City of Malibu

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May 28, 2010

Ms. Jeanine Townsend, Clerk to the Board
California State Water Resources Control Board
1001 I Street
Sacramento, CA 95814
Email commentletters@waterboards.ca.gov

Re: **2010 INTEGRATED REPORT: CLEAN WATER ACT SECTION 303(D) LIST OF WATER QULAITY LIMITED SEGMENTS AND CLEAN WATER ACT SECTION 305(B) ASSESSMENT OF SURFACE WATER QUALITY**

Dear Ms. Townsend:

Thank you for the notification and opportunity to comment on the State Water Resources Control Board's (SWRCB) 2010 Integrated Report for the Section 303(d) listing, hereafter the "2010-303(d) Listing(s)."[1] This 2010 Integrated Report (Report) is a subject of immense importance to the City of Malibu. The City appreciates the efforts staff have put into this Report and that you have made the information available online. We look forward to further development of this online tool and hope that in the future the State will consider having the data available from all listings, including the Integrated Reports prior to this one, since future reports rely on past listing information.

As a coastal city along approximately 22 miles in the North Santa Monica Bay, the City of Malibu has an unwavering commitment to water quality in the Bay as evidenced by the fact that the City spends more per capita than any other city in the State on water quality improvement activities. The 2010-303(d) Listing Report shows, and the City is grateful that the State has made efforts to ensure many waterbody-pollutant combinations are being delisted (for various reasons related to the original listing) and recognizes that many combinations are not appropriate to list at this time. However, it also adds many new listings that may directly affect Malibu by the eventual adoption of new Total Maximum Daily Loads (TMDLs). The City supports the efforts to develop appropriate, attainable and effective regulation through consideration of scientifically defensible and current data, and listings in accordance with the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303 (d) List (Listing Policy). The City also encourages the State and Regional Boards to recognize that not all listings need to be addressed by a TMDL with a waste load allocation, in that there may be other more appropriate mechanisms to correct impairment. It is also necessary to recognize that many coastal areas have unique natural geological characteristics which could lead to perceived impairments and listings for possibly unattainable water quality standards.

[1] Available at www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/01053.shtml#17209.

The listings as proposed will lead to TMDLs that may well require tremendous expenditures of very limited local agency resources *to achieve very uncertain benefits*. These TMDLs would require extensive and expensive multi-faceted studies in a very short time frame. It is a concern that some of these listings are based on lines of evidence (LOE) from old studies and outdated data, are insufficient (in that that may not have studied all areas therefore may not be applicable to this region), or that the data is no longer available to review or was "lost". The attached comments address the City's specific concerns with the proposed listings.

Because of the concerns listed in the attached document, the City strongly encourages the State to consider whether the required scientific basis exists to support the listings and subsequent TMDLs, and that the proposed listings are in accordance with current listing policy and not based solely on draft listings or "placeholders" that were being examined prior to the enactment of the listing policy in 2004. In particular, the City requests that the State omit the benthic-macroinvertebrate assessment listing (Decision ID 17209) and the various individual beach listings for dichlorodiphenyltrichloroethane (DDT) and polychlorinated biphenyls (PCBs) (Decision IDs to be discussed in greater detail in the attached document). Furthermore, please re-consider the need to develop a TMDL for sediment/siltation in Malibu Creek, and instead consider revising this listing to be addressed by an action other than a TMDL. Waiting until after the Rindge Dam removal project study has been fully vetted and the project developed, and after the Malibu Lagoon Restoration is completed may show that the standard has been attained for this waterbody, and may result in better data and understanding of this predominantly naturally occurring impairment.

The City looks forward to working with the State to develop the most appropriate means to attain these water quality standards. The City also hopes that availability of resources will be a consideration for not only the regulatory agencies developing these TMDLs, but also for the agencies which will ultimately carry out the responsibilities to attain the standards. Please do not hesitate to contact Jennifer Voccola, Senior Environmental Programs Coordinator at (310) 456-2489 extension 275 or jvoccola@ci.malibu.ca.us if you have any questions regarding this letter or would like assistance locating studies or information.

Sincerely,

Robert L. Brager

Robert L. Brager, PE, JD
Public Works Director/City Engineer

Enclosure

cc: Jim Thorsen, City Manager
Jennifer Voccola, Senior Environmental Programs Coordinator
Samuel Unger, Interim Executive Officer, Los Angeles Regional Water Quality Control Board

Attachment

City of Malibu Comments
Re: **2010 INTEGRATED REPORT: CLEAN WATER ACT SECTION 303(D) LIST OF WATER QULAITY LIMITED SEGMENTS AND CLEAN WATER ACT SECTION 305(B) ASSESSMSNT OF SURFACE WATER QUALITY**

Benthic-macroinvertebrate Assessments (Decision ID 17209) (Proposed List on 303 (d) List (TMDL Required))

- **Opposed to listing.**

After review and examination of the proposed additions, the City in concert with the Malibu Creek Watershed Management Committee (MC WMC) has the following comments for the proposed listing. MC WMC was formed under the initial requirements of the Los Angeles Region Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permitting processes. This group has continued in its role in helping its local communities reach, maintain, and exceed local water quality regulations. As such, the group has a significant concern with the proposed listing of Benthic-Macroinvertebrate Bioassessments, listing Decision ID 17209, on the 2010-303d Listing, and collaborated to prepare comments on this proposed listing.

The City strongly opposes the proposed listing of Benthic-Macroinvertebrate Bioassessments. "Bioassesments are a scientific way of interpreting the ecological condition of a resource, (e.g. streams/rivers), from its resident biota (fish, insects, algae, plants, etc.)" and therefore can act as a tool to help to measure the health of water to support aquatic life. A study can include "associations between ecological condition, and both natural and anthropogenic sources of variation".[1] Firstly, bioassessment itself is not a "pollutant or stressor" and therefore it would not be appropriate to list this as a waterbody- pollutant combination on the 303(d) list.

EPA recommends that states use biological assessments to refine, or tier, their aquatic life uses (TALU). A tiered approach to classification should articulate appropriate ecological expectations for state waters (e.g., reference conditions) and specify goals for individual waterbodies (e.g., tiered, designated aquatic life uses). Appropriate water quality criteria may then be adopted into state standards to protect the specific designated uses. The water quality criteria and any needed implementation procedures should provide for quantifiable measurement of each specified use. This approach will better protect high-quality waters, provide for more accurate evaluation of effectiveness of controls and best management practices, and enhance public confidence and participation in the WQS-setting and waterbody listing process.[2] There is already a collaborative statewide regulatory and stakeholder effort involving the Department of Fish and Game and State Water Resources Control Board working on a program to develop biological objectives that will consider TALU to some extent for "all perennial, wadeable streams and rivers in California taking into account the range of natural development in the state".[3] This process is anticipated to take three years, and SWRCB staff has expressed that this is a priority for the State and it is committed

[1] Ode, Peter and James Harrington, "Biological Objectives: Introduction to Bioassessment," http://waterboards.ca.gov/plans_policies/docs/biological_objective/bioassmnt101_030910.pdf.
[2] USEPA, *Consolidated Assessment and Listing Methodology: Toward a Compendium of Best Practices. Using Biological Data as Indicators of Water Quality*, Chapter 5, 2002.
[3] Connor, Valerie M., SWRCB, Letter to Stakeholders, February 2, 2010. Available at http://waterboards.ca.gov/plans_policies/docs/biological_objective/kickoff_ltr.pdf.

to developing biological objectives for assessing the health of streams statewide. As mentioned above, the Malibu Creek watershed has not been assessed for TALU, nor are regional tiers established. Following EPA's guidance above and waiting for the State to finish this process would be the most prudent action and, therefore, the City requests that you consider the importance and overall benefits (such as more accurate and reliable data and improved public confidence in the process) before approving the proposed listing or requiring a TMDL for this alleged impairment.

Detailed and specific concerns, and final recommendations related to this proposed listing are described in detail below.

I. Listing Procedures & Policies

As indicated in the proposed listing, the pollutant is being considered for inclusion based on the listing protocols found in Section 3.9 of the Listing Policy, "Degradation of Biological Populations and Communities." [4] As shown below, we believe that the current data and underlying LOE do not currently support a listing at this time.

A. State Policy Listing Requirements

Section 3.9 of the Listing Policy requires that where a "water segment exhibits significant degradation in biological populations and/or communities **as compared to reference site(s)** and is associated with water or sediment concentrations of pollutants" it shall be placed on the section 303(d) list.[5] This section also requires that the pollutant be "associated with water or sediment concentrations of pollutants including but not limited to chemical concentrations, temperature, dissolved oxygen, and trash." Further, this section requires that the, "diminished numbers of species or individuals of a single species or other metrics [be] **compared to reference site(s)**. The analysis should rely on measurements from at least two stations. Comparisons to reference site conditions **shall** be made **during similar season and/or hydrologic conditions**." (*Emphasis added*) To ensure that the listing has been properly developed, each of these provisions of State Policy is examined below.

1. Data Analysis and Review

Malibu Creek should not be listed on the 303(d) list for benthic-macroinvertebrate assessments and the scientific basis necessary to establish the water quality based controls through a TMDL is not present. Staff's recommendation to list this impairment is based on only one study that was conducted in 2005 – a study that is now 5-years old. Also, as previously mentioned, bioassessments are not a pollutant or stressor and therefore this is not an appropriate listing. The report entitled, "Malibu Creek Watershed Monitoring Program, Bioassesment Monitoring, Spring/Fall 2005" (Bioassessment Report) was prepared by Aquatic Bioassay and Consulting Laboratories, Inc, as a Proposition 13 Grant funded project in which the local agencies in the WMC jointly participated.

[4] SWRCB, Water Quality Control Policy for Developing California's Clean Water Act Section 303 (d) List, Adopted September 2004. Available at www.waterboards.ca.gov/water_issues/programs/tmdl/303d_listing.

[5] Section 3.9, page 7, Water Quality Control Policy for Developing California's Clean Water Act Section 303 (d) List, Adopted September 2004.

The data set of two sample events in different hydrologic conditions, without comparison to a relevant reference site which is being used too support this proposed listing is too limited and inadequate to justify a 303 (d) listing for this waterbody.

Sites with conditions rating below 26 (on a scale standardized to 100 rather than a 70 point scale) on the Southern California Index of Biological Integrity (IBI) are considered to be impaired. A rating of fair is a score between 27 and 40, while a score of 26-14 is considered poor. There is also a ranking for very poor, good, and very good that were not observed at the site assessed. The spring assessment of the Malibu Creek site IBI in springtime score was fair, while the fall event score was poor. Due to such seasonal variation such as changes in temperature (both ambient air and water), lowered steam flows, and reproductive cycles of the fauna, each season would naturally yield different results. EPA recommends establishing index periods for a particular season, time of the day, or other window of opportunity when signals are determined to be strong and reliable. Further, EPA recommends that only results from similar index periods be compared when assessing water quality standards (WQS) attainment/impairment).[6] This data was collected without consideration of establishing an index period and did not account for seasonal or other natural variation; therefore, it does not follow EPA guidelines and should not be considered a valid LOE.

The Bioassessment Report indicated that eleven (11) sites were initially considered for testing on two separate dates – June 1st and 2nd and again on September 19th and 20th in 2005; however, three (3) sites were not included because there was no flow during the inspections.[7] Hence, in total only eight (8) sites were tested throughout the entire Malibu Creek Watershed (including tributaries), with the Hidden Valley site tested only in September 2005. Therein, only two samples, one for spring and one for fall, were collected each for the seven remaining sites. The proposed impairment listing is based only on <u>only fifteen (15) total samples</u> in reaches with various and often different characteristics that were collected <u>five (5) years ago</u> during two different seasons. The Report also indicates there were significant concerns because the measurement season, 2005, was a significant rain year with over 52.92 inches of rain. This anomalous rainfall could have completely scoured the habitat and skewed the data. The report also indicated that some of the stream beds and areas had been significantly impacted by recent forest fires, another consideration to account for evaluation of a similar index period.[8] The New Zealand mudsnail infestation of Malibu Creek is another variation that should be considered (see full discussion below). Any bioassessments done after the New Zealand mudsnail arrival, including data from those that have been submitted in 2008 for the proposed listing of this watershed for benthic-macroinvertebrates, may be suspect and should be not be considered as meeting EPA guidelines.

<u>Recommendation(s):</u> Delay consideration of this listing until the State biological objectives have been established and additional data sets (that also include correlation(s) to a specific pollutant(s) or stressor(s), discussed below), and indices (including seasonal variations and index periods) are obtained for this watershed. Because the State is currently involved in a three year multi-agency collaboration to develop consistent statewide Biological Objectives, and the biotic data and natural

[6] USEPA, *Consolidated Assessment and Listing Methodology: Toward a Compendium of Best Practices. Using Biological Data as Indicators of Water Quality*, Chapter 5, 2002.

[7] Malibu <u>Creek Watershed Monitoring Program, Bioassesment Monitoring, Spring/Fall 2005</u>, page 3. (2005)

[8] See Bioassesment Report, pages, 13-14. "Recent fires have help denude the banks of vegetation…"

and seasonal events at the time of this one time measurement do not meet EPA recommendations, are limited in information, and may not be relevant to current conditions, listing is not appropriate at this time. Consideration of this listing *after* adoption of the State objectives will ensure proper evaluation of whether the beneficial use of aquatic life is being attained, as well as defining the specific segments of the Malibu Creek and its tributaries where the beneficial use may be compromised. This proposed sequence of events ensures a rational, well supported decision-making process, resulting in attainable water quality objectives.

2. Comparison to Reference Site(s)

To properly evaluate a site for biological impairment or diminished numbers of species or individuals of a single species, or other metrics, it must be compared to reference site(s), and that comparison shall be made during similar seasonal and/or hydrologic conditions. A reference site has not been established yet which could serve as a reasonable regional geographic comparison to conditions in the Malibu Creek. Nor were evaluations conducted during similar seasons or hydrologic conditions. The State biological objectives project will be developing these reference sites

As discussed above, and in the Listing Policy, a reference site is also considered a "reference condition." Section 7 of the Listing Policy defines a "reference condition" as,

> "the characteristics of water body segments least impaired by human activities. As such, reference conditions can be used to describe attainable biological or habitat conditions for water body segments with common watershed/catchment characteristics within defined geographical regions."

Listing Policy, page 27 (*Emphasis added*).

Without restating volumes of exacting detail, the inclusion of a reference site, condition, or location is occasionally based on a calculated Index of Biotic Integrity (IBI). Based on the definition of this term, shown above, the IBI should be, "attainable biological or habitat conditions for water body segments with *common watershed/catchment characteristics* within *defined geographical regions*." *Id.* In review of the 2005 Bioassesment Report, the authors appeared to have used an IBI based on studies conducted in the Russian River[9] in 1999 and studies conducted in the San Diego area along the Mexican border and Monterey County line.[10] Moreover, this study which established the Southern California IBI by P. Ode and others in 2005 studied 275 sites in Southern California; however, no sites where located in the Santa Monica Mountains or Santa Monica Bay coastal watersheds (figure 1 of this study shows a gaping hole where no sites seem to exist in Los Angeles (LA) County at all). There are no reference sites or data established for this geographic region at this time.

[9] The Russian River is located north of San Francisco, California.

[10] The line of evidence used to list this impairment clearly indicated that the, "Southern Coastal California B-IBI (SoCal IBI) was developed for the region bounded by Monterey County in the north, the Mexican border in the south, and inland by the eastern extent of the southern Coast Ranges." *A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams*, Environmental Management, Vol. 35, No. 4, pp 494. (2005)

Under Section 3.9 of the 303(d) listing policy, waters are listed when a bioassessment indicates diminished numbers of species (quantity or variety) or other metrics (compared to a reference site) and it is associated with another pollutant. Numbers of species cannot be declared "diminished" if there is no baseline or reference conditions to calculate from. In other words, no reference site has been assessed in this watershed or geographic region to make the comparison, nor have the various stream conditions comparing natural and undisturbed areas to areas with some disturbances been assessed for tiered aquatic life uses (TALU). There has also not been a stressor identification model to correlate specific pollutants or stressors, which depending on geological conditions, could be naturally occurring. In addition to a very low level of confidence in singular or limited number of monitoring events, there is also no consideration for the relative affect of inherently different characteristics (such as gradient, flow or other physical habitat attributes including underlying geology) that exist between a subject site and a reference site.

Therefore, with no certainty that all reaches, in all streams, in all regions and all topographies of Southern California would be equally capable of sustaining highly concentrated and diverse populations of various benthic-macroinvertebrates (or other biota), it is unreasonable to assume that this index should be applied to the Malibu Creek without further extensive studies. The IBI studies which were conducted in 2000 and 2003 to establish the Southern California IBI are now being applied to the Malibu Creek Watershed, some 200 miles away, 7 years later, and in comparison to in-stream measurements over 5 years old.

Furthermore, section 3.9 provides that all proposed listings shall be compared to "similar season and/or hydrologic conditions." Here, the report relied on by the State, the 2005 Bioassesment Report, has not been compared to a similar season nor a similar hydrologic condition as is required by the State's Listing Policy.

California's standards for aquatic life are still in early stages of development when compared to other states with more robust standards programs that include numeric limits and objectives already. For a state with a standards program based primarily on narrative standards (similar to California's current program without numeric limits) "it may be necessary to document the procedures and rationale for interpreting the narrative standard and the statistical derivation of the decision thresholds that were derived from the bioassessment data"[11]. This leaves any findings required for creation of, or compliance with any future TMDL hard to defend, and in some cases indefensible, if a stressor identification model or analysis including reference conditions have not been developed for that specific waterbody. Using a standard that is developed without the necessary science, is not measurable, and is developed in a rushed manner (such as one that would come out of a TMDL developed by EPA pursuant to a consent decree if this premature listing is approved), instead of a narrative or numeric biological objective that has been vetted through a statewide stakeholder process could prove to be more burdensome and ultimately less successful in determining impairments and attainment of standards. Since State agencies, including the Department of Fish and Game and State Water Resources Control Board, are already collaboratively working on a biological objectives program, as mentioned above, it would be more consistent and sensible to complete that process rather than creating a different process for one watershed.

Recommendation(s): Updated and similar season and hydrologic local area IBI studies are necessary, **and required**, for this proposed impairment to meet the requirements of the State's

[11] USEPA, *Consolidated Assessment and Listing Methodology: Toward a Compendium of Best Practices. Using Biological Data as Indicators of Water Quality*, Chapter 5, 2002.

Listing Policy, *e.g.*, attainable biological [and] habitat conditions for water body segments with common watershed/catchment characteristics within defined geographical regions. More recent studies would also reflect current water quality levels due to the increases in water quality protection efforts including increased development and design standards, illicit connection and discharge prohibitions, Total Maximum Daily Loads (TMDLs) adoption and implementation, etc.

3. Associated to Pollutants

Section 3.9 also requires that a, "water segment shall be placed on the section 303(d) list if the water segment exhibits significant degradation in biological populations and/or communities as compared to reference site(s) and is associated with water or sediment concentrations of pollutants including but not limited to chemical concentrations, temperature, dissolved oxygen, and trash." This section also specifies that the impairment be an "[a]ssociation of chemical concentrations, temperature, dissolved oxygen, trash, and other pollutants and *shall be determined* using sections 3.1, 3.2, 3.6, 3.7, 6.1.5.9, or other applicable sections." *Id*. Where the proposed impairment is related to sedimentation, the Listing Policy requires that the, "…populations or communities [be] identified and effects associated with clean sediment loads in water or with loads stored in the channel *when compared to evaluation guidelines (satisfying the conditions of section 6.1.3) using the binomial distribution as described in section 3.1 or as compared to reference sites*." *Id*.

The proposed listing, Decision ID 17209, does not discuss, demonstrate, provide, or reference the impairment's "association" to "chemical concentrations, temperature, dissolved oxygen, trash, and other pollutants." This is mandatory pursuant to the Listing Policy. The only statement to its association is found in the "Weight of Evidence" section of the proposed listing. This one section provides only that, "[t]his impairment is associated with impairments for Invasive Species, Nutrients (algae), Sedimentation/Siltation, Selenium, Sulfates and Trash." Decision ID 17209, Weight of Evidence, *Final 2008 California 303(d)/305(b) Integrated Report, Supporting Information*. In fact, nutrients, sediment/siltation, selenium, and sulfates are largely naturally occurring in the Malibu Creek Watershed and need to be considered for their effects on baseline water quality and how they relate to biodiversity. These pollutants and their source from the Monterey Geologic Formation are discussed in greater detail later in this document. In review of the 2005 Bioassesment Report, it also does not provide any information on the bioassesment findings related to the required "associated" pollutants. For example, no binomial distribution is provided in either, as is required, for loading of sediments and as compared to reference sites.

The Bioassessment Report only provides findings related to: 1) physical habitat *characteristics*; 2) physical habitat *scores*; and 3) BMI community scores. The only recognizable relationship between BMI indices and scoring to any other pollutant or sedimentation is the ranking of the physical habitat; however, no clear delineation or relationship is made or developed. The Report does indicate the temperatures and dissolved oxygen (DO) levels at the time of sampling, although no association to the results of the BMI/IBI are provided.

Recommendation(s): The State should delay any listing related to aquatic life pollutants or stressors until it has completed the required association analysis under Section 3.9 of the Listing Policy and in accordance with U.S. EPA's guidance documents and policies.

4. Consistency with Section 6.1.5.8

Section 3.9 also provides that bioassesment "data used for listing decisions *shall be consistent with section 6.1.5.8*. For bioassesment, measurements at one stream reach may be sufficient to warrant listing provided that the impairment is *associated with a pollutant(s) as described in this section*."[12]

In turn, Section 6.1.5.8, requires,

> "When evaluating biological data and information, RWQCBs shall evaluate all readily available data and information **and shall**:
>
> a) Identify appropriate reference sites within water segments, watersheds, or ecoregions. Document methods for selection of reference sites.
> b) Evaluate bioassesment data at reference sites using water segment-appropriate method(s) and index period(s). Document sampling methods, index periods, and Quality Assurance/Quality Control procedures for the habitat being sampled and question(s) being asked.
> c) Evaluate bioassesment data from other sites, and compare to reference conditions.
> d) Evaluate physical habitat data and other water quality data, when available, to support conclusions about the status of the water segment.
> e) Calculate biological metrics for reference sites and develop Index of Biological Integrity if possible.

Listing Policy, Section 6.1.5.8, page 25. (Emphasis added).

As required by this section, the State Board must consider whether the listing has been adequately compared to the reference site and other sites and must also evaluate the physical habitat data and other water quality data.

As discussed above, the proposed listing has not been compared to a reference site or condition within the meaning of Section 3.9 and Section 6.1.5.8. As provided in 6.1.5.8, the State Board "shall" perform this analysis and evaluation before it can list the impairment.

Recommendation(s): A listing for pollutant or stressor impairment on aquatic life should be delayed until the State can: 1) retest the Malibu Creek water segments to determine whether such impairments actually exists; and 2) develop a reference site and condition to compare the proposed listing. Such efforts will ensure that the proposed listing: 1) is an attainable biological or habitat conditions for the water body segments; 2) the reference site and condition is a common watershed and catchment characteristic within the defined geographical regions; 3) is compared to a similar season and/or hydrologic conditions; and 4) is associated to and with the required pollutant combinations.

II. SUMMARY OF RECOMMENDATIONS FOR BENTHIC-MACROINVERTEBRATE ASSESSMENTS

A. Do not list a waterbody (in particular Malibu Creek) on the 303(d) list of impaired waterbodies for "Benthic-Macroinvertebrate Assessments" as this is not a pollutant or

[12] Listing Policy, page 7.

stressor. The appropriate listing must be based on the actual pollutant(s) or stressor(s) causing the perceived impairment to the aquatic life.

B. Delay any consideration of such related type of aquatic life pollutant/stressor listing until consistent biological objectives that take tiered aquatic life uses into consideration have been developed. As mentioned, the State is in the process of developing these objectives.
C. Conduct additional studies that are necessary to determine appropriate reference conditions, indices, and obtain any needed data in accordance with EPA recommendations and the listing policy to justifiably make a listing.
D. Delay any listing related to aquatic life pollutants or stressors until it has completed the required association analysis under Section 3.9 of the Listing Policy and in accordance with U.S. EPA's guidance documents and policies.

Invasive Species impairments for Malibu Creek (Decision ID 16618) and Solstice Canyon Creek (Decision ID 16622) (Proposed to List on 303(d) List (TMDL Required))

- **Opposed to listing these as requiring a TMDL. These listings should be addressed by an action other than a TMDL.**

New Zealand mudsnails invaded and infested Malibu Creek Watershed in approximately mid-2005. It was then spread to other watersheds, presumably through water quality monitoring activities. This invasive species drives out native insects and animals that provide food for other aquatic/riparian wildlife, compromising the ecosystem. It is extremely hardy, and difficult to nearly impossible to destroy, reproducing asexually and even surviving the digestive tract of prey. While they consume algae, they produce ideal conditions for further algal blooms. Invasive species such as the New Zealand mudsnail may affect the stream ecology significantly and impacts to algal growth and benthic sustainability. In other words, the mudsnail ultimately affects the biodiversity and kills off and/or outcompetes biota, whose diversity helps to raise the index/metric, illustrating a healthy ecosystem.

The mudsnail outbreak creates an extraordinary circumstance that is out of the City's control, and also negatively affects the IBI. Furthermore any resultant TMDL will ultimately be incorporated into the stormwater permit. The agencies permitted for the municipal stormdrain system discharges should not be held responsible for this invasive species, as the mudsnails are not transported via the stormdrain system in urban runoff from point or non-point sources. The snails are transported from direct in-stream contact. Any bioassessments done after the New Zealand mudsnail arrival, including data from those that may have been submitted in 2008 for the proposed listing of this watershed for benthic-macroinvertebrates, may be suspect. It is worth noting that the presence of the invasive New Zealand mudsnail had already been established in the Malibu Creek watershed during the sampling leading up to the Bioassessment Report; therefore, the conditions in the watershed may have been compromised by this invasive species. It seems unreasonable to use a TMDL as the control mechanism for invasive species.

Waste load allocations should not be used when MS4 discharges are not contributing to the spread of the species. The State should consider addressing this with an action other than a TMDL (in collaboration with the State Department of Fish and Game) for management of this issue. The City believes that other agencies with regulatory authority have been conducting analyses to determine if

introduction of a predator species could eradicate the New Zealand mudsnail without causing additional degradation. Therefore, it should be placed as Category 4B - 303(d) list being addressed by an action other than a TMDL.

Another consideration is that any California Environmental Quality Act (CEQA) analysis or substitute environmental document required in creation of the resulting TMDLs must consider the environmental impacts of monitoring activities required to comply with TMDL. Regional monitors for voluntary programs have admitted that their activities are responsible for the spread of the New Zealand mudsnail from watershed to watershed in the coastal streams of the North Santa Monica Mountains (including Malibu Creek and Solstice Canyon Creek) and the resulting impacts. The City appreciates the volunteer efforts of these organizations, and recognizes the importance of monitoring. However, adding increased monitoring programs under another TMDL in these coastal watersheds would require extreme caution (a great expense) to prevent the further spread of this environmental menace.

Malibu Lagoon Benthic Community Effects (Decision ID 7251) (Proposed Do not Delist from 303(d) List TMDL Required)

- **Opposed to listing this as requiring a TMDL. This listing should be listed as addressed by an action other than a TMDL**

With respect to the Malibu Lagoon benthic community effects TMDL, the City believes this listing should be changed to being addressed with an action other than a TMDL because there are extraordinary circumstances that must be considered. In addition, and similarly to the comments regarding the proposed listing for Benthic-macroinvertebrate assessments in Malibu Creek, it seems that benthic community effects are not a pollutant or stressor and should not be listed as such, or at a minimum should be clarified as to what is meant by "effects" and should be listed by the pollutant and/or stressor.

The Malibu Lagoon Restoration Project (by the California Department of Parks and Recreation under a grant from the California State Coastal Conservancy, with participation of local non-profit organizations such as Heal the Bay) is anticipated to begin in the Summer of 2010 or 2011. The disruption of the lagoon conditions during project construction will have long lasting effects for which municipal governments should not be held responsible. Conversely, since this project is more likely in the long term to have overall beneficial effects to the Lagoon and ecosystem, it would be more prudent to address this 303(d) listed impairment with a program or mechanism other than a TMDL, such as studies in conjunction with the Lagoon restoration project.

Because many macroinvertebrates have life cycles of a year or more and are relatively immobile, macroinvertebrate community structure generally is a function of past conditions in the specific waterbody.[13] It is then reasonable to assert that any past listing of the Malibu Lagoon for benthic community effects is based on conditions that may very well be very different now than 1998 when it was listed, and moreover these conditions are most likely to change dramatically during and after the Lagoon Restoration project. The Malibu Lagoon is also known to have harsher estuary conditions than a normal lagoon, and it should be expected that the areas of the Lagoon subject to

[13] USEPA, *Consolidated Assessment and Listing Methodology: Toward a Compendium of Best Practices. Using Biological Data as Indicators of Water Quality*, Chapter 5, 2002.

the extreme flushing that occurs when the sand berm is breached would naturally exhibit lower diversity with increased populations of more tolerant species. It is clear that the EPA, the LA Regional Water Board Quality Control Board (RWQCB), and the City (and other stakeholders) will face numerous issues and hurdles in the development, adoption and implementation of the proposed TMDL. It is overly burdensome given the economic climate and the fact that this impairment may be mitigated with the completion of this project and/or implementation of a mechanism other than a TMDL to attain the water quality standard.

IBI scores for an estuary also rely on salinity as a factor. The Malibu Lagoon salinity is highly variable and at times substantially lower than the other estuaries which the IBI scoring methodology is based. The lagoon size is much smaller than historically noted and it remains closed much of the year except for during the winter when ocean influences breach the sandbar and Creek flows help maintain the opening. This had led to decreasing salinity or, at times, greatly fluctuating salinity which has disturbed efforts to restore the Lagoon.[14]

This will cause a level of difficulty when developing this proposed TMDL because the effects of fluctuating salinity are not fully understood, an appropriate index to these conditions does not exist, and this variation requires additional consideration. The City of Malibu commissioned the United States Geological Survey (USGS) to conduct a study called "Sources of Fecal Indicator Bacteria and Nutrients to Malibu Lagoon and Near-Shore Ocean Water, Malibu, California." The study commenced in July 2009 and continued recently in April 2010. Several testing methods were used to provide for multiple LOE. Some of the methods included sources of freshwater from groundwater or imported water, and also included salinity data that may be useful to your efforts. Data showed that ocean water entering Malibu Lagoon during high tide has a higher salinity than lagoon water. As a consequence, ocean water is denser and will tend to sink to the bottom of the lagoon stratifying water in the lagoon by density.[15] Therefore, overall salinity may be highly variable in this system, and may affect biota differently in different areas of the lagoon. Most data collected as part of this study are publically available in the USGS online database NWIS-Web at http://waterdata.usgs.gov/nwis.

The City hopes that the State will reconsider requiring this TMDL because addressing it with an activity other than a TMDL would be more appropriate. Therefore, the listing should be changed from "requiring a TMDL," and instead should be placed as Category 4B - 303(d) list being addressed by an action other than a TMDL.

Various individual beaches in Santa Monica Bay Proposed for DDT and PCBs (Proposed to List on 303(d) (TMDL Required))

- **Opposed to this listing and opposed to this as requiring a TMDL. This listing should be addressed by an action other than a TMDL**

With respect to the beaches in the Santa Monica Bay proposed 303(d) listings for DDT (including Decision ID numbers 7494, 7532, 7547, 7026, 7056, 7245, 7360, 7365, 7399, 7438, 7088, 7098,

[14] RWQCB, *Santa Monica Bay Watershed Management Area. Watershed Management Initiative Chapter of the State Water Resources Control Board 5-Year Strategic Plan*, page 7. (2007)

[15] Martin, Peter, USGS, *Preliminary Summary Letter Regarding Cooperative Water-Resources Study*, October 29, 2009.

and 7236)and PCBs (including Decision ID numbers7497, 7534, 6992, 7055, 7058, 7362, 7387, 7404, 7439, 7089, 7099, and 7328), the City is not confident that these are appropriate waterbody-pollutant combination listings for all stretches of coastline and requests more data to support the listing and need for a subsequent TMDL.

The Santa Monica Bay (offshore/nearshore) listing (Decision ID 7083) is due to levels in fish tissue and sediments. It is not clear if the proposed for listings for DDT and PCBs at the beaches are also based on data from fish tissue and sediments specifically at these sites, or if the listing is due to ambient water quality.

These DDT listings and PCB listing are apparently being added based on placeholders instituted prior to the 2006 303(d) list development, presumably during development of the 2002 list. Relying on a placeholder from 2002 would predate the 2004 listing policy; and seems to be inconsistent with the current policy requirements for listing waterbodies as impaired. Specifically for DDT, the fact sheets for all of the individual beaches state that there are 0 samples with 0 exceedances, the data and information type is unspecified, and the data used to support the listing is unspecified. These sites may have been added as placeholders in 2002 based only on the listing of the Santa Monica Bay offshore and nearshore listing, and without specific data to support the listing at each individual beach. All of these proposed listings should be considered only after applying the current listing policy. Furthermore, a load based TMDL is ineffective when the manufacture, sale and use of DDT has been prohibited for years. If any listing is made, it should be placed as Category 4B - 303(d) list being addressed by an action other than a TMDL.

With respect to the PCB, the listing for Santa Monica Bay (Decision ID 5308) states that the LOE supporting this listing was sampling from only two stations, at Santa Monica Pier and Venice Pier in July and November of 1999. That may not be indicative of all conditions along the entire coastline and impairments cannot be assumed without scientific support. The fact sheets for all of the individual beaches state that there are 0 samples with 0 exceedances, the data and information type is unspecified, and the data used to support the listing is unspecified. These sites may have been added as placeholders in 2002 based only on the listing of the Santa Monica Bay offshore and nearshore listing, and without specific data to support the listing at each individual beach. All of these proposed listings should be considered only after applying the current listing policy. Furthermore, a load based TMDL is ineffective for these beaches when the manufacture of PCBs is prohibited and federal EPA is considering further regulatory actions to control the release of PCBs. If any listing is made, it should be placed as Category 4B - 303(d) list being addressed by an action other than a TMDL.

It is widely believed that the initial DDT impairments are due to historic violations by the Montrose Chemical Corporation (well outside limits of northern Santa Monica Bay agencies), and now a CERCLA (Superfund) site. Additionally, other contaminants like PCBs are believed to be elevated near wastewater treatment plant outfalls. "Contaminant inputs from wastewater discharge, a major source of contamination to Santa Monica Bay (SMB), have declined drastically during the last three decades as a result of improved treatment processes and better source control."[16] Also, "the

[16] Bay, S.M., Zeng E.Y., Lorenson T.D., Tran K., and Alexander C., SCCWRP,*Temporal and spatial distributions of contaminants in sediments of Santa Monica Bay, California*, Abstract, 2003. Available at http://www.ncbi.nlm.nih.gov /pubmed/12648959.

widespread distributions of DDTs and PCBs in SMB and highly confined distribution of LABs [linear alkylbenzenes] around the HTP [Hyperion Treatment Plant] outfall system were indicative of a dispersal mechanism remobilizing historically deposited contaminants to areas relatively remote from the point of discharge."[17] In other words, the sources or discharges of these contaminants seem to have dissipated, and a 303(d) listing and TMDL would not be appropriate at this time. Further, agencies not associsted with the original discharge should not be held accountable for mitigation. The City of Malibu has no wastewater treatment plant outfall to discharge these pollutants, and is certainly remote from point of discharge. Additionally, it is not clear how a TMDL for these proposed pollutant-waterbody combinations , will affect agencies with MS4 NPDES permits, and is therefore cause for concern by already overregulated communities in challenging economic times.

It is troubling that this listing is being made based on a past Integrated Report placeholder with one LOE, but none of the data or information is available in the state's database. In association with the Bight 2008 study program, the City of Malibu commissioned a series of sample events in the coastal receiving waters in the North Santa Monica Bay. Samples were taken in the wavewash for three pre-storm and three post-storm events at two different sites: (1) a reference type watershed with greater than 90% undeveloped land area and where there were no storm drain discharge pipes (Nicolas Canyon- note that Nicolas Canyon beach is ***proposed to be listed*** specifically for these constituents); and (2) at a stretch of coastal receiving waters adjacent to storm drain discharge pipes (on Broad Beach- which Trancas Beach (Broad Beach) also proposed for listing).

Preliminary review of the samples show that all of the samples analyzed did not detect any Chlorinated and Organophosphorous Pesticides, using EPA standard method 625, which includes analysis of DDT and PCB. The City will be providing this data as part of the upcoming 2012 Integrated Report and 303(d) listing cycle. Without access to the original listing data, we speculate that the entire Santa Monica Bay was listed under an umbrella as impaired for these pollutants due to the Palos Verdes shelf contamination or the Montrose Chemical site. The City hopes that the state will take this under consideration and not approve these listings without data to support a listed impairment at the local level.

Alternatively, if any of these proposed waterbody-pollutant combinations for PCB, and DDT (and other legacy pollutants that are now banned or considered for tighter regulation) can justifiably be added to the 303(d) list as impairments based on data meeting the listing policy criteria, then the following should be considered for implementation by actions other than TMDLs:

> **303d listings for legacy pollutants which have been banned for manufacture and for which current use is either completely banned or restricted by other federal or state agencies, should be listed as "Being Addressed by Action Other Than TMDL" or if such action has not yet been completed as "Requiring Action Other Than a TMDL" on the 303d List.** There are numerous listings for DDT, Chlordane, PCBs and other legacy pollutants for nearshore and offshore areas of Santa Monica Bay, individual beaches in Santa Monica Bay, in sediments of lakes in Region 4 and in contaminated sediments in bays and harbors. The most

[17] Bay, S.M., Zeng E.Y., Lorenson T.D., Tran K., and Alexander C., SCCWRP,*Temporal and spatial distributions of contaminants in sediments of Santa Monica Bay, California*, Abstract, 2003. Available at http://www.ncbi.nlm.nih.gov /pubmed/12648959.

appropriate management measures for such impairment are actions which have already been taken or are in the process of developing those actions through:

- Federal Insecticide Fungicide and Rodenticide Act (FIFRA) regulations which have banned the manufacture and use of DDT, Chlordane, Dieldrin, among others
- Federal Toxic Substances Control Act (TSCA) which banned the manufacture of PCBs and has restricted the use and distribution in commerce of existing PCB-containing equipment and products.
    - USEPA has recently issued an advance notice of proposed rulemaking to consider further restricting existing uses and lowering the threshold for PCB content of regulated PCB-containing equipment and products (FR Volume 75, NO. 66, Wednesday, April 7, 2010, proposed rules page 17645-17666. The State Water Resources Control Board should respond to the USEPA request for comment and information regarding the 303(d) listings for PCBs throughout the State
- Settlement Agreements, Consent Decrees, and Cleanup and Abatement Orders for the source control/remediation of historic deposits of these compounds such as the Superfund Site Records of Decision for DDT at the Montrose Chemical site and the second associated site on the Palos Verdes Shelf.
- Deposits of contaminated sediments which may not be subject to federal Superfund oversight can be dealt with through the California Department of Toxic Substances Control (DTSC) or SWRCB cleanup and abatement orders with responsible parties, or the manager of the water body, be it a lake or harbor.

Legacy pollutant impairments should not be included on the 303(d) List as requiring a TMDL because the framework for issuing a TMDL through waste load allocations and load allocations places undue burden and responsibility on agencies that have no regulatory authority on the use or sources of the legacy pollutants. A TMDL would be ineffectual and unnecessary if there is no relationship between the load and the city's ability to regulate a source.

Various Santa Monica Bay Beaches Beach Closures (Proposed to Delist from 303(d) List (TMDL Required List))

- **Support delisting with clarifications.**

The City supports these various proposed delistings for Beach Closures, but notes that they have instead each been listed accordingly for Coliform Bacteria, Fecal Coliform, or Indicator Bacteria (which also could be problematic).

Another clarification is required for the fact sheets associated with Delisting the Beaches in the North Santa Monica Bay that are within the City boundaries of Malibu. The beaches were incorrectly listed as "beach closings" when in fact they were not closed, but had water quality advisory "postings." The difference is explained as follows:

> In California, we place advisory "postings" at beaches that exceed the water quality standards based on sampling. However, we immediately close beaches (prior to sample results) whenever there is an expected sewage release that reaches recreational water. We only reopen "closed" beaches when two

> consecutive daily sample results show all indicators below the water quality standards. Postings are warnings that water contact may cause illness as it is above bacteria health standards. Closings are prohibitions to "keep out" of contaminated water.[18]

These water quality exceedances were only posted, and not closed for sewage spills and are therefore not listed in accordance with the above guidelines.

Leo Carillo Beach (south of County line) Coliform Bacteria (Decision ID 4262) (Proposed to List on 303(d) List (Being addressed by an EPA approved TMDL)

- **Opposed to listing.**

The City opposes this listing of the individual beach of Leo Carillo for coliform bacteria. This listing is apparently being added based on placeholders instituted prior to the 2006 303(d) list development, presumably during development of the 2002 list. Relying on a placeholder from 2002 would predate the 2004 listing policy; and seems to be inconsistent with the current policy requirements. The fact sheet for this beach states that there are 0 samples with 0 exceedances, the data and information type is unspecified, and the data used to support the listing is unspecified. This site may have been added as a placeholder after the adoption of the Santa Monica Bay Beaches Bacteria TMDL, under the assumption that all of the beaches in North Santa Monica Bay were impaired. Proposed listings should only be considered only after applying the current listing policy.

Even if there was adequate LOE to support this listing prior to the Bacteria TMDL, there is also adequate LOE to immediately de-list this beach. Leo Carillo is also known as SMB 1-1 compliance monitoring site for AB 411 and Santa Monica Bay Beaches Bacteria TMDL. It is located at the outfall of Arroyo Sequit and is regionally considered the reference beach for comparison purposes in setting allowable numbers of exceedance days for regional bacteria TMDLs. The listing policy states that the RWQCBs shall identify one or more reference beaches or water segments to compare the measurements. **Listing the regional reference beach as impaired is inconsistent with the existing TMDL scheme.** "The TMDL features a reference system/anti-degradation approach, utilizing as its reference watershed the Arroyo Sequit subwatershed" and "Leo Carrillo Beach was selected as the reference beach because it best met the three criteria for selection of a reference system. Specifically, its drainage is the most undeveloped subwatershed in the larger Santa Monica Bay watershed, it has a freshwater outlet (i.e., creek) to the beach, and it has adequate historical shoreline monitoring data."[19] Less than 2.5 percent of this watershed is developed and it exhibits natural variation in levels of each bacterial indicator from year to year- anywhere from 0 exceedances to 13 total single sample daily exceedances of any indicator since November 2005 in a full year. This site is sampled weekly for a total of 52 samples. Below is a summary of the most recent past three years of exceedances observed from monitoring at Leo Carillo site SMB 1-1:

[18] SWRCB, "Clean Beach Information Page," http://waterboards.ca.gov/water_issues/programs/beaches/beach_water_quality/beaches_program.shtml.

[19] Psomas, CDM, CH2MHill, Geosyntech Consultants, and Ken Susilo for Los Angeles County, City of Malibu and Caltrans, *NSMB J 1/ 4 Bacteria TMDL Implementation Plan*, August 31, 2005.

Year	Summer dry-weather	Winter dry-weather	Wet-weather	Total (52 sample weeks)
2007	0	1	0	1
2008	2	2	1	5
2009	0	0	2	2

Based on the listing Policy Table 3.2, ***a sample set of 49-54 samples must exceed at least 9 times to be listed.*** Additionally, because the Listing Policy Table 4.2 states that a sample size of 49-54 samples with ***8 or fewer exceedances should be de-listed***. Because this site is considered to be indicative of natural reference conditions, and the observed exceedances from November 2006 through April 2010 do not meet the listing criteria (and furthermore would immediately meet the de-listing criteria), the City requests that Leo Carillo (south of County line) not be listed on the 303(d) list as impaired.

Malibu Creek Fish Barriers (Fish Passage) (Decision ID 7246) Proposed to List on 303(d) (TMDL Required)

- **Opposed to listing this as requiring a TMDL. This listing should be addressed by an action other than a TMDL.**

The likely primary fish barrier that this listing was proposed for is the historic Rindge Dam. Local efforts have been under way for years to consider methods and options for potential removal of this dam, and are pending based on funding and results of the United States Army Corps of Engineers studies. The City agrees that a fish barrier can be considered a stressor and hinder protection of beneficial uses. However, actions to address these proposed impairments do not include load based allocations of a pollutant, but restoration activities. Therefore this proposed listing should not be placed as requiring a TMDL, but instead should be placed as Category 4B - 303(d) list being addressed by an action other than a TMDL.

Malibu Creek Sediment/Siltation (Decision ID 7249) Proposed to List on 303(d) (TMDL Required)

- **Opposed to listing this as requiring a TMDL. This listing should be addressed by an action other than a TMDL.**

This sedimentation listing is apparently being added based on a placeholder instituted prior to the 2006 303(d) list development, presumably during development of the 2002 list. Relying on a placeholder from 2002 would predate the 2004 listing policy; and seems to be inconsistent with the current policy requirements. This proposed listing for Malibu Creek (fact sheet Decision ID 7249) does not provide any information regarding the data that was used for this original placeholder. Based on the information provided in the integrated report, there is currently no apparent ability to view the sample site information or the data supporting the listing, which is problematic. The data originally used may not be indicative of all conditions, in every segment/reach, along the entire creek and impairments of the watershed as a whole cannot be assumed without scientific support. All of these proposed listings should be considered only after applying the current listing policy.

This listing should be addressed with an action other than a TMDL because there are extraordinary circumstances that need to be considered. "The Malibu Creek Watershed contains mostly undeveloped mountain areas, large acreage residential properties, and many natural streams reaches."[20] Additionally, "more than 75% of the Malibu Creek watershed is undeveloped land (open space) consisting primarily of chaparral, scrub, and woodlands, with smaller areas of grasslands and forests. Runoff from these areas contributes nutrients to the waterways in both particulate and soluble forms. Particulate forms generally predominate and are introduced through the erosion of soils that contain organic litter from the overlying vegetation."[21]

As recognized by the two citations above, this watershed is highly undeveloped. There is not sufficient information (we are not currently aware of any studies in the Malibu Creek regarding sediment) to demonstrate the sediment/siltation generated in the creek is of unnatural or even controllable sources. As a result, the scientific basis necessary to establish the water quality based controls through a TMDL may not be present. Any sediment loading is primarily due to natural sources from the very steep, deep, and naturally erosive canyons and slopes in this relatively undisturbed watershed. The agencies within this watershed are suburban and often very low density single family residences, and not the stereotypical massive scale large acreage tract home construction projects that would cause sediment/siltation impairment that can be addressed by a load allocation. While there is some alteration of stream into flood control channels in the upper tributaries of this watershed that may slightly impact flow velocity, they are not the predominant character or indicative of the majority of the Malibu Creek itself. In addition, the US Army Corps of Engineers has been working with other area agencies on a project to remove the Rindge Dam in this creek. Doing so could release the historic sediments trapped behind the dam. The disruption of the creek conditions during and post project will have unknown and potentially long lasting effects for which municipal governments not participating in the project should not be held responsible. The City requests that this listing not be considered until there is sufficient data available, is evaluated according to current listing policy, and if listed should not be listed as requiring a TMDL. Instead category should be placed as Category 4B - 303(d) list being addressed by an action other than a TMDL.

Malibu Creek Nutrient (Decision ID 7247) Proposed to List on 303(d) (Being addressed by an EPA approved TMDL)

- **Revision needed for fact sheet list of sources.**

The Monterey geologic formation, a tertiary marine siltstone (also known as the Modelo Formation in the Santa Monica Mountains and foothills north of the 101 freeway), is widely present in the Malibu Creek watershed and is found to be a substantial source of nutrients from both nitrogen and phosphorus affecting the baseline of these constituents in surface water. Geological maps of the watershed [22] show (1) large areas within the watershed underlain by the Monterey Formation, a known petroleum source rock enriched in nutrients (both phosphorus and nitrogen); (2) heavy metals such as arsenic, cadmium and aluminum (all known to impair aquatic life at relatively low, ppb levels); and (3) high levels of sulfate. These constituents have been thoroughly documented in exposures of the Monterey Formation in Santa Barbara County. The Las Virgenes Municipal Water

[20] SWRCB, *California's Critical Coastal Areas: State of the CCAs Report*, 2006.

[21] USEPA, *Total Maximum Daily Load for Nutrients Malibu Creek Watershed*, page 29. (2003)

[22] Dibblee, T. W. *Geological Maps.* Available from http://dibblee.geol.ucsb.edu .

District recently documented high levels of these same constituents in both fresh and weathered exposures of the formation within the Malibu Creek. Therefore, the fact sheet should include geologic formations as a recognized source of this pollutant.

Malibu Creek Selenium (Decision ID 4589) and Sulfate (Decision ID 4718) Proposed to List on 303(d) (TMDL Required)

- **Opposed to listing.**

These listings are for pollutants that for which it may be infeasible to attain water quality standards for without accounting for natural sources exclusions. Malibu Creek is one of the saltiest creeks in the Santa Monica Mountains and the entire Los Angeles Basin by a substantial margin, with naturally occurring elevated levels of sulfate, nutrients, metals and other compounds. This is because Malibu Creek is the only creek in the Santa Monica Mountains that crosses the east-west mountain ridgeline, with multiple tributaries reaching north of the 101 freeway, where they drain a large area in the upper watershed underlain by the Monterey geological formation (discussed above). This formation is a known petroleum source rock enriched in sulfur, selenium (chemically related to sulfur), salts, heavy metals, and nutrients, as shown in both extensive data in the scientific literature and direct testing of local exposures.

The formation's impacts on water quality are severe, and explain why local groundwater from this area is unfit for municipal water supplies, a situation that predates any significant development in the area and construction of all water and wastewater utilities. The high salt and mineral content causes the streambed in the lower creek to be coated with large amounts of sulfur- and heavy-metal laden salts that precipitate out of solution in those sections of the creek that dry out each summer in the absence of supplemental flows from Tapia Wastewater Treatment Facility. The high salt level explains why the creek is dominated by diatoms that favor high conductivity water, and together with the naturally-high, mineral-driven nutrient levels in the creek, explain the algal growth in Malibu Creek is naturally high, precluding attainment of targets recommended for other regions and streams.[23] The State Water Resources Control Board findings dating back to the late 1970's affirm this conclusion. These conditions are also a variant that should be considered when assessing the biological integrity of the Malibu Creek Watershed. The City opposes these proposed listings and requests that the State reconsider this listing,

Malibu Creek Trash (Decision ID 7250) Proposed to List on 303(d) (TMDL Required)

- **Correction needed. This impairment is being addressed by an EPA approved TMDL**

The Los Angeles RWQCB approved a TMDL for Trash in the Malibu Creek Watershed on May 1, 2008. It was subsequently approved by both the California Office of Administrative Law and Federal EPA. Its effective date is July 7, 2009. This listing should be corrected to state it is being addressed by an EPA approved TMDL.

<u>Other Concerns</u>

[23] JPA, *Comments on proposed Discharge Permit Renewal for the Tapia Wastewater Treatment Facility*, May 27, 2010.

In considering the 303(d) listing and resulting TMDLs, please be aware that compliance with TMDL regulations does not end with the setting of TMDL waste load allocations and limits and must include appropriate implementation plans and be based on a full complement of relevant and current studies.

In addition, the State of California and EPA should ensure that the programs for existing TMDLs are working (including involvement and some level of compliance by all responsible parties listed in a TMDL) before making additional listings and basing and adopting future TMDLs on a flawed program.

The natural land managers (such as owners of public and private open space areas and park lands) must also be held accountable for compliance with TMDLs and other environmental regulations. Natural land managers do not receive the regulatory oversight and are not constrained by the same development standards or permits as projects that local agencies would have the authority to regulate (i.e. a State parks agency project within a City is not subject to stringent post construction water quality BMPs, including Low Impact Development standards, since the state is not subject tp local land use regulations. TMDLs must equitably place the burden of compliance on all responsible parties. The City is available to provide further clarification.