December 4, 2008

Ms. Barbara Baginska
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Proposed Revisions to the 303(d) List of Impaired Water Bodies in the San Francisco Bay Region

Dear Ms. Baginska:

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) appreciates this opportunity to comment on the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) staff’s proposed impaired water quality listings under Section 303(d) of the Clean Water Act. The proposed listings were announced in a document dated October 30, 2008. Three creeks in San Mateo County are proposed for listing due to impairment by trash and/or sediment toxicity:

1. Colma Creek - trash.
2. San Mateo Creek - trash and sediment toxicity.
3. San Francisquito Creek (partly located in Santa Clara County) - trash.

In addition, the shoreline of San Francisco Bay Lower is proposed for listing because of trash impairment.

Comments on the proposed listings are due December 4, 2008 and the Regional Water Board plans to hold a public hearing on January 14, 2009 to consider approval of each proposed listing. Our comments present important issues that we feel must be addressed before any proposed revisions to the 303(d) list are adopted by the Regional Water Board. They are organized into the following four sections:

1. General Comment;
2. General Comments on the Proposed Trash Listings in Creeks;\(^1\) and
3. Comment on the Proposed Trash Listing in San Francisco Bay Lower (Shoreline);

General Comment

Proposed 303(d) listings should be limited to portions of creeks where evidence of impairment exists rather than listing entire creeks. In both San Mateo Creek (proposed trash and sediment

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\(^1\)Trash conditions have improved significantly in Colma Creek due to a trash mitigation program initiated after most of the listing basis evidence was collected. We understand that the municipalities that discharge to Colma Creek plan to submit more up-to-date data to Regional Water Board staff that better represent current conditions, with the goal of preventing an impairment listing based on out-of-date evidence.
toxicity listing) and Colma Creek (proposed trash listing), the sites where the data used to support the proposed listings were collected are located near the downstream ends of these creeks. These data should not be extrapolated to upstream reaches of these creeks because pollutant levels may be site-specific. For example, trash and litter levels in creeks vary greatly depending on the locations of homeless encampments, road over-crossings, and nearby land uses. Further comments about using trash assessment protocols to list an entire creek for trash impairment are provided below.

**General Comments on the Proposed Trash Listings in Creeks**

Data developed by applying the Rapid Trash Assessment (RTA)\(^2\) and Urban RTA (URTA)\(^3\) methodologies at sites within creeks are the primary type of evidence used as a basis for the proposed trash listings. In some cases a “virtual” RTA was performed by examining photographs of a site rather than performing the assessment in the field.

These methodologies are being used to interpret narrative water quality objectives for floating and settleable materials. The Regional Water Board evaluated the results of these trash assessment methodologies to determine whether Beneficial Uses for non-contact water recreation and wildlife were being adversely affected by trash. Unfortunately, there are no scientific underpinnings for using the trash assessment methodologies to show detrimental impacts to these Beneficial Uses. The Regional Water Board staff needs to have a scientific basis for using the RTA/URTA methods to determine trash impairment and the associated thresholds that are proposed to define impairment. This would include determining whether these methodologies are scientifically defensible and reproducible for establishing impairment via Section 3.11 (Situation-Specific Weight of Evidence Factor) of California’s policy for developing the 303(d) list (SWRCB 2004). The results of this type of technical evaluation should be validated through a transparent and public process before using these methodologies to propose listing water bodies for trash impairment. Major issues to evaluate through this method’s development process would include the following:

- Data used in the impairment evaluation need to satisfy requirements described under Section 6.1.4 (Data Quality) and Section 6.1.5 (Data Quantity) of California’s policy for developing the 303(d) list (SWRCB 2004). Standards for data quality and quantity should be developed. One data quality issue will be to evaluate the resolution required for photographic evidence to adequately represent field conditions and allow for a meaningful application of the RTA/URTA.

- The subjectivity in the RTA/URTA qualitative level of trash score (Parameter 1) should be evaluated. Interpretation of “high,” “medium,” and “low” levels of trash is subjective and varies among different field staff conducting the assessments.

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\(^2\) In 2001, Regional Water Board staff developed the RTA protocol as a tool to monitor the amount and types of trash in creeks and inform efforts to identify sources and controls.

\(^3\) During FY 2005/06, the Santa Clara Valley Urban Runoff Pollution Prevention Program revised the Regional Water Board's RTA protocol to increase its utility in evaluating trash conditions at highly impacted sites in urban watersheds. The revisions were intended to enhance the ability of municipal staff to use this tool to identify, prioritize and evaluate trash management activities in urban creeks. The revised protocol is referred to as the Urban Rapid Trash Assessment (URTA).
The basis of establishing the impairment thresholds needs better support and definition. The number of total “transportable and persistent” trash items (Parameter 3) used to define impairment is arbitrarily set at >50 for the RTA and >76 for the URTA. These thresholds are inconsistent. Furthermore, it is essential that a scientifically defensible basis be provided for relating the total number of trash items to adversely affecting aquatic life Beneficial Uses.

An evaluation should be performed of giving lower weight to or omitting RTA/URTA data collected above the creek high water line. The RTA and URTA methodologies identify and give equal weight to trash items found above and below the high water line. While the aesthetic value of recreational activities such as picnicking or hiking near water may be affected by the amount of trash and litter on the ground, the real issue that the Regional Water Board needs to consider is whether the aesthetic quality of trash and litter in the water is adversely affecting non-contact water recreation as a Beneficial Use and whether the types and quantities of trash present adversely affect aquatic life. Trash found on creek banks may not come into contact with the water and has much less potential to impact non-contact water recreation and aquatic life Beneficial Uses.

Data used to assess impairment should meet conditions stated in Section 6.1.5.2 (Spatial Representation) of California’s policy for developing the 303(d) list (SWRCB 2004), which states: “…samples should represent statistically or in a consistent targeted manner the segment of the water body.” RTA/URTA protocols document trash conditions at a defined 100-foot section of creek. The protocols have not been evaluated to determine the appropriate number of sites and locations needed to assess trash impairment for an entire creek. Site selection is extremely important due to the high variability of trash conditions associated with factors such as different land uses and levels of public access. If the objective is to evaluate trash conditions for an entire creek, at a minimum several sites representing a range of trash impacts would need to be assessed.

Comment on the Proposed Trash Listing in San Francisco Bay Lower (Shoreline)

The proposed trash impairment listings include “San Francisco Bay Lower (shoreline),” based on photographic evidence from only two locations. It is unclear what geographic area is proposed for listing under shoreline and how this area compares to the wetland areas with defined Beneficial Uses described in Table 2-10 and Figure 2-11 of the Basin Plan (SFBRWQCB 1995). The geographic definition and areal extent of “San Francisco Bay Lower (shoreline)” should be clarified along with the basis for proposing to list this potentially large shoreline area using the very limited available photographic evidence. It should also be noted that establishing the origin of trash transported by the Bay to shoreline areas would be difficult if the listing is approved and a TMDL is performed in response.

Comment on the Proposed Sediment Toxicity Listing

The proposed basis for listing is sediment bioassay tests that found toxicity to amphipods. The sediment samples were collected from two locations near the mouth of San Mateo Creek. The project report documenting the results for most of these samples (Lowe and Phillips 2007) indicates that one of these sites is tidally influenced and the other site (Gateway Park), which is farther upstream, is not. However, based on SMCWPPP staff’s field observations and
discussions with City of San Mateo staff, both of these sites are tidally influenced. Thus it is not known whether the sediments that were associated with the toxicity originated from the creek watershed or from San Francisco Bay. Since Bay sediments have been associated with toxicity, the origin of the San Mateo Creek sediment toxicity is also uncertain. Further study should be conducted to determine whether the toxicity originates from the creek’s watershed or the Bay before deciding whether there is any value to listing the mouth of this creek for sediment toxicity.

We look forward to continuing to work with you during the development of the 2008 303(d) list. Please call me if you have any questions or comments.

Sincerely,

Matthew Fabry
SMCWPPP Coordinator

cc: Sue Ma, Regional Water Board staff

References:

