report. The Final Project Report also included minor modifications that had no regulatory consequences that were added to the report to address stakeholder comments. Modifications that staff made based on public comments were reported in Attachment 6 of the Staff Report. As such, the proposed Basin Plan Amendments, including Final Project Report being presented for Board consideration have not changed substantially from the versions posted for public comment in December 2009.

Finally, Ms. Mercer comments that “there is confusion about why staff is rushing this TMDL for adoption without adequate time for stakeholder review. This is problematic.” As stated earlier, staff notified stakeholders in our August 2009 stakeholder meeting that staff was finalizing the project documents for stakeholder review, and they would be available in December 2009. The full set of documents was provided on December 7, 2009, and the comment period ended on January 21, 2010. Many written comments were received (see Attachment 6 of the Staff Report).