

**STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION**

**STAFF REPORT FOR REGULAR MEETING OF OCTOBER 26, 2001**

Prepared on October 4, 2001

**ITEM: 16**

**SUBJECT: Changes to 303(d) List of Impaired Water Bodies**

**SUMMARY:**

To achieve the water quality goals of the Clean Water Act, the United States Environmental Protection Agency's (USEPA's) first objective is to ensure that technology-based controls on point sources are established and maintained. Where such controls are insufficient to attain and maintain water quality standards, water quality-based controls are required.

The State is required to identify a list of impaired water bodies requiring water quality-based controls, or Total Maximum Daily Loads (TMDLS), under Section 303(d) of the Federal Clean Water Act (CWA). The last list was prepared in 1998. The Regional Water Quality Control Board, Central Coast Region (Regional Board) will consider public comments and provide recommended changes to the 1998 303(d) List to the State Water Resources Control Board (SWRCB). The SWRCB will review recommendations from all the Regional Boards. The SWRCB will hold a public hearing and consider public comments; finalize the 303(d) List for the whole state; and transmit the 303(d) List to the USEPA.

The Regional Board solicited information from the public to consider for the 303(d) List. (This letter is shown in Attachment One.) The public was given until May 15, 2001 to provide information. The Regional Board is only considering information provided by May 15, 2001 in this recommendation. The Regional Board is only accepting comments

about proposed changes to the 303(d) List identified in Attachment Two.

The 303(d) List update includes additions to water bodies and pollutants; removal of water bodies and pollutants; and changes to the description of water bodies currently listed (for example, refinement of identified impaired reaches, changes in priority, etc).

**DISCUSSION:**

**Background**

Under the authority of Section 303(d) of the Clean Water Act, USEPA expects States to develop Total Maximum Daily Loads (TMDLs) for waters on the 303(d) List where technology-based effluent limits or other legally required pollution control mechanisms are not sufficient or stringent enough to implement the water quality standards applicable to such waters. Updates of the list must be performed according to Section 303(d) of the Clean Water Act. Updates include adding or removing waters, and indicating Regional Board priorities and schedules for developing TMDLs. A TMDL is a plan to attain water quality standards. This plan allocates pollution control responsibilities among pollution sources in a watershed, and it is the basis for taking actions needed to restore the beneficial uses and applicable water quality objectives in a waterbody. A TMDL analysis usually evaluates tributary waters to the waterbodies on the 303(d) List.

The USEPA (40CFR 130.7[a][5]) directs States to “assemble and evaluate all existing and readily available water quality-related data and information” to develop the 303(d) List and priorities for TMDLs. Ideally, this process should involve review of information such as monitoring data, scientific literature, or resource management agency documents.

### Approach to Listing Waters

Some of the general considerations used by the Regional Board staff to recommend changes to the 303(d) List for surface waters within the Central Coast Region are shown below. These considerations were developed by an ad hoc group of staff from Regional Boards, the State Board, and U.S. EPA in 1997. Region Three staff participated on this ad hoc workgroup and supports use of these general considerations. The Regional Board may also use other considerations to support listing. For this last update, staff relied predominately on exceedences of State Board Ocean Plan objectives or Regional Board Basin Plan objectives.

### Listing Considerations

1. Effluent limitations or other pollution control requirements [e.g., Best Management Practices (BMPs)] are not stringent enough to assure protection of beneficial uses and attainment of SWRCB and RWQCB objectives, including those implementing SWRCB Resolution Number 68-16 “Statement of Policy with Respect to Maintaining High Quality of Waters in California.”
2. Fishing, drinking water, or swimming advisory currently in effect. This does not apply to advisories related to discharge in violation of existing WDRs or NPDES permits.
3. Beneficial uses are impaired or are expected to be impaired within the listing cycle (i.e. in next two years). Impairment is based upon evaluation of chemical, physical, or biological integrity. Impairment will be determined by “qualitative assessment”,

physical/chemical monitoring, bioassay tests, and/or other biological monitoring. Applicable Federal criteria and RWQCB Water Quality Control Plans determine the basis for impairment status.

4. The water body is on the previous 303(d) List and either: (a) “monitored assessment” continues to demonstrate exceedences of objective(s) or (b) “monitored assessment” has not been performed.
5. Data indicate tissue concentrations in consumable body parts of fish or shellfish exceed applicable tissue criteria or guidelines. Such criteria or guidelines may include SWRCB Maximum Tissue Residue Level values, Food and Drug Administration Action Levels, National Academy of Sciences Guidelines, and U.S. EPA tissue criteria for the protection of wildlife as they become available.
6. The water quality is of such concern that the RWQCB determines the water body needs to be afforded a level of protection offered by a 303(d) listing.

### Evaluation Approach

Staff is utilizing a “weight of evidence” approach to propose new listings to the Regional Board. Staff is interpreting “weight of evidence” to mean more water quality data exists to indicate impairment than water quality data that does not exist to indicate impairment. Staff considers the “weight of evidence” to occur where 50% or greater of all samples for a given water body exceed applicable *Water Quality Control Plan, Central Coast Region* (Basin Plan) standards or State Water Resources Control Board Ocean Plan standards.

Staff only considered data that had been collected and analyzed with appropriate certified quality assurance/quality control procedures. The type of information that was readily available to the Central Coast Regional Board to develop the 303(d) List was primarily conventional water quality data. This type of data is for constituents such as

total dissolved solids, sodium, chloride, nitrate, dissolved oxygen, and bacteria. The data set for each constituent for each water body was individually reviewed to determine whether 50% or greater of the samples had values greater than the applicable water quality standard for that constituent. If so, the waterbody/pollutant combination is proposed as a new listing. Statistical methods were not utilized as a listing approach (i.e. mean values, median values were not calculated).

There are no specific minimum data requirements or a specific frequency of exceedences for making a finding that water quality objectives are not attained. (This is particularly the case when statistical approaches are not used, such as basing attainment upon mean or median values for a given site.) In general, more data is needed to interpret environmental results that are specific to time and geography. Less data would be needed to make a determination based on environmental results that serve as integrators over space and time. For example, more water column chemistry data would generally be needed to determine impairment than fish tissue chemistry data. All the data received and evaluated by the Regional Board staff for this update was water column data.

The rigor of evidence used to recommend that a water body be listed is a judgment decision of the Regional Boards and their staff. It must be kept in mind that a decision to list does not require the same certainty that is applied when determining violations of permit conditions. Constructing the list is not a regulatory action. This is an informational and administrative process that prioritizes our work and highlights problem locations. As such, the judgment of staff is sufficient basis for listing. What is necessary is a reasonable rationale to support the listing or delisting, and documentation of the information relied on to reach that conclusion. The regulatory actions associated with listing come as a response to the list. TMDLs, standards actions, or other means of resolving the non-attainment condition are the regulatory instruments.

Development of a TMDL "Problem Statement" (and subsequent TMDL

components) is the more appropriate mechanism to evaluate data more rigorously and determine a stronger, clearer, and scientific basis for impairment. If the problem can be clearly defined, staff proceeds with TMDL development. If the problem remains unclear or there does not appear to be adequate data to proceed with TMDL development, additional monitoring can be scheduled to fill data gaps or improve information. If after collecting adequate data the problem cannot be determined, the waterbody can be delisted.

#### Delisting Considerations

According to the Listing Guidelines, water bodies may be delisted for specific pollutants or stressors if any one of these considerations is met:

1. Objectives are revised (for example, Site Specific Objectives), and the exceedence is thereby eliminated.
2. A beneficial use is de-designated after U.S. EPA approval of a Use Attainability Analysis, and the non-support issue is thereby eliminated.
3. Faulty data led to the initial listing. Faulty data include, but are not limited to typographical errors, improper quality assurance/quality control (QA/QC) procedures, or Toxic Substances Monitoring/State Mussel Watch Elevated Data Levels, which are not confirmed by risk assessment for human consumption.
4. It has been documented that the objectives are being met and beneficial uses are not impaired based upon "Monitored Assessment" criteria.
5. A TMDL has been approved by the US EPA.
6. There are control measures in place, which will result in protection of beneficial uses. Control measures include permits, cleanup and abatement orders, and watershed management plans, which

are enforceable and include a time schedule.

#### Proposed TMDL Priorities

A priority ranking is required for listed waters to guide TMDL planning pursuant to 40 CFR 130.7. TMDLs will be ranked into high, medium, and low priority categories based on:

- water body significance (such as importance and extent of beneficial uses, threatened and endangered species concerns and size of water body);
- degree of impairment or threat (such as number of pollutants/stressors of concern, and number of beneficial uses impaired or threatened);
- conformity with related activities in the watershed (such as existence of watershed assessment, planning, pollution control and remediation, or restoration efforts in the area);
- potential for beneficial use protection or recovery;
- degree of public concern and
- available information.

It should be noted that the criteria can be applied in different ways to different water bodies and pollutants. For example, a water body may be severely impaired, but if there is little likelihood of beneficial use recovery, than a lower priority might be given. Staff also considered (1) the overall need for an adequate pace of TMDL development for all listed waters and (2) if other water bodies and pollutants have become a higher priority.

Staff also assigned a higher priority according to Regional Board priority watersheds (Salinas, Morro Bay, San Lorenzo, Pajaro, Santa Maria, and Santa Ynez) per the Watershed Management Initiative.

**Schedules for TMDL development after the first two years should be regarded as very tentative. Completion will depend**

**significantly upon the availability of funding, availability of staff, on watershed stakeholder group priorities, and RWQCB Basin Plan amendment priority. They will also depend upon further evaluation of the need for and feasibility of TMDLs.** If additional water bodies are listed in subsequent 303(d) Lists, schedules will also need to be revised.

#### Public Solicitation

Regional Board staff solicited public information and comments regarding 303(d) List additions on March 7, 2001 (Attachment One). The public was notified that information received by May 15, 2001 would be included in staff's evaluation. The public solicitation letter was also placed on the Central Coast Region's web page-[www.swrcb.ca.gov/rwqcb3/tmdl/index.html](http://www.swrcb.ca.gov/rwqcb3/tmdl/index.html).

Information and data that resulted in new listings of impaired waterbodies is discussed below and in Attachment Three. Regional Board staff only considered data with proper quality assurance/quality control. Only conditions with 50% or greater of all samples for a given water body exceeding applicable Basin Plan standards and Ocean Plan standards were proposed as new listings.

The Santa Barbara County Public Health Department submitted water quality data as a result of the March 7, 2001 public information solicitation. The County's data indicates impairment of three additional Santa Barbara County beaches. The County utilizes QA/QC procedures to assure reliable sample results. The samples are analyzed at the Santa Barbara County Public Health Laboratory.

Other information/data was also received, but it did not result in new 303(d) listings. This information is described in Attachment Four.

#### Additional Regional Board Information

Many potential data sources exist and/or were submitted in response to the public solicitation. Potential data sources include State Mussel Watch/Toxic Substances Monitoring; beach-monitoring data;

monitoring data for regulated/unregulated discharges; and data from other local, state and federal agencies. Listing information can be obtained from reports containing trend analysis/water quality assessment information. Where available, these sources were utilized. For example, the California Department of Pesticide Regulation provided water quality data. (No new water quality impairment conditions were identified.) Some data sources did not have additional information beyond that which was available in 1998 (such as State Mussel Watch or Toxic Substances Monitoring data).

The Central Coast Regional Board has developed an ambient water quality-monitoring program called the Central Coast Ambient Monitoring Program (CCAMP). The CCAMP surface water monitoring strategy is to focus on watersheds and coastal confluences. CCAMP watershed characterization calls for dividing the Central Coast Region into five watershed rotation areas and conducting synoptic, tributary-based sampling each year in one of the areas. Over a five-year period, all the hydrologic units in the Region are monitored and evaluated. Permanent watershed sites are monitored monthly for conventional water quality parameters, and once during the year for sediment chemistry, bioaccumulation, and benthic invertebrate assemblages. In addition to the synoptic site selection approach, additional monitoring sites are established in each rotation area to provide focused attention on watershed and water bodies known to have water quality impairments. CCAMP utilizes quality assurance/quality control (QA/QC) procedures to develop reliable water quality sampling results. Requirements for field and laboratory duplicates and blanks, adherence to field sampling protocols, chain of custody, chain of data processing, and similar quality assurance procedures are set forth for data collected by CCAMP and its contractors. Only the State Department of Health Services certified labs perform data analyses.

Federal law requires States to consider 305(b) reports when developing 303(d) List. 303(d) regulations requires the state to consider “[w]

aters identified by the State in its most recent section 305(b) report as ‘partially meeting’ or ‘not meeting’ designated uses or as ‘threatened’;” [40 C.F.R.sec. 130.7 (b)(5)(i)]. In the case of the Central Coast Regional Board, the year 2000 305(b) report relies upon CCAMP data. CCAMP data is also the same data source used for the 303(d) List. Reviewing this data resulted in several new listings (see next section and Attachments Two and Three).

In addition to CCAMP, staff used monitoring data generated by the Morro Bay National Monitoring Program. This ten year sampling program monitors several stations within the Morro Bay watershed. Sampling and analysis is performed according to the Quality Assurance Project Plan (Regional Board, 1996). This data resulted in one new listing.

Another data source staff used for the proposed 303(d) List is South County Regional Wastewater Authority (SCRWA) monitoring data generated by Waste Discharge Requirements. In particular, staff utilized data for Llagas Creek upstream of this facility to support listing. This upstream Llagas Creek water quality data was compared to site-specific water quality objectives contained in Table 3-7 of the Basin Plan. Regional Board Waste Discharge Requirements stipulate QA/QC procedures within the Standard Provisions and Reporting Requirements for Waste Discharge Requirements. This data resulted in four new listings.

Staff is proposing to add several water quality impairments to the 1998-303(d) List.

### **Proposed Changes To 303(D) List**

#### **Proposed Listings**

The recommended changes to the 1998-303(d) List are shown in Attachment Two. Additions are shown in a **highlighted** format and deletions are shown in a ~~strickthrough~~ format. Priority and schedule changes are identified by footnotes.

More information about proposed new listings is shown in Attachment Three. Included is

staff's rationale for adding a specific condition.

#### Proposed 303(d) Delistings

Staff is proposing to remove water quality conditions from the 1998-303(d) List. Waters proposed for delisting are summarized below and shown in a ~~striketrough~~ format in Attachment Two. Detailed rationale for proposed delisting can be found on our website-

[www.swrcb.ca.gov/rwqcb3/tmdl/index.html](http://www.swrcb.ca.gov/rwqcb3/tmdl/index.html) ("Proposed 2001 303(d) List Documents) or we can fax or mail a copy.

#### Chorro Creek Metals

Staff is proposing to delist Chorro Creek for metals after evaluating data and finding conditions support delisting consideration three (faulty data). Staff found that data relied on for listing Chorro Creek metals only showed exceedences of water quality standards for samples collected outside of the waterway. Results of data analysis for water samples within the water body did not show exceedence of standards. Available information also supports delisting consideration four (beneficial uses are not impaired) based on new aquatic habitat data. The California National Guard submitted this data after the 1998 listing. Delisting consideration six, control measures in place, also applies because sediment reductions required under the Siltation TMDL for Chorro Creek, Los Osos Creek, and the Morro Bay Estuary, are also expected to reduce metals loads to Chorro Creek.

#### Los Osos Creek Priority Organics

Staff is proposing to delist Los Osos Creek for Priority Organics. Water column and sediment data was collected as part of a monitored assessment and no exceedences of standards existed. Therefore delisting consideration four is supported. Los Osos Creek will benefit from sediment reductions required under the Siltation TMDL which are expected to also reduce pesticides loads in Los Osos Creek. This supports delisting consideration six, (control measures in place).

#### San Lorenzo River Estuary Siltation

Staff is proposing to delist the San Lorenzo River Estuary for siltation. The original listing appears to have been based on generic data that was not truly indicative of the conditions in the San Lorenzo River Estuary. This conclusion supports delisting consideration three, use of faulty data. The City of Santa Cruz's 1989 study of the lower San Lorenzo River (Philip Williams & Associates, et al, 1989), which includes the Lagoon Management Plan, has established that problems within the lagoon are associated with the breaching of the sand bar that becomes established between the lagoon and Monterey Bay, and are not due to the delivery of sediment from upstream sources.

#### Other Changes Proposed

Attachment Two indicates a priority and schedule for each new listing and changes to priority and schedule for some existing listings.

The following general comments provide background and justification for proposed schedules shown on Attachment Two. While initial assessments started for several listings between 1996 and 1998, TMDL development did not. From 1996 to 2000, TMDL-related efforts focused on updating the 1998-303(d) List and assessing resource needs and priorities for TMDL development, watershed management, and establishment of CCAMP. In July 1999, Region Three secured dedicated resources (for five staff people) for TMDL development. These resources were augmented in July 2000 (with three additional staff people). Much of the TMDL effort during 1999 focused on recruiting, hiring, and training new staff, establishing the TMDL program and integrating the program into the Watershed Branch. Actual TMDL development work throughout Region 3, as defined by the 1998-303(d) List, began in July 2000 and significantly increased in January 2001. Hence, several start dates have been proposed to be modified on the 303(d) List to better reflect this overall schedule. Proposed schedules for the new listings have been

determined in conjunction with this overall schedule as well. Additionally, USEPA requires that TMDLs be scheduled for completion within 13 years of the year a waterbody is listed (2015 for waters added to the list as part of this 2002 303(d) List Update). The proposed schedule changes are also based on the assumption that the current level of staff resources will be adequate to complete all the TMDLs on this revised 303(d) List. Specific reasons for each change are indicated in footnotes on Attachment Two.

#### Listing Clarifications

##### San Luis Obispo Creek Priority Organics

Staff is proposing to delist San Luis Obispo Creek for Priority Organics and refining/clarifying the listing to PCB. Exceedences of hexachlorocyclohexane (HCH), chlordane, and polychlorinated biphenyl (PCB) served as the basis of the original listing for priority organics. Staff revisited data that was the basis of the initial listing, and have recently performed a monitoring program. Reconsideration of the original data supports delisting for HCH based on delisting consideration three, faulty data. Results of the monitoring program support delisting for chlordane based on delisting criteria four, objections are being met. San Luis Obispo Creek will remain listed for PCB because the monitored assessment conducted does not support delisting for this constituent. Attachment Five contains a detailed report for this proposed clarification.

#### COMMENTS:

##### 1. City of Santa Cruz, August 28, 2001

a.) There are significant impacts to Majors Creek. City maintenance of the Majors Creek diversion has become increasingly problematic due to the sediment load in the creek. Also the sediment problem is documented in a report written by Don Alley, Certified Fisheries Scientist. The City provided staff a copy of this report.

**Staff Response:** Staff is proposing to add Majors Creek sediment to the 303(d) List.

The report provided by the City and Citizens for Responsible Forest Management provides the documentation needed to support listing Majors Creek.

b.) The current Basin Plan turbidity objective is written in Jackson Turbidity Units, which is rarely used. How is this issue addressed in the context of data submitted for potential 303(d) listings?

**Staff Response:** We agree that the Basin Plan turbidity objective should be expressed in another form other than Jackson Turbidity Units (JTUs). This is an item on the Basin Plan Triennial Review Priority List for future proposed Basin Plan amendment.

One way to utilize turbidity data (in either JTUs or another unit of measurement) is to also provide information that confirms nuisance or adverse affects to beneficial uses. Another way is to provide turbidity data that provides upstream/ downstream measurements. We would need several of these comparative measurements over time to determine the data represents violation or impairment.

c.) The City is amenable to investigating alternative methods of improving the Majors watershed without the 303(d) listing if that is possible.

**Staff Response:** Staff is recommending Majors Creek be added to the 303(d) List. The TMDL will not begin until 2006. In the interim, Regional Board nonpoint source staff plans to perform a watershed tour to assess current conditions. If warranted, impairment corrective measures will be added to a future nonpoint source workplan. The next nonpoint source workplan will be developed for FY 2002-03. Staff supports and encourages the City to initiate investigations into methods of improving the watershed and to coordinate with Regional Board Staff.

d.) For San Lorenzo River sediment, all tributaries that are contributing to the impairment should be listed. There is confusion amongst other stakeholders regarding the consequences of listed waters

versus unlisted waters. salmonid habitat typing performed in 1996 found the creek was severely impacted by sediment.

**Staff Response:** Waterbodies are listed based on evidence of impairment. Tributary waterbodies, which are known to contribute to the impairment of a listed waterbody, are not necessarily impaired themselves and are therefore not listed. TMDLs are prepared for listed waterbodies and address all contributing sources of impairment in both the analysis and implementation phases of their development.

New additions to the 303(d) List of impaired waterbodies must be waterbody specific with a specified geographic extent and cannot be made generically. This precludes listing new waterbodies with non-specific geographic designations such as “all tributaries” (as suggested in comment “3a” below). Likewise, increasing the area of impairment of a currently listed waterbody beyond its physical limits in order to include unspecified tributaries is too generic to be an acceptable method for listing (as suggested in comment “3a” below).

The current Draft San Lorenzo River TMDL is being prepared pursuant to the 1998-303(d) List, which included 25 miles of the mainstem and three tributaries, Lompico, Shingle Mill, and Carbonera Creeks. While Regional Board staff recognizes that tributaries to these listed waterbodies contribute to their impairment, they were not individually listed on the 1998-303(d) List. Nevertheless, the current Draft San Lorenzo River TMDL includes an analysis of all tributaries to the mainstem and calculates an estimated contribution of sediment affecting the total load for the mainstem. Furthermore, the draft Implementation Plan for this TMDL identifies a broad selection of actions to be implemented throughout the entire watershed, which will bring about the necessary reductions in sediment loading in the listed waterbodies and improvements to the tributaries.

The draft TMDL, including the actions in the implementation plan, will be presented to the Regional Board as a Basin Plan amendment during this fiscal year. Staff proposes to rely

on the watershed-wide implementation plan in the TMDL to further address sediment-related water quality concerns throughout the San Lorenzo River Watershed. Staff does not recommend any additional listings of sediment-impaired waterbodies in the San Lorenzo River Watershed for this list update.

Per federal regulations [40 CFR 130.7 (b)(1)(iii)], States must identify water quality-limited segments still requiring TMDLs for which “other pollution control requirements (e.g. best management practices) required by local, State or Federal authority are not stringent enough...” In this case, the TMDL implementation plan provides control requirements for tributaries to the San Lorenzo River so the tributaries do not need to be listed on the 303(d) list individually.

Also, please refer to staff response “3b” below.

## **2. Citizens for Responsible Forest Management, August 31, 2001.**

Majors Creek is impaired by sediment and should be added to the 303(d) List. Twenty years ago, the creek contained pools that covered people’s heads while standing. Now the same stretch is only knee deep. Numerous sources of sediment dump into Majors Creek as a result of human activity. These include improper road placement/maintenance, logging operations, and failed culverts.

**Staff Response:** Staff is proposing to add Majors Creek sediment to the 303(d) List. The information provided by this organization and the City of Santa Cruz provides the documentation needed to support listing Majors Creek.

Due to limited TMDL staff resources, the TMDL for Majors Creek cannot begin until the year 2006. In the interim, nonpoint source staff plans to perform a watershed tour to assess current conditions. If warranted, this issue will be added to a future nonpoint source workplan. The next nonpoint source workplan will be developed for FY 2002-03.

## **3. San Lorenzo Valley Water District,**



**September 10, 2001.**

a.) The District recommends the Regional Board consider clarifying language or standards in the current 303(d) listing of the San Lorenzo River for sediment. The District's preference is to include the wording San Lorenzo River and Tributaries in the listing for sediment. Alternatively, the miles of listed water bodies could be amended to include the approximate miles of major tributaries impaired by sediment to 60 miles (which is the same as the affected area for pathogens).

**Staff Response:** See response "1(d)" above.

b.) The ambiguity in the current 303(d) List has already caused registered professional foresters preparing proposed timber harvest plans on tributaries (to listed waterbodies) to express doubt about the necessity to follow the Forest Practice Regulations for impaired water bodies.

**Staff Response:** The Regional Board staff has interpreted the language in the 2001 Forest Practice Rules (FPR) such that the requirements apply to any planning watershed in which timber operations could contribute pollutants or stressors limiting water quality in a listed water body. For example, a planning watershed for a tributary to a sediment-listed waterbody is first evaluated for its capacity to contribute sediment to the listed waterbody. Where such capacity exists, and where timber operations are proposed, the planning watershed is subject to the requirements in Section 916.12 of the FPR.

Interim Rule (916.12) describes specific requirements of the California Department of Forestry and Fire Protection (CDF) and the Regional Board where timber operations are proposed that could potentially affect waterbodies listed as impaired on the 303(d) List. The rules require that CDF work with the Regional Board and SWRCB to conduct watershed analysis, TMDL development, and to possibly develop recommendations for watershed-specific silvicultural practices, if existing rules are deemed not to be sufficient. The watersheds where these requirements

apply are described in the Rules as:

"...any planning watershed in which timber operations could contribute to the pollutants or stressors which have been identified as limiting water quality in a water body listed pursuant to 303(d) Federal Clean Water Act..."

Regional Board staff are currently drafting a memorandum to CDF to clarify the Board's interpretation of this Interim Rule as well as others relating to 303(d) listed waterbodies. The memorandum will also identify a course of action to pursue upon expiration of the Interim Rule on December 31, 2001. The February 1988 Management Agency Agreement (MAA), between the Water Resources Control Board, CDF, and the Board of Forestry, addresses how these agencies intend to carry out the portions of the State's Water Quality Management Plan related to silvicultural activities on nonfederal lands in the State of California. The MAA provides a foundation for the level of cooperation among the agencies needed to fulfill the requirements of Interim Rule 916.12 and Section 303(d) of the Clean Water Act.

c.) The District does not support delisting the San Lorenzo River estuary for sediment. The district believes that periodic storm events still deposit sediment in the estuary and impact aquatic life.

**Staff Response:** The proposal to remove the San Lorenzo River Lagoon from the 303(d) List of impaired waterbodies is based on conclusions drawn from the investigation of lagoon dynamics performed in the late 1980's, San Lorenzo River Enhancement Plan (Phillips and Associates, 1989). No other information has been provided to indicate sediment is currently causing impacts to the lagoon's designated beneficial uses or that the conclusions of the 1989 report, on which the delisting recommendation is based, are flawed.

Staffs of the City and County of Santa Cruz have stated that they support delisting the lagoon.

#### 4. Santa Barbara ChannelKeeper, August 31, 2001.

Seven south Santa Barbara County waters are on the proposed 303(d) List. Six of the seven waters are designated as "High Priority," however the schedule indicates work will not begin until 2004. The TMDL process has begun in the northern part of the Central Coast Region, but work should also begin in the south Santa Barbara area as soon as possible. The Regional Board should adopt a schedule that includes as a top priority one or more of the seven impaired Santa Barbara South Coast water bodies. As a matter of equity, it seems that if the majority of Region Three's current TMDL resources are being used on water bodies located in or north of San Luis Obispo County; at least some of those resources ought to be used to address the problems facing the South Coast watersheds. Nobody can predict with certainty to what extent future funding will be available. Limited funding that currently exists should be distributed throughout the region. Moreover, even if future funding does become available, it is inappropriate and imprudent to wait until 2004 to begin the TMDL process on the South Coast. By beginning work immediately on at least one impaired South Coast water body, local Santa Barbara government officials and stakeholders will have the opportunity to participate in the TMDL process right away. By 2006, when work is set to begin on the majority of the other South Coast water bodies, enough local knowledge about the process will exist to facilitate work on those other projects.

Santa Barbara County has many groups and individuals who agree the Regional Board should allocate sufficient resources to begin work immediately on one or more South Santa Barbara waters.

**Staff Response:** The Regional Board has budgeted data acquisition and information gathering in the South Coast Santa Barbara County area for this fiscal year (2001-2002). This will allow staff to initiate preliminary problem assessments, identify data gaps, and coordinate with local agencies and organizations in 2002 or 2003.

We have also assigned staff to work on nonpoint source pollution control in Santa Barbara County this year. Additionally, we have hired a staff person to initiate development of Phase II of the Storm Water Program and oversee Phase I activities in Santa Barbara County this year. These efforts are expected to result in improved water quality.

Staff believes initiating both these programs first or ahead of TMDL development is a sound strategy for water quality improvement because the TMDL Plan is likely to refer and rely on these programs and regulatory tools anyway. If the programs are developed and implemented, the TMDL development process will already be in progress when the TMDL is scheduled "to begin." Completion of the TMDL will be more efficient and/or delisting may be possible. If implementation of these programs does not occur or does not result in water quality improvement, TMDLs will ultimately lead to these and additional appropriate tools to improve water quality.

If staff begins to work on TMDLs within Santa Barbara County, staff will no longer be available to work on TMDLs within the San Lorenzo, Valencia/Aptos, Pajaro, Salinas, Morro Bay, or San Luis Obispo watersheds.

All waters within the Central Coast Region are equal in importance. However, geographical distribution of TMDL efforts is not necessarily the best basis upon which to assign staff resources. Staff's strategy emphasizes factors such as the number of beneficial uses impaired and potential for beneficial use recovery.

Staff estimates implementation measures will take much longer to take effect for siltation, nutrient, and metal problems than for bacteria problems. Therefore, staff believes that TMDL efforts for these longer recoveries should begin sooner and continue to be the focus of work.

In summary, Regional Board staffs are beginning to work on bacteria water quality restoration efforts in south Santa Barbara County. These efforts are expected to result in

water quality improvement and will implement actions the TMDL is likely to rely on anyway.

(Only six south Santa Barbara County waters are on the proposed 303(d) List. Atascadero Creek is in the Salinas watershed. The six TMDLs are scheduled to begin in 2006, not 2004 as stated in the comment letter.)

**5. Santa Barbara County Public Health Department, August 31, 2001.**

a.) The County recommends that no new listings be included this year, but that the proposed new listings be re-examined after the State Water Resources Control Board redefines the State Listing/Delisting Considerations.

**Staff Response:** Staff believes the new listings proposed are based on exceedences of Ocean Plan water quality objectives. Any future changes to listing considerations will always include exceedences of Ocean Plan objectives. (If the Ocean Plan objectives are revised in the future, and if these listed waters attain standards, the condition can be delisted with minimal Regional Board resources.)

b.) The delisting documents contained in Attachment Five [of Draft Staff Report and currently at Central Coast Region website] require a great deal of Regional Board staff time. Given the potential for an elaborate and resource intensive delisting process, the County recommends caution in moving forward with any additional listings.

**Staff Response:** See response to “a” above.

c.) The Jalama Creek Listing is based upon the Ocean Plan water contact standards. This standard uses a time-weighted analysis (geomean). AB411 removed a time weighed analysis as the general consensus of public health officers, public health officials, and regulatory officials believed this type of standard is not useful in preventing public health risk. AB411 standards are more protective of public health and Ocean Plan standards should not be applied.

**Staff Response:** The Regional Board is obligated to utilize Ocean Plan objectives. All Santa Barbara beaches proposed to be added to the 303(d) List are based on exceedences of the Ocean Plan water contact recreation objective and the shellfish harvesting objectives. The Ocean Plan water contact objectives are more stringent than AB 411. Shellfish harvesting objectives are more stringent than water contact objectives. Shellfish live in the proximity of all proposed Santa Barbara County beaches according to staff conversations with State Department of Fish & Game staff and with Santa Barbara County Parks staff. Shellfish objectives apply to “all areas where shellfish may be harvested for human consumption, as determined by the Regional Board...”

(Staff corrected Attachment Three to indicate that AB411 was not used as the listing rationale, but the Ocean Plan was used as the listing rationale.)

d.) Total coliform sources can be traced to wastewater disposal, plant, and animal origin, as well as free-living organisms. The Ocean Plan standards for shellfish harvesting waters are very conservative. Reliance on total coliform alone, as an indicator of human health risk is very tenuous. The Department of Health Services, that provides monitoring and oversight of the National Shellfish Sanitation Program, does not currently apply the total coliform standards for purposes of closing shellfish beds or restricting the installation of new shellfish growing areas. The U.S.EPA is recommending the use of Enterococcus as a better indicator organism for use in salt-water environments (although the Ocean Plan Shellfish standards would need to be changed to consider a different indicator organism). Given that the fecal coliform levels are relatively low in relation to total coliform levels, this tends to indicate the majority of the total coliform present are not from animal sources and therefore have less association with human health risk. The County recommends removal of this listing for total coliform.

**Staff Response:** See “c” above. The Ocean Plan provides a fecal coliform water contact

recreation objective. The Ocean Plan expresses the shellfish-harvesting objective only for total coliform. Clarification of appropriate indicators and standards exceedences is typically addressed in the "Problem Statement" of the TMDL during TMDL development.

e.) There are a number of water quality improvement activities currently taking place at Jalama Beach. Funding has been obtained through the Clean Beach Initiative to modify the existing county parks parking area and restroom septic system to reduce or eliminate any potential wastewater or polluted storm water runoff discharges from entering the ocean receiving waters. Based on this level of activity, the potential for removal of the listing for fecal coliform (see c above) and/or total coliform (see d above), the County does not believe that the 303(d) listing should be given a "high priority" listing for this water body. If the listing should go forward, the listing should be categorized as "low priority."

**Staff Response:** We support County efforts to improve Jalama Beach. If County measures being implemented at Jalama Beach result in correcting the problem, it can be delisted.

The priority ranking for all Santa Barbara beaches is high because the Regional Board considers beach impairment a high priority problem.

Regional Board attention to Jalama Beach won't change as a result of the priority ranking.

f.) For Arroyo Quemado beach, the County is in the process of identifying sources of fecal coliform in the watershed using genetic identification techniques. The results of this study will be released in mid-September 2001. The County recommends the Regional Board evaluate this data before listing the water body as impaired.

**Staff Response:** The list update only considers information that was available by May 15, 2001. That information included data exceeding the Ocean Plan standard. The Regional Board is obligated to list waters

exceeding the Ocean Plan. The water is also listed because beach homes use septic systems. Should additional information become available that documents the water does not qualify for the 303(d) List, staff can recommend delisting.

g.) For Arroyo Quemado beach, the County is currently exploring the possibility of upgrades to existing septic systems. This is a private, gated community of 15 parcels. Access to the watershed and beach areas is restricted. The potential exposure of the resident or the local population from recreational water contact is much lower (due to lower numbers of residents/guests) than more frequently visited beach areas. Considering the resources that are already being allocated to this beach area, and the relatively lower risk to the general population, we request that any listings be given a "low priority."

**Staff Response:** Staff's response to this Arroyo Quemado comment is the same as staff's response to comment "e" above for Jalama Beach.

#### 6. City of Santa Barbara, September 4, 2001

a.) Many communities, including the City of Santa Barbara, are embarking on increased efforts to improve storm water runoff quality to comply with Phase II requirements. It seems premature to spend much time on modifications to the TMDL program prior to seeing how these other efforts are working. How important and valuable is this current effort to rework the list when in a few years we are going to have much more information on where problems exist and how the current efforts to clean up problem areas are working?

**Staff Response:** Staff agrees. See staff response to "4" above.

b.) There is inconsistency within the 303(d) List and with other California Regional Board 303(d) Lists. For example, Mission Creek in Santa Barbara is listed for pathogens and unknown toxicity from a previous listing. It is not clear to us what "unknown toxicity" means and, regarding pathogens, in most other cases,

the creeks are listed for a specific indicator organism, such as total coliform. The City is not aware of a pathogen study being done on Mission Creek.

**Staff Response:** Previous 303(d) Lists adopted the term “pathogens” to indicate bacteria (total and/or fecal coliform) impairment. For proposed changes to the 303(d) List, Regional Board staff is recommending the specific pollutant causing impairment. For this update, no specific information was submitted suggesting pathogens be changed to a specific pollutant (eg. fecal coliform). If such information is provided in the future, existing listings for “pathogens” can be changed to a more specific pollutant. In general, TMDL problem statements for “pathogens” listings will indicate which specific pollutant is causing the impairment, to the extent possible.

Mission Creek was listed for “unknown toxicity” in the early 1990s because a fish kill occurred on the Mission Creek lagoon. Regional Board staff does not have any water quality data associated with that fish kill, so we cannot identify the specific contaminant. It is possible this problem no longer exists. Additional information and studies to determine the existence of the problem and toxicity sources will be considered during TMDL development and could lead to delisting.

c.) Regarding the proposal to add Pacific Ocean at Mission Creek, the City concurs with comments of Santa Barbara County Public Health Department.

**Staff Response:** The Regional Board is obligated to utilize the State Ocean Plan total/fecal coliform objectives.

## 7. Heal the Ocean, September 13, 2001

a.) This organization stated bacteria and virus presence occurs at many Santa Barbara Creeks and beaches including Arroyo Burro Beach, Arroyo Quemada Beach, Carpinteria Marsh, Goleta Slough, Mission Creek, and Point Rincon. The organization submitted virus data to corroborate this statement.

**Staff Response:** A Regional Board letter mailed to all interested parties and placed on the Regional Board web site on March 7, 2001 states the Regional Board must receive data and information **no later than May 15, 2001**. The Regional Board will consider this information for the next 303(d) List.

b.) This organization requests the Regional Board to not delay work on TMDLs in the South Santa Barbara Coast area.

**Staff Response:** See response to comment four above.

## 8. California Department of Fish & Game, September 11, 2001.

a.) The Department of Fish and Game (DFG) believes Los Osos Creek should not be removed from the 303(d) list for Priority Organics because recent data show that DDT exceeds levels where toxic effects are demonstrated, and historic data showed presence of these constituents in fish tissue.

**Staff Response:** Staff does not believe Los Osos Creek should be kept on the list for Priority Organics because only one recent sample (out of eight) was above a Threshold Effects Level (TEL) for DDT<sub>total</sub>. Staff did not base either listing or delisting on TELs. TELs are concentrations at which toxic effects are seen only rarely as DFG mentioned. To be consistent with other documents, such as The Bay Protection and Toxic Cleanup Program, staff uses Probable Effects Levels (PELs) and Effects Range Median (ERM) criteria as the concentration at which toxic effects occur. Sediment values were compared to ERM and PEL values when applicable. There are no ERMs in National Oceanic And Atmospheric Administration’s screening values for any of the constituents found in freshwater, so references were made to PELs. The PEL for DDT<sub>total</sub> is 4450 ppb, which is considerably higher than the TEL for DDT<sub>total</sub>, 6.98 ppb. Also the marine ERM and PEL values for marine sediment are still much higher than the TEL at 46.1 and 51.7 ppb respectively. Therefore, staff believes one sample, out of

eight, which is above the TEL, but not above an ERM or PEL, is not enough evidence to list the entire Creek for Priority Organics.

Approve staff recommendation for changes to the 1998-303(d) List.

Staff considered the 1992 fish tissue data and concluded it does not represent current conditions. Staff's recent monitoring strategy considered fish tissue evaluation if values in sediment warranted further investigation. Staff believes the levels found in sediment were not high enough to warrant this type of testing.

Furthermore, because DDT binds to sediment, sediment reductions are the only method to reduce DDT. The only means to address sediment are to dredge the creek or to stop additional DDT-bound to sediment from entering the creek. The Implementation Plan for the Siltation TMDL for Chorro Creek, Los Osos Creek and Morro Bay Estuary proposes measures to reduce additional sediment from entering the creek. These measures are needed to reduce levels of DDT whether or not they are present at levels that harm aquatic organisms. Federal regulation indicate that waterbodies do not have to be listed if other pollution control requirements are authorized (see response to comment 1.d. above.)

b.) The staff report refers to tissue criteria in the Ocean Plan. The Ocean Plan does not have tissue criteria.

**Staff Response:** The Department is correct. The ocean Plan does not have tissue criteria. The staff report was corrected from the version mailed out to refer to the *California State Mussel Watch Program, 1995-97 Data Report*, State Water Resources Control Board, September 2000.

#### **ATTACHMENTS:**

1. March 7, 2001 Public Solicitation Letter
2. Recommended Central Coast Region 2001 303 (d) List
3. Listing Rationale
4. Information Received that did not result in 303(d) List Additions

#### **RECOMMENDATION:**

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