PLACER COUNTY
DEPARTMENT OF PUBLIC WORKS

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California Regional Water Quality Control Board
Lahontan Region
Douglas F. Smith, Senior Engineering Geologist
2501 Lake Tahoe Boulevard
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Re: Proposed Tahoe TMDL and Basin Plan Amendment

Thank you for the opportunity to review and comment on the proposed amendments to the Water Quality Control Plan for the Lahontan Region (Basin Plan) provided with your notice dated July 9, 2010. Placer County generally supports the Total Maximum Daily Load (TMDL) approach to addressing the Lake Tahoe transparency impairment. We believe that this is a far better approach than establishment of numeric discharge standards which are difficult to implement, and equally difficult to enforce.

With regard to the proposed Basin Plan amendment, we have a number of questions and comments to be presented below. Some of these questions and comments relate more specifically to the TMDL report and implementation plan. However, recognizing that adoption of the Basin Plan Amendment (BPA) and TMDL will be followed by revisions to the municipal NPDES permits, we feel that it is important to fully understand the proposed context and basis of the BPA . Your consideration of our comments and questions, and your meaningful responses, are greatly appreciated, and will be very helpful in focusing our discussion on the BPA and TMDL adoption with your Board.

July 9, 2010 Basin Plan Amendment Notice

Page 1. Within the list of proposed changes to the Basin Plan, there is no item #3; is this a numbering error, or has something been omitted?

Page 3. Item #7, *Describe Stormwater Treatment Requirements*, last section paragraph, states: "For new development, redevelopment, and parcel-scale Best Management Practice projects, the proposed amendment requires project proponents to implement every opportunity to infiltrate stormwater."(emphasis added). This appears to conflict with the stormwater treatment requirements described on page 24 of the Basin Plan Amendment (BPA), which reference infiltration to the "maximum extent practicable"(MEP).

The next sentence of this paragraph reads: "Stormwater treatment facilities must be designed and constructed to infiltrate runoff generated by the 20 year, 1-hour design storm when site conditions permit". Again, this appears to conflict with the "every opportunity" infiltration requirement, as well as the MEP requirement. Also, why are these private property BMPs only designed to meet the 20 year, 1-hour volumes, when municipalities must consider a range of storm events in the planning and design of BMPs?

The third sentence of this paragraph reads: "Amendment language encourages infiltration and treatment of volumes in excess of the 20 year, 1-hour storm volume."(emphasis added). This creates even more confusion as, based on the preceding observations, there appears to be a mandate to infiltrate to a higher standard.

The last sentence in the paragraph essentially states that, where one can't meet these (confusing) infiltration requirements, that the 20 year, 1-hour design storm (volume) must be treated to meet defined effluent limits for turbidity, nitrogen, and phosphorus. However, there are exceptions noted in the amendment language on page 25 of the BPA, to be discussed below.

This confusing language repeats a recurring theme from past permit language in terms of failing to be absolutely clear on how private properties are regulated for stormwater. To limit confusion, it is suggested that at a minimum, "encouraging" language for " treating beyond the minimum" be removed. With TRPA's upcoming Regional Plan Update document, they can be the agency to provide language and direction on incentives for treating beyond the minimum standard.

July, 2010 Proposed Water Quality Control Plan Amendments, Total Maximum Daily Load for Sediment and Nutrients in Lake Tahoe

Page 4. ***Source Assessment, Upland Runoff*****, third sentence**, indicates that 38% of the annual average phosphorus load is generated within the urban landscape. However, Table 5.18-4 shows this number as 47%. Which is correct?

Similarly, the nitrogen load is described as 18% from the urban landscape; Table 5.18-3 shows this as 18%. Which is correct?

There are similar discrepancies relating to information in the fourth sentence of this paragraph, relating to undeveloped areas.

Page 4. ***Source Assessment, Atmospheric Deposition,*** **last sentence**, indicates that 15% of the basin-wide fine sediment load comes from atmospheric deposition; Table 5.18-2 shows 16%. Which is correct? Similarly, the nitrogen load is described as 55% from atmospheric deposition; Table 5.18-3 shows this as 63%. Which is correct? Do any of these numeric discrepancies have any bearing on the proposed TMDL load allocations or implementation requirements?

Page 6, ***Loading Capacity; TMDL and Allocations.*** For the modeled TMDL loading capacity and TMDL allocation values and associated timescales, will there be a periodic re-calibration effort to verify/refine these amounts? Monitoring data collected over time should be used to calibrate the load, capacity, and trend conditions so that the refinements to jurisdictional commitments can be made as necessary.

Page 7. *Load Allocation Tables.* Standard attainment is shown at 65 years, with five-year incremental load reduction milestones. In nearly all instances, over 50% of the "standard attainment" load reductions are required within the first 20 years. Have factors such as technological and fiscal feasibility been considered in establishing these schedules? Have the studies conducted in support of this TMDL, and its implementation, demonstrated that these pollutant reduction levels are realistic, practical, and feasible? Where has this been demonstrated and documented?

According to Table 5.18-3, the Forest Upland is the source of 18% of the basin-wide nitrogen; this is the same as the Urban Upland contribution. Atmospheric sources account for 63% of the total nitrogen load. Why is the standard attainment for the Urban Uplands a 50% reduction, when the Forest Uplands is 0% reduction, and Atmospheric only a 2% reduction? Similar, disproportionate, ratios of sources-to-reductions are shown for fine sediment and phosphorus within the tables on this page.

Page 8. *Margin of Safety and Future Growth Potential,* second paragraph, states: " …the two counties within the Lake Tahoe watershed…". Shouldn't this refer to the five counties in the Tahoe Basin?

Page 8. *Implementation Plan*, second section paragraph, states: "…found that the most cost effective and efficient load reduction options for the forested upland, stream channel erosion, and atmospheric deposition sources are consistent with existing programs." This is a very subjective statement, which doesn't appear to be supported by proper analysis, nor are those existing programs clearly described. Has it been demonstrated that the "business as usual" approach for those agencies tasked with meeting load reduction requirements from these sources will achieve the load reduction milestones shown in the tables on page 7? The statement also implies that permitted municipalities, responsible for urban uplands runoff, have the capacity and capability of greatly expanding efforts to meet TMDL implementation requirements. While there may be greater opportunities for load reductions in urban uplands settings, that doesn't mean that the resources will be available to pursue such opportunities. Is it possible to achieve the TMDL reductions through current practices, only? Where has that question been answered?

Page 9. *Implementation Plan, Urban Runoff*. The TMDL implementation focuses on urban uplands sources and establishing enforceable NPDES permit requirements. This section notes that the Regional Board will specify load allocations and track compliance with load reduction milestones, through new NPDES permit requirements. Since these permittees will be the only stormwater dischargers with enforceable TMDL requirements, the full burden of compliance falls to these agencies. Why aren't the many other stormwater dischargers within the Tahoe Basin being held to a similar standard, with similar enforceable requirements?

The last paragraph in this section mentions the Lake Clarity Crediting Program as another required element of the TMDL implementation. Will only the NPDES permitted agencies be applying this program to track TMDL implementation progress? What about the other dischargers that will not be required to implement the TMDL through enforceable permit requirements, i.e., the "business as usual" agencies discussed in the comments above?

Page 10. ***Implementation Plan, Forest Uplands,*** **last section paragraph**, states: "The Regional Board may require forest management agencies to track and report load reduction activities to assess whether expected activities are occurring."(emphasis added). Why would the Regional Board not require this tracking and reporting? It is intended that tracking and reporting be required of the NPDES permittees, based on the need to insure progress toward meeting TMDL goals; why would this be optional for forest management agencies (and others)? If it is not required, how will progress be measured? How will this tracking occur, in what form, and will it be made available for public review/access?

Atmospheric Deposition**, first sentence, second section paragraph**, states: "The majority of fine sediment particle load from the atmospheric source is generated by the urban roadways." Do the TMDL studies support this conclusion? When compared to other possible sources, such as construction related activities and land (private property) management activities, the use of traction abrasives and unpaved roads in urban landscapes seem to be minor contributors. Will municipalities be required to evaluate and report load reductions associated with atmospheric deposition?

Atmospheric Deposition**, last sentence, second section paragraph**, states: "Similarly, actions taken to control runoff from unpaved roadways within the forested uplands will also reduce dust from these areas." What "actions" does this refer to? Are these required actions, or voluntary? What portion of the atmospheric deposition of sediment (the 15 or 16%) is attributable to the forested uplands? How does that compare to the portion generated in the urban uplands?

Atmospheric Deposition**, last sentence, third section paragraph**, indicates that TRPA's implementation of transportation and air quality plans is expected to meet the required TMDL nitrogen reduction within 65 years. Does this mean that the five-year interim TMDL targets will not have to be met? Will there be any tracking and reporting to demonstrate progress?

Pages 10-11, ***Future Needs.*** Placer County applauds this effort and recommends a coordinated effort for the information to be developed and reported out, such as through the Regional Stormwater Monitoring Program (RSWMP). In addition, it is recommended that more effort be placed on assessing the benefits and TMDL reductions attained from stream environment zone (SEZ) restoration. Current scientific understanding is lacking with respect to quantifying load reductions associated with SEZs. Placer County has two major SEZ restoration projects underway, Lake Forest and Snow Creek, and current modeling techniques do not specifically account for SEZ load reduction.

An additional future need is quantifying TMDL load reduction credits for traction material type and operations associated with application and removal. The scientific and regulatory communities generally agree that traction sand is likely one of the more significant sources of fine sediment and phosphorous in the Urban Upland component, but incentives for attaining TMDL load reduction credits is non-existent. There should be a greater incentive for utilizing alternative traction materials, minimizing its use and maximizing recovery of applied materials.

Page 11. ***Schedule of TMDL Attainment, Data Review, and Revision*****, Table 5.18-5**. The first action listed requires NPDES permittees to submit to the Regional Board a Storm Water Management Plan (SWMP) "describing how 5-year load reduction requirements will be met"(emphasis added). While the SWMP describes actions to be implemented by the permittee, the plan cannot insure compliance with the TMDL. If the SWMP must include such assurances in order to be acceptable to the Regional Board; would that not be considered an unfunded mandate?

The schedule requires that "future plans (SWMPs) must be submitted no less than six months prior to expiration of the applicable municipal NPDES stormwater permit."(emphasis added). Shouldn't the permit precede the SWMP? Don't the permit requirements have to be known in order to prepare a SWMP? There are other elements of the SWMP besides the TMDL activities that need to be considered.

Pages 11-12. ***Schedule of TMDL Attainment, Data Review, and Revision.*** This section discusses calculation of baseline load estimate using a continuous hydrologic simulation process. Some jurisdictions have already invested in and developed assessment programs that should be recognized for use in tracking load estimates. Placer County recognizes the desire for consistency in monitoring and reporting Basin-wide, but as long as jurisdictions can scientifically prove their method is reliable, accurate and comparable to the one stated model, PLRM, then it should be accepted.

Pages 12. ***Schedule of TMDL Attainment, Data Review, and Revision*****, last section paragraph**, states: "The Regional Board will annually track actions taken…". Tracking and reporting will be required of the NPDES permittees; how will actions by others be reported and tracked?

Adaptive Management**, first section paragraph**, begins with: "With appropriate funding…". What are the plans for securing this funding? Where is it expected to originate? How will adaptive management be applied to the TMDL implementation if this funding is not available?

Adaptive Management**, second section paragraph, first sentence** states"…the Regional Board will annually assess relevant research and monitoring findings and may adjust annual load reduction targets and/or the TMDL implementation approach as needed."(emphasis added). If adjustments are made more frequently than the 5-year NPDES permit renewal cycle, how will that impact these permits and associated SWMPs? Interim adjustments would be very difficult to implement, as these could have substantial programmatic, fiscal, and practical implications to the permittees' water quality program efforts.

Monitoring Plan**, first sentence**, indicates that the "monitoring plan components" will be fully developed and implemented within three years of USEPA approval of the TMDL. As this is yet to be defined, the impact to the NPDES permittees is unknown. Does the Regional Board anticipate including a monitoring requirement in the renewal of the NPDES permits next year? Will permittee monitoring requirements include more than the TMDL tracking and reporting that are part of the Lake Clarity Crediting Program? If monitoring requirements are currently undefined, then the full impact of the TMDL implementation is unknown. Should this not be considered in adopting and implementing a TMDL program?

Adaptive Management and Monitoring Plan. These elements should be coordinated and performed through the Regional Stormwater Monitoring Program (RSWMP) by which all regulated jurisdictions will, hopefully, be participants in order for RSWMP to be fully functional (current annual estimate for RSWMP effort at $1.2M). As stated in the above comments, ongoing funding of RSWMP activities will be a challenge and Placer County proposes that all sources of funding be considered even if they are short-term sources, including but not limited to, violation fines/penalties. The potential for a stormwater assessment in the Basin has been evaluated and may, at some point, be proposed. But it will not cover all the stormwater implementation and management needs of the Basin. Placer County encourages Lahontan to improve coordination with TRPA and NDEP to develop stricter regulations on private properties that will result in greater enforcement efforts and incentives for BMP implementation such as point of sale BMP retrofit requirements.

Proposed Changes to Existing Basin Plan Language

Page 15. ***Reference to BP page 4.8-4, column 2, paragraph 3****.* The proposed revision reads: "Existing facilities must be retrofitted to treat stormwater runoff and to re-stabilize all eroding slopes in a manner consistent with the guidelines for pollutant load reduction requirements described in the Lake Tahoe TMDL." In our understanding of the TMDL implementation, there will be local discretion regarding the exact method of TMDL compliance. As such, retrofit of existing roads may be partially implemented as a component of an overall pollutant load reduction strategy. The proposed language appears to require a 100% retrofit of roads and complete slope re-stabilization. Additionally, the embedded phrase "consistent with the guidelines" is very subjective, and open to interpretation.

Page 18. ***Reference to BP page 5-2, column 2, paragraph 3.*** Based on a USACOE-funded effort for Placer County, a three-tiered program is the likely solution to reducing fine sediment and nutrients from Urban Upland including: 1) the indicated bullet (large-scale capital projects), 2) private property BMPs, and 3) road sweeping with high technology equipment. It should be recognized that there are a combination of actions to reduce the primary pollutants; the BPA language should reflect that and allow flexibility in meeting TMDL allocations.

Page 18. ***Reference to BP page 5-4, column 1, paragraph 1.*** It's not enough to just indicate here that "All landowners are expected to implement BMPs." This issue has lacked the attention it deserves and is protected by too much politicking in the Basin. A fully coordinated approach is needed to institute real incentives and stricter enforcement authority to increase the level of compliance. All agencies and interested stakeholders need to be a part of the solution, including Lahontan, NDEP, TRPA, local jurisdictions and grant funding organizations.

Page 23. ***Reference to BP page 5.6-1, Stormwater Management and the Lake Tahoe TMDL.*** The proposed language for this section discusses the "enforceable" TMDL implementation requirements to be placed into the four California NPDES permittees in the Tahoe Basin. This section does not include any reference to other agencies/entities/individuals with obligations to meet TMDL objectives. It's understood that this is a California jurisdictional document, however, the problem (reduce fine sediment load by 72%) is discussed as a basin-wide issue. Within that context, it appears that these four NPDES permittees will bear sole responsibility for resolving the transparency problem.

It is not reasonable to place the entire burden upon the four California permittees; it is reasonable to apportion the obligations equitably to all who contribute to the transparency problem.

Page 24. ***Reference to BP page 5.6-1, Stormwater Treatment Requirements, first section paragraph.*** The proposed language indicates that all new, retrofit, and roadway runoff treatment projects must consider infiltration to the "maximum extent practicable" (MEP). Who (which agency) makes the final determination as to whether that subjective standard has been achieved? What does this really mean? Will infiltration be required beyond the 20 year, 1-hour volume, if the site has additional infiltration capacity? Will that requirement be imposed through permit approvals?

Stormwater Treatment Requirements, second section paragraph, last sentence, reads: "Private property owners share the responsibility for private property runoff with the local municipalities." What does this mean? While all owners, public and private, are required to comply with anti-pollution laws, why are these owners singled out, and how do they "share" in the TMDL solution? The three municipal NPDES permittees and Caltrans are the only entities currently facing enforceable permit requirements to meet the TMDL. Other than through regulatory means established within each permittee's jurisdiction, how will these other land owners participate?

Stormwater Treatment Requirements, third section paragraph. This section discusses the NPDES permittees' pending legal obligation to meet the TMDL load reductions, and further states that "these agencies must …maximize average annual load reductions…". Once again, this raises the question of equity; are these permittees being held responsible for solving the entire load problem, or just the portion attributable to each jurisdictional area? What about the others, i.e., private property owners, forest management agencies, etc.? What is intended with the use of the subjective word "maximize"? Who will make that determination, and how will it be enforced?

Stormwater Treatment Requirements, fifth section paragraph. There is some text missing between pages 24 and 25. This section discusses treatment requirements for new and re-development projects. Though some text is missing, it seems to say that infiltration of the 20 year, 1-hour storm volume is required. However, the last sentence states: "Where conditions permit, project proponents <u>should consider</u> designing infiltration facilities to accommodate runoff volumes in excess…".(emphasis added). Why would a project proponent consider doing anything more than meeting the minimum requirements? What incentive/disincentive exists, or is proposed, to encourage additional treatment, at a likely higher expense? How does this relate to the MEP standard discussed in the first paragraph of this section (see comments above)?

Page 25. ***Stormwater Treatment Requirements, last section paragraph.*** This proposed language discusses application of numeric discharge limits where the minimum infiltration requirements cannot be met. The last sentence in the paragraph reads: " These limits only apply to stormwater discharges that cannot be infiltrated <u>and are not</u> tributary to stormwater management facilities that are part of a municipality's plan to meet average annual fine sediment and nutrient load reduction requirements." (emphasis added). Does this mean if it <u>is</u> tributary to such stormwater management facilities, that no additional on-site treatment is required? This could be interpreted another way, as well: that there is yet another, undefined, treatment solution that must be considered.

Page 28. ***Reference to page 5.16-3, column 1, paragraph 1.*** The proposed text includes references to percentages that differ from those shown on Tables 5.18-2,-3, and -4 (page 7).

Page 29. ***Reference to page 5.16-3, column 1, paragraph 1.*** The last sentence in this section reads: "The primary in-basin sources of fine sediment particles are road dust and wood smoke." Does this refer to all sources within the basin, or just urban landscape? What about construction activities and other exposed ground surfaces? These are mentioned as significant sources on page 16, in reference to proposed language on page 4.9-32 of the Basin Plan. There is definitely inconsistency between these two sections of the BPA which should be reconciled.

General Comments

1. The TMDL Final Report, page 11-2, states that "TRPA will play a crucial role in TMDL implementation because the TRPA has the ability to incentivize TMDL implementation." Such external influences to the TMDL implementation are not fully described in the implementation plan but, clearly, will influence required actions by the implementing agencies. These "incentives" should be included in the implementation plan, and their economic impact considered as part of the TMDL adoption process.

2. Has an economic analysis been prepared for the TMDL implementation that demonstrates the reasonableness of the implementation plan and feasibility of accomplishing the objectives? What level of capital funding support through State and Federal grant programs is reasonable to consider? What if those sources cannot sustain the funding demand and local governments are unable to replace those funds with local sources? Is the implementation timeframe reasonable and achievable? What evidence is available to support those conclusions?

3. Are the TMDL targets reasonable and achievable? What are the penalties and implications for failing to achieve the designated target load reductions? Shouldn't the TMDL implementation plan be more specific with regard to these implications and penalties? Also, the TMDL final report indicates that the Water Board and NDEP will work within the adaptive management framework to evaluate the appropriateness of the milestones. However, the Basin Plan Amendment suggests that the adaptive management system is dependent on funding availability. If that funding is not available, how will adaptive management be part of the TMDL implementation? Currently, Placer County, and other local jurisdictions, struggle to maintain adequate budgets and resources to meet requirements of the current Tahoe NPDES permits. The proposed BPA and future permits will further stress the jurisdictions with additional activities to maintain stormwater quality compliance. The adaptive management system should take current and future economic conditions into account and emphasize a jurisdiction's progress towards improving clarity as opposed to disciplining it when a projected goal is not fully achieved under a regulated timeframe.

4. Existing TRPA requirements do not fully align with the proposed revisions to the BPA and the TMDL program, though it has been stated that it is that agency's intent to fully embrace this program and its implementation. Unless, and until, TRPA modifies its requirements, conflicts will exist that will make the TMDL implementation difficult.

5. Examples include BMP retrofit requirements, BMP sizing, SEZ treatment, and infiltration separation to groundwater. The Regional Board should include in the BPA strong supporting language for needed consistency, or even delay TMDL adoption until TRPA has completed revisions to their requirements.

6. To what extent will RSWMP be included or required in the future Tahoe Municipal permit?

7. New and re-development private property BMP work will help reduce TMDL pollutant loads. Will the municipalities (NPDES permittees) be able to take credit for these activities in meeting TMDL milestones? How will such activities be tracked and reported? Will municipalities be able to get credit for activities outside of the Urban Uplands category, i.e., for stream channel stabilization/restoration, or air quality improvement projects? How will that be accounted for, if the LCCP is set up for urban uplands activities?

8. Tables 5.18-2, -3, and -4 on Page 7 of the proposed Basin Plan Amendment summarize the various source categories for fine sediment, nitrogen, and phosphorus and show the targeted reductions for each. Generally, the proposed target reductions are not proportionate to the relative contributions from each source. While we understand the concept of urban source reduction "opportunities", the proposed TMDL implementation approach forces a hugely disproportionate burden for compliance on the NPDES permittees, leaving other entities with minimal, non-regulated, pollutant reduction objectives.

Once again, thank you for considering these comments and questions; we look forward to your response. Should you have any questions of us, please call me at (530) 745-7524.

Sincerely,

Robert Costa
Public Works Manager