Water Board Responses to California Public Comments

November 2, 2010

6. League to Save Lake Tahoe (Lozeau Drury LLP)

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September 13, 2010

Via E-Mail Transmission

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Re: Comments on Behalf of the League to Save Lake Tahoe Regarding Draft Lake Tahoe TMDL Technical Report, Draft Lake Tahoe TMDL Report and Draft Basin Plan Amendments and Related Documents

Dear Messrs. Smith and Kuchnicki,

Thank you for this opportunity to provide input into the process for developing a total maximum daily load ("TMDL") addressing the agencies' and dischargers' ongoing failure to comply with Lake Tahoe's deep water transparency standard. Formed in 1957, the League advocates for strong protection of the Tahoe Basin's natural resources and the restoration of Lake Tahoe's famed clarity. The League is dedicated to protecting, restoring, and advocating for the ecosystem health and scenic beauty of the Lake Tahoe Basin, with a particular focus on the Lake's water quality and clarity.

As the agencies are aware, the TMDL being developed for Lake Tahoe's deep water transparency standard is perhaps the key opportunity for the Tahoe community and the water quality agencies to acknowledge the inadequacies of past water quality planning and implementation efforts in the Basin and to supplement or replace those efforts with enforceable pollution controls. For example, existing National Pollution Discharge Elimination System ("NPDES") permits issued to all of the urban upland areas and Caltrans highways on the California portions of the Lake have for years required Caltrans and the cities to drastically reduce their loadings in order to comply with the Basin Plan's storm water effluent limitations. Those permits already should have resulted in significant reductions in loadings to the Lake that would have given the region a running start at achieving the much larger loading reductions necessary to achieve the deep water transparency standard. However, although acknowledging the storm water effluent standards, the Regional Board has consistently skirted requiring the cities, counties, and Caltrans to monitor for compliance with the Basin Plan standards and enforcing compliance with the Basin Plan requirements.

The proposed TMDL suffers from similar efforts to avoid the tough problems by not factoring new development into the proposed waste load allocations and by attempting to establish an incomprehensibly long 65-year schedule for compliance with the deep water transparency standard. Rather than assuring compliance with the standard as quickly as possible, the TMDL

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LTSLT-1: The deep water transparency standard applies solely to Lake Tahoe and is not an effluent requirement for agencies and dischargers to comply with. Rather, the Water Board requires dischargers to meet, as part of their municipal stormwater permits, performance objectives related to their discharges. The TMDL is a science-based planning and regulatory document that provides pollutant source estimation, an analysis linking the pollutant source amounts to the response in the waterbody, and an implementation plan so the waterbody will over time attain the Basin Plan deep water transparency standard.

LTSLT-2: This comment implies that strict compliance with the current standards would result in significant improvement in water quality. However, this position ignores TMDL science that demonstrates the overriding effect of fine sediment particles on deep water transparency. Current standards do not directly address reduction in the discharge of fine sediment. This has been known for a number of years. Devoting resources to enforcing standards that will not result in significant improvement in deep water transparency, as suggested by the comment, is counter to the goal of improving deep water transparency. This proposed Basin Plan Amendment (BPA) puts forth a scientifically defensible standard that will result in the reduction of the pollutant that has the greatest effect on deep water transparency.

institutionalizes – for our lifetimes and many of our children's lifetimes – the degradation that the agencies and dischargers have allowed to occur over the last four decades. No such lifetime extensions to comply with water quality standards are authorized by the Clean Water Act, especially for an Outstanding National Resource Water ("ONRW") like Lake Tahoe. Although some excellent science has gone into evaluating the health of the Lake and the steps necessary to achieve the deep water transparency standard, gaps remain in several important sources of pollution, including for example, the additional fine sediments that will be generated by additional traffic resulting from the Regional Board's acquiescence in the Tahoe Regional Planning Agency's current efforts to expand development in the Basin. Before the agencies approve the TMDL, the League requests that the agencies address the following concerns and accelerate the implementation measures in order to bring Lake Tahoe back into compliance with the deep water transparency standard much sooner than 65 years.[1]

A. BECAUSE THE REGIONAL BOARD'S ALLOCATIONS FAIL TO TAKE INTO ACCOUNT LOADINGS FROM NEW DEVELOPMENT, ADDITIONAL VEHICLE MILES THAT WILL RESULT FROM SUCH NEW DEVELOPMENT AND GLOBAL WARMING EFFECTS, THE PROPOSED ALLOCATIONS ARE NOT SUPPORTED BY THE WEIGHT OF THE EVIDENCE.

EPA defines a total maximum daily load as "[t]he sum of the individual WLAs [waste load allocations] for point sources and LAs [load allocations] for nonpoint sources and natural background." 40 C.F.R. § 130.2(i). Unfortunately, the proposed clarity TMDL does not factor in discharges from all of the point sources and nonpoint sources affecting the Lake, including pollution from future development, pollution from increases in vehicle miles travelled in the Tahoe Basin, and pollution resulting from the consequences of global warming.

1. The Agencies Must Either Establish WLAs and LAs for New Development or, at a Minimum, Reserve Such Allocations for the Future – Not Ignore New Development as Proposed.

"The Lake Tahoe TMDL does not specify a pollutant allocation for future growth." TMDL Report, p. 14-7. Nor are future discharges of fine sediment from new development factored into the TMDL's baseline loading estimates from 2004 and the load reductions from that baseline proposed in the TMDL. The only allocations proposed are percentage reductions from the 2004 baseline loading. The Regional Board's and NDEP's decision to ignore future development in the TMDL's allocations is contrary to law, arbitrary, and unsupported by the weight of the evidence.

The only way for the TMDL to ignore allocating any pollutant loading to future development is if future development could be shown to discharge no pollution. The agencies'

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Response

LTSLT-3: Same as Response LTSLT-1, with this addition: The proposed TMDL sets forth a plan that requires attaining increasing load reductions over time without any provisions for delaying the attainment of the needed load reductions. The TMDL does not grant "lifetime extensions to comply with water quality standards". Nothing in the Clean Water Act (CWA) prohibits a 65-year phased implementation plan; see Response LTSLT-28.

LTSLT-4: The Lake Tahoe TMDL Technical Report contained detailed information, in section 4.6 Pollutant Loading Summary & Confidence Levels, about the knowledge and data gaps for the source analysis and provides an assessment of the relative confidence in the source estimates. The Lake Tahoe TMDL Report, Lake Tahoe TMDL Technical Report, Pollutant Reduction Opportunity Report, and Integrated Water Quality Management Strategy Report, were subjected to independent peer review by five scientists and each reviewer agreed with the source analysis estimation.

Any activity, such as new development, re-development, or other land disturbing management actions, has the potential to increase localized (i.e. on a parcel scale) pollutant loading. To ensure that future growth does not increase pollutant loads, the jurisdictions must reduce pollutant loads from the established baseline condition for that jurisdiction. This means that load reductions must be net reductions from a jurisdiction's 2004 baseline conditions, and does not allow for increased loads caused by changes in land use, transportation modes and uses, and stormwater treatment. A municipality must annually demonstrate on a catchment (i.e. sub-watershed) basis that no increased loading in fine sediment particle, total nitrogen, and total phosphorus will result from any land disturbing activity permitted in the catchment. Efforts to eliminate the increased loads from these land disturbing activities will not be counted towards the annual load reduction requirements. Text has been added to the proposed BPA in the Future Growth Potential section to describe this requirement.

The Lake Tahoe TMDL source analysis was based on estimations of the pollutant loading as of 2004. Chapter 16, Environmental Checklist and Analysis, in the Lake Tahoe TMDL Report, contains explanations on how the potential environmental effects of the proposed BPA were determined to be less than significant. Because no data has been submitted to support such a position, it is only speculative to conclude that the proposed BPA will result in an increase in fine sediment particles due to an increase in vehicle miles traveled that resulted from the "Regional Board's acquiescence in the Tahoe Regional Planning Agency's current efforts to expand development in the basin." Public Resources Code section 21159 states that the Regional Board is not required to engage in speculation or conjecture or to conduct a project-level environmental analysis.

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Response

LTSLT-5: See Responses LTSLT-4, with this addition: The TMDL addressed future growth but did not include an allocation for potential effects from global warming. The possible effects from climate change were discussed in the TMDL but there is no requirement to include an estimate of potential future loading from climate change in the source analysis nor in the load allocations. Though climate change may occur, the effects on pollutant loading to the lake are speculative and are proposed to be dealt with in the adaptive management portion of the TMDL.

LTSLT-6: The Water Board has not ignored future growth potential in the load allocations. Rather, future growth potential is addressed by the load reduction requirements directly addressing the urban source category. Because urban loads must be reduced from the 2004 baseline by each municipal jurisdiction to meet a net load reduction requirement, any effects of future growth must be fully addressed, and will result in jurisdictions to increase its overall pollutant load reduction. Each municipal jurisdiction is responsible for reducing the loads within its jurisdictions and that includes accounting for the effects from existing and future development, therefore a separate allocation for new development or future growth is not needed.

Text from the Lake Tahoe TMDL Report has been added to the TMDL portion of the BPA, in the Future Growth Potential section, to further explain the evaluation of future growth. The future growth potential analysis was based on Halsing (2006), which evaluated the maximum growth potential in the absence of meeting TMDL load allocation requirements. Halsing (2006) evaluated the future growth based on a projection of the worst-case coverage scenario under the current regulations and not under the proposed load reduction requirements.

own modeling effort demonstrates the opposite. According to the agencies' modeling effort, new development's percentage of fine sediment loading and the Lake's water quality problems is comparable in significance to stream bank erosion. The TMDL estimates that, circa 2004, stream bank erosion contributed 3% of the fine sediment loading to the Lake. TMDL Report, p. 10-4 (Table 10-1). The same modeling effort predicts that future development will result "in estimated fine particle sediment load up to about two percent greater than the total load modeled for 2004 conditions." TMDL Report, p. 14-6. *See also* Integrated Strategies Report, pp. 55-56 ("Fine sediment particle loads are estimated to increase by just over 2 percent at full build out [of future development]"); Basin Plan Amendment, p. 8. Two percent of the total 2004 fine sediment load amounts to a contribution of 9.6×10^{18} fine sediment particles discharged to the Lake every year from future development or roughly 4900 tons of fine sediment per year.[2] The RWQCB and NDEP must include this significant contribution of fine sediment in the overall loading estimate and allocations.

The agencies attempt to justify not including future development in the loading estimate or allocations by asserting that it is a small percentage of the total and that the loading estimate for future development is conservative. As for the claim that two percent additional loading over and above the 2004 baseline loading is not significant is belied by the TMDL's inclusion of streambed erosion as a source that needs to be controlled. Even by the agencies' own rationale, there is no significant difference between a 3 percent contribution of fine sediment and other pollutants and a greater than 2 percent contribution.

The agencies compare the 2 percent loading increase from future development to the 32 percent reduction in fine sediment necessary to meet the Clarity Challenge. TMDL Report, p. 4-7. The report then asserts that "[g]iven the uncertainty involved in the land-use change and watershed models, an increase up to two percent of the total fine sediment particle load is considered within the range of uncertainty in the modeling analysis and, therefore, is not considered a significant increase." *Id*. This kind of de minimus discharge reasoning is entirely inconsistent with the 1 percent and 2 percent loading reductions the TMDL assigns to forest uplands and stream channel erosion, respectively. TMDL Report, p. 9-2 (Table 9-1). If the Regional Board and NDEP choose to ignore the possible 2 percent increase in fine sediment loadings that are projected to result from new development, the loading reductions called for streambed erosion and forest uplands would be negated.

The agencies' excuse to ignore future development based on the alleged conservativeness of its modeling is inappropriate because it entirely undermines and erases the margin of safety for this category of discharges. A TMDL must include a margin of safety. 33 U.S.C. § 1313(d).

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[2] According to the TMDL Report, Regional Board and NDEP staff converted 550 metric tons of silt and clay from shoreline erosion to equal a total load of 1.08×10^{18} particles per year. Applying the same ratio to two percent of the total annual fine sediment particle loading to the Lake, *i.e.* 9.6×10^{18} particles per year (two percent of 4.8×10^{20} particles/year), amounts to a proportionate estimate of 4889.9 tons of fine sediment per year.

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LTSLT-7: The Lake Tahoe TMDL does not propose to regulate loads from each new development project. Instead, the TMDL proposes overall load reduction requirements from a 2004 baseline for each urban jurisdiction to meet. It will be the requirement of each jurisdiction to demonstrate how activities within its jurisdiction, such as new development projects, are resulting in increased reductions from that 2004 baseline and are part of the jurisdictions' overall load reduction plan. The future growth analysis determined that the worst-case scenario would increase loads by up to two percent in the absence of load reduction requirements. Each new development or redevelopment project has the potential to affect stormwater runoff so each jurisdiction must manage the development projects within its jurisdiction to ensure that those projects do not negatively impact the jurisdiction's ability to meet overall net load reduction requirements.

To ensure that future growth does not increase pollutant loads, the City of South Lake Tahoe, El Dorado County, and Placer County must reduce fine sediment particle, total nitrogen, and total phosphorus loads as described in Tables 5.18-2, 5.18-3, and 5.18-4 from the established baseline condition. Load reductions will be analyzed on a catchment basis. Catchments are sub-watershed areas where a municipality anticipates reducing loads or where any land disturbing management actions, such as new development or re-development, has the potential to increase localized pollutant loading. In addition to meeting the annual load reductions set forth in Tables 5.18-2, 5.18-3, and 5.18-4 on a jurisdiction-wide basis, each municipality must annually demonstrate on a catchment-wide basis that no increased loading in fine sediment particle, total nitrogen, and total phosphorus will result from any land disturbing activity permitted in the catchment. Efforts to eliminate the increased loads from these land disturbing activities will not be counted towards the annual load reduction requirements. Therefore, even though new development may result in increased impervious surfaces and potentially increased loading, there cannot be an increase in loading from the catchment in which the new development will occur. This may mean that the unicipality requires of that new development infiltration or treatment of stormwater and/or that stormwater is treated or infiltrated from other areas within the catchment so that there is an overall reduction in loads from the catchment.

The load estimates from future growth were compared to load reduction requirements to provide a relative sense of the magnitude of the estimate and does not conclude that development projects can be ignored. As explained above in this response and in Response LTSLT-6, the proposed BPA did not ignore future growth.

Nothing in that requirement suggests that an agency can erase or overlook a margin of safety in order not to address a category of pollution sources. The agencies' claim they have applied an implicit margin of safety in preparing the TMDL. TMDL Report, p. 14-1. The TMDL Report cites to three "independent approaches" to including an implied margin of safety, though the report goes on only to discuss the first two. The three approaches were, stated generally, a comprehensive science program, conservative assumptions, and adaptive management program. Only the science program and several assumptions are discussed.[3] In regard to future development, the applicable margin of safety largely depends upon the use of conservative assumptions, no historic "comprehensive science" being available for future projects. By using any conservative assumptions as a rationale for ignoring future development in the allocations, the Regional Board and NDEP are erasing the margin of safety for this category of pollutant loadings.

In addition, the agencies' alleged conservativeness of the projection of future development also is not supported by substantial evidence. The assumptions underestimate parcel sizes that may be developed in the Basin. They underestimate the potential level and scale of development that will be allowed by TRPA in the future as reflected in the current Regional Planning process, with potential for greater capacity for residents and visitors, designation of new urban areas, higher and denser structures, more development based upon the new NRCS land capability maps, and transfers of soft coverage into impervious hard coverage.[4] And the assumptions do not appear to factor in increased vehicle traffic that will contribute additional fines from roadways servicing the new development.

The Regional Board and NDEP rely upon estimates of coverage associated with future new development which assume without any basis that all developable parcels are on average only 0.25 acres in size. Projects currently pending before TRPA indicate that this acreage estimate is potentially drastically underestimated. For example, the proposed expansion of the Homewood Ski Resort involves parcels ranging in size from 5.67 acres to 270.11 acres, with an average size of 62.66 acres. The Homewood project by itself proposes new hard coverage of 12.6 or more acres of currently uncovered land. If a single pending proposal eats up 3 percent of the 373 acres of new coverage projected by the agencies for the next 65 years, the TMDL's future development projection plainly underestimates what is likely to occur over that time period. The 0.25 estimate also is inconsistent with other agency reports. For example, the average size of the approximately 5600 parcels bordering the shores of Lake Tahoe is 0.7 acres. http://www.nltra.org/docs/

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[3] Section 303(d) of the CWA mandates the inclusion of a margin of safety. The League does not believe a future adaptive management program can ever qualify or contribute to the inclusion of a margin of safety in an adopted TMDL. Such adaptive management is plainly part of an implementation plan which is not part of the TMDL itself. To allow for agencies to replace Congress' directive to include margins of safety in TMDLs with future, unknown management adaptions would effectively nullify the margin of safety requirement.

[4] TRPA Land Use sub element, TRPA fact sheet 3 Follow up, 2006 Land Capability maps.

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Nothing in that requirement suggests that an agency can erase or overlook a margin of safety in order not to address a category of pollution sources. The agencies' claim they have applied an implicit margin of safety in preparing the TMDL. TMDL Report, p. 14-1. The TMDL Report cites to three "independent approaches" to including an implied margin of safety, though the report goes on only to discuss the first two. The three approaches were, stated generally, a comprehensive science program, conservative assumptions, and adaptive management program. Only the science program and several assumptions are discussed.[3] In regard to future development, the applicable margin of safety largely depends upon the use of conservative assumptions, no historic "comprehensive science" being available for future projects. By using any conservative assumptions as a rationale for ignoring future development in the allocations, the Regional Board and NDEP are erasing the margin of safety for this category of pollutant loadings.

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The Regional Board and NDEP rely upon estimates of coverage associated with future new development which assume without any basis that all developable parcels are on average only 0.25 acres in size. Projects currently pending before TRPA indicate that this acreage estimate is potentially drastically underestimated. For example, the proposed expansion of the Homewood Ski Resort involves parcels ranging in size from 5.67 acres to 270.11 acres, with an average size of 62.66 acres. The Homewood project by itself proposes new hard coverage of 12.6 or more acres of currently uncovered land. If a single pending proposal eats up 3 percent of the 373 acres of new coverage projected by the agencies for the next 65 years, the TMDL's future development projection plainly underestimates what is likely to occur over that time period. The 0.25 estimate also is inconsistent with other agency reports. For example, the average size of the approximately 5600 parcels bordering the shores of Lake Tahoe is 0.7 acres. http://www.nltra.org/docs/

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[3] Section 303(d) of the CWA mandates the inclusion of a margin of safety. The League does not believe a future adaptive management program can ever qualify or contribute to the inclusion of a margin of safety in an adopted TMDL. Such adaptive management is plainly part of an implementation plan which is not part of the TMDL itself. To allow for agencies to replace Congress' directive to include margins of safety in TMDLs with future, unknown management adaptions would effectively nullify the margin of safety requirement.

[4] TRPA Land Use sub element, TRPA fact sheet 3 Follow up, 2006 Land Capability maps.

LTSLT-8: Same as Responses LTSLT-6 and LTSLT-7 with this addition: The proposed BPA did not use the Margin of Safety (MOS) to account for or ignore potential effects from future growth.

LTSLT-9: The future growth analysis relied on the work completed by Halsing (2006), which was conducted using land-use layers and basin-wide parcel information as inputs to a geographic information system (GIS) analysis. The GIS analysis used actual parcel boundaries and did not rely on assuming an average parcel size across the basin.

LTSLT-10: Same as Responses LTSLT-4 and LTSLT-16

LTSLT-11: Same as Response LTSLT-9.

LTSLT-12: Same as Response LTSLT-8, with this addition: 40 CFR 130.7 requires that a TMDL include a MOS which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. The MOS is documented in Chapter 14 of the Lake Tahoe TMDL Report and in the proposed TMDL portion of the BPA. The MOS was established to address the uncertainty in the scientific studies that were used to develop the load estimates, load capacity, linkage analysis, and load allocations. The MOS does not address speculative events in the future that may or may not happen, even if a scientific study concludes that the future event could occur. The adaptive management is the portion of the implementation plan that sets forth a process to address future events. The adaptive management process is completely different and separate from the MOS.

Invasive%20Species.pdf (at p. A-15). Of course, development of these lakeside parcels bears extra consideration when evaluating fine sediment loading to the Lake.

The agencies also assume without any basis that the Bailey's map is a static document. The Boards' estimate of future development fails to take into account changes to the Bailey's map based on land capability challenges ("LCCs") that are certain to occur because of the lack of precision in the Bailey's map. Under TRPA's Code of Ordinances, a landowner has the right to challenge the accuracy of the Bailey's Map through a Land Capability. TRPA Code §§ 22.2.D. Invariably, such challenges result in increased coverage allowances. For example, a land capability challenge completed last year for several Homewood Ski Resort parcels increased the acres of coverage allowed by the Bailey's map significantly after the challenge. *See* TRPA Staff Memorandum (July 2, 2009). The agencies' future development assumptions fail to acknowledge the certain increase in coverage land capability challenges will allow over the existing Bailey's map.

The 2006 NRCS soil capability maps, referenced in the TMDL, significantly alter the 1974 Bailey soil and capability report. Two maps make that clear – the Percent of Allowable Land Coverage by Bailey 1974 map, NRCS 2006, compared to Percent of Allowable Coverage by First Named Component 2006. The "First Named Component" designation effectively removes the second component, that of percent of slope. Steeper slopes have more restrictive land coverage rules, reducing land coverage controls and allow additional erosion. The TMDL has determined that fine sediments are the new pollutant that impacts the deep-lake clarity and that phosphorus is a key element that must be reduced to control primary productivity, while the new NRCS Conservation maps would permit greater development on steeper slopes, thus permitting more erosion, and allowing more phosphorus to enter the system and the lake. The coverage study and assumptions for the TMDL thus underestimate the total coverage increase expected due to the NRCS new maps.

The agencies' two percent loading estimate also is arbitrary because it is based on a presumption that existing development rules will be in place for the 65-year life of the TMDL. That presumption is demonstrably false because it fails to account for the scale of development as proposed in TRPA's new draft Regional Plan. The three different alternatives (other than the "no action") currently under review by TRPA each would dramatically increase the density of development along the shores of Lake Tahoe. Any "conservative" projection of future development must at a minimum consider the likely scenario that TRPA will adopt one of the Regional Plan alternatives currently before it that will allow more development than the current regulations.

The pending proposals allowing increased development density along the Lake's shores also underscore the fact that such future development not only will impact the Lake's water quality by increasing coverage but will also adversely affect water quality by attracting more and more vehicles to the shores of Lake Tahoe. The Regional Board's and NDEP's failure to include in this estimate additional pollutants from additional VMTs from this new development is not

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Response

LTSLT-13: The Lake Tahoe TMDL did not claim that Bailey's 1974 Map is a static document. The future growth analysis used the land capability maps that were in effect as of the 2004 baseline evaluation and did not speculate as to how those land capability maps may or may not change in the future. The Lake Tahoe Watershed Model used the 2006 updated soil survey maps from the NRCS as input to the loading analysis, so the most recent information on soil characteristics was used in developing the baseline load estimation for the forest and urban sources. The Bailey Map provided a gross estimate of the capability of the various soil types to accept certain amounts of impervious coverage. The Bailey maps were not used to establish an absolute maximum total coverage for the entire basin; the Bailey maps were used as a guide for parcel-level evaluation during the GIS analysis. The TRPA Code of Ordinances, section 20.2.D (not 22.2.D), provides a process for challenging the gross mapping accuracy shown in the Bailey map to the individual parcel. A successful land capability challenge determines the actual soil type on the parcel and assigns a maximum allowable coverage but does not create additional coverage beyond what was provided for under the Bailey Land Capability system; the parcel level mapping is a refinement of the accuracy of Bailey's map. The Bailey maps were made at a large, basin-wide scale that is not comparable to a parcel level analysis of actual soil type present on the parcel, so when land capability is scientifically determined through a site-specific challenge, it is expected that the overall Bailey maps would change to reflect the refinement in mapping. See also Responses LTSLT-4, LTSLT-6, and LTSLT-7.

LTSLT-14: The estimated two percent loading increase from future growth was not arbitrary since it was based on actual parcel data and land-use information and the analysis was not based on a speculation of how TRPA may or may not change its land-use ordinances in the future. The load reduction requirements that are proposed for each municipal jurisdiction compel that jurisdiction to manage the net loads from its jurisdiction. It is speculative to conclude that future development projects will definitively increase vehicles to the shore of Lake Tahoe that will cause a corresponding increase in additional pollutants discharged to Lake Tahoe. See also Responses LTSLT-4, LTSLT-6, LTSLT-7, and LTSLT-16.

conservative. Instead, the agencies are ignoring potential future pollution that likely will cancel out significant portions of the TMDL's projected pollution reductions.

Although in general the Board and EPA may not have to establish WLAs and LAs for all sources at the adoption of the TMDL, they at least have to reserve allocations for those sources as part of their TMDL. If no allocation is established or, at least, reserved, then no discharges from new development may be authorized pursuant to the existing NPDES permits issued to the counties, municipalities and CalTrans. 33 U.S.C. § 1313(d)(4); 40 C.F.R. § 122.44(d)(1)(vii) (NPDES permits must implement and be consistent with TMDL allocations). The TMDL and proposed Basin Plan's language concluding that future growth potential will result in loadings that need not be addressed in the TMDL through proposed allocations or a reservation of future allocations is inconsistent with law and not supported by the weight of the evidence.

2. <u>The waste load allocations for Caltrans and the municipalities are inadequate because they fail to account for increases in vehicle miles travelled (VMT)</u>.

The TMDL's oversight of increased vehicle miles travelled is not limited to new development but extends to any increases in vehicle miles travelled projected for the Tahoe Basin. Increase in VMTs in the Basin over time will be a significant source of fine sediments through the grinding up of traction materials, road dust emissions, and conveyance of any fine particles through the air or water to any tributaries or other conduits to the Lake.

Numerous peer reviewed reports document the significant loadings of fine sediments attributable to vehicle traffic. According to Zhu and Kuhns et al. (2009), "Atmospheric deposition of fugitive dust from roadways has increased fine sediment loadings into Lake Tahoe, which has reduced water clarity." They also state, "principle factors influencing road dust emissions in the basin are season, vehicle speed (or road type), road condition, road grade, and proximity to other high emitting roads." Roadways with the most vehicular traffic are of significant contribution: "An analysis of the total emissions from the road sections surveyed indicated that urban areas (in particular South Lake Tahoe) with high traffic volume contain the largest emitting roads in the basin."

TRPA is in the midst of updating the Regional Plan. TRPA's proposed preferred alternative Regional Plan amendment (Alternative 2) is to substantially increase the resident population in the Tahoe basin, increase the capacity for visitors, facilitate the construction of denser high-rise structures in areas that are currently urban (South Stateline) and areas that are not currently urban (Tahoma, Homewood, Meyers, etc.), more parking structures, and greater potential of soft coverage transfer into hard coverage across hydrologic zones. Given this proposed scenario by TRPA – the agency that the Regional Board is counting on "to incentivize TMDL implementation" – the Regional Board and NDEP have overlooked the future potential increases in traffic volume and traffic on all of the basin's roadways along with the associated fine sediment production and transport to the Lake. TMDL Report, p. 11-2. The TRPA's proposed Regional Plan has the strong potential to result in substantial increases in traffic volumes in and out of the

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LTSLT-15: Same as Response LTSLT-6, with this addition: 40 CRF 122.44(d)(1)(vii) does not state that NPDES permits must implement TMDL allocations. Rather, 40 CRF 122.44 (d)(1)(vii) states that the NPDES permits are consistent with the assumptions and requirements of any available wasteload allocation. See also response LTSLT-7.

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LTSLT-16: According to Zhu and Kuhns et al. (2009), vehicle miles traveled was not listed as a principle factor influencing generation of road dust emissions into the atmosphere. Since the principle factors were vehicle speed, road condition, road grade, proximity to other high emitting roads, and season, a projected change in the number of vehicle miles traveled was not directly linked with a projected increase in fine sediment load generated. However, urban areas contain the largest amount of pollutant-generating roads in the basin, primarily due to the high density and road size. Zhu and Kuhns et al. (2009) suggest using high efficiency sweepers and performing consistent road maintenance as the primary focus for load reduction actions within the urban uplands. The entity managing the road condition and road characteristics is the appropriate entity responsible for directly addressing the principle factors influencing the fugitive dust emission into the atmosphere. Also see Response LTSLT-4.

TRPA is in the midst of updating the Regional Plan. TRPA's proposed preferred alternative Regional Plan amendment (Alternative 2) is to substantially increase the resident population in the Tahoe basin, increase the capacity for visitors, facilitate the construction of denser high-rise structures in areas that are currently urban (South Stateline) and areas that are not currently urban (Tahoma, Homewood, Meyers, etc.), more parking structures, and greater potential of soft coverage transfer into hard coverage across hydrologic zones. Given this proposed scenario by TRPA – the agency that the Regional Board is counting on "to incentivize TMDL implementation" – the Regional Board and NDEP have overlooked the future potential increases in traffic volume and traffic on all of the basin's roadways along with the associated fine sediment production and transport to the Lake. TMDL Report, p. 11-2. The TRPA's proposed Regional Plan has the strong potential to result in substantial increases in traffic volumes in and out of the

LTSLT-17: See Responses LTSLT-4, LTSLT-6, LTSLT-7, LTSLT-14, and LTSLT-16, with this addition: It is speculative to conclude that TRPA's proposed preferred alternative, which has not been adopted, will increase the fine sediment particle load to the lake. The comment fails to acknowledge that the TRPA Compact requires the TRPA to achieve Thresholds and to not permit activities which would adversely affect achieving Thresholds. If the proposed BPA is adopted it would set a benchmark by which the TRPA Regional Plan would be evaluated. The commenter should hold TRPA accountable to its Compact rather than request the Water Board to change its proposed BPA to account for potential TRPA actions that are inconsistent with Compact requirements.

basin on its various high speed highways, which are primarily steep. Steeper roadways have much greater emission factors of particulate matter than flatter roadways. Furthermore, as the wintertime visitor capacity will be increased, the potential for greater emission factors and fine sediment production during this season will be especially of concern, as "road dust emissions increased by a factor of 5 in the winter, on average, and about a factor of 10 when traction control material was applied to the roads after snow events." ." Increases of vehicles and congestion during the winter season will be especially impactful, by around an order of magnitude or more. Additionally, traffic jams and other forms of congestion will slow vehicles to less than the posted speed limits, especially during weekends, holidays, and storm events. Slower speeds will increase emission factors exponentially.

The TMDL may have also overlooked the current and future contributions of on and off road vehicles through fleet mix of conventional light duty spark ignition vehicles vs. heavy duty vehicles. Abu-Allaban et al. (2003) found that PM_{10} and $PM_{2.5}$ emission rates due to road dust, tailpipe, and break wear were approximately an order of magnitude greater for heavy duty vehicles, to the extent that road dust emission rates from a conventional vehicle were potentially equivalent to the brake wear emission from a heavy duty vehicle. Thus, even the cumulative impacts due solely to heavy duty vehicles are significant, even with respect to brake wear, especially in congested or urban zones.

The narrative and study on the "Impacts of Vehicle Activity on Airborne Particle Deposition to Lake Tahoe", Kuhns et al. (2010), references other factors that affect deposition potential of fine sediments to the Lake, such as proximity to the Lake itself, winds, and landscape features. Roadways that are upwind and are in close proximity to the Lake will have greater deposition potential. Therefore, any roadway in any class (primary, secondary, tertiary, or non-paved road) must be evaluated by a variety of variables (seasonality, vehicle type, speed, local BMP, proximity to the lake, and wind direction) that may result in orders of magnitude difference in emission factors.

The increase in the construction and utilization of dirt roads in the Tahoe basin for fuel reduction activities (especially on USFS lands) will also be a significant contributor to production and re-suspension of road dust. According to Kuhns et al. (2007), a reference to a dust emission study from military wheeled vehicles operating on unpaved roads, concluded that "measurements of emissions from a range of vehicles showed road dust emission factors increase with both vehicle weight and speed." The study also adds that during the summer or fall "perturbations of steady state emissions are most frequent due to track out of material by vehicle from unpaved roads or construction sites." Thus, travel of heavy vehicles on dirt roads around the basin will be significant contributors of road dust. Contributions of road construction repair and housing or building construction are also of significance with emission factors of 30 noted in this study (3.8 g/vgt on Sugarpine Road in Incline Village during construction phase vs. .12 g/vkt after construction was complete). *See* Thomas Holson peer review, p. 4 ("Loadings from fugitive dust from vehicular traffic on both paved and unpaved roads may be important. Although this source is

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Response

LTSLT-18: The Lake Tahoe TMDL analysis of the atmospheric deposition included brake wear as a mobile source, which included all vehicle types (heavy duty and light duty). The atmospheric source estimate relied largely on CARB (2006) which defined road dust as a combination of traction control material, brake and tire wear, vegetative debris, deposited exhaust, and track out soil from unpaved roads.

LTSLT-19: Factors such as proximity to lake, winds, and transportable fraction were addressed as part of the analysis to determine the effect of potential pollutant reduction opportunities from the atmospheric deposition source, as detailed in Chapter 2 of the Pollutant Reduction Opportunity Report. Information from the Pollutant Reduction Opportunity Report was used to develop the load allocation schedule.

discussed in other sections there is limited or no discussion of this source in the atmospheric deposition section").

By not including these loadings in the TMDL and the allocations, the Regional Board and NDEP cannot know whether the TMDL can ever be achieved.

3. <u>The load allocation for upland forests is inadequate because it fails to account for increases in fuel reduction activities, which intensify the use, building, or re-commissioning of forest roads</u>.

It is common knowledge that the rate of fuel reduction projects in the Tahoe Basin has drastically increased in the last three years, largely in reaction to the Angora Fire. *See* http://www.sierrasun.com/article/20100816/NEWS/100819911 ("The reduction of forest fuels in the Lake Tahoe Basin has reached unprecedented levels since 2007's Angora fire." The TMDL Report's discussion of forest management pollution relies on the Lake Tahoe TMDL Pollution Reduction Opportunity Report v. 2, dated March 2008 ("Pollution Reduction Report"). TMDL Report, p. 9-4 ("The Forest Upland load reduction analysis determined that maintenance activities (including fuel reduction projects) in the forest uplands have the potential to reduce or avoid increases in fine sediment and nutrient loads (Lahontan and NDEP 2008a)." The TMDL Report overstates the conclusion of the Pollution Reduction Report and does not address that Report's failure to consider new road construction associated with aggressive fuel reduction activities currently underway and planned for the Basin.

The Pollution Reduction Report notes that "[t]hinning and fuels reduction treatments are planned for forests throughout the Tahoe Basin over the next ~20 years, focused primarily within the wildland- urban interface during the next ~5 years." Pollution Reduction Report, p. 183. The Pollution Reduction Report also notes that "[u]nfortunately, there is still very limited directly measured data available on the effects of different fuels reduction treatments on runoff, sediment and nutrient yield, particularly in the Tahoe Basin." *Id*. at 197. *See also id*., p. 183 ("[t]hinning and fuels reduction treatments can range widely in cost, intensity, and potential impacts on soil erosion"); *id*. at p. 184 ("From a sediment or nutrient-loading analysis standpoint, forest management is wrought with uncertainty"). Nevertheless, the Pollution Reduction Report concludes that "given the types of low-impact treatments being employed and planned in Tahoe Basin fuels management efforts (primarily hand treatment and CTLsystems) and regulatory limitations on mechanical treatment on steep slopes and SEZs, fuels treatments are unlikely to increase sediment and nutrient loading at the subwatershed scale (the scale of this analysis)." Pollution Reduction Report, p. 184.

Although the Pollution Reduction Report evaluates the various fuel management techniques employed in the Tahoe Basin, the Report does not consider or even mention associated road building or reactivation of roads throughout the Tahoe Basin. The Report does emphasize, however, the large pollution reductions one might expect from the decommissioning of legacy roads in conjunction with fuel management activities. Pollution Reduction Report, p. 183. Although the construction of new roads coupled with removal of old roads and habitat restoration

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Response

LTSLT-20: CARB (2006) concluded that fugitive dust from roads and temporary construction activities is the significant portion of the atmospheric deposition of fine sediment particles to the lake and this finding was included in the source analysis. Even though road dust was attributed to the atmospheric source, the most appropriate and reasonable method for addressing that source is through management of the road surfaces and construction sites (i.e. load reduction actions on the watershed). See also Response LTSLT-16.

LTSLT-21: The TMDL source analysis identified all major sources of pollutant loads as of 2004 and the load allocation strategy was based largely on a combination of the source loads and the opportunities available to reduce pollutant loads. Controlling future loads from roadway management and urban management of development proposals is required by the revised BPA language. On a catchment level, no increases in loading will be allowed annually and load reduction requirements from 2004 baselines must be met.

LTSLT-22: The Pollutant Reduction Opportunity Report (PROv2), which was completed in March 2008, evaluated quantifiable load reduction opportunities in each of four source categories. For the forest upland source, the PROv2 evaluated potential and anticipated load reduction projects on currently unpaved roads, including road and trail decommissioning, erosion control projects, vegetation management, and BMP retrofit projects. The PROv2 did not evaluate potential activities that may increase loads in the future, such as new road construction and road reactivation for fuel hazard reduction projects. Text has been added to the TMDL Implementation Plan section of the proposed Basin Plan amendment that requires entities conducting forest fuel reduction activities to include appropriate best management practices and appropriate monitoring to ensure fuels reduction actions do not increase fine sediment particle and nutrient loads. Entities conducting these projects must comply with any applicable state or federal permits regulating stormwater discharges from roads created for silvicultural activities.

may logically claim some form of net benefit to sediment loadings in a particular fuel management area, the new roads will nevertheless introduce new pollution sources in the Tahoe Basin. These planned pollution sources need to be factored into the Forested Uplands' pollution sources if the TMDL and its allocations are to be reasonably accurate.

Although the absence in the "Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy 10 Year Plan" of any discussion of new roads that will accompany fuel management projects is remarkable, it appears that new roads will be part of numerous fuel management projects proposed for the Basin. For example, the Forest Service's plan in response to the Angora Fire itself includes no less than 9.5 miles of new roads and 10.4 miles of new trails. http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5180837.pdf. The new roads and trails are offset in part by the project's inclusion of "Decommissioning/restoring 1.9 miles of road and 16.7 miles of trail. *Id*. Depending on whether any decommissioning rather than restoration occurs, there would appear to be a net increase in road surface for the Angora Fire area. The League does not believe the Angora Fire Restoration Project is unique in its handling of new road construction. Our research indicates that the Pollution Reduction Report and now the TMDL report continue a practice of the agencies deemphasizing the road construction necessary to implement the more aggressive fire treatment plans being proposed. Indeed, our research indicates no effort appears to have been made by the Regional Board, NDEP, or other affected agencies to consider the expected miles of new roads that likely may be built as a result of the "unprecedented levels" of fuel management now underway in the Region.

Given the 65-years that the agencies hope to have to actually implement the TMDL, these new fuel treatment roads will be legacy roads before the TMDL is fully implemented. Just because they are newly constructed does not mean they will not contribute significant pollution to the Lake. Even when management practices are applied similar to the Tier 2 measures defined by the Pollution Reduction Report, it appears that significant pollution still remains from even well-maintained unpaved roads. For example, a report prepared for roads within the Glenbrook Creek watershed on the Nevada side of the Lake, concluded that for the segments of the existing roads where BMPs could be implemented, the "best solution," although reducing the loadings significantly from a scenario including no BMPs, still left 11.5 tons of sediment being discharged over a twenty year planning period. http://etd.lib.umt.edu/theses/available/etd-09012009-091937/unrestricted/Efta_James_Thesis_final.pdf, p. 65. And this was in a watershed that, according to the study's author, already had "outstanding BMP infrastructure." *Id*. at 72.

Recent EPA comments also confirm that fuel management activities are not the panacea for water quality anticipated by the TMDL Report, emphasizing the uncertainty of fuel management activities' impacts to water quality. http://yosemite.epa.gov/oeca/webeis.nsf/(PDFView)/20090101/$file/20090101.PDF?OpenElement. At a minimum, the one known source of pollution associated with fuel management in the Tahoe Basin – new unpaved roads and trails – must be taken into account in any valid TMDL for the Lake's transparency standard. By not including

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may logically claim some form of net benefit to sediment loadings in a particular fuel management area, the new roads will nevertheless introduce new pollution sources in the Tahoe Basin. These planned pollution sources need to be factored into the Forested Uplands' pollution sources if the TMDL and its allocations are to be reasonably accurate.

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Response

LTSLT-23: See Response LTSLT-22, with this addition: Potential load increases from planned future fuel reduction activities, which may include new administrative roads, is addressed through a combination of the load allocations and implementation plan requirements. Text has been added to the proposed BPA in TMDL Implementation Plan section that requires forest management agencies who propose to conduct potentially load increasing activities, such as building new roads, to demonstrate that other projects within the same catchment or subwatershed will be implemented to compensate for any anticipated project-scale loading increase. These agencies must ensure that no increased loading occurs on a sub-watershed or catchment scale and that the basin-wide pollutant loads are reduced in accordance with the load allocation requirements.

In early 2010, the US EPA contracted with Tetra Tech to estimate the basin-wide loading of planned fuelbreak timber harvesting and forest road construction using the Lake Tahoe Watershed Model. The work involves performing a detailed Geographic Information System (GIS) analysis to locate/place planned new forest roads and fuelbreak buffers around the urban areas using all available GIS data layers. A new fuel reduction layer will be integrated with the existing land-use layer used for the TMDL analysis. Site scale model results from different treatments will be interpreted to define potential ranges of response from different management categories. A basin-wide extrapolation of those site-scale responses will be input into the Lake Tahoe Watershed Model to estimate overall change to Lake Tahoe hydrology, pollutant loading, and quantify the potential change in basin-wide fine sediment particle and nutrient loading relative to the TMDL source analysis baseline load. These work products are expected in early 2011 and will help inform the Water Board staff about how the planned fuel reduction projects may affect the source loading and how those planned fuel reduction projects may be redesigned and implemented so that overall load reductions in accordance with the TMDL requirements continue to be achieved from the forest source.

LTSLT-24: It is speculative to conclude that planned new fuel treatment roads will become "legacy" roads in the future since there is no information to support that conclusion. As explained in Response LTSLT-23, the forest management agency responsible for the new fuel treatment road must demonstrate and ensure that the affected sub-watershed or catchment does show an increased net load as a result of the new road. Text was added in the proposed BPA TMDL Implementation Plan and Monitoring Plan sections to reflect that requirement.

these loadings in the allocations, the agencies cannot show that reductions of upland forest pollutant loadings will be sufficient to achieve the TMDL.

4. <u>Global warming needs to be factored into the TMDL now as part of the load calculation and perhaps more importantly as part of the margin of safety</u>.

The TMDL "does not assign pollutant load or waste load allocations to address potential effects of climate change." TMDL Report, p. 12-6. Nor is global warming factored into the TMDL's proposed margin of safety. Instead, the Regional Board and NDEP propose to address the uncertainty posed by global warming solely through the adaptive management process described in the accompanying implementation plan: "Since the impacts of climate change on pollutant loading are uncertain and cannot be conclusively determined at this time, the climate change effects will be addressed through the continual improvement and active adaptive management processes of the Management System." TMDL Report, p. 12-6. Indeed, the discussion of climate change is included in the TMDL Report's section on adaptive management.

The uncertainty posed by global warming must be included in the TMDL itself, either through an allocation or the margin of safety. "For pollutants other than heat, TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." 40 CFR § 130.7(c)(1). There is no authority for the Regional Board and NDEP to replace the margin of safety requirement with an adaptive management requirement.

In addition, by replacing a margin of safety that squarely addresses the uncertainties of global warming's effect on Lake Tahoe's pollution loadings, the proposal undermines EPA's review of the TMDL by attempting to address that uncertainty solely through the state implementation plans, which generally are not reviewed by EPA. According to the TMDL, adjustments based on global warming impacts would be carried out solely through the implementation plan. TMDL Report, p. 12-6 ("Potential measures for adapting to significant climate change effects may include adjustments in the Lake Clarity Crediting Program or adjustments to the implementation strategy to emphasize or de-emphasize different approaches to water quality improvement projects"). The agencies' attempt to move the federal margin of safety requirement into the implementation process is contrary to Section 303(d), 33 U.S.C. § 1313(d).

Coats and Reuter et al. (2010) suggest:

1. A continuing shift from snowfall to rain, toward earlier snowmelt and runoff during the water year, for both scenarios;
2. Dramatic increases in flood magnitude in the middle third of the century, especially in the B1 scenario;

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these loadings in the allocations, the agencies cannot show that reductions of upland forest pollutant loadings will be sufficient to achieve the TMDL.

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Response

LTSLT-25: Text was added to the proposed BPA TMDL Adaptive Management section to further address global climate change and how that may affect the implementation of future stormwater practices. To achieve net load allocations, project implementers may have to adjust some practices or project designs to account for the potential effects from global climate change.

The Clean Water Act does not require that a TMDL account for the potential effects of global climate change in either the load allocations or MOS. Furthermore, the MOS in the TMDL has not been replaced by the Adaptive Management section, since these two issues are addressed separately. Chapter 12 in the Lake Tahoe TMDL Report describes the adaptive management process. Chapter 14 in the Lake Tahoe TMDL Report describes the MOS.

The use of conservative assumptions in the MOS accounts for the knowledge and data gaps in the science supporting the TMDL analysis. The MOS was addressed implicitly by using conservative assumptions. Determining the MOS implicitly is an acceptable method in TMDLs. The Lake Tahoe TMDL relied on more than 150 conservative assumptions throughout the analyses of 1) pollutant sources, 2) linkage of pollutant sources to impacts to transparency depth, 3) pollutant reduction opportunities, and 4) development of the proposed load allocation schedule. Please see Appendix C for a list of the assumptions, which were compiled directly from the Lake Tahoe TMDL Technical Report, Pollutant Reduction Opportunity Report, Integrated Water Quality Management Strategy Report, and the Lake Tahoe TMDL Report. The list does not include assumptions that were documented in a) each of the scientific studies used in support of the TMDL development, and b) appendices for the Pollutant Reduction Opportunity Report and the Integrated Water Quality Management Strategy Report. The proposed load allocations did not negate the MOS, since an MOS, through conservative assumptions, was applied in developing the proposed load allocations.

Unlike MOS, which is a factor that goes into the development of the wasteload and load allocations, adaptive management is a critical step in the implementation of the TMDL. Without adaptive management, the TMDL implementation plan would be static and could not be modified to react to dynamics in the environment, such as global warming, and the potential effects caused by people and new technology.

3. That by the middle of 21st Century (after about 2050) Lake Tahoe could cease to mix to the bottom. This will in turn result in complete oxygen depletion in the deep waters and increase in sediment release of nitrogen and phosphorus;
4. That annual loading of soluble reactive phosphorus under sustained conditions of lake stratification (no deep mixing) and anoxic sediments could be twice the current load from all other sources. Loading of ammonium under these conditions could increase the amount of biological available nitrogen that enters the lake by 25%. Tahoe's nutrient budgets could have a dramatic and long-lasting impact on the food web and tropic status of Lake Tahoe, and;
5. That the annual Secchi depth in the later portion of the 21st Century could be in the range of 15-20 m as compared measured values of 21-22 m since 2000.

The agencies' effort to defer adjusting the TMDL to address global warming does not mean that the process has not gathered information and analyzed the issue. Indeed, the analysis to date indicates that global warming likely will exacerbate the long-standing violations of the deep water transparency standard by increasing erosion, stunt mixing in the Lake, and accompanying adverse impacts to water quality. TMDL Report, pp. 12-7 – 12-9. By not including a margin of safety in the allocations being adopted now, the agencies risk seriously underestimating the additional pollution loadings that will result from global warming, rendering the proposed allocations insufficient to meet the standard.

B. THE REGIONAL BOARD'S PROPOSED 65-YEAR COMPLIANCE SCHEDULE IS INCONSISTENT WITH LAW BECAUSE IT IS NOT AUTHORIZED BY THE CWA AND MUST BE REVIEWED BY EPA AS A CHANGE TO THE STATE'S WATER QUALITY STANDARDS UNDER 33 U.S.C. § 1313(c).

The League is very concerned with the Regional Board's and NDEP's proposed schedule for dischargers to achieve their allocations and come into compliance with the transparency standard. The standard has been violated for at least forty years already. The agencies now propose to extend that violation for another 65 years, breaking the century mark for the duration of the violation. Rather than enforce compliance, the Regional Board and NDEP are instead proposing to institutionalize the violation for well beyond the lifetime of any of the decision makers.

"Based on the best professional judgment of Water Board and NDEP staff, reducing fine sediment, nitrogen, and phosphorus loads to meet the deep water transparency standard will take approximately 65 years." TMDL Report, p. 10-1. As far as the League can tell from its review of the TMDL Report and the Integrated Water Quality Management Strategy Progress Report, v.1.0 (March 2008) and its participation in various stakeholder meetings, the proposed 65-year timeline appears to be based on the staffs' projection of BMP efforts and available funding at the tail end of the first 15-year period. Staff estimates that about $1.5 billion dollars will likely be available during the initial 15-year period and that sum will buy sufficient planning and project implementations to achieve the Clarity Challenge within 20-years. The Clarity Challenge

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5. That the annual Secchi depth in the later portion of the 21st Century could be in the range of 15-20 m as compared measured values of 21-22 m since 2000.

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"Based on the best professional judgment of Water Board and NDEP staff, reducing fine sediment, nitrogen, and phosphorus loads to meet the deep water transparency standard will take approximately 65 years." TMDL Report, p. 10-1. As far as the League can tell from its review of the TMDL Report and the Integrated Water Quality Management Strategy Progress Report, v.1.0 (March 2008) and its participation in various stakeholder meetings, the proposed 65-year timeline appears to be based on the staffs' projection of BMP efforts and available funding at the tail end of the first 15-year period. Staff estimates that about $1.5 billion dollars will likely be available during the initial 15-year period and that sum will buy sufficient planning and project implementations to achieve the Clarity Challenge within 20-years. The Clarity Challenge

Response

LTSLT-26: Though Coats and Reuter (2010) suggested that certain in-lake effects could happen from global climate change, those potential effects are speculative and were not considered in the TMDL.

LTSLT-27: Same as Response LTSLT-25, with this addition: Because potential effects from climate change may influence the actions needed to achieve pollutant load reductions, global climate change is addressed in the adaptive management of the implementation phase and not in the source analysis portion. The load allocations will not be rendered insufficient to meet the transparency standard if climate change increases loadings because the load allocations are percent reductions from the 2004 baseline. Potential future load increases will require that those load increases be reduced, along with meeting the load reductions specified in the allocation tables, for the load reduction milestones to be achieved and, ultimately, for the numeric target to be attained. The Water Board may need to consider future adjustments to the TMDL implementation plan or the deep water transparency standard if changes in lake hydrodynamics require additional load reductions to achieve standards.

LTSLT-28: Nothing in the Clean Water Act prohibits a 65-year implementation plan. There is nothing in the Clean Water Act that states how quickly a TMDL must be implemented, and in fact, it is not uncommon for TMDLs to set out staged implementation. USEPA has approved several TMDLs in California with staged implementation plans that cover more than 10 years, for example:

1. Big Bear Lake Nutrient TMDL, approved by USEPA September 2007, final attainment of numeric target is 2020.
2. Lake Elsinore Nutrient TMDL, approved by EPA September 2005, final attainment of numeric target is 2020.
3. Middle Santa Ana River Bacterial Indicator TMDLs, approved by USEPA May 2007, dry season attainment of numeric target by 2015; wet season attainment of numeric target by 2025.
4. Garcia River Watershed Sediment TMDL, approved by USEPA March 2002, final attainment of numeric target is within 40 years.
5. San Francisco Bay Mercury TMDL, approved by USEPA February 2008, final attainment of numeric target is within 20 years.
6. Scott River Sediment and Temperature TMDL, approved by USEPA September 2006, final attainment of numeric target is within 40 years.

(response LTSLT-28 continued on next page)

3. That by the middle of 21st Century (after about 2050) Lake Tahoe could cease to mix to the bottom. This will in turn result in complete oxygen depletion in the deep waters and increase in sediment release of nitrogen and phosphorus;
4. That annual loading of soluble reactive phosphorus under sustained conditions of lake stratification (no deep mixing) and anoxic sediments could be twice the current load from all other sources. Loading of ammonium under these conditions could increase the amount of biological available nitrogen that enters the lake by 25%. Tahoe's nutrient budgets could have a dramatic and long-lasting impact on the food web and tropic status of Lake Tahoe, and;
5. That the annual Secchi depth in the later portion of the 21st Century could be in the range of 15-20 m as compared measured values of 21-22 m since 2000.

The agencies' effort to defer adjusting the TMDL to address global warming does not mean that the process has not gathered information and analyzed the issue. Indeed, the analysis to date indicates that global warming likely will exacerbate the long-standing violations of the deep water transparency standard by increasing erosion, stunt mixing in the Lake, and accompanying adverse impacts to water quality. TMDL Report, pp. 12-7 – 12-9. By not including a margin of safety in the allocations being adopted now, the agencies risk seriously underestimating the additional pollution loadings that will result from global warming, rendering the proposed allocations insufficient to meet the standard.

B. THE REGIONAL BOARD'S PROPOSED 65-YEAR COMPLIANCE SCHEDULE IS INCONSISTENT WITH LAW BECAUSE IT IS NOT AUTHORIZED BY THE CWA AND MUST BE REVIEWED BY EPA AS A CHANGE TO THE STATE'S WATER QUALITY STANDARDS UNDER 33 U.S.C. § 1313(c).

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"Based on the best professional judgment of Water Board and NDEP staff, reducing fine sediment, nitrogen, and phosphorus loads to meet the deep water transparency standard will take approximately 65 years." TMDL Report, p. 10-1. As far as the League can tell from its review of the TMDL Report and the Integrated Water Quality Management Strategy Progress Report, v.1.0 (March 2008) and its participation in various stakeholder meetings, the proposed 65-year timeline appears to be based on the staffs' projection of BMP efforts and available funding at the tail end of the first 15-year period. Staff estimates that about $1.5 billion dollars will likely be available during the initial 15-year period and that sum will buy sufficient planning and project implementations to achieve the Clarity Challenge within 20-years. The Clarity Challenge

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"Based on the best professional judgment of Water Board and NDEP staff, reducing fine sediment, nitrogen, and phosphorus loads to meet the deep water transparency standard will take approximately 65 years." TMDL Report, p. 10-1. As far as the League can tell from its review of the TMDL Report and the Integrated Water Quality Management Strategy Progress Report, v.1.0 (March 2008) and its participation in various stakeholder meetings, the proposed 65-year timeline appears to be based on the staffs' projection of BMP efforts and available funding at the tail end of the first 15-year period. Staff estimates that about $1.5 billion dollars will likely be available during the initial 15-year period and that sum will buy sufficient planning and project implementations to achieve the Clarity Challenge within 20-years. The Clarity Challenge

Response

LTSLT-28 (continued from previous page): In the "Final Water Quality Guidance for the Great Lakes System," it was noted that "Some TMDLs may be based on attaining water quality standards over a period of time, with specific controls on individual sources being implemented in stages." (Final Water Quality Guidance for Great Lakes System, Appendix F, p. 123; see also, USEPA Memorandum "Clarification Regarding 'Phased' Total Maximum Daily Loads," Aug. 2, 2006 (describing TMDLs with "staged implementation").) This is particularly true in situations where TMDL compliance requires heavy capital investment. In such instances, "TMDLs must reflect reasonable assurances that water quality standards will be attained in a reasonable period of time." (Id.) As to what is reasonable amount of time in which to meet water quality standards, the USEPA stated:

> *[It] is a case-specific determination considering a number of factors including, but not limited to: receiving water characteristics; persistence, behavior and ubiquity of pollutants of concern; type of remediation activities necessary; available regulatory and non-regulatory controls; and individual State or Tribal requirements for attainment of water quality standards. (Id.)*

Here, the Water Board staff has consulted with USEPA staff on the issue of what would be a reasonable time to achieve the clarity objective. USEPA staff agrees with Water Board that it will likely take several decades at a minimum to achieve the load reductions needed to attain Lake Tahoe's deep water transparency standard. The League's argument that because this water quality standard has already been in place for 40 years, no more time should be given for the entities to meet it ignores reality and the extraordinary amounts of resources that will have to be put toward meeting the reductions in loads of fine sediment particles, nitrogen and phosphorus. Additionally, the League ignores the fact that efforts over the past 40 years have not focused on reduction of fine sediment discharges determined through TMDL research to be the greatest cause of reduction in deep water transparency. *(response LTSLT-28 continued on next page)*

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B. THE REGIONAL BOARD'S PROPOSED 65-YEAR COMPLIANCE SCHEDULE IS INCONSISTENT WITH LAW BECAUSE IT IS NOT AUTHORIZED BY THE CWA AND MUST BE REVIEWED BY EPA AS A CHANGE TO THE STATE'S WATER QUALITY STANDARDS UNDER 33 U.S.C. § 1313(c).

The League is very concerned with the Regional Board's and NDEP's proposed schedule for dischargers to achieve their allocations and come into compliance with the transparency standard. The standard has been violated for at least forty years already. The agencies now propose to extend that violation for another 65 years, breaking the century mark for the duration of the violation. Rather than enforce compliance, the Regional Board and NDEP are instead proposing to institutionalize the violation for well beyond the lifetime of any of the decision makers.

"Based on the best professional judgment of Water Board and NDEP staff, reducing fine sediment, nitrogen, and phosphorus loads to meet the deep water transparency standard will take approximately 65 years." TMDL Report, p. 10-1. As far as the League can tell from its review of the TMDL Report and the Integrated Water Quality Management Strategy Progress Report, v.1.0 (March 2008) and its participation in various stakeholder meetings, the proposed 65-year timeline appears to be based on the staffs' projection of BMP efforts and available funding at the tail end of the first 15-year period. Staff estimates that about $1.5 billion dollars will likely be available during the initial 15-year period and that sum will buy sufficient planning and project implementations to achieve the Clarity Challenge within 20-years. The Clarity Challenge

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3. That by the middle of 21st Century (after about 2050) Lake Tahoe could cease to mix to the bottom. This will in turn result in complete oxygen depletion in the deep waters and increase in sediment release of nitrogen and phosphorus;
4. That annual loading of soluble reactive phosphorus under sustained conditions of lake stratification (no deep mixing) and anoxic sediments could be twice the current load from all other sources. Loading of ammonium under these conditions could increase the amount of biological available nitrogen that enters the lake by 25%. Tahoe's nutrient budgets could have a dramatic and long-lasting impact on the food web and tropic status of Lake Tahoe, and;
5. That the annual Secchi depth in the later portion of the 21st Century could be in the range of 15-20 m as compared measured values of 21-22 m since 2000.

The agencies' effort to defer adjusting the TMDL to address global warming does not mean that the process has not gathered information and analyzed the issue. Indeed, the analysis to date indicates that global warming likely will exacerbate the long-standing violations of the deep water transparency standard by increasing erosion, stunt mixing in the Lake, and accompanying adverse impacts to water quality. TMDL Report, pp. 12-7 – 12-9. By not including a margin of safety in the allocations being adopted now, the agencies risk seriously underestimating the additional pollution loadings that will result from global warming, rendering the proposed allocations insufficient to meet the standard.

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"Based on the best professional judgment of Water Board and NDEP staff, reducing fine sediment, nitrogen, and phosphorus loads to meet the deep water transparency standard will take approximately 65 years." TMDL Report, p. 10-1. As far as the League can tell from its review of the TMDL Report and the Integrated Water Quality Management Strategy Progress Report, v.1.0 (March 2008) and its participation in various stakeholder meetings, the proposed 65-year timeline appears to be based on the staffs' projection of BMP efforts and available funding at the tail end of the first 15-year period. Staff estimates that about $1.5 billion dollars will likely be available during the initial 15-year period and that sum will buy sufficient planning and project implementations to achieve the Clarity Challenge within 20-years. The Clarity Challenge

Response

LTSLT-28 *(continued from previous page)*: The League's argument that because the Clean Water Act only allows compliance schedules for new or revised standards, and does not allow them for "already existing water quality standards" also doesn't conform with reality nor with the objective of Clean Water Act section 303(d). It is the goal to have all water bodies meeting all water quality standards, and millions of dollars in time and effort are spent toward that each year. The reality, however, is that there are thousands of water bodies not meeting water quality standards and that it takes time to meet those objectives. TMDLs by their very nature take time to implement; if the fixes were easy, most would have been done long ago. Instead, they often involve major investment and substantial change, which makes it necessary to provide regulated entities time to meet their allocations. Sometimes this can take the form of a compliance schedule in the permit. Other times, it may be more appropriate to stage the implementation of the TMDL, as has been done, and approved by USEPA, in a number of circumstances, as was already discussed previously.

The more likely reason for the lack of reference within 303(d) or 40 CFR §130.7 of "compliance schedule" or "implementation plan" is that neither the federal statute nor regulations sets out requirements for how TMDLs should be implemented. In California, Water Code section 13242 requires an implementation plan for each basin plan amendment. In addition, the State Water Resources Control Board sets out its "Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits," which also states that compliance schedules may be included in TMDLs, notwithstanding the fact that the water quality standards that are trying to be achieved are neither new, revised or newly interpreted. (SWRCB Resolution No. 2008-0025.) The staged implementation of the Lake Tahoe TMDL is consistent with both Water Code section 13242 and the State Water Board Policy, and all permits issued by the Regional Water Board will be consistent with the assumptions and requirements of the TMDL, and will assure the eventual attainment of the deep water transparency standard.

LTSLT-29: Available funding and projection of BMPs were critical components of determining the estimated 65-year timeline for transparency standard attainment, but these were not the only components considered. Text has been added to the proposed Basin Plan amendment on Page 15 of the TMDL to further explain how the 65-year timeline was developed.

represents the dischargers' achievement of about 50 percent of the final fine sediment TMDL and the transparency standard. TMDL Report, p. 10-4. As for the TMDL and the deep water transparency standard, the remaining 45-years is based simply on staff's conception that a linear progression from the tail end of the initial 15 year period funding levels justifies an additional 45 years for compliance.

Whether or not staff's patience with dischargers' slow progress amounts to best professional judgment is beside the point because the proposed schedule is illegal for several reasons. The 65-year schedule of compliance to achieve an existing water quality standard is without authority under the Clean Water Act; amounts to a change to the transparency standard that must be reviewed by EPA pursuant to Section 303(c) of the CWA, 33 U.S.C. § 1313(c), and; violates the federal and state antidegradation policies as they apply to Outstanding National Resource Waters.

The League believes that most of the existing NPDES dischargers (Caltrans, the counties and South Lake Tahoe)[5] – whose permits already have governed the vast majority of fine sediment discharges for the past 15 years – have not fully complied with their NPDES permits and should have been implementing much more aggressive BMPs over the last several decades. Those dischargers must now accelerate BMP implementation faster than the proposed TMDL schedule anticipates. Although the Regional Board should consider costs, it has no authority to defer compliance with its now forty-year old Basin Plan standards. Rather than embody a 65-year schedule into the Basin Plan, which grants in advance 65 year schedules of compliance for each NPDES permit holder and other dischargers, the Regional Board and NDEP should project a much quicker timeline to achieve the TMDL. Whether or not any particular discharge should receive that schedule to comply or any schedule at all should be left to the individual permit decisions or accompanying enforcement orders.

1. The Regional Board has no authority under the CWA to establish a schedule of compliance deferring achievement of water quality standards for 65 years.

Neither the Regional Board nor NDEP can authorize a schedule of compliance for dischargers to achieve the now three decades old deep water transparency standard. However, the TMDL and proposed Basin Plan amendment include a 65-year schedule of compliance to achieve the deep water transparency standard. TMDL Report, p. 10-1; Basin Plan Amendment, p. 11. The proposed waste load allocations are also keyed into achieving the TMDL and transparency standard in 65 years. TMDL Report p. 10-2. The deep water transparency standard was adopted by the Regional Board and State Water Resources Control Board in 1975 and approved by EPA. By adopting the TMDL as part of the Basin Plan including a 65-year schedule of compliance, the

[5] The Ninth Circuit Court of Appeals also recently clarified that all logging roads also are industrial discharges subject to the NPDES permitting program. *Northwest Environmental Defense Center v. Brown*, __ F.3d __, 2010 U.S. App. LEXIS 17129 (9th Cir., Aug. 17, 2010).

Comment

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Response

LTSLT-30: Same as Response LTSLT-29.

LTSLT-31: The 65-year timeframe is the proposed staged implementation plan to achieve the numeric target of the TMDL and is not a compliance schedule pursuant to section 303(c) of the federal Clean Water Act. The proposed Basin Plan amendment did not include changes to the transparency standard. See Response LTSLT-28.

LTSLT-32: The current NPDES permits require stormwater to meet turbidity standards but do not require reduction of fine sediment particles < 16 µm in diameter. The NPDES permits are expected to be updated to be consistent with the assumptions and requirements of the waste load allocations of the TMDL, so the proposed BPA load allocation milestones are warranted. The new requirements will include load reduction performance milestones. Achieving the required load reductions does not necessarily mandate more aggressive BMP implementation. Instead, a BMP retrofit program is a component that a municipal jurisdiction may choose as part of its load reduction strategy. The PROv2 and the Integrated Water Management Strategy Report contain detailed analyses on how the recommended strategy was used to develop the load allocation milestones. The information available concludes that a plan to achieve the load reductions for year 15 and year 20 is aggressive, but reasonable. There is no information to develop an implementation plan that achieves the load reductions on a timeframe faster than achieving the clarity challenge at year 20.

LTSLT-33: See Response LTSLT-28.

Regional Board is adopting a schedule of compliance to delay achievement of that now decades old water quality standard.[6]

Nothing in the Clean Water Act authorizes states to adopt schedules of compliance to achieve already existing water quality standards. Section 303(e)(3)(F), 33 U.S.C. § 1313(e)(3)(F), contemplates authority for states to authorize schedules of compliance for new or revised water quality standards. Similarly, states also may include in their water quality standards schedules of compliance for effluent limitations that are implementing new or revised water quality standards. 303(e)(3)(A), 33 U.S.C. § 1313(e)(3)(A). *See* 40 C.F.R. § 122.2 ("Schedule of compliance means a schedule of remedial measures included in a 'permit'"). Nor are any schedules of compliance referenced in Section 303(d), 33 U.S.C. § 1313(d), and its TMDL requirements or its implementing regulations. *See* 40 C.F.R. §§ 130.7, 130.2. Because the deep water transparency standard is anything but new, nothing in the Clean Water Act authorizes the schedule of compliance proposed in the TMDL.

Indeed, Section 303(d)(4) plainly requires that all effluent limitations must be based on and consistent with the TMDL, not an interim goal associated with a time schedule or a "Clarity Challenge" amounting to half the TMDL. See 33 USC § 1313(d)(4). That provision also makes clear that effluent limitations issued pursuant to a TMDL "must assure the attainment of" the water quality standard at issue. *Id*. Hence, any effort by the Regional Board or NDEP to implement the 65-year compliance schedule in any of the existing NPDES permits (Caltrans, South Lake Tahoe and California counties) or legally required NPDES permits (all logging roads) by allowing allocations that only meet interim reductions would be plainly illegal for failing to "assure the attainment of [the] water quality standard." *See also* 40 CFR § 122.44(d)(1)(vii) (effluent limits must be "consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7[,]" not an interim or partial allocation).

For these reasons, the agencies should delete the proposed 65-year compliance schedule and prepare a TMDL and implementation plan that leaves any scheduling questions to the respective permitting decisions and enforcement orders.

2. <u>The implementation plan and Basin Plan amendment's proposed 65-year schedule amounts to a change to the underlying water quality standards that</u>

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[6] The State Board's Resolution No. 2008-0025, "Policy For Compliance Schedules in National Pollutant Discharge Elimination System Permits" confirms that TMDL schedules are schedules of compliance implemented in relevant NPDES permits. Resolution No. 2008-0025, ¶ 6(c) (April 15, 2008) ("A Water Board may establish a compliance schedule that exceeds ten years in a permit that . . . (2) has a permit limitation that implements or is consistent with the waste load allocations specified in a TMDL that is established through a Basin Plan amendment, provided that the TMDL implementation plan contains a compliance schedule or implementation schedule").

Comment

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Response

LTSLT-34: The TMDL does not change the Lake Tahoe deep water transparency standard. When the Tahoe TMDL is submitted to EPA for review and approval, EPA will determine whether it will exercise its authority under section 303(c) or 303(d) of the Clean Water Act. It is, however, the Regional Water Board's position that the 65 year staged implementation of the TMDL does not result in a change to the existing Lake Tahoe deep water transparency standard.

Nothing in either the Clean Water Act nor the case law interpreting it and its implementing regulations supports the notion that where a TMDL includes a staged implementation plan that the Regional Board has de facto changed water quality standards. To the extent that the Miccosukee case cited by the League is even binding, as it is an unpublished decision out of the Florida federal district court, the facts in that case are distinguishable from the present situation. It also appears that this case was appealed to the Eleventh Circuit, which concluded that the EPA did not act arbitrarily by determining that a state water quality standard can incorporate a reasonable compliance schedule for meeting the standard. Miccosukee Tribe of Indians of Florida v. United States, 2008 WL 2967654 (S.D. Fla.), f.n. 18 (citing to Friends of the Everglades, Case No. 01-16482, at 3 (11th Cir. July 19, 2002) [Case No. 00-935,DE 83].) In the 1998 case cited by the League in their comments on the TMDL, enforcement of the water quality standard for phosphorus was "effectively suspended" until 2006. Unlike the Lake Tahoe TMDL, which requires continuing load reductions from all of the primary pollutant sources, in the Miccosukee case cited by the League, the amendments by the Florida legislature to the Everglades Forever Act resulted in farmers not only exceeding water quality objectives for the next twelve years, but also not having to implement any additional water quality measures during that period to make progress towards meeting those objectives. (1998 WL 1805539 (S.D. Fla) at *15.). *(Response LTSLT-34 continued on next page)*

must be submitted to, reviewed, and approved or disapproved by EPA under Section 303(c) of the CWA.

It is not clear from the proposed Basin Plan amendment whether the 65-year schedule of compliance will be submitted to EPA for review and approval under either Section 303(d) or 303(c) of the CWA, 33 U.S.C. § 1313(d), 1313(c). Because the schedule is not part of the TMDL or its component waste load allocations, it does not appear that EPA is authorized to review the schedule pursuant to Section 303(d), 33 U.S.C. § 1313(d). However, the schedule of compliance must be reviewed by EPA pursuant to Section 303(c) § 1313(c). *See* 40 C.F.R. § 131.13 ("States may, at their discretion, include in their State standards, policies generally affecting their application and implementation, such as mixing zones, low flows and variances. Such policies are subject to EPA review and approval"); 40 C.F.R. § 131.20(c) (EPA review under 303(c) includes "any general policies applicable to water quality standards").

Where a state proposes to extend compliance with an applicable standard, allowing dischargers to continue to violate the standard into the future, the compliance schedule is a change in the water quality standard that must be reviewed by EPA. *See Miccosukee Tribe of Indians v. United States*, 1998 U.S. Dist. LEXIS 15838 (S.D. Fla. Sept. 11, 1998). In *Miccosukee*, the Court addressed a state implementation plan addressing ongoing phosphorous pollution in the Florida Everglades. Florida's plan included a 12-year schedule of compliance to achieve the phosphorous standard. "By not requiring farmers to implement additional water quality measures until 2006, the EFA allows those discharges of phosphorous that violate Florida's narrative standard for nutrients to continue until 2006. This is not a compliance schedule; it is a de facto suspension of; and therefore a change in, water quality standards." *Id*. at 15838*45. The *Miccosukee* case is indistinguishable from the implementation plan proposed for Lake Tahoe's deep water transparency standard. Indeed, the Regional Board's and NDEP's proposal takes the concept of a schedule of compliance to an entirely new level, suspending the deep water standard for 65-years. As a result, the proposed 65-year schedule for achieving the deep water transparency standard cannot go into effect until it is reviewed by EPA pursuant to Section 303(c), 33 U.S.C. § 1313(c).

3. The agencies' proposal to continue violations of the deep water transparency standard for the next 65 years is in violation of the federal antidegradation policy.

Neither the proposed TMDL nor the Regional Board's proposed Basin Plan amendment provides any analysis of the proposed action's compliance with the federal and state antidegradation requirements. This is especially troublesome given the proposed TMDL's and amendments' blatant violation of the federal antidegradation policy's protections for Outstanding National Resource Waters.

As the agencies are well aware, California and EPA designated Lake Tahoe's California waters as Outstanding National Resource Waters in 1980. By prolonging degradation in Lake Tahoe's transparency that has occurred since the early 1970s, the proposed TMDL and the

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Response

LTSLT-34 *(continued from previous page)*: Unlike the Tahoe TMDL, which involves a staged implementation process, and each five year milestone load reduction period will result in improved water quality, in the Miccosukee case, there was no continuing progress, but rather a suspension of the application of the water quality standard for twelve years. (Id. at *16.) In addition, the court concluded that because Florida state law did not authorize compliance schedules for achieving water quality standards, it would change state water quality standards to not require immediate compliance with water quality criteria. (Id.) If, therefore, this case had taken place in California, it would likely not have been considered a change in water quality standards because California has a compliance schedule policy that has been approved by the U.S. EPA. This case, is, therefore, distinguishable from the Lake Tahoe TMDL situation because California does have a compliance policy schedule and in the context of the TMDL there will not be a suspension of water quality standards, but rather a movement toward meeting those standards over a period set out in the TMDL.

LTSLT-35: The TMDL does not violate the Federal Antidegradation Policy. Antidegradation requirements are not implicated by the adoption of this (or most) TMDLs. In the context of TMDLs, the antidegradation policy will generally only apply when revising a load allocation (LA), waste load allocation (WLA), or total maximum daily load (TMDL) to reflect new information or to provide for seasonal variation, which results in a lowering of water quality. (EPA Handbook, § 4.8.1.). The federal and state antidegradation policies are triggered by reduction in water quality. (Memorandum from Bill Attwater, Chief Counsel, State Water Resources Control Board to Regional Boards, re: Federal Antidegradation Policy (1987) p. 3, p. 17.) For Outstanding National Resource Waters, EPA interprets this to mean no new or increased discharges to the ONRW and no new or increased discharge to tributaries to ONRWs that would result in lower water quality in the ONRW. (EPA Handbook 4.7.) The adoption and implementation of the TMDL will not result in any increased discharges, and will in fact result in substantial reductions in the loading of the sources of pollutants causing loss of clarity, particularly fine particle sediment, nitrogen, and phosphorous. Because no reduction in water quality will occur from the adoption and implementation of the TMDL, and because no new or increased discharges will occur to Lake Tahoe or its tributaries, antidegradation requirements are not triggered. *(Response LTSLT-35 continued on next page)*

Regional Board's accompanying Basin Plan amendment violate the federal antidegradation policy. The antidegradation policy provides, that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 C.F.R. § 131.12(a)(1). The policy establishes strict protections for waters designated as outstanding National resources: "Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected." 40 C.F.R. § 131.12(a)(3). The antidegradation policy made its first appearance in the Clean Water Act when EPA adopted the policy as part of EPA's first Water Quality Standards Regulation on November 28, 1975. 40 F.R. 55340-41; EPA Water Quality Handbook, Chapter 4, Section 4.1. Degradation prohibited or otherwise regulated by the policy is based on water quality that existed as of November 28, 1975. *See, e.g.* Memorandum from Bill Attwater, Chief Counsel, State Water Resources Control Board, to Regional Boards, re: Federal Antidegradation Policy, p. 5 (Oct. 7, 1987) ("Attwater Memo").

As EPA's Water Quality Handbook ("EPA Handbook") emphasizes, "Outstanding National Resource Waters (ONRWs) are provided the highest level of protection under the antidegradation policy." EPA Handbook, § 4.7 (http://water.epa.gov/scitech/swguidance /waterquality/standards/handbook/chapter04.cfm#content). Any lowering of water quality as it existed in 1975 is prohibited by the regulation. 40 C.F.R. § 131.12(a)(3). "EPA interprets this provision to mean no new or increased discharges to ONRWs and no new or increased discharge to tributaries to ONRWs that would result in lower water quality in the ONRWs." EPA Handbook, § 4.7. The one exception to this prohibition recognized by EPA "permits States to allow some limited activities that result in temporary and short-term changes in the water quality of ONRW." *Id*. "Such activities must not permanently degrade water quality or result in water quality lower than that necessary to protect the existing uses in the ONRW." *Id*. "EPA's view of temporary is weeks and months. not years." *Id*. "The intent of EPA's provision clearly is to limit water quality degradation to the shortest possible time." *Id*. *See also* Water Quality Control Plan for Lahontan Region, p. 5.1-13 ("No permanent or long- term reduction in water quality is allowable in areas given special protection as Outstanding National Resource Waters (48 Fed. Reg. 51402).").

By allowing for standards to be violated for another 65 years, the Regional Board and NDEP propose to memorialize increases in discharges above and beyond the discharges and water quality that was present in the Lake in 1975. That result directly conflicts with the antidegradation policy's prohibition on expanding any discharges beyond those present in 1975. The agencies already have failed to prevent degradation of the Lake for the last 30 years. All told, the current TMDL proposal would institutionalize and prolong the Lake's illegal degradation for a total of almost 100 years. That is not a temporary or short-term change in the Lake's 1975 water quality and does not correlate at all to the "shortest possible time" for the agencies to limit impairing fine sediment and nutrient discharges. The TMDL instead should require immediate compliance with the TMDL and consider any compliance schedules for individual dischargers during the permit reissuance proceedings or through appropriate enforcement orders.

Comment

Regional Board's accompanying Basin Plan amendment violate the federal antidegradation policy. The antidegradation policy provides, that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 C.F.R. § 131.12(a)(1). The policy establishes strict protections for waters designated as outstanding National resources: "Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected." 40 C.F.R. § 131.12(a)(3). The antidegradation policy made its first appearance in the Clean Water Act when EPA adopted the policy as part of EPA's first Water Quality Standards Regulation on November 28, 1975. 40 F.R. 55340-41; EPA Water Quality Handbook, Chapter 4, Section 4.1. Degradation prohibited or otherwise regulated by the policy is based on water quality that existed as of November 28, 1975. *See, e.g.* Memorandum from Bill Attwater, Chief Counsel, State Water Resources Control Board, to Regional Boards, re: Federal Antidegradation Policy, p. 5 (Oct. 7, 1987) ("Attwater Memo").

As EPA's Water Quality Handbook ("EPA Handbook") emphasizes, "Outstanding National Resource Waters (ONRWs) are provided the highest level of protection under the antidegradation policy." EPA Handbook, § 4.7 (http://water.epa.gov/scitech/swguidance /waterquality/standards/handbook/chapter04.cfm#content). Any lowering of water quality as it existed in 1975 is prohibited by the regulation. 40 C.F.R. § 131.12(a)(3). "EPA interprets this provision to mean no new or increased discharges to ONRWs and no new or increased discharge to tributaries to ONRWs that would result in lower water quality in the ONRWs." EPA Handbook, § 4.7. The one exception to this prohibition recognized by EPA "permits States to allow some limited activities that result in temporary and short-term changes in the water quality of ONRW." *Id.* "Such activities must not permanently degrade water quality or result in water quality lower than that necessary to protect the existing uses in the ONRW." *Id.* "EPA's view of temporary is weeks and months. not years." *Id.* "The intent of EPA's provision clearly is to limit water quality degradation to the shortest possible time." *Id. See also* Water Quality Control Plan for Lahontan Region, p. 5.1-13 ("No permanent or long- term reduction in water quality is allowable in areas given special protection as Outstanding National Resource Waters (48 Fed. Reg. 51402).").

By allowing for standards to be violated for another 65 years, the Regional Board and NDEP propose to memorialize increases in discharges above and beyond the discharges and water quality that was present in the Lake in 1975. That result directly conflicts with the antidegradation policy's prohibition on expanding any discharges beyond those present in 1975. The agencies already have failed to prevent degradation of the Lake for the last 30 years. All told, the current TMDL proposal would institutionalize and prolong the Lake's illegal degradation for a total of almost 100 years. That is not a temporary or short-term change in the Lake's 1975 water quality and does not correlate at all to the "shortest possible time" for the agencies to limit impairing fine sediment and nutrient discharges. The TMDL instead should require immediate compliance with the TMDL and consider any compliance schedules for individual dischargers during the permit reissuance proceedings or through appropriate enforcement orders.

Response

LTSLT-35 ***(continued from previous page):*** The League attempts to argue that the 65 year staged implementation of the TMDL results in a change in a lowering of water quality standards, thus triggering antidegradation requirements. As explained previously, the lake's deep water transparency standard is not changing, and in fact, the deep water transparency will be improving over the course of the implementation period, in conformance with the load reductions for each source category, as set forth in TMDL tables 5.18-2, 5.18-3, and 5.18-4. Over the course of the 65 year staged implementation period, significant reductions in loads of fine sediment, nitrogen and phosphorus will be required from the four primary sources, culminating in reaching the water quality objective for Lake Tahoe's deep water transparency. Although it will take 65 years to reach the deep water transparency standard, the water quality will be steadily improving over this time. Given the significant capital investments that will be required by the municipalities to meet the load reductions, this time period was the shortest practicable amount of time possible.

C. THE REGIONAL BOARD'S PROPOSAL THAT NPDES PERMIT DISCHARGERS BE ALLOWED TO MEET ONLY INTERIM TARGETS FOR UP TO 65 YEARS RATHER THAN THE FINAL TMDL AND STANDARDS IS INCONSISTENT WITH THE CWA.

The implementation plan proposes that NPDES permits be issued applying interim allocations assigned for the first 15 years of the proposed 65 year compliance schedule in the TMDL. TMDL Report, p. 16-3 ("The implementation plan allocates pollutant loads to the four source categories for the first 15 years"); Basin Plan Amendment, p. 7 (Tables 15-18-2 through -4). The interim allocations are to be included in NPDES permits for the municipalities and CalTrans, at least in California. Basin Plan Amendment, p. 9. However, all but the last NPDES permits issued in presumably in the Year 2071 will include waste load allocations consistent with the final TMDL and waste load allocations. The presumably 11 rounds of NPDES permits issued for each point source discharger will not implement the TMDL or its final waste load allocation, instead only requiring pollution reductions consistent with a small percentage of each discharger's allocation. Each of those 11 rounds of NPDES permits will fail to meet the requirements of Section 303(d)(4) and EPA's permitting regulation.

As noted above, Section 303(d)(4) requires that all effluent limitations must be based on and consistent with the TMDL, not an interim goal associated with a time schedule or a "Clarity Challenge." *See* 33 U.S.C. § 1313(d)(4). "Once a TMDL is developed, effluent limitations in NPDES permits must be consistent with the [waste load allocations] in the TMDL." *City of Arcadia v. State Water Resources Control Bd*. (2006) 135 Cal.App.4th 1392, 1404. Section 303(d)(4) also makes clear that effluent limitations issued pursuant to a TMDL "must assure the attainment of" the water quality standard at issue. *Id*. Hence, any effort by the Regional Board or NDEP to implement the 65-year compliance schedule in any of the existing NPDES permits (Caltrans, South Lake Tahoe and California counties) or legally required NPDES permits (all logging roads) by allowing allocations that only meet interim reductions is plainly illegal for failing to "assure the attainment of [the] water quality standard." *See also* 40 CFR § 122.44(d)(1)(vii) (effluent limits must be "consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 C.F.R. 130.7[,]" not an interim or partial allocation).

Any permits issued to South Lake Tahoe, the other municipal dischargers, CalTrans and logging roads (as well as any other point source discharges requiring an NPDES permit) in the Basin must establish effluent limitations consistent with the final waste load allocation and TMDL. The implementation plan should require all NPDES permittees, including logging roads, to immediately comply with the TMDL. To the extent some sources believe they may obtain a schedule of compliance, that request should be taken up during the initial permit proceedings following the issuance of the TMDL or addressed thorough the agencies' enforcement authorities.

Comment

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Response

LTSLT-36: NPDES permits will be consistent with the Lake Tahoe TMDL. The permits that will implement the requirements of the TMDL are not before the Regional Board for approval. Before those permits are approved by the Regional Water Board, they will go through a public review process, at which time the public may address issues regarding their consistency with the Clean Water Act. At this time, we cannot speculate what the terms of the permits will be. Although most municipal storm water permits do not contain effluent limits, but rather require implementation of best management practices to abate or control discharges of storm water to the maximum extent practicable, the NPDES storm water permits for the municipalities that discharge storm water to Lake Tahoe will require specific load reductions consistent with the terms of the Lake Tahoe TMDL. (40 CFR § 12.44(k); 33 U.S.C. § 402(p).) A compliance schedule to achieve the final load allocations may be included in the permit, consistent with the State Water Board "Policy for Compliance Schedules in NPDES Permits" (SWRCB Res. No. 2008-0025), which allows compliance schedules in the permit, as long as they do not exceed the maximum length for implementation schedules contained in the Lake Tahoe TMDL implementation plan.

D. THE REGIONAL BOARD'S PROPOSAL TO ESTABLISH TOTAL ANNUAL LOADS, WITHOUT ANY MECHANISM TO APPLY THOSE LOADS ON A DAILY BASIS, IS CONTRARY TO THE CWA.

The proposed action is not in fact a "Total Maximum Daily Load" but is instead a "Total Maximum Annual Load." Nor does the proposed TMDL attempt to translate or otherwise apply the annual average loading on a daily basis as, for example, a running annual average. As a result, the proposed annual maximum unload is not a TMDL and is inconsistent with the requirements of Section 303(d), 33 U.S.C. § 1313(d).

The D.C. Circuit Court of Appeals already has struck down a TMDL based solely on an annual average loading. In *Friends of the Earth v. EPA*, 446 F.3d 140 (D.C.Cir. 2006), the Court of Appeal considered the question of "whether the word 'daily,' as used in the Clean Water Act, is sufficiently pliant to mean a measure of time other than daily." 446 F.3d at 142. The Court rejected EPA's position that "Congress, in requiring the establishment of 'total maximum daily loads' to cap effluent discharges of 'suitable' pollutants into highly polluted waters, left room for EPA to establish seasonal or annual loads for those same pollutants." *Id*. As the Court bluntly concluded, "Daily means daily, nothing else." *Id*. "If Congress wanted seasonal or annual loads, it could easily have authorized them by calling for 'total maximum daily, seasonal, or annual loads.' Or by providing for the establishment of 'total maximum loads,' Congress could have left a gap for EPA to fill. Instead, Congress specified 'total maximum daily loads.' We cannot imagine a clearer expression of intent." *Id.* at 144. *Cf. Natural Resources Defense Council v. Muszynski*, 268 F.3d 91 (2nd Cir. 2001) (affirming use of total annual load but remanding to EPA for failure to explain how an annual load takes seasonal variation into account). The issue has not been addressed by the Ninth Circuit Court of Appeals.

A recent California Court of Appeal case addressed whether the Central Valley Regional Board's TMDL for salt/boron in the Lower San Joaquin River based on a "30-day running average" was a total maximum daily load. *San Joaquin River Exchange Contractors Water Authority v. State Water Resources Control Bd.* (2010) 183 Cal. App. 4th 1110, 1124. The decision is not clear which federal Court of Appeal ruling it applied, the salt/boron TMDL having effectively applied both. The TMDL set forth a monthly load though it applied it daily as a 30-day running average. *Id*. The Court of Appeal did agree with the Second Circuit that the TMDL was required to "clearly indicate . . . that this "Total Maximum Monthly Load" (TMML) was as effective as a TMDL (in achieving the Vernalis Salinity WQO). . . ." *Id*.

The League believes that the transparency standard TMDL can reflect the science supporting an annual average load as well as articulate that annual load on a meaningful daily basis by issuing the annual load as a rolling or running annual average so daily requirements kick in after the first year – not five or 15 years out. Where, at the end of the first year (and each subsequent year thereafter), a specific discharger exceeds the average annual load, every subsequent day of such exceedance would be in excess of that dischargers waste load allocation until the running average came down below the annual average. Such a daily component to the

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Response

LTSLT-37: Text has been added to the proposed Basin Plan amendment showing a daily load calculation for the three pollutants, based on total hydraulic input. A daily load calculation method for the atmospheric source is also included. Although USEPA requires the daily load calculations, 40 CFR 122.44(d)(1)(vii) does not explicitly require that the Water Board include the daily loads in stormwater NPDES permits; rather, the NPDES permits must be consistent with the assumptions and requirements of the waste load allocations.

LTSLT-38: According to USEPA guidance on options for expressing daily loads in TMDLs, USEPA states that for sediment, achievement of the water quality standards cannot always be judged on a daily basis so it may be more appropriate, and more informative from a management perspective, to identify long-term load allocations. As described in the added text that accompanies the daily load tables, an annual average load is more meaningful and more appropriate to manage than a daily load. The League's proposal to create a rolling annual average (adding each additional day) does nothing to improve the lake's deep water transparency, instead the rolling annual average proposal only magnifies possible enforcement penalties. Also, compliance as proposed by the Water Board in the TMDL is annual and does not "kick in…five or 15 years out."

average annual loading will be important when translating the TMDL into the individual dischargers' permits and attempting to establish enforceable effluent limitations.

E. THE REGIONAL BOARD'S PROPOSED LAKE CLARITY CREDITING PROGRAM MUST BE REFINED TO ASSURE IT REFLECTS ACTUAL POLLUTION REDUCTIONS AND COMPLIES WITH THE ANTIDEGRADATION POLICY.

A key part of the TMDL's proposed implementation plan is the Clarity Crediting Program. TMDL Report, p. 15-5. According to the Basin Plan Amendment, "[t]he Lake Clarity Crediting Program, which is intended to be incorporated into the NPDES permits, provides a system of tools and methods to allow urban jurisdictions to link projects, programs, and operations and maintenance activities to estimated pollutant load reductions." Basin Plan Amendment, p. 8. The amendment states that the Crediting Program provides "a consistent method to track compliance with stormwater regulatory measures. . . ." *Id*. *See* TMDL Report, pp. 11-1 – -2 (The Water Board and NDEP will each conduct the following tasks to ensure progressive implementation towards meeting the Clarity Challenge and the numeric target: • Administer and apply the Lake Clarity Crediting Program to each of its urban stormwater programs, NPDES permits in California and Memoranda of Implementation in Nevada"). Indeed, the Clarity Crediting Program is the proposed mechanism by which, at least in the near term, the NPDES dischargers including South Lake Tahoe, CalTrans and the California counties will formulate their pollution control plans and BMP commitments and the proposed mechanism by which the Regional Board will determine dischargers' pollution reductions and compliance with their waste load allocations. Thus, the Crediting Program encompasses at least two of the requisite components of the implementation plan required by Water Code § 13242: (a) A description of the nature of actions which are necessary to achieve the objectives, including recommendations for appropriate action by any entity, public or private" and "(c) A description of surveillance to be undertaken to determine compliance with objectives." In terms of implementation, the Crediting Program is without a doubt where the rubber hits the road. Unfortunately, as proposed, the League believes there are several serious flaws in the Crediting Program as discussed in the Lake Clarity Crediting Handbook (2009) and as referenced in the TMDL and Basin Plan amendment. These concerns should be addressed up front because the TMDL's implementation plan, including the proposed Clarity Crediting Program, must comply with Section 13242 now. Correcting the following flaws also may alter the Regional Board's estimate of the amount of staff time that may be necessary to implement the TMDL.

1. Load Reduction Estimates and Catchment Credit Schedules must be reviewed and approved by the Regional Board and included in the NPDES discharger's permits.

The TMDL's implementation plan should direct that the pollution reduction plans to be developed by the dischargers for specific catchments must be reviewed and approved by the Regional Board and not just the agency's staff. As proposed, the review and approval of Load

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Response

LTSLT-39: The proposed TMDL mentions that the Lake Clarity Crediting Program (LCCP) is intended to be relied upon for the methods to determine the urban jurisdiction's compliance with its load reduction requirements. Although it is the proposal of the TMDL implementation, the specific details of the LCCP are not specifically proposed as part of the TMDL Implementation Plan. The draft LCCP Handbook describes the process for linking urban stormwater management actions to expected fine sediment particle load reductions. Adjustments and refinements of the LCCP are anticipated to be completed prior to adopting the updated Municipal NPDES stormwater permits and are not proposed as part of the TMDL. Municipalities will be required to develop Pollutant Load Reduction Plans describing how anticipated management actions will achieve load reduction requirements, which may be approved by the Water Board, as necessary. See also Response LTSLT-35, which explains that the TMDL and the load reduction requirements do not conflict with the federal Antidegradation Policy.

LTSLT-40: The proposed TMDL Implementation Plan currently complies with California Water Code section 13242. The Implementation Plan includes a description of the nature of actions needed to comply with the TMDL load and wasteload allocations, a time schedule by which the load and wasteload allocations must be met, and a description of the monitoring needed to determine compliance with the required load reductions. The Lake Clarity Crediting Program (LCCP) details are expected to be incorporated into the Municipal NPDES permits as part of the Monitoring and Reporting Program requirements and will be subject to public review as part of that permitting process.

LTSLT-41: The proposed TMDL Implementation Plan specifies the minimum requirements for a jurisdiction to determine its baseline load, and requires that the calculation methodology must be acceptable to the Regional Board. Because the baseline load calculation and associated Pollutant Load Reduction Plans will be part of the updated Municipal NPDES permit details, the minimum requirements for those components will be reviewed by the Water Board staff and, if necessary, the final calculations and plans will be brought before the Water Board for review and approval, as part of the updated Municipal NPDES stormwater permit process. The Individual Catchment Credit Schedules are public documents, which will be reviewed by the Water Board staff and, if necessary, brought before the Water Board for review and approval, and will be used to track load reduction actions at a catchment, or sub-watershed scale.

Reduction Estimates and Catchment Credit Schedules is conducted exclusively by dischargers and Regional Board staff. Handbook, Ch. 1. Although the Basin Plan Amendment suggests the Crediting Program as a whole will somehow be incorporated into the dischargers NPDES permits, review of the Handbook indicates that the actual pollution control measures and plans will not be subject to public notice, review and comment or approval by the Regional Board itself. *Id*. Given that the staff's approval of the Load Reduction Estimates and Catchment Credit Schedules will presuppose the loading reductions credited to each discharger – as long as they install or implement the agreed upon BMPs – this point in the regulatory process is the point where the Regional Board will apply and attempt to assure compliance with the waste load allocations.

Recent Court of Appeals rulings hold that effluent limitations, such as those prescribed by the Load Reduction Estimates and Catchment Credit Schedules, must be reviewed and approved by the permitting authority. *Waterkeeper Alliance, Inc. v. United States EPA*, 399 F.3d 486, 498-502 (2d Cir. 2005). In California, the only NPDES permitting authorities are the Regional Boards and not their staffs. The Water Code expressly prohibits the Regional Board from delegating issuance of WDRs to its staff or, of course, any discharger. Water Code § 13223.

The ruling in *Waterkeeper Alliance* involved challenges to EPA's NPDES permitting of confined animal feed operations ("CAFOs"). Petitioners challenged the process by which EPA directed CAFOs to develop and implement nutrient management plans which set forth specific best management practices. As proposed, the permit did not require that EPA review and approve the plans prior to their implementation. The Court of Appeals ruled that the CAFO rule was inconsistent with the Clean Water Act because (1) the rule "does not require that NPDES permitting authorities review the nutrient management plans to ensure that the nutrient management plans designed by the Large CAFOs will in fact reduce land application discharges" and otherwise comply with the permit requirements and Clean Water Act and (2) "the CAFO Rule does not adequately prevent Large CAFOs 'from misunderstanding or misrepresenting' their specific situation and adopting improper or inappropriate nutrient management plans." 399 F.3d at 500 (emphasis added). As the Court explained, "[u]nder the Act, permits authorizing the discharge of pollutants may issue only where such permits ensure that every discharge of pollutants will comply with all applicable effluent limitations and standards." *Id*. at 498 (citing 33 U.S.C. § 1342(a)(1) ("EPA may issue a permit for the discharge of any pollutant or combination of pollutants 'upon condition that such discharge will meet … all applicable requirements [including the effluent limitations statutorily required by 33 U.S.C. § 1311]'"); 1342(a)(2) ("EPA 'shall prescribe conditions for such permits to assure compliance with [all applicable requirements, including effluent limitations].'" *Id*. As the Court explained:

> As presently constituted, the CAFO Rule does nothing to *ensure* that each Large CAFO has, in fact, developed a nutrient management plan that satisfies the above requirements. The CAFO Rule does nothing to ensure, in other words, that each Large CAFO will comply with all applicable effluent limitations and standards. This is because, most glaringly, the CAFO Rule fails to require that permitting

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> authorities review the nutrient management plans developed by Large CAFOs before issuing a permit that authorizes land application discharges.

399 F.3d at 499. The Ninth Circuit Court of Appeals has applied the same rule to municipal storm water plans, similar to the municipal BMP plans that will be generated by the Credited Program. *Environmental Defense Center, Inc. v. EPA*, 344 F.3d 832, 856 (9th Cir. 2003) ("programs that are designed by regulated parties must, in every instance, be subject to meaningful review by an appropriate regulating entity to ensure that each such program reduces the discharge of pollutants to the maximum extent practicable [*i.e*., the relevant statutory standard]").

The proposed BMP planning process included in the TMDL implementation plan suffers from the same defect. As described in the Lake Clarity Crediting Handbook, the permitting authority in California – the Regional Board itself – is not included in the review and approval loop for the decisions that select BMPs to be installed and loading reductions to be assigned to those BMPs. Like in *Waterkeeper Alliance,* those plans and BMPs are effluent limitations. *Waterkeeper Alliance*, 399 F.3d at 501 (both the requirement to develop and implement a nutrient management plan and the terms of the nutrient management plans are effluent limitations). By failing to provide for the permit issuing authority to ensure that the BMPs developed under the Crediting Program are consistent with the TMDL, waste load allocations and the deep water transparency standard, the implementation plan runs afoul of the Clean Water Act.

The Regional Board must be involved also because both the Load Reduction Estimates and Catchment Credit Schedules included in the Crediting Program are "effluent limitations' under the Clean Water Act. The Clean Water Act defines effluent limitation to mean "any *restriction* established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources..." 33 U.S.C. § 1362(11). Like the nutrient management plans addressed in *Waterkeeper Alliance*, there is no doubt that the only restrictions actually imposed on discharges are those restrictions imposed by the various terms of the dischargers' BMP plans, their Load Reduction Estimates and the resulting Credit Catchment Schedules. *See* 399 F.3d at 502. Because they are themselves effluent limitations, the Load Reduction Estimates and Catchment Credit Schedules must be included in the dischargers' respective NPDES permits. *Id*. at 502-503 (because "the terms of the nutrient management plans constitute effluent limitations, we hold that the CAFO Rule - by failing to require that the terms of the nutrient management plans be included in NPDES permits - violates the Clean Water Act and is otherwise arbitrary and capricious in violation of the Administrative Procedure Act").

2. <u>Load Reduction Estimates and Catchment Credit Schedules must be subject to public review and comment</u>.

The Lake Clarity Crediting Handbook fails to mention any role by the interested public in reviewing the dischargers' proposed BMPs and Load Reduction Estimates or the Regional Board staff's approval of Catchment Credit Schedules. Handbook, Ch. 1. Again as the *Waterkeeper Alliance* decision explains, "the [Clean Water] Act unequivocally and broadly declares that

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LTSLT-42: As part of the NPDES permitting process, a jurisdiction's draft Pollutant Load Reduction Strategy is subject to public review prior to acceptance by the Water Board. Similarly, the Catchment Credit Schedules will be publicly available, and will come back before the Water Board, as necessary. The process for review and approval of the Catchment Credit Schedules will be refined during development of the updated Municipal NPDES stormwater permits.

'[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States.'" 399 F.3d at 503 (citing 33 U.S.C. § 1251(e)). There is no meaningful legal difference between the BMPs and measures formulated by a CAFO in a nutrient management plan and the BMPs proposed pursuant to the Crediting Program's Load Reduction Estimates and Catchment Credit Schedules. The resulting plans and pollution control measures are both effluent limitations or, at a minimum, a "regulation, standard, plan, or program" established under the CWA to regulate discharges that must be subject to public review and comment and an opportunity for a hearing before their adoption. 399 F.3d at 504.

3. The Validation of Conditions and Awarding of Credits Must Include Storm Water Effluent Monitoring.

The other major flaw in the Crediting Program is the lack of field monitoring of BMPs to assist in validating any estimates of dischargers' pollutant loadings as well as to assure that any pollution reductions assigned to those BMPs in the Crediting Program are reasonably accurate. Water Code § 13242(c) requires the implementation plan to include "[a] description of surveillance to be undertaken to determine compliance with objectives." Currently, the Crediting Program relies exclusively on visual monitoring to confirm that BMPs have been installed and noting conditions. *See* Handbook, p. 2-6 – 2-7. No storm water quality monitoring is required that is designed to confirm that the installed BMPs actually reduced any loading or are as effective as the discharger and Regional Board staff person believed. *Id*. Based on the League's review of BMP studies performed by Caltrans and others, there has never been a comprehensive study or analysis monitoring the effectiveness in the field of most of the Tier 1 and Tier 2 BMPs relied upon by the TMDL. There is no evidence that pre-installation estimates of a BMP's effectiveness coupled with visual monitoring of BMPs can determine compliance with the deep water transparency standard or any other standard applicable to Lake Tahoe, including in particular the numeric effluent limitations that apply to all storm water discharges to the Lake in California. The only monitoring associated with BMPs contemplated in the future by the implementation plan is mentioned in the Regional Stormwater Monitoring Program that has yet to be developed by the agencies. TMDL Report, p. 12-5 (Regional Stormwater Monitoring Program "currently under development"). The absence of any information about the form and substance of any stormwater and BMP monitoring in this future plan is plainly inconsistent with Water Code § 13242(c)'s requirement to describe the plan that assures monitoring of compliance with the relevant objectives.

The TMDL reveals the contributions to load for listed and to-be-listed pollutants, but does not propose to monitor for the numeric effluent limits, as is currently done by LTIMP for nutrients, phosphorus, iron, TSS, and turbidity. The implementation plan suggests that ski areas, marinas, golf courses and other sources of pollutants are controlling their pollutants and are not in need of additional monitoring. Such confidence in potential pollution controls may not prove to protect the Lake, as there are many factors that contribute to increased pollutants, not all of which will be

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LTSLT-43: Text has been added to the proposed BPA TMDL Monitoring Plan section that describes the monitoring framework for each of the four major pollutant source categories and for the tributary and lake monitoring. The added text briefly describes the Regional Stormwater Monitoring Program, which is described in more detail in the Lake Tahoe TMDL Report, Chapter 13, Monitoring Program. The proposed Monitoring Plan complies with Water Code Section 13242(c).

Due to seasonal and inter-annual runoff variability, it is not possible to measure an average annual load or load reduction. Because the Lake Tahoe TMDL and associated allocation schedule are based on average annual load estimates, the proposed Lake Clarity Crediting Program will also award Lake Clarity Credits for urban dischargers on an average annual basis. Monitoring information will be used to help calibrate, validate, and improve average annual load estimation tools. Because average annual load estimates for urban runoff are dependent on roadway and treatment facility condition, the updated Municipal NPDES stormwater permit will require monitoring of roadway and treatment facility condition to confirm that conditions are consistent with modeled estimates.

LTSLT-44: As explained in text that has been added to the proposed BPA in the Daily Load section and on page 5.6-1 of the Basin Plan, monitoring for numeric effluent limits is not applicable to a jurisdiction that is required to meet annual average load reduction requirements. The existing numeric effluent limits remain applicable to all project types that either do not infiltrate the runoff volume generated by a 20 year, 1-hour storm, or do not document coordination with local municipality or state highway department to demonstrate that shared stormwater treatment facilities treating private property discharges and public right-of-way stormwater are sufficient to meet the average annual pollutant load reduction requirements.

LTIMP for tributaries and the lake analyzes constituent concentrations in receiving waters but does not monitor for the numeric effluent limits.

recognized nor acted upon by such entities. Unfortunately, other sources, on public lands, such as logging, campgrounds, large paved parking lots, unpaved parking areas, unpaved roads, and other soil disturbances will continue, but will not be monitored. All public agencies must be required to undertake adequate and approved monitoring for all such disturbances and uses in order to have a complete record of discharges that eventually reach the Lake, through tributaries and overland flow. Table 5-18-3 in the TMDL summary reveals that 18% of nitrogen loads to the lake are generated in the forested uplands. Now that the lake is co-limited (State of the Lake Report, 2008 and 2009) to both phosphorus and nitrogen, it is extremely important that sediment and nitrogen discharges are monitored, tracked, considered in the regulatory structure, and reported annually.

The only way to establish a picture of the effectiveness of BMPs actually installed and implemented is to require water quality monitoring of BMP effluent with agency verification monitoring. One of the main reasons that Lake Tahoe's clarity is degraded is the absence of any BMP or discharge monitoring that holds the dischargers accountable to the Basin Plan's clear, numeric storm water standards or any other standard. The Regional Board has consistently failed to include any water quality monitoring of storm water discharges by the current NPDES permit holders – Caltrans and the municipalities – to evaluate compliance with the Basin Plan's numeric water quality standards for storm water. Staff now again proposes to avoid collecting the storm water effluent data from implemented BMPs that would enable them, the dischargers and the public to corroborate loading reductions claimed by the pre-installment Credit Schedules. This should be rectified in the implementation plan now.

4. <u>Crediting Program's proposed credit trading scheme does not comply with NPDES permitting procedures and the antidegradation policy, particularly in near shore waters not addressed by the TMDL</u>.

"The Crediting Program encourages cooperation among urban jurisdictions by enabling credits to be distributed. Credits generated in a catchment in one urban jurisdiction can be distributed to <u>any urban jurisdiction</u> in the Lake Tahoe Basin <u>as determined appropriate by the urban jurisdictions</u>. This enables urban jurisdictions to share equipment and expertise to reach the common goals of regulatory compliance and improved lake clarity." Crediting Handbook, p. viii (emphasis added); *id*. at 0-2; 0-9 ("The Crediting Program encourages cooperation among urban jurisdictions by enabling credits to be distributed. Credits generated in any one catchment in a year can be distributed to any urban jurisdiction in the Lake Tahoe Basin as determined appropriate by the urban jurisdictions").

As far as a reader can tell, it appears that the dischargers will unilaterally decide where to transfer credits without any input or approval from the Regional Board or NDEP. Nor does there appear to be any geographic restriction on where credits can be transferred. As presented, the credit trading scheme is problematic for several important reasons.

First, transferring credits would in effect change a particular discharger's BMPs and, hence, as described above, effluent limitations. For the NPDES permittees, this cannot of course

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LTSLT-45: As stated in Response LTSLT-43, text has been added to describe the monitoring requirements for the urban and forest upland sources. Monitoring of individual best management practices (both temporary and permanent) may be required on a sub-watershed and project scale.

LTSLT-46: The BPA does not propose that Water Board staff avoid collecting stormwater effluent data. Rather, the proposed BPA states that the Water Board expects that stormwater effluent data will be a component of a comprehensive stormwater monitoring program to better understand the effectiveness of various treatment practices.

LTSLT- 47: The draft LCCP does not propose trading credits. Load reduction credits will be applied for at the beginning of an annual cycle, verified for attainment, and subsequently awarded at the end of the cycle. The credits cannot be traded to another jurisdiction. The LCCP does not preclude jurisdictions to partner with each other on shared projects and distribute the associated Lake Clarity Credits among participating parties as they see fit.

be done without an action by the Regional Board as well as public review and comment. *See supra*. The absence of the agencies also frustrates the mandate of Section 303(d)(4) that the agencies implement the waste load allocation as effluent limitations and that any revision to a discharger's effluent limitation based on a waste load allocation only occur where the agency can determine that "the cumulative effect of all such revised effluent limitations based on such total maximum daily load or waste load allocation will assure the attainment of such water quality standard." 33 U.S.C. § 1313(d)(4). Allowing dischargers to revise their specific allocations in advance of a permit modification omits the critical agency role intended by Section 303(d)(4).

Third, the proposed credit trading scheme is destined to create pollution hotspots, especially in near shore areas unaddressed by TMDL. As proposed and currently incorporated into the implementation plan, dischargers' decisions to aggregate their credits in one location would result in potentially increased discharges in other parts of the Lake. Given the stringent (though generally unenforced) numeric storm water effluent limitations and near-shore standards that apply at the edge of the Lake (especially the antidegradation policy), it is almost inevitable that avoiding BMPs in some portions of the Lake will result in violations of the near-shore standards. Certainly, this aspect of the implementation plan does not demonstrate any actions necessary to achieve such water quality objectives. Indeed, it appears to be quite the opposite at least in the near-shore zone.

F. THE REGIONAL BOARD'S FUNCTIONALLY EQUIVALENT DOCUMENT DOES NOT COMPLY WITH CEQA.

Although the Regional Board's Basin Plan process is a certified program under the California Environmental Quality Act, the Regional Board nevertheless must prepare a functionally equivalent document that complies with the substantive requirements of CEQA. *See San Joaquin River Exchange Contractors*, 183 Cal.App.4th at 1125-1126. "[T]he documentation required of a certified program essentially duplicates that required for an EIR or negative declaration." *City of Arcadia v. State Water Resources Control Bd.* (2006) 135 Cal.App.4th 1392, 1422 (quoting 2 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act, supra, § 21.10, p. 1086). "In a certified program, an environmental document used as a substitute for an EIR must include '[a]lternatives to the activity and mitigation measures to avoid or reduce any significant or potentially significant effects that the project might have on the environment. . . .'" *City of Arcadia*, 135 Cal.App.4th at 1422. Where CEQA would otherwise require a negative declaration, a functionally equivalent document "must include a 'statement that the agency's review of the project showed that the project would not have any significant or potentially significant effects on the environment and therefore no alternatives or mitigation measures are proposed to avoid or reduce any significant effects on the environment. This statement shall be supported by a checklist or other documentation to show the possible effects that the agency examined in reaching this conclusion.'" *Id*.

The FED prepared for the TMDL is the equivalent of a negative declaration under CEQA. The checklist provided indicates that the Regional Board determined that the Basin Plan

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LTSLT-48: Same as Response LTSLT-47, with this addition: The draft LCCP does not allow dischargers the option of revising their specific load allocations. Rather the draft LCCP allows a discharger to revise its Pollutant Load Reduction Strategy as needed to ensure the annual load reduction requirements will be met.

LTSLT-49: Text has been added to the Basin Plan, page 5-2, that explains effects to the nearshore, and text was added under the Future Growth Potential section in the TMDL that prohibits increases in discharges of pollutants from a catchment or subwatershed. Targeted load reduction actions may or may not immediately address existing effect of pollutant discharges to the nearshore, but long-term, basin-wide pollutant load reduction efforts are expected to improve the nearshore condition. Because no increase in loads will be allowed from any catchment, load reduction efforts in one locality will not cause an increased discharge to other parts of the lake or will result in violations of nearshore standards.

amendment and TMDL would have no significant effects on the environment. As is discussed below, the Regional Board's conclusion is not defensible.

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") except in certain limited circumstances. *See, e.g.*, Pub. Res. Code § 21100. The EIR is the very heart of CEQA. *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652. "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." *Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal. App. 4th 98, 109.

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 Cal. Code Regs. ("CEQA Guidelines") § 15002(a)(1). "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564. The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs* (2001) 91 Cal. App. 4th 1344, 1354 ("Berkeley Jets"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and mitigation measures. CEQA Guidelines § 15002(a)(2) and (3); *See also*, *Berkeley Jets*, 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley*, 52 Cal.3d at 564. The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." Guidelines §15002(a)(2). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." Pub. Res. Code § 21081; 14 Cal. Code Regs. § 15092(b)(2)(A) & (B); *City of Arcadia*, 135 Cal. App. 4th at 1420-1421.

In certain limited circumstances, a negative declaration may be prepared instead of an EIR. A negative declaration is permitted when, based upon the initial study (or in this case the environmental checklist), a lead agency determines that a project "would not have a significant effect on the environment." *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1220; Pub. Res. Code § 21080(c). However, such a determination may be made only if "[t]here is no substantial evidence in light of the whole record before the lead agency" that such an impact may occur. *Id.*

When determining if an EIR must be prepared, the fair argument standard applies. The fair argument standard is a "low threshold" test for requiring the preparation of an EIR. *The Pocket*

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Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and mitigation measures. CEQA Guidelines § 15002(a)(2) and (3); *See also*, *Berkeley Jets*, 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley*, 52 Cal.3d at 564. The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." Guidelines §15002(a)(2). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." Pub. Res. Code § 21081; 14 Cal. Code Regs. § 15092(b)(2)(A) & (B); *City of Arcadia*, 135 Cal. App. 4th at 1420-1421.

In certain limited circumstances, a negative declaration may be prepared instead of an EIR. A negative declaration is permitted when, based upon the initial study (or in this case the environmental checklist), a lead agency determines that a project "would not have a significant effect on the environment." *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1220; Pub. Res. Code § 21080(c). However, such a determination may be made only if "[t]here is no substantial evidence in light of the whole record before the lead agency" that such an impact may occur. *Id.*

When determining if an EIR must be prepared, the fair argument standard applies. The fair argument standard is a "low threshold" test for requiring the preparation of an EIR. *The Pocket*

Protectors v. City of Sacramento (2004) 124 Cal.App.4th 903, 928. A public agency must prepare an EIR whenever substantial evidence supports a fair argument that a proposed project "may have a significant effect on the environment." 124 Cal.App.4th at 927; Pub. Res. Code §§ 21100, 21151, 21080. Significant effect on the environment "means a substantial, or potentially substantial, adverse change in the environment." Pub. Res. Code § 21068; *Pocket Protectors*, 124 Cal.App.4th at 927.

If the record contains substantial evidence supporting a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR, or in the case of a certified program a document fundamentally equivalent to an EIR, even though the agency may be presented with other contrary evidence that the project will not have a significant effect. Pub. Res. Code § 21151; *Pocket Protectors*, 124 Cal.App.4th at 927. CEQA places the burden of environmental investigation on government agencies and project proponents rather than the public. *Id.* As a result, an agency is not "allowed to hide behind its own failure to gather relevant data." *Gentry v. City of Murieta* (1995) 36 Cal.App.4th 1359, 1378-1379, *citing Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311. "If the lead agency has failed to study an area of possible environmental impact, a fair argument may be based on the limited facts in the record. Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences. *Id*.

The fundamentally equivalent document prepared by the Regional Board in support of the TMDL is an abuse of discretion for at least three reasons. First, the FED fails to address the significant environmental impact to the Lake's water quality of institutionalizing violations of the deep water transparency standard for a period of 65-years and likely impacts of pollution allowed by the TMDL to the Lake's near-shore zone. As a result, the FED had to be the equivalent of an EIR rather than a negative declaration. Second, the FED fails to evaluate a reasonable range of alternatives, instead focusing on three alternatives all of which only consider a 65-year compliance timeline. Third, by omitting new development from the TMDL and not restricting pollution loadings from future development, the TMDL as proposed will have growth-inducing effects within the Basin which are not acknowledged or analyzed in the FED.

1. **The FED arbitrarily claims the TMDL and implementation plan will have no impact on water quality standards despite extending violations of the transparency standard for 65-years and overlooking likely impacts to near-shore standards.**

The FED boldly claims that the TMDL and its implementation will have no significant impact on water quality or applicable standards. TMDL Report, pp. 16-26 – 16-27. However, the FED completely ignores the near-shore zone of the Lake. The discharges allowed by the proposed TMDL and the implementation plan could concentrate pollution loadings from runoff and aerial deposition in certain areas of the Lake to a degree that degrade beneficial uses in the near-shore zone and violate applicable near shore standards and/or the storm water effluent limitations contained in the Basin Plan. Of particular note, the implementation plan includes a credit trading

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Response

LTSLT-50: The environmental checklist and analysis, contained in Section 16.6 of the TMDL Report, was developed consistent with the requirements of Public Resources Code section 21159, which required the environmental analysis to include: (1) the reasonably foreseeable environmental impacts of the method of compliance; (2) the reasonably foreseeable mitigation measures; and (3) the reasonably foreseeable alternative means of compliance with a rule or regulation. Section 21159 further states that the Regional Board is not required to engage in speculation or conjecture or to conduct a project-level environmental analysis. As part of this analysis, the Regional Water Board was not required to consider the environmental impact of the TMDL's 65 year phased implementation. First, 21159 does not require such an analysis. Second, the baseline of the environmental analysis, against which all impacts are assessed, is the existing conditions of the lake. Reductions in pollutant loads over any period of time would result in better water quality (e.g. less environmental effects), than the current baseline condition. Therefore, the Regional Board was not required to analyze under CEQA the impacts of the 65 year staged implementation of Lake Tahoe's deep water transparency standard, and even if it were so required, there would be no impacts given the fact that the Lake has not met that standard since it was adopted. Rather, CEQA-equivalent document for the environmental effects of implementing the Lake Tahoe TMDL must consider the reasonably foreseeable environmental effects of the methods of compliance to achieve that standard. As part of that process, a reasonable range of alternatives was considered.

LTSLT-51: See Responses LTSLT-58, LTSLT-59, and LTSLT-60.

LTSLT-52: The proposed load and waste load allocations address potential effects from future growth so this was part of the project evaluated in the substitute environmental documentation. Text has been added to ensure that load increases on a subwatershed or catchment scale do not occur. See Responses LTSLT-6 and LTSLT-7

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Response

LTSLT-53: As stated in Responses LTSLT-7 and LTSLT-49, the proposed TMDL requires that each jurisdiction demonstrate how activities within its jurisdiction, such as new development projects, are part of that jurisdictions' overall load reduction plan. Because each development project has the potential to affect stormwater runoff, each jurisdiction must manage the development projects within its jurisdiction to ensure that those projects do not negatively impact the jurisdiction's ability to meet overall net load reduction requirements. Text has been added to prohibit load increases on a subwatershed or catchment scale. While a jurisdiction's load reduction action may or may not immediately address the existing localized pollutant discharges to the nearshore, there is no evidence to suggest that the load reduction efforts will actually increase loads in other portions of the lake or concentrate loads in "hot spots". See Response LTSLT-49.

scheme that, according to the documents, is within the discretion of the dischargers. The implementation plan thus contemplates that the main dischargers to the Lake will decide where to assign credits, with the option of allowing increased discharges in some locations. On August 23, 2010, the League took part in a telephone conference call with staff of the Regional Board. In response to the League's question of whether the credits could allow a discharger to increase its pollution loadings in a specific drainage area of the Lake, even while a discharger may be reducing loading from other areas consistent with their waste load allocation, several staff responded that, yes, specific areas could end up with higher loadings. These localized increases in sediment, nitrogen and phosphorous discharges could result in degradation to the near-shore zones beneficial uses and violations of the Lake's near-shore water quality standards (including especially the federal antidegradation policy) and numeric storm water effluent limitations. The Basin Plan includes an express reminder to staff that CEQA environmental documents for shorezone projects should address compliance with all of TRPA's water quality related shorezone development standards. . . ." Basin Plan, p. 5.7 -9. Despite that admonition and the clear likelihood of a significant environmental harm to the shore zone, the FED prepared for the TMDL does not consider at all the effects the TMDL's discharge proposals and exceedingly long schedule will have on the Lake's near-shore zone.

As the Regional Board and Tahoe Regional Planning Agency already have recognized for several years, the near-shore zone of Lake Tahoe is currently not protecting beneficial uses. *See, e.g.* Taylor, K., *Investigation of Near Shore Turbidity At Lake Tahoe* (March 2002) (http://www.swrcb.ca.gov/water_issues/programs/swamp/docs/laketahoe_turbidity_ mar2002.pdf); SNPLMA Proposal for Theme 2c (Near-Shore Water Quality) (2007) (http://www.fs.fed.us/psw/partnerships/tahoescience/documents/SchladowNearShoreProposal.pdf) ; McConnell, Joe; Kendrick Taylor, Spatial Variability of Near Shore Turbidity at Lake Tahoe (2001) (synopsis) (http://www.agu.org/meetings/fm01/fm01-pdf/fm01_H42G.pdf). *See also* Basin Plan, pp. 5.7-8 Human activities in and near the littoral zone can physically alter fish habitat and contribute nutrients leading to eutrophication and the alteration of food webs . . . ; erosion and sedimentation can degrade habitat quality"); *Id*. ("Increased growth of attached algae and rooted plants in the shorezone is the most visible sign of eutrophication to human recreational users of lakes"). Readily available evidence indicates that "[t]here is a strong correlation between elevated turbidity near the shore and development on the shore." Taylor 2002. *See also* McConnell & Taylor (2004) ("Perimeter surveys (Taylor et al., 2004) quantified turbidity on a basin-wide scale, finding a distinct association between elevated near-shore turbidity and several developed areas"). "The near shore zone is the portion of the lake first impacted by disturbances on shore because the material causing the adverse impact will have the greatest concentration near the source on shore." *Id.* As Geoffrey Schladow of the Tahoe Environmental Research Center explains:

> Conditions in the near-shore zone have degraded over time. Elements of this degradation include elevated turbidity (Taylor et al. 2004)…and increasing concentrations of periphyton (attached algae) on rocks, piers and other hard substrate (Hackley et al. 2004, 2005, 2006).

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Response

LTSLT-54: The proposed TMDL Implementation Plan and the draft LCCP do not contain an option for dischargers to increase pollutant loading from the subwatershed or catchment scale. Text was added to the proposed BPA that requires the urban jurisdiction to annually demonstrate on a catchment (i.e. subwatershed) basis that no increased loading in pollutant loads will result from any land disturbing activity permitting in the catchment.

The "higher loads" referred to were to the potentially higher loads that might be associated with an individual project. Nonetheless, as explained in Response LTSLT-7, if a project within a catchment resulted in increased loads, other actions must be then taken within that catchment to reduce on an annual basis the total amount of loads from that catchment.

LTSLT-55: Same as Response LTSLT-53, with this addition: It is speculative to conclude that substituting the load reduction requirements for the numeric effluent limits in the TMDL will result in significant environmental harm to the nearshore without providing a rationale for that conclusion. There is no evidence that requiring urban jurisdictions to meet pollutant load reduction requirements and to demonstrate that pollutant loads are not increasing from subwatersheds within their jurisdiction will cause significant harm to the nearshore.

Though some studies have examined certain conditions in the nearshore, such as turbidity from urban stormwater runoff (Taylor et.al, 2003), the dynamics and processes affecting the nearshore conditions are not well understood. Urban stormwater runoff may or may not be the primary cause of the changing nearshore conditions. Other factors, such as water temperature or human interaction, may exert significant influence on the nearshore conditons. Therefore, it is speculative to conclude that switching from numeric effluent limits to load reduction requirements for the urban jurisdictions will cause significant harm to the nearshore. Chapter 16 in the Lake Tahoe TMDL Report describes reasonably foreseeable activities that are expected or anticipated as a result of the proposed BPA, and there is no information to conclude that such activities, or inactivities, may create significant harm to the nearshore. Text was added to the proposed BPA, page 5-2 of the Basin Plan, to confirm the Water Board's commitment for addressing the nearshore conditions and to take appropriate actions if necessary to improve the nearshore conditions.

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Response

LTSLT-56: Same as Response LTSLT-55, with this addition: The draft Lake Tahoe TMDL was developed to meet federal requirements under section 303(d) of the federal Clean Water Act, by addressing Lake Tahoe's deep water transparency. Because the Lake is not meeting the deep water transparency standard, it was listed as impaired on the federal 303(d) list. The TMDL was developed to specifically address that impairment. Because Lake Tahoe's nearshore environment is not yet listed as impaired on the State Water Board's 303(d) list, the draft Lake Tahoe TMDL does not specifically address issues in the nearshore. However, actions taken to reduce pollutant loads from the four source categories are expected to result in improved conditions in the nearshore because of the reductions in amount of pollutants entering the lake through stormwater in the nearshore.

http://www.fs.fed.us/psw/partnerships/tahoescience/documents/SchladowNearShorePropos al.pdf. Dr. Schladow also emphasizes that, even assuming any benefits accrue from pollution control measures attempting to address clarity issues in the deep waters of the Lake, those measures cannot be assumed to benefit the near-shore:

> Recent optical modeling (Swift et al. 2006) suggests that mid-lake clarity is predominantly controlled by the concentration and size distribution of fine, inorganic particles (< 20 microns). The near-shore zone, by contrast, is more biologically productive suggesting that nutrient fluxes and other factors may play a much larger role in that zone. It therefore cannot be assumed that the same management strategies will work for both the near-shore and mid-lake.

Id. Kendrick Taylor, in her 2002 study, linked degradation of the near-shore from turbidity to development:

> The highest turbidity values were in the lake adjacent to Tahoe Keys and exceeded the TRPA littoral zone turbidity threshold. Areas with persistently high turbidity occurred off South Lake Tahoe and Tahoe City. Areas with occasional high turbidity occurred off Incline Village and Kings Beach.

http://www.swrcb.ca.gov/water_issues/programs/swamp/docs/laketahoe_turbidity_mar20 02.pdf. *See also* http://www.agu.org/meetings/fm01/fm01-pdf/fm01_H42G.pdf. Thus, where the implementation plan allows for a concentration of new development or allows a discharger to exclude BMP maintenance resources from some portions of the Lake's watershed, the near shore zone would be the portion of the Lake that realizes pollution increases, including potentially excessive discharges of sediment, turbidity, and nutrients that could impair and further degrade recreational uses and other beneficial uses as well as exceed the applicable standards.[7] Given the expected increases in near-shore activity, the cumulative impacts of concentrated discharges caused by the TMDL's implementation plan could have serious cumulative impacts to the near-shore zone as well.

Because the TMDL and its implementation plan may lead to pollution hot spots in portions of the near-shore zone of the Lake, the TMDL and plan, as proposed, cannot be adopted, and the FED's negative declaration cannot be certified. "Any potential significant environmental effect triggers the EIR requirement (§ 21080, subds. (c) and

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[7] Nor does the mere compliance with the Tahoe Regional Planning Agency's current threshold's resolve these potential significant impacts. As explained in Taylor (2001) p. 21, "The TRPA littoral zone turbidity threshold (WQ-1) does not provide a level of environmental protection that is consistent with the other TRPA thresholds and may not be consistent with the community's expectations."

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http://www.fs.fed.us/psw/partnerships/tahoescience/documents/SchladowNearShorePropos al.pdf. Dr. Schladow also emphasizes that, even assuming any benefits accrue from pollution control measures attempting to address clarity issues in the deep waters of the Lake, those measures cannot be assumed to benefit the near-shore:

> Recent optical modeling (Swift et al. 2006) suggests that mid-lake clarity is predominantly controlled by the concentration and size distribution of fine, inorganic particles (< 20 microns). The near-shore zone, by contrast, is more biologically productive suggesting that nutrient fluxes and other factors may play a much larger role in that zone. It therefore cannot be assumed that the same management strategies will work for both the near-shore and mid-lake.

Id. Kendrick Taylor, in her 2002 study, linked degradation of the near-shore from turbidity to development:

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http://www.swrcb.ca.gov/water_issues/programs/swamp/docs/laketahoe_turbidity_mar20 02.pdf. *See also* http://www.agu.org/meetings/fm01/fm01-pdf/fm01_H42G.pdf. Thus, where the implementation plan allows for a concentration of new development or allows a discharger to exclude BMP maintenance resources from some portions of the Lake's watershed, the near shore zone would be the portion of the Lake that realizes pollution increases, including potentially excessive discharges of sediment, turbidity, and nutrients that could impair and further degrade recreational uses and other beneficial uses as well as exceed the applicable standards.[7] Given the expected increases in near-shore activity, the cumulative impacts of concentrated discharges caused by the TMDL's implementation plan could have serious cumulative impacts to the near-shore zone as well.

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Response

LTSLT-57: Same as Response LTSLT-55.

(d)), even if the plan revisions together provide a "net" or overall positive for the environment." *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1197. "If the agency determines that there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency shall do one of the following: (A) Prepare an EIR[,] [or rely on a EIR covering the proposed project]." *Id*. (citing CEQA Guidelines).

The above references are more than sufficient to establish a fair argument that the TMDL and implementation plan may have a significant impact on Lake Tahoe's near-shore environment. "[A]n agency that has failed to conduct an adequate initial study cannot 'hide behind its own failure to gather relevant data.... CEQA places the burden of environmental investigation on government ... [i]f the local agency has failed to study an area of possible environmental impact, a fair argument may be based on the limited facts in the record ... In the absence of any further information, the record thus permits the reasonable inference that sludge disposal presents a material environmental impact.'" *Azusa Land Reclamation Co., Inc. v. Main San Gabriel Basin Watermaster* (1997) 52 Cal.App.4th 1165, 1199, quoting *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311. Here, more than a reasonable inference exists that the TMDL's discharge proposals will adversely affect the Lake's near-shore zone.

2. <u>By focusing on only three alternatives all of which propose to allow violations of the deep water transparency standard for 65-years, the FED includes an insufficient range of alternatives</u>.

An EIR must describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. "An EIR's discussion of alternatives must contain analysis sufficient to allow informed decision making." *Laurel Heights I*, 47 Cal.3d at 404. An EIR must also include "detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." *Id*. at 405.

One of CEQA's fundamental requirements is that the DEIR must identify the "environmentally superior alternative," and require implementation of that alternative unless it is infeasible. 14 Cal.Code Regs. §1526.6(e)(2); Kostka & Zischke, *Practice Under the California Environmental Quality Act* §15.37 (Cont. Educ. Of the Bar, 2008). Typically, a DEIR identifies the environmentally superior alternative, which is analyzed in detail, while other project alternatives receive more cursory review.

The analysis of project alternatives must contain an accurate quantitative assessment of the impacts of the alternatives. In *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 733-735, the court found the EIR's discussion of a natural gas alternative to a

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Response

LTSLT-58: CEQA Guidelines, section 15252(a)(2), sets the requirements regarding alternatives evaluated in substitute environmental documentation. Specifically, the substitute environmental documentation must include at least either (A) alternatives to the activity and mitigation measures to avoid or reduce any significant or potentially significant effects that the project might have on the environmental, or (B) a statement that the agency's review of the project showed that the project would not have any significant or potentially significant effects on the environment and therefore no alternatives or mitigation measures are proposed to avoid or reduce any significant effects on the environment. Section 16.6 in the draft Lake Tahoe TMDL Report contains the required environmental checklist and analysis, which concluded the project would not have any significant or potentially significant effects on the environment. Reasonably foreseeable activities to comply with requirements under the proposed BPA were evaluated in the checklist and none of those potential actions were determined to have significant effects over the time frame of the TMDL implementation plan. The reasonably foreseeable actions, such as erosion control projects, revegetation projects, road cleaning, BMP installation and routine maintenance, are all designed with the goal of improving the environment without lasting negative effects.

Since no significant or potentially significant effects were determined to result from the project, then an alternative analysis was not required. Even though an analysis of different alternatives was not required, three different alternatives were presented and discussed in the report.

coal-fired power plant project to be inadequate because it lacked necessary "quantitative, comparative analysis" of air emissions and water use.

A "feasible" alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. Pub. Res. Code § 21061.1; 14 Cal. Code Regs. § 15364. California courts provide guidance on how to apply these factors in determining whether an alternative or mitigation measure is economically feasible.

The lead agency is required to select the environmentally preferable alternative unless it is infeasible. As explained by the Supreme Court, an environmentally superior alternative may not be rejected simply because it is more expensive or less profitable:

> The fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project.

Citizens of Goleta Valley v. Bd. of Supervisors (1988) 197 Cal.App.3d 1167, 1180-81; *see also*, *Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322 (county's approval of 80 unit hotel over smaller 64 unit alternative was not supported by substantial evidence). As discussed below, the EIR fails to meet the legal standards for an adequate CEQA alternatives analysis.

In addition to a no project alternative, the FED considers three "alternatives" all of which only consider a 65 year schedule to implement the TMDL. FED, p. 16-36 ("a) Alternative 1: No Action/No Basin Plan amendment (No Project). b) Alternative 2: 20 years to Clarity Challenge, 65 years to restore transparency. Alternative 3: 40 years to Clarity Challenge, 65 years to restore transparency"). This is not a reasonable range of alternatives. At a minimum, the FED needs to consider a number of alternatives with faster implementation as well as timelines restricted to permits or enforcement orders for the NPDES permit dischargers. The following alternatives should be incorporated into the FED's analysis:

- An alternative requiring immediate compliance with the TMDL and any timelines for dischargers to comply with their allocations are included in enforcement orders;

- An alternative requiring compliance with the TMDL within 20-years of adoption and any timelines for dischargers to comply with their allocations are included in permits/WDRs (if authorized) or enforcement orders; and

- An alternative requiring compliance with the TMDL within 40-years of adoption and any timelines for dischargers to comply with their allocations are included in permits/WDRs (if authorized) or enforcement orders.

Comment

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- An alternative requiring compliance with the TMDL within 40-years of adoption and any timelines for dischargers to comply with their allocations are included in permits/WDRs (if authorized) or enforcement orders.

Response

LTSLT-59: Same as Response LTSLT-58, with this addition: No information exists, nor was submitted by the League, to develop alternatives that demonstrate the numeric target can be attained within either 20 years or 40 years. The preferred alternative, Alternative 2, was developed based on the results of a rigorous, stakeholder intensive process which included representatives from the League. Through that process, a recommended strategy was formulated, which was the basis for the proposed implementation plan under Alternative 2. The recommended strategy proposed a reasonable plan that could improve the deep water transparency by about ten feet over the first 20 years. The strategy did not evaluate reasonably foreseeable compliance measures beyond the first 20 years.

Because the proposed BPA includes an implementation plan designed to achieve the numeric target within 65 years, there is no compliance schedule proposed (see Response LTSLT-28). Also, as stated in Response LTSLT-58, there is no requirement for the Water Board to develop an alternative based on a non-attainable schedule.

Currently, all NPDES permit and WDR holders, at least in California, have permits with a requirement prohibiting them from violating water quality standards. *See* CalTrans Permit, p. 3; Municipal NPDES Permit, § B.2. None of them have a schedule of compliance to meet that prohibition. *Id*. It makes little sense that, now that everyone recognizes how impaired Lake Tahoe's deep waters are, the dischargers should be granted a 65-year compliance schedule to comply with reductions they already need to do to comply with in their current permits. At a minimum, given that the agencies' authority to adopt a 65-year schedule of compliance is not found in the Clean Water Act, the Regional Board must at least lay out the above alternatives that consider much shorter or no schedule of compliance.

3. The FED fails to address the TMDL's growth-inducing impacts.

An EIR must discuss "the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." CEQA Guidelines § 15126.2(d). As discussed above, in establishing the waste load allocations for the TMDL, the agencies opted not to include future development or provide any allocations for pollution resulting from such future development. *Supra*. In addition, the TMDL Report highlights as a "crucial role" the leverage TRPA's approval of future development may have on implementing BMPs in furtherance of the TMDL. TMDL Report, p. 11-2 ("The TRPA will play a crucial role in TMDL implementation because the TRPA has the ability to incentivize TMDL implementation. As the agency responsible for zoning and permitting a wide variety of land uses and construction projects throughout the basin, TRPA has the ability to release or restrict building allocations, additional building height, and commercial floor area"). In effect, by keeping its hands off of future development in the allocation decision – and hence, deciding not to restrict pollution from those future sources through the TMDL – and noting that only by approving new development can TRPA incentivize TMDL implementation, the Regional Board is implicitly acknowledging the proposed TMDL and implementation plan's likely growth-inducing impacts. These potential impacts must be addressed in the FED.

G. THE REGIONAL BOARD SHOULD WITHDRAW THE PROPOSALS TO ELIMINATE STORM WATER EFFLUENT LIMITATIONS FOR OIL AND GREASE AND IRON BECAUSE THE PROPOSALS ARE INCONSISTENT WITH THE 208 PLAN, HAVE NOT BEEN ANALYZED IN THE FED, AND WILL CREATE UNCERTAINTY REGARDING DISCHARGER'S COMPLIANCE WITH STANDARDS.

It is the League's understanding that staff is planning on withdrawing the proposal to include amendments to the Basin Plan that would eliminate the existing numeric effluent limitations for oil and grease and iron in storm water discharges. Basin Plan Amendment, pp. 2-3; 22-25. The League believes that withdrawal of these proposals is prudent. The Regional Board should either maintain or lower the Basin Plan limit of 2 mg/L for oil and grease. If it is true that 2 mg/L does not meet the Basin Plan's sheen standard, the Board should establish a lower effluent limitation rather than eliminate the existing effluent limitation. Likewise, the Regional Board

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LTSLT-60: The Basin Plan amendment proposed a load reduction time frame for the implementation plan to achieve the numeric target of the TMDL in compliance with section 303(d) of the federal Clean Water Act. The proposed TMDL staged implementation plan is not a compliance schedule. See also Response LTSLT-1, which states that the deep water transparency standard applies solely to Lake Tahoe and is not an effluent requirement for agencies and dischargers to comply with. Rather, the Water Board requires dischargers to meet, as part of their municipal stormwater permits, performance objectives related to their discharges.

3. The FED fails to address the TMDL's growth-inducing impacts.

An EIR must discuss "the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." CEQA Guidelines § 15126.2(d). As discussed above, in establishing the waste load allocations for the TMDL, the agencies opted not to include future development or provide any allocations for pollution resulting from such future development. *Supra*. In addition, the TMDL Report highlights as a "crucial role" the leverage TRPA's approval of future development may have on implementing BMPs in furtherance of the TMDL. TMDL Report, p. 11-2 ("The TRPA will play a crucial role in TMDL implementation because the TRPA has the ability to incentivize TMDL implementation. As the agency responsible for zoning and permitting a wide variety of land uses and construction projects throughout the basin, TRPA has the ability to release or restrict building allocations, additional building height, and commercial floor area"). In effect, by keeping its hands off of future development in the allocation decision – and hence, deciding not to restrict pollution from those future sources through the TMDL – and noting that only by approving new development can TRPA incentivize TMDL implementation, the Regional Board is implicitly acknowledging the proposed TMDL and implementation plan's likely growth-inducing impacts. These potential impacts must be addressed in the FED.

LTSLT-61: As explained in Tahoe TMDL and in Response LTSLT-6, potential growth in the Tahoe area is very limited. Nonetheless, the TMDL recognizes that any activity, such as new development, re-development, or other land disturbing management actions, has the potential to increase localized (i.e. on a parcel scale) pollutant loading. To ensure that future growth does not increase pollutant loads, the City of South Lake Tahoe, El Dorado County, and Placer County must reduce fine sediment particle, total nitrogen, and total phosphorus loads as described in Tables 5.18-2, 5.18-3, and 5.18-4 from the established baseline condition. A municipality must annually demonstrate on a catchment (i.e. sub-watershed) basis that no increased loading in fine sediment particle, total nitrogen, and total phosphorus will result from any land disturbing activity permitted in the catchment. Efforts to eliminate the increased loads from these land disturbing activities will not be counted towards the annual load reduction requirements.

G. THE REGIONAL BOARD SHOULD WITHDRAW THE PROPOSALS TO ELIMINATE STORM WATER EFFLUENT LIMITATIONS FOR OIL AND GREASE AND IRON BECAUSE THE PROPOSALS ARE INCONSISTENT WITH THE 208 PLAN, HAVE NOT BEEN ANALYZED IN THE FED, AND WILL CREATE UNCERTAINTY REGARDING DISCHARGER'S COMPLIANCE WITH STANDARDS.

It is the League's understanding that staff is planning on withdrawing the proposal to include amendments to the Basin Plan that would eliminate the existing numeric effluent limitations for oil and grease and iron in storm water discharges. Basin Plan Amendment, pp. 2-3; 22-25. The League believes that withdrawal of these proposals is prudent. The Regional Board should either maintain or lower the Basin Plan limit of 2 mg/L for oil and grease. If it is true that 2 mg/L does not meet the Basin Plan's sheen standard, the Board should establish a lower effluent limitation rather than eliminate the existing effluent limitation. Likewise, the Regional Board

LTSLT-62: The proposed Basin Plan amendment was revised and does not include a proposal to eliminate concentration-based stormwater numeric effluent limits for grease/oil and iron. That proposal was removed since a discussion of that proposal was inadvertently not included in the project description.

should not remove the existing iron limit but, if anything, replace it with a limit consistent with the primary MCL of 0.3 mg/L. By eliminating the effluent limitations – even the existing limits – the Board would create difficulties in enforcing any discharges of oil and grease especially where no visual observations of sheen are accurately documented. In the case of iron, not even visual observations will assist the Board in enforcing the iron standard. Also eliminating the limits is inconsistent with the EPA-approved 208 Plan. *See* 208 Plan, p. 188. Lastly, the FED does not address these project proposals and they cannot proceed until the Regional Board has considered them pursuant to CEQA.

CONCLUSION

The League appreciates the opportunity to submit these detailed comments regarding the proposed TMDL and implementation plan. The League requests that the Regional Board instruct staff to address each of the above concerns and propose a TMDL implementation plan that assures that dischargers will comply with their waste load allocations as soon as possible and, rather than prejudging the need for 65 years for every discharger, that the Regional Board address any need for compliance schedules when the individual permits are taken up as well as any accompanying enforcement orders.

Sincerely,

Michael Lozeau
Lozeau Drury LLP
Attorney for the League to Save Lake Tahoe

Encls.

cc: w/out encls, via e-mail:

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Alexis Strauss, Director, Water Division, EPA Region 9
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Comment

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