## POLICY ISSUE ANALYSIS

The staff analysis of each policy issue addressed during the development of the Consolidated Cleanup Plan is formatted consistently to provide the SWRCB with a summary of the topic or issue as well as alternatives for their action. The proposed Consolidated Cleanup Plan is presented in Appendices A and B.

Each issue analysis contains the following sections:

| | |
|---|---|
| Issue: | A brief description of the issue or topic. |
| Present Policy: | A summary of any existing SWRCB policy related to the issue or topic. |
| Issue Description: | A more complete description of the issue or topic plus (if appropriate) any additional background information, list of limitations and assumptions, and descriptions of related programs. |
| Alternatives: | For each issue or topic, at least two alternatives are provided for SWRCB consideration. |
| Staff Recommendation: | In this section, a suggestion is made for which alternative (or combination of alternatives) should be adopted by the SWRCB. |

***Issue 1:*** ***Authority and Reference for the Consolidated Toxic Hot Spots Cleanup Plan***

Present Policy: None.

Issue Description: The Regional Cleanup Plans have been developed by the RWQCBs using the Water Quality Control Policy for Guidance on the Development of Regional Toxic Hot Spot Cleanup Plans (SWRCB, 1998a). As required by the California Water Code, the Consolidated Cleanup Plan is a compilation of the Regional Cleanup Plans with additional findings regarding the need for a cleanup program.

In creating the BPTCP, the California Legislature intended that a plan be prepared for remedial action at toxic hot spots (Water Code Section 13390) and required the development of cleanup plans that are distinct from Water Quality Control Plans (Chapter 5.6 requires the formulation of a water quality control plan for enclosed bays and estuaries (Section 13391) and toxic hot spot cleanup plans (Section 13394)). The Water Code further states (Section 13392) that the SWRCB and RWQCBs shall "...(1) identify and characterize toxic hot spots..., (2) plan for the cleanup or other appropriate remedial action at the sites, and (3) amend water quality control plans and policies to incorporate strategies to prevent the creation of new toxic hot spots and the further pollution of existing hot spots."

If implementation of the Consolidated Cleanup Plan is mandatory, then the SWRCB must adopt the Consolidated Plan (e.g., as a plan, policy or guideline) in accordance with the requirements of CEQA and the APA.

The SWRCB should consider the format and form of the Consolidated Cleanup Plan.

Alternatives:

1. <u>The SWRCB should consider incorporating the Consolidated Toxic Hot Spots Cleanup Plan into a Statewide Water Quality Control Plan.</u>

The SWRCB is required to adopt a Water Quality Control Plan for the Enclosed Bays and Estuaries of California (Water Code Section 13391). This plan was first adopted in 1991 and was subsequently amended in 1992. The Plan contained requirements for beneficial use designations, water quality objectives, guidance

on development of site-specific water quality objectives, a program of implementation, and other regulatory provisions.

In 1994, the EBE Plan was nullified by the California Superior Court. The SWRCB is currently developing the Enclosed Bays and Estuaries Plan in two phases. The first phase is for the SWRCB to adopt a Policy for the Implementation of the California Toxics Rule (SWRCB, 1997b). Even though the Plan could be modified to contain the Consolidated Cleanup Plan, the EBE Plan redevelopment schedule would not allow the BPTCP to meet the Water Code-mandated deadline for adoption of the Statewide consolidated cleanup plan. This alternative is not appropriate because the California Water Code calls for a separate plan distinct from Water Quality Control Plans.

2. <u>The SWRCB should consider adoption of the Consolidated Toxic Hot Spots Cleanup Plan as policy for water quality control. The SWRCB should adopt language that identifies the statutory authority to adopt a Policy and where the Policy applies.</u>

The SWRCB has the authority to adopt Policy for Water Quality Control (Sections 13140 and 13142 of the Water Code). Section 13142 states, in part:

> "State policy for water quality control shall consist of all or any of the following: (a) Water quality principles and guidelines for long-range planning, including ground water or surface water management programs and control and use of reclaimed water. (b) Water quality at key locations for planning...and for water quality control activities. (c) Other principles deemed essential by the state board for water quality control...."

Development of the Consolidated Toxic Hot Spots Cleanup Plan as policy for water quality control would allow the SWRCB and the RWQCBs to meet the requirements of the Water Code for development of remediation plans (Sections 13392 and 13394). A policy will allow the SWRCB to influence prevention of toxic hot spots because Basin Plans must conform to State policy for water quality control (Water Code Section 13240).

3. <u>The SWRCB should not adopt the Consolidated Toxic Hot Spots Cleanup Plan as a policy for water quality control.</u>

A Consolidated Toxic Hot Spots Cleanup Plan has never been developed for the State and possibly new procedures for adoption would be needed. This alternative would not relieve the SWRCB from the requirements of the California Environmental Quality Act or the Administrative Procedure Act.

Staff Recommendation: Adopt Alternative 2.

Please refer to the Policy for Water Quality Control section of the proposed Consolidated Toxic Hot Spots Cleanup Plan for the authority and reference for development of the Consolidated Plan as policy for water quality control.

***Issue 2: Organization of the Consolidated Toxic Hot Spots Cleanup Plan***

Present Policy: The SWRCB adopted a specific format for the Regional Toxic Hot Spots Cleanup Plans, a definition for toxic hot spots and the site ranking criteria in the Water Quality Control Policy for Guidance on Development of the Regional Toxic Hot Spots Cleanup Plans (SWRCB 1998a).

Issue Description: After adoption of the Guidance Policy the coastal RWQCBs used the policy as the foundation to finalize the Regional Toxic Hot Spots Cleanup Plans (Regional Cleanup Plans). Each RWQCB used the same format, definitions and ranking criteria to develop their cleanup plans.

Following the required format, each Regional Cleanup Plan contains the specific definition of a toxic hot spot and the ranking criteria. To avoid duplication, should the SWRCB remove the definition and ranking criteria from the regional plans and place it in the Consolidated Toxic Hot Spots Cleanup Plan? Also, should the lists of "Areas of Concern" remain in the Consolidated Cleanup Plan?

Alternatives:

1. <u>Remove the specific definition of a toxic hot spot and ranking criteria from each Regional Cleanup Plan and place the definition and criteria in the Consolidated Cleanup Plan. List the "areas of concern" at the end of the Regional Plans.</u>

The specific definition of a toxic hot spot and the ranking criteria are listed in each Regional Cleanup Plan. If complete Regional Plans are consolidated then there would be significant duplication of the definition and ranking criteria. Listing the definition and ranking criteria one time would be concise and nonduplicative.

At present, most of the Regional Cleanup Plans list "areas of concern" before the candidate toxic hot spot lists (as required by the Guidance Policy (SWRCB, 1998a)). It now seems more efficient and clear if the areas of concern are listed at the end of each regional cleanup plan.

2. <u>Consolidate the Regional Cleanup Plans without change.</u>

Under this alternative the plans would be compiled and each plan would have duplicate sections that present the toxic hot spot definition and ranking criteria. Some of the identified sites may

not satisfy the definition of a toxic hot spot. There is some lack of clarity with respect to the "areas of concern".

Recommendation: Adopt Alternative 1.

Remove the toxic hot spot definition and ranking criteria from each Regional cleanup plan and place the definitions in Volume I of the Consolidated Cleanup Plan. Move the "areas of concern" sections to the end of each Regional Cleanup Plan.

***Issue 3:*** ***Approaches for consolidating and compiling Regional Toxic Hot Spots Cleanup Plans***

Present Policy: The SWRCB committed to address this issue in the Guidance Policy (SWRCB, 1998a).

Issue Description: The priority ranking for each site was included in each Regional Cleanup Plan which describes a number of factors including identification of likely sources of the pollutants that are causing the toxic characteristics and actions to be taken to remediate each site. The regional lists of ranked candidate toxic hot spots are required to be consolidated into a statewide, prioritized list of toxic hot spots, and included in the Consolidated Cleanup Plan. No specific direction on approaches for compiling the Regional toxic hot spot lists is given in the Water Code.

The issue is: What approach should the SWRCB take to clearly and concisely consolidate the toxic hot spot lists that allows for the best combination of Regional focus and between Region comparisons?

Alternatives:

1. Assemble the Regional Cleanup Plans into separate chapters.

The simplest way to consolidate and compile the Regional Cleanup Plans is to assemble the plans Region-by-Region into separate chapters. This alternative is simple and straight forward but does not allow for between region comparisons nor does it allow for a clear assessment of how many high priority toxic hot spots are identified Statewide.

2. Consolidate lists of candidate toxic hot spots into a single, summary list using the Regions' ranked lists; arrange by Region and alphabetical order. Use separate chapters for the remediation activities developed by the RWQCBs.

Compiling the RWQCB lists in this way would emphasize the most highly ranked toxic hot spots by geographic region. This alternative allows for a more comprehensive analysis of the toxic hot spots by Region. The alternative suffers from the same limitation as Alternative 1 that it makes it difficult to assess the numbers of high priority toxic hot spots Statewide.

3. Consolidate lists of toxic hot spots as follows: (1) toxic hot spots should be placed in a Statewide list and arranged in alphabetical order within each rank (high, moderate and low);

and (2) toxic hot spots should be arranged by Region (from north to south) and in the order provided by the RWQCBs. Use separate chapters to detail remediation activities developed by the RWQCBs.

Alternative 3 allows for a clear analysis of the number of toxic hot spots in each ranking category as well as an analysis of the numbers of known toxic hot spots in each Region. The limitations of Alternatives 1 and 2 are avoided in this alternative. However, listing the toxic hot spots twice in the Consolidated Cleanup Plan seems duplicative. If the general list of known toxic hot spots by rank is presented in the portion of the cleanup plan intended for use by the Legislature and the Region-specific lists are presented when detailed action alternatives are presented then the duplication would be minimized.

The BPTCP Advisory Committee has evaluated the various approaches for listing toxic hot spots. The Committee has made the following recommendation to the SWRCB:

> "The SWRCB should consolidate lists of candidate toxic hot spots into two summary lists using the Regions' ranked lists as follows: (1) toxic hot spots should be placed in a Statewide list and arranged in alphabetical order (e.g., Table [2] within each rank (high, moderate and low); and (2) toxic hot spots should be arranged by Region (from north to south) and in alphabetical order (e.g., Table [3]). The SWRCB should use separate chapters to detail remediation activities approved by the Regional Water Quality Control Boards (RWQCBs)."

The BPTCP Advisory Committee further recommended the tables should take the take general form presented in Tables 3 and 4. The Committee (at their February 22, 1999 meeting) agreed that listing the toxic hot spots in the regional plans should be as the RWQCB listed the sites (and not alphabetically). To be more understandable to the Legislature the tables should also have columns that list what triggered the listing of the sites, sources and the pollutants that cause or contribute to the impacts observed at the sites.

The second listing of the toxic hot spots should be as provided by the RWQCBs in order to preserve the Regional perspective in the cleanup plan.

Staff Recommendation: Adopt Alternative 3.

TABLE 2: TOXIC HOT SPOTS ARRANGED BY RANK AND IN ALPHABETICAL ORDER WITHIN EACH RANK

| Rank | Water Body (Region) |
|---|---|
| High | Sites or water bodies listed alphabetically |
| Moderate | Sites or water bodies listed alphabetically |
| Low | Sites or water bodies listed alphabetically |

TABLE 3: TOXIC HOT SPOTS ARRANGED BY REGION (FROM NORTH TO SOUTH) AND IN THE ORDER PROVIDED BY THE RWQCBS.

| Region | Rank | Toxic Hot Spot |
|---|---|---|
| North Coast | High | Site or water bodies listed |
| | Moderate | |
| | Low | |
| San Francisco Bay | High | Site or water bodies listed |
| | Moderate | |
| | Low | |
| . | . | . |
| . | . | . |
| . | . | . |
| San Diego | High | Sites or water bodies listed |
| | Moderate | |
| | Low | |

***Issue 4: RWQCB Listing and Ranking of Candidate Toxic Hot Spots***

Present Policy: The RWQCBs were required to use the SWRCB-adopted definition for toxic hot spots and the site ranking criteria in the Water Quality Control Policy for Guidance on Development of the Regional Toxic Hot Spot Cleanup Plans (SWRCB 1998a).

Issue Description: After adoption of the Guidance Policy the coastal RWQCBs used the policy as the foundation to finalize the Regional Cleanup Plans. Each RWQCB used the same definition of a toxic hot spot and the same set of ranking criteria while exercising their independent judgment where allowed by the Guidance Policy. Each RWQCB created a list of candidate toxic hot spots and a ranking matrix for each of the identified toxic hot spots. The RWQCBs identified a total of 22 high priority toxic hot spots, 21 moderate priority toxic hot spots, and 6 low priority toxic hot spots (Table 4).

Did each RWQCB correctly evaluate and use the definition of a toxic hot spot and rank sites using the approved ranking criteria? Should the SWRCB adopt the lists of candidate toxic hot spots and the ranking matrices as developed by the RWQCBs?

It appears that for the most part the RWQCBs have used the definition of a candidate toxic hot spot correctly. There is, however, one site that has been identified as candidate toxic hot spots that does not meet the requirements of the definition of a toxic hot spot listed in the Guidance Policy.

Alternatives:

1. <u>Maintain the lists of candidate toxic hot spots as provided by the RWQCBs. Do not modify the regional cleanup plan lists of candidate toxic hot spots.</u>

   Under this alternative the SWRCB would not exercise its independent judgment of the lists of candidate toxic hot spots developed by the RWQCBs. A disadvantage of this alternative is that if toxic hot spots are listed in the Consolidated Toxic Hot Spots Cleanup Plan that do not meet the adopted definitions and ranking criteria, the SWRCB may be vulnerable to the court action because it did not follow its own rules.

TABLE 4: CANDIDATE TOXIC HOT SPOTS IDENTIFIED IN THE REGIONAL TOXIC HOT SPOTS CLEANUP PLANS.

| Rank | Site Identification | Reason for Listing Definition trigger | Pollutants |
|---|---|---|---|
| High | Cañada de la Huerta Shell Hercules Gas Plant Site | Aquatic Life Concerns - Sediment & Water Toxicity, Sediment chemistry, bioaccumulation, Water Quality Concerns - violations of Basin Plan & Ocean Plan objectives. | PCBs |
| High | Delta Estuary, Cache Creek watershed including Clear lake | Human health impacts | Mercury |
| High | Delta Estuary | Aquatic life impacts | Diazinon |
| High | Delta Estuary - Morrison Creek, Mosher Slough, 5 Mile Slough, Mormon Slough & Calaveras River | Aquatic life impacts | Diazinon & Chlorpyrifos |
| High | Delta Estuary - Ulatis Creek, Paradise Cut, French Camp & Duck Slough | Aquatic life impacts | Chlorpyrifos |
| High | Humboldt Bay Eureka Waterfront H Street | Bioassay Toxicity, | Lead, Silver, Antimony, Zinc, Methoxychlor, PAHs |
| High | Los Angeles Inner Harbor Dominguez Channel, Consolidated | Human health, aquatic life impacts | DDT, PCBs, PAH, Cadmium, Copper, Lead, Mercury, Zinc, Dieldrin, Chlordane |

| Rank | Site Identification | Reason for Listing<br>Definition trigger | Pollutants |
|---|---|---|---|
| | Slip | | |
| High | Los Angeles Outer Harbor Cabrillo Pier | Human health, aquatic life impacts | DDT, PCBs, Copper |
| High | Lower Newport Bay Rhine Channel | Sediment Toxicity, Exceeds Objectives | Arsenic, Copper, Lead, Mercury, Zinc, DDE, PCB, TBT |
| High | McGrath Lake | Sediment Toxicity | DDT, Chlordane, Dieldrin, Toxaphene, Endosulfan |
| High | Moss Landing Harbor and Tributaries | Aquatic life & Human health concerns – Sediment Chemistry, Toxicity, Bioaccumulation and exceedances of NAS and or FDA guidelines | Pesticides, PCBs, Nickel, Chromium, TBT |
| High | Mugu Lagoon/ Calleguas Creek tidal prism, Eastern Arm, Main Lagoon, Western Arm | Aquatic life impacts | DDT, PCBs, metals, Chlordane, Chlorpyrifos |
| High | San Diego Bay Seventh St. Channel, Paleta Creek, Naval Station | Sediment Toxicity and Benthics community impacts | Chlordane, DDT, PAHs and Total Chemistry[1] |
| High | San Francisco Bay | Aquatic life impacts | Mercury, Selenium, PAHs, Dieldrin |

[1] The total toxic chemical concentrations for a station were calculated as follows: The sum of individual ERMs (or PELs) was divided by the number of chemicals analyzed for which ERMs (or PELs) were known. The "average" ERM (or PEL), known as the Effects Range Median Quotient or ERMQ (or Probable Effects Level Quotient or PELQ) was compared to the "threshold" ERMQs (or PELQs) calculated to be 0.85 X ERMQ (or 1.29 X PELQ). If a threshold quotient was equaled or exceeded, the station was assumed to have a total chemistry hit

| Rank | Site Identification | Reason for Listing<br>Definition trigger | Pollutants |
|---|---|---|---|
| High | Castro Cove<br>San Francisco Bay<br>Entire Bay | Human Health Impacts | Mercury, PCBs, Dieldrin, Chlordane, DDT, Dioxin<br>Site listing was based on Mercury and PCB health advisory |
| High | San Francisco Bay<br>Islais Creek | Aquatic life impacts | PCBs, chlordane, dieldrin, endosulfan sulfate, PAHs, anthropogenically enriched $H_2S$ and $NH_3$ |
| High | San Francisco Bay<br>Mission Creek | Aquatic life impacts | Silver, Chromium, Copper Mercury, Lead, Zinc, Chlordane, Chlorpyrifos, Dieldrin, Mirex, PCBs, PAHs, anthropogenically enriched $H_2S$ and $NH_3$ |
| High | San Francisco Bay<br>Peyton Slough | Aquatic life Impacts | Silver, Cadmium, Copper, Selenium, Zinc, PCBs, Chlordane, ppDDE, Pyrene |
| High | San Francisco Bay<br>Point Potrero/<br>Richmond Harbor | Human Health | Mercury, PCBs, Copper, Lead, Zinc |
| High | San Francisco Bay<br>Stege Marsh | Aquatic life impacts | Arsenic, Copper, Mercury, Selenium, Zinc, chlordane, dieldrin, ppDDE, dacthal, endosulfan 1, endosulfan sulfate, dichlorobenzophenone, heptachlor epoxide, hexachlorobenzene, mirex, oxidiazon, toxaphene and PCBs |
| High | San Joaquin River at<br>City of Stockton | Exceedances of water quality objective | Dissolved oxygen |

| Rank | Site Identification | Reason for Listing<br>Definition trigger | Pollutants |
|---|---|---|---|
| High | Santa Monica Bay<br>Palos Verdes Shelf | Human health, aquatic life impacts | DDT, PCBs |
| Moderate | Anaheim Bay,<br>Naval Reserve | Sediment toxicity | Chlordane, DDE |
| Moderate | Ballona Creek<br>Entrance Channel | Sediment toxicity | DDT, zinc, lead, Chlordane, dieldrin, chlorpyrifos |
| Moderate | Bodega Bay-10006<br>Mason's Marina | Bioassay toxicity | Cadmium, Copper, TBT, PAH |
| Moderate | Bodega Bay-10028<br>Porto Bodega Marina | Bioassay toxicity | Copper, lead, Mercury, Zinc, TBT, DDT, PCB, PAH |
| Moderate | Bodega Bay-10007<br>Spud Point Marina | Bioassay toxicity | NA |
| Moderate | Delta Estuary<br>Delta | Aquatic life impacts | Chlordane, Dieldrin, Lindane, Heptachlor, Total PCBs, PAH & DDT |
| Moderate | Delta Estuary<br>Delta | Human health impacts | Chlordane, Dieldrin, Total DDT, PCBs, Endosulfan, Toxaphene |
| Moderate | Delta Estuary<br>Smith Canal, Mosher & 5-Mile, Sloughs & Calaveras River | Exceedance of water quality objective | Dissolved oxygen |
| Moderate | Los Angeles River Estuary | Sediment Toxicity | DDT, PAH, Chlordane |

| Rank | Site Identification | Reason for Listing<br>Definition trigger | Pollutants |
|---|---|---|---|
| Moderate | Upper Newport Bay Narrows | Sediment Toxicity, Exceeds Water Quality Objectives | Chlordane, Zinc, DDE |
| Moderate | Lower Newport Bay Newport Island | Exceeds Water Quality Objectives | Copper, Lead, Mercury, Zinc, Chlordane, DDE, PCB, TBT |
| Moderate | Marina del Rey | Sediment Toxicity | DDT, PCB, Copper, Mercury, Nickel, Lead, Zinc, Chlordane |
| Moderate | Monterey Harbor | Aquatic life impacts, Sediment Toxicity | PAHs, Cu, Zn, Toxaphene, PCBs, Tributyltin |
| Moderate | San Diego Bay Between "B" Street & Broadway Piers | Benthic community impacts | PAHs, Total Chemistry |
| Moderate | San Diego Bay Central Bay Switzer Creek | Sediment toxicity | Chlordane, Lindane, DDT, Total Chemistry |
| Moderate | San Diego Bay Chollas Creek | Benthic community impacts | Chlordane, Total Chemistry |
| Moderate | San Diego Bay Foot of Evans & Sampson Streets | Benthic Community Impacts | PCBs, Antimony, Copper, Total Chemistry |
| Moderate | San Francisco Bay Central Basin, San | Aquatic life impacts | Mercury, PAHs |

| Rank | Site Identification | Reason for Listing Definition trigger | Pollutants |
|---|---|---|---|
| | Francisco Bay | | |
| Moderate | San Francisco Bay Fruitvale (area in front of stormdrain) | Aquatic life impacts | Chlordane, PCBs |
| Moderate | San Francisco Bay Oakland Estuary. Pacific Drydock #1 (area in front of stormdrain) | Aquatic life impacts | Copper, Lead, Mercury, Zinc, TBT, ppDDE, PCBs, PAHs, Chlorpyrifos, Chlordane, Dieldrin, Mirex |
| Moderate | San Francisco Bay, San Leandro Bay | Aquatic life impacts | Mercury, Lead, Selenium, Zinc, PCBs, PAHs, DDT, pesticides |
| Low | Seal Beach NWR Navy Marsh | Sediment toxicity | DDE |
| Low | Seal Beach Bolsa Avenue NWR | Sediment toxicity | Arsenic |
| Low | Bolsa Chica Ecological Reserve | Sediment toxicity | DDE |
| Low | Seal Beach NWR Left Reach | Sediment toxicity | DDE |
| Low | Seal Beach NWR Middle Reach | Sediment toxicity | Arsenic |

| Rank | Site Identification | Reason for Listing<br>Definition trigger | Pollutants |
|---|---|---|---|
| Low | Huntington Harbor<br>Upper Reach | Sediment toxicity | Chlordane, DDE, Chlorpyrifos |

2. Remove the RWQCB-listed candidate toxic hot spots from the final lists of toxic hot spots because the provisions of the toxic hot spot definition were not satisfied.

Under this alternative the SWRCB would exercise its judgment in determining if the RWQCBs appropriately used the approved definitions and ranking criteria.

The lists of candidate toxic hot spots, supporting information and reference used as a foundation for the site listing are presented in each of the Regional Toxic Hot Spots Cleanup Plans (please refer to Appendix B; RWQCB 1998a; 1998b; 1998c; 1999a; 1999b; 1999c; 1999d). The site listed in Table 5 does not meet the definition of a toxic hot spot (as presented in the SWRCB, 1998a).

TABLE 5: SITE IDENTIFIED BY RWQCBS THAT DOES NOT QUALIFY AS A TOXIC HOT SPOT.

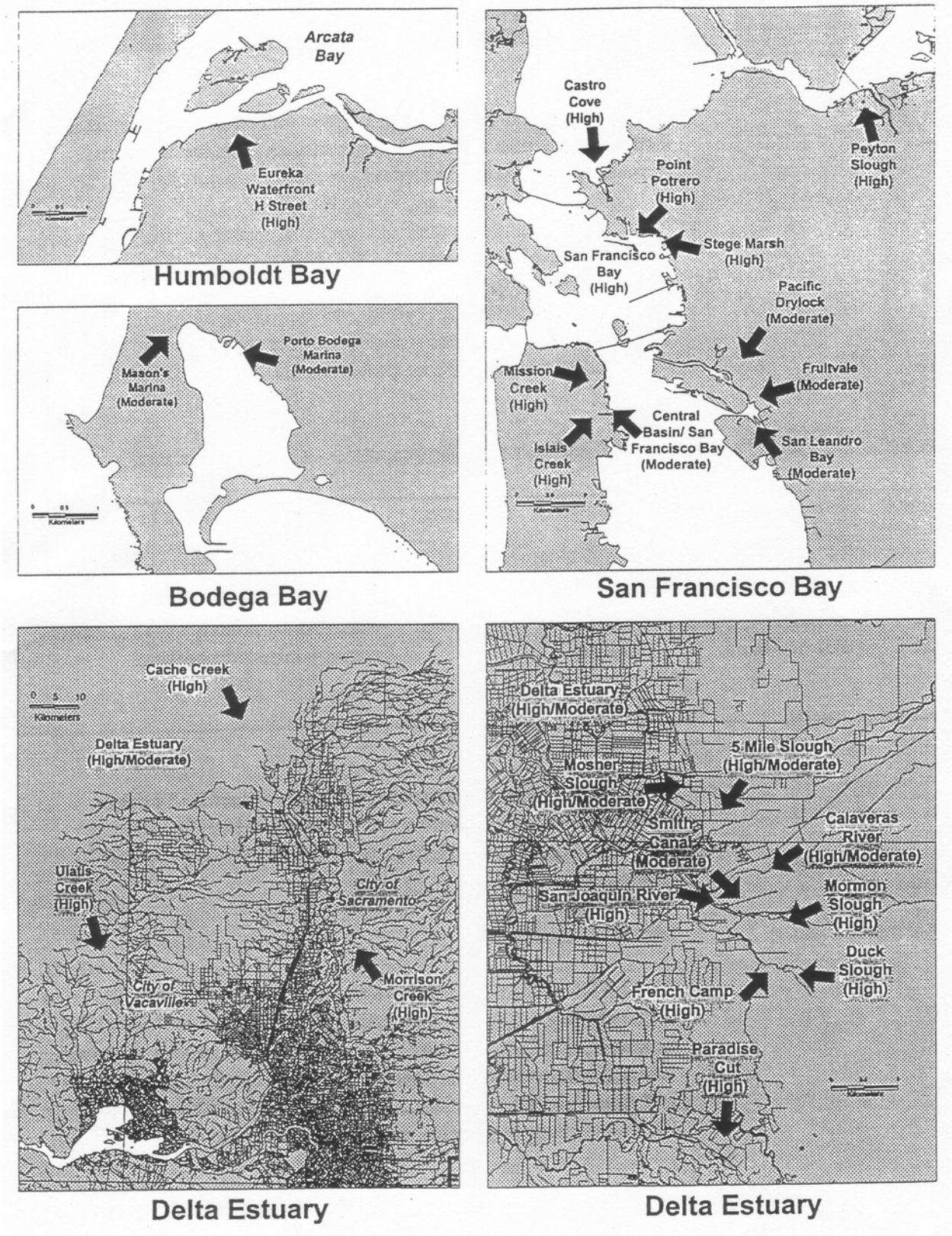
| Region | Water Body, Site Identification | Reason for listing | Pollutants | Reason the site should be removed from the candidate toxic hot spot list |
|---|---|---|---|---|
| North Coast | Bodega Bay, Spud Point Marina | Bioassay Toxicity | Unknown | Pollutants associated with sediment toxicity are not identified. |

Each of the other candidate toxic hot spots identified by the RWQCB satisfy the requirements of the specific definition of a toxic hot spot. All candidate toxic hot spots appear to be ranked appropriately.

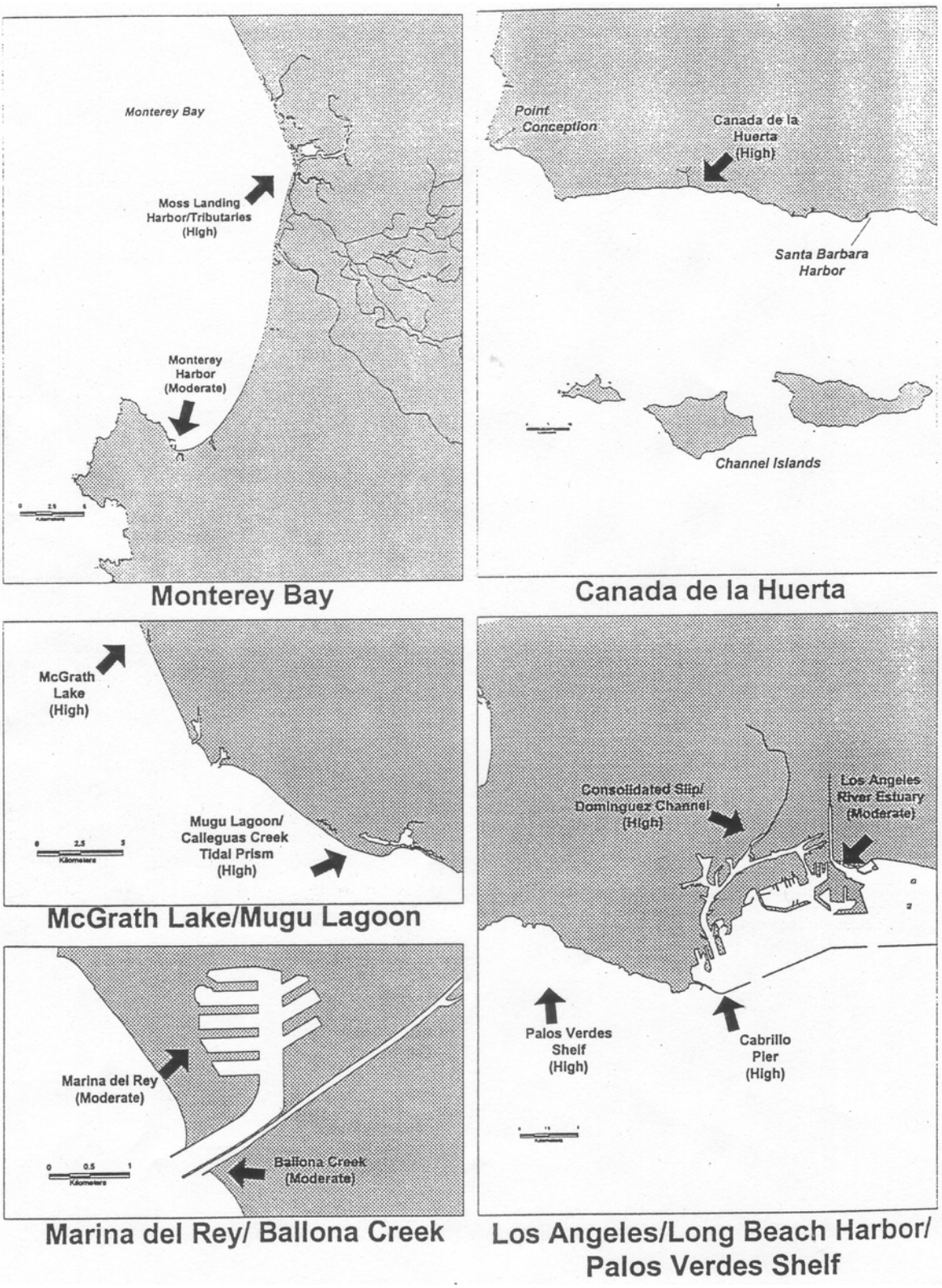
Recommendation: Adopt Alternative 2.

The SWRCB should (1) remove one candidate toxic hot spot listed in Alternative 2, (2) adopt the remaining candidate toxic hot spots as known toxic hot spots, and (3) present figures showing generally where the known toxic hot spots are located (Figure 2). The lists and figure should be included in the Consolidated Cleanup Plan with all the supporting information provided by the RWQCBs.

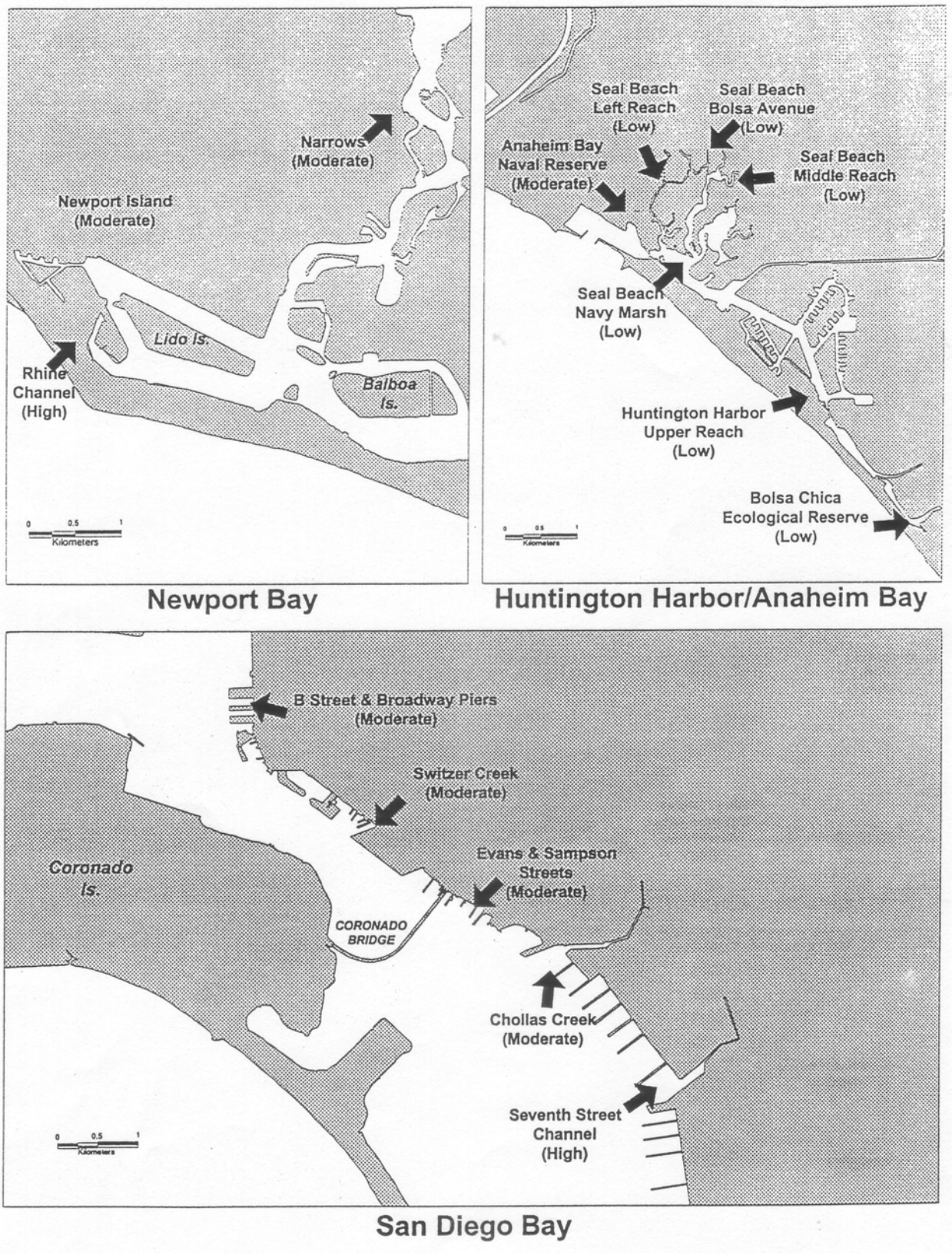
FIGURE 2: HIGH, MODERATE, AND LOW PRIORITY KNOWN TOXIC HOT SPOTS



HIGH, MODERATE, AND LOW PRIORITY
KNOWN TOXIC HOT SPOTS



HIGH, MODERATE, AND LOW PRIORITY
KNOWN TOXIC HOT SPOTS



***Issue 5:*** ***Removing locations from and reevaluating the list of known toxic hot spots***

Present Policy: The SWRCB committed to address this issue in the Guidance Policy (SWRCB, 1998a).

Issue Description: During the development of the Guidance Policy, many commenters discussed the need to establish a system for delisting of sites from the Consolidated Cleanup Plan . The SWRCB committed to consider this issue as part of the development of the Consolidated Plan.

The concern raised concerning delisting was that sites that have been remediated should no longer be listed in the Consolidated Cleanup Plan. If a site is remediated presumably the site is no longer a toxic hot spot.

The issue is: What approach should the SWRCB use to remove sites from the Consolidated Cleanup Plan or otherwise address sites that have been remediated?

Alternatives:

1. Provide no approach for delisting sites in the Consolidated Cleanup Plan .

Under this alternative, the SWRCB would not adopt an approach for delisting sites. If sites are to be delisted the SWRCB would have to create approaches to do so each time a request was made to remove a site from the toxic hot spot list.

The disadvantages of this alternative are many. There would be no mechanism for removing sites or acknowledging that the site has been remediated. Not having a delisting system would create significant confusion. It would also be unfair to affected dischargers because there would be no clear approach for clearing from the list sites that have been adequately addressed.

2. Once sites are remediated or no longer qualifies as a toxic hot spot, remove the sites from the Consolidated Cleanup Plan.

This alternative would require that the SWRCB modify the Consolidated Cleanup Plan to remove sites that have been remediated, were inappropriately listed as toxic hot spots, or no longer qualify as a toxic hot spot (as defined). This process could involve petitioning the SWRCB to remove the site. The SWRCB would then evaluate the reasons for removing the site from the

Plan. The SWRCB would consider the RWQCBs view on delisting the site. The SWRCB would remove all reference to the corrected site after complying with CEQA and the APA in modifying the Consolidated Cleanup Plan.

In using a delisting approach the SWRCB should consider providing the factors required to consider delisting a site (e.g., delisting criteria used by the State of Washington (Department of Ecology, 1995)). Some examples of factors to consider include:

- The reason for site delisting
- Documentation of investigations performed to demonstrate the site is no longer a toxic hot spot (post-remediation monitoring)
- All remediation actions taken
- Documentation of the likelihood the toxic hot spot will be prevented from reoccurring

A distinct advantage of this alternative is that by using this type of approach, it may be an incentive to dischargers to remediate sites quickly so their site can be removed from the Consolidated Cleanup Plan. Another advantage is that if sites are removed, this will allow greater focus in the Plan on sites where work is continuing.

A possible disadvantage is that the process for removing sites from the Plan may require the SWRCB to prepare the environmental documentation to support the delisting. This report may take considerable time to complete. This disadvantage could be lessened by interested parties and RWQCBs compiling the needed information before the petition is filed.

3. Do not remove sites from the Consolidated Cleanup Plan but, rather, report on the status of remedial action at sites.

This alternative would set up a status reporting system so RWQCBs could report to the SWRCB on whether a site has been remediated and whether any further action is necessary. Site status would be reported by a RWQCB if no further action is necessary to remediate the site. This system would not require that a site be removed from the known toxic hot spot list in the Consolidated Plan. Rather, a RWQCB would issue certification of "no further action" (NFA) to notify the discharger and the public that a site has been remediated. The SWRCB would then take a formal action to update the status of the toxic hot spot. The status of site

remediation would be reported administratively by the SWRCB to interested parties.

Under this option, the RWQCB would make the finding that no further action was required at the site. The issue would then have to be brought before the SWRCB for action to consider concurrence in the RWQCB finding. Even if sites were found to require no further remedial action the site would remain on the lists of known toxic hot spots. The site would still be considered a toxic hot spot even though the RWQCB has found remediation is complete. This approach would penalize dischargers even if they had made every effort to cleanup a site.

Recommendation: Adopt Alternative 2.

Proposed language is presented in Volume I of the proposed Consolidated Cleanup Plan (Appendix A).

***Issue 6: Guidance on reevaluating waste discharge requirements in compliance with Water Code Section 13395***

Present Policy: The SWRCB committed to develop additional guidance on WDR revision when the Guidance Policy was adopted (SWRCB, 1998a). The Policy commits to consideration of new guidance to the RWQCBs on considerations when reevaluating WDRs in compliance with Water Code Section 13395.

Issue Description: During the development of the Guidance Policy, the SWRCB received many comments on the need to provide specific guidance on the reevaluation of WDRs. Many of the commenters said that the specific guidance should be provided in the Guidance Policy. However, it was pointed out in the Final FED (SWRCB, 1998b) that it was premature to develop guidance before the scope of the needed guidance could be evaluated.

The SWRCB should evaluate what additional guidance is needed for WDRs and the clearest way to reevaluate WDRs as required by the Water Code. California Water Code Section 13395 states that:

"Each regional board shall, within 120 days from the ranking of a toxic hot spot, initiate a reevaluation of waste discharge requirements for dischargers who, based on the determination of the regional board, have discharged all or part of the pollutants which have caused the toxic hot spot. These reevaluations shall be for the purpose of ensuring compliance with water quality control plans and water quality control plan amendments. These reevaluations shall be initiated according to the priority ranking established pursuant to subdivision (a) of Section 13394 and shall be scheduled so that, for each region, the first reevaluation shall be initiated within 120 days from, and the last shall be initiated within one year from, the ranking of the toxic hot spots. The regional board shall, consistent with the policies and principles set forth in Section 13391, revise waste discharge requirements to ensure compliance with water quality control plans and water quality control plan amendments adopted pursuant to Article 3 (commencing with Section 13240) of Chapter 4, including requirements to prevent the creation of new toxic hot spots and the maintenance or further pollution of existing toxic hot spots. The regional board may determine it is not necessary to revise a waste discharge requirement only if it finds that the toxic hot spot resulted from practices no longer being conducted by the discharger or permitted under the existing waste discharge

requirement, or that the discharger's contribution to the creation or maintenance of the toxic hot spot is not significant."

The BPTCP Advisory Committee has provided the SWRCB with their advice on what guidance is necessary (Advisory Committee, 1998).

Alternatives:

1. Provide no additional guidance.

The RWQCBs use a variety of regulations and water quality control plans and policies to develop WDRs and NPDES permits. None of the existing guidance links or explains the relationship between NPDES permits or WDRs and the requirements of Water Code Section 13395.

The advantage of this alternative is the SWRCB would not have to issue any new regulations or guidance on WDR revision or reevaluation. The RWQCBs would continue to rely on existing programs for guidance to carry out the reevaluations required in Water Code Section 13395.

The disadvantages of this alternative are many. Section 13395 could be read to mean that all WDRs associated with high priority toxic hot spots should be reopened within 120 days of the approval of the Consolidated Cleanup Plan. This could place an unreasonable burden on the RWQCBs to complete revision of WDRs. There could also be confusion with regard to what action or revisions are necessary to address the toxic hot spots. Another serious disadvantage is the potential lack of consistency on the WDR reevaluations.

2. Provide guidance to the RWQCBs on the meaning of "reevaluation," guidance on how to carry out a reevaluation on WDRs that are associated with known toxic hot spots, and prevention of toxic hot spots.

The time frame for "reevaluation" of WDRs associated with known toxic hot spots is very short (the first reevaluations should be initiated within 120 days). There may be so many WDRs (such as those WDRs associated with toxic hot spots in San Francisco Bay) that initiating a reevaluation of all WDRs may be not possible because of staffing limitations. To avoid creating this situation, the SWRCB should consider defining "...initiating a reevaluation of waste discharge requirements..." as a requirement to the RWQCBs to establish which and in what order WDRs will be

revised. This planning could be completed in the time frames established in Water Code Section 13395.

The SWRCB should also consider requiring RWQCBs to acknowledge the existence of the toxic hot spot in the WDR and the special measures needed to improve the water quality at the site or in the water body.

An advantage of this alternative is defining "reevaluation", all dischargers and the RWQCB themselves would be clear on what is required to be in compliance with Water Code Section 13395. This would eliminate any confusion for "reevaluation" as used in the Water Code and would avoid interpretations that a "reevaluation" is a "reopening," "revision" or "reconsideration" of WDRs. Another advantage of this alternative is the RWQCB would be required to acknowledge if a toxic hot spot needs to be addressed in a WDR.

The BPTCP Advisory Committee has recommended this approach to the SWRCB (Advisory Committee, 1998) .

A possible disadvantage is WDR scheduling would be delayed or not completed. This problem can be avoided by the SWRCB requiring that the RWQCBs submit a priority list for WDRs within the Section 13395 time frames.

Another disadvantage of this alternative is that the focus is primarily on point source dischargers. In preventing toxic hot spots, RWQCBs should also consider all sources of pollutants. Revising WDRs alone will not address the wide range of pollutant sources that may contribute to the formation and worsening of toxic hot spots. One way to mitigate this disadvantage is to issue a policy statement that the RWQCBs should favor the use of watershed management approaches to prevent toxic hot spots.

The SWRCB should consider adoption of the Prevention Section provisions from the SWRCB Guidance Policy (SWRCB, 1998a) into the Consolidated Cleanup Plan. By adopting these provisions the SWRCB will take a comprehensive approach to including point and nonpoint sources of pollution in preventing toxic hot spots.

3. Provide guidance on a range of WDR-related issues. For example, guidance on self-monitoring programs or permit conditions.

The SWRCB could provide specific guidance on any special permit conditions that may be necessary to address a wide range of toxic hot spots. The guidance could range from specific monitoring requirements, lists of special conditions to address toxic hot spots, or consideration of alternate implementation procedures (e.g., the use of prohibitions to reduce discharge at or near toxic hot spots).

An overriding disadvantage of this alternative is that environmental conditions vary greatly throughout the State and prescribing detailed guidance may cause RWQCBs to implement measures at sites that are either more protective or less protective than necessary. RWQCBs should be given substantial flexibility in developing WDR revisions that are tailored to Regional and site-specific needs.

Staff Recommendation: Alternative 2.

The SWRCB should provide guidance to the RWQCBs on the approach to take when preventing toxic hot spots. The proposed language encourages the use of watershed management. When reevaluating WDRs, the proposed approach requires a reevaluation letter be sent from the RWQCBs to the SWRCB stating:

1. The list of WDRs associated with each known toxic hot spot that can reasonably be expected to cause or contribute to the creation and maintenance of the known toxic hot spot.

2. An assessment of the need to revise the WDR to improve the quality of the known toxic hot spot.

3. A schedule for completion of the needed WDR revisions.

***Issue 7: Implementation of Remediation at Identified Toxic Hot Spots***

Present Policy: The SWRCB Guidance Policy (SWRCB, 1998a) requires the RWQCBs to develop a preliminary list of actions to remediate toxic hot spots identified using the specific definition and ranking criteria.

Issue Description: The California Water Code requires the RWQCBs and the SWRCB to present a preliminary assessment of the actions required to remedy or restore a toxic hot spot (Section 13394). The Water Code prevents the RWQCBs and the SWRCB from specifying "... the design, location, type of construction, or particular manner in which compliance may be had...." (Section 13360). To comply with both of these sections, the SWRCB Guidance Policy requires the RWQCBs to develop a list of preliminary alternate actions required to remedy or restore a toxic hot spot. The RWQCBs were required to list a range of alternatives so, if potential dischargers are identified, the actions listed were not prescriptive.

The SWRCB should also consider a requirement for the RWQCBs to implement the Consolidated Cleanup Plan. In developing this requirement, the SWRCB is limited by the fact that funding for remediation of toxic hot spots where dischargers are not identified is currently unavailable.

Alternatives:

1. Require RWQCBs to implement the Consolidated Cleanup Plan for all toxic hot spots.

Under this alternative the SWRCB would direct the RWQCBs to begin implementation of the Consolidated Cleanup Plan even though funding for each site has not been identified. This alternative would require that funding be redirected from other high priority activities.

2. Require the RWQCBs to move forward with implementation of the Consolidated Cleanup Plan for toxic hot spots where the discharger is identified. Delay implementation of other remediation activities until funding is identified. Provide a listing of some possible sources of funding.

With this alternative the RWQCBs could begin implementation of some aspects of the Consolidated Cleanup Plan immediately. At Sites where the potential discharger(s) have been identified, the

RWQCBs could use their existing authorities to begin remediation activities. Where funding is not currently available, the RWQCB could seek funding through a variety of existing mechanisms (e.g., Clean Water Act Section 319, CALFED, supplemental environmental projects, etc.). The SWRCB could report the balance of funding needed to the California Legislature for their consideration. A summary of the estimated range of funding needed to remediate sites, the funds potentially recoverable from dischargers and the unfunded amount needed is presented in Table 6.

3. Do not provide direction on whether to proceed with implementation of the Consolidated Cleanup Plan.

This alternative would leave it up the discretion of the RWQCB whether to implement the Consolidated Cleanup Plan and how best to fund the identified activities. Under this alternative, the RWQCB would be allowed to implement the Consolidated Cleanup Plan at their discretion and within the existing resources. While this alternative provides considerable flexibility to RWQCBs it may allow inconsistent or no implementation of the Consolidated Cleanup Plan.

Recommendation: Adopt Alternative 2.

TABLE 6: RANGE OF COSTS TO REMEDIATE TOXIC HOT SPOTS, FUNDING POTENTIALLY RECOVERABLE FROM DISCHARGERS AND UNFUNDED AMOUNT.

| Site | Low Estimate | High Estimate | Amount Recoverable From Dischargers | Unfunded Amount |
|---|---|---|---|---|
| Cañada de la Huerta[2] | $2,600,000 | $2,600,000 | All | 0 |
| Delta Estuary Mercury[3] | $3,105,000 | $3,105,000 | None | $3.1 million |
| Delta Estuary Pesticides (3 THS) | ~~Not Determined~~ | ~~Not Determined~~ | ~~Not Determined~~ | ~~Not Determined~~ |
| Diazinon Orchard Dormant Spray | $4,638,468 | $134,686,568 | $3,198,486-$131,086,568 | $1,440,000-$3,600,000 |
| Urban Stormwater Pesticides | $760,000 | $910,000 | $437,500-$587,500 | $322,500 |
| Irrigation Return Flow | $78,714,700 | $2,157,987,800 | $76,594,700-$2,151,187,800 | $2,120,000-$6,800,000 |
| Humboldt Bay "H" Street | $500,000 | $5,000,000 | All | 0 |
| Los Angeles Inner Harbor | $1,000,000 | $50,000,000 | None | $1.0-$50 million |
| Los Angeles Outer Harbor | $500,000 | $50,000,000 | None | $0.5-$50 million |
| Lower Newport Bay Rhine Channel | $10,581,800 | $10,581,800 | 1-10% of total cost | $9.5-$10.5 million |
| McGrath Lake | $3,000,000 | $300,000,000 | None | $3 – $300 million |
| Moss Landing Harbor & Tributaries[4] | $2,387,000 | $3,273,167 | 25-50% of Ag. cost share | $1.94 to 1.99 million |
| Mugu Lagoon | $1,000,000 | $72,500,000 | None | $1.0-$72.5 million |
| San Diego Bay 7th St. Channel | $145,520 | $7,405,200 | 50% of total cost | $73,000 to $3.7 million |
| San Francisco Bay, Castro Cove | $2,200,000 | $21,200,000 | All | 0 |
| San Francisco Bay, Entire Bay[5] | $25,000,000 | $45,000,000 | $5.8-8 million + $75,000 | $19.05-36.9 million |
| San Francisco Bay, Islais Creek[6] | $1,900,000 | $81,400,000 | All | 0 |
| San Francisco Bay, Mission Creek[6] | $1,900,000 | $78,000,000 | All | 0 |
| San Francisco Bay, Peyton Slough | $415,000 | $1,260,000 | All | 0 |
| San Francisco Bay, Point Potrero[7] | $822,000 | $3,040,000 | All | 0 |
| San Francisco Bay, Stege Marsh | $1,600,000 | $10,200,000 | All | 0 |
| San Joaquin River Dissolved $O_2$[8] | $692,000 | $692,000 | None | $692,000 |
| Santa Monica Palos Verdes Shelf[9] | $13,000,000 | $67,000,000 | All | 0 |
| **Total** | **$72,348,320** | **$812,257,167** | | **$39.85-$529.4 million** |

[2] Estimated total cost to cleanup site. Estimated cost for first 2 years is $332,400.
[3] Estimated grand total. Multi year cost for Cache Creek monitoring studies is $1,120,000. Multi-year cost for estuarine monitoring studies is $1,500,000.
[4] Cost sharing programs to implement management measures to control erosion generally require project proponent to share 25% to 50% of overall project cost.
[5] Estimated cost to carry out RMP is $75,000/year for 2 years. Outreach and Public Education cost is $150,000 for first two years then $50,000/yr.
[6] If significant structural changes are needed the cost could increase by $75 million.
[7] Sheetpile Bulkhead, Capping and Institutional Controls is the preferred alternative plus RWQCB costs at $30,000/year for 3 years.
[8] Includes Steering Committee cost is $12,000/year. Monitoring/Reevaluation will cost $20,000/year.
[9] Via Superfund program it is estimated that up to $125 million may be recoverable from municipalities, Montrose, Westinghouse, and other industrial dischargers.

***Issue 8: Sources of Funds to Address Toxic Hot Spot Remediation***

Present Policy: None.

Issue Description: If a potential discharger is not identified to pay the total cost of remediating a toxic hot spot, the SWRCB and RWQCB may need to address these problems by using funds allocated in the SWRCB budget. It is estimated that approximately $40 to $529 million is needed to fully implement the proposed Consolidated Plan (Table 6). There are several sources of funding that are potentially available to address existing toxic hot spots. Since no dedicated fund source is available specifically to fund remediation of toxic hot spots, RWQCBs need to identify funding to complete remediation. There are several funding sources available to the RWQCBs.

The RWQCBs need to locate and secure existing funding sources, to the extent possible, in order to address several of the listed known toxic hot spots. This issue focuses on which fund sources are currently available and which funds can be possibly directed to implement the Consolidated Cleanup Plan.

Alternatives: 1. Nonpoint Source Grants Clean Water Act (CWA) Section 319

The Clean Water Act (CWA), Section 319(h), provides grant funds for projects directed at the management of nonpoint source pollution. High priority projects are considered those which implement specified nonpoint source management practices under Section 319 requirements, and projects which address nonpoint source waters listed pursuant to CWA section 303(d), water quality limited segments.

2. Wetlands Grants

Section 104(b) of the Clean Water Act provides funds for wetland restoration. The focus of these grants is wetland protection, but wetland restoration can be included when it is part of an overall wetland protection program. Priorities for funding include watershed projects to address watershed protection which have a substantial wetlands component in a holistic, integrated manner, and development of an assessment and monitoring.

3. State Revolving Funds (SRF) Loan Program

The State Revolving Funds (SRF) Loan Program provides funding for the construction of publicly-owned treatment works (POTWs), for nonpoint source correction programs and projects, and for the development and implementation of estuary conservation and management programs. The loan interest rate is set at one-half the rate of the most recent sale of a State general obligation bond.

4. Agricultural Drainage Management Loan Program

The State Agricultural Drainage Management Loan Program funds are available for feasibility studies and the design and construction of agricultural drainage water management projects. The project must remove, reduce, or mitigate pollution resulting from agricultural drainage.

5. CALFED

The CALFED Bay-Delta Program was initiated in 1995 to address environmental and water management problems associated with the Bay-Delta system, an intricate web of waterways created at the junction of the San Francisco Bay and the Sacramento and San Joaquin rivers and the watershed that feeds them. The CALFED Bay-Delta Program is carrying out a process to achieve broad agreement on comprehensive solutions for problems in the Bay-Delta System.

6. Cleanup and Abatement Fund

The State Water Pollution Cleanup and Abatement Account (Cleanup and Abatement Fund) (Water Code Section 13440 et seq.) can be used by the SWRCB to pay for cleaning up waste or abating the waste effects on waters of the State. RWQCBs may apply for these funds if, among other things, the RWQCB does not have adequate resources budgeted.

7. ACLs to address problems at toxic hot spots. Exchange penalties for supplemental environmental projects at toxic hot spots.

The RWQCB may impose administrative civil liability orders on an alleged violator for discharging waste, for failure to furnish or furnishing false technical or monitoring reports, for various cleanup and abatement violations, and other issues. These orders are based on the violation of a WDR, a NPDES permit, or a prohibition in a water quality control plan. As part of this process the RWQCB may direct dischargers to provide funding for a

Supplemental Environmental Project. Supplemental projects should mitigate damage done to the environment by the discharger, and usually should involve the restoration or enhancement of wildlife and aquatic habitat or beneficial uses in the vicinity of the violation (SWRCB, 1997a).

8. Mass-based Permit Offset System (Trading credits)

A mass-based permit offset system is a tool used to ensure that the largest controllable ongoing sources of pollutants and most cost-effective approaches are used to reduce the discharge of pollutants. An offset system provides an increase in flexibility for dischargers with potential compliance problems or for groups that wish to develop credit for anticipated offset of future loads associated with future population growth or increase in industrial discharges.

The San Francisco Bay RWQCB has developed a pilot offset system for better and more cost-effective control of mercury discharges (SFRWQCB, 1998). Factors that the RWQCB is considering are: (1) favoring application of the system to sites that do not have a responsible discharger identified, (2) bioaccumulation of pollutants at sites near discharges, (3) toxicity at sites where pollutants are allowed at higher concentrations, and (4) the chemical form of the pollutant discharged.

9. Any combination of Alternatives 1 through 8 and any other funding source identified by the RWQCBs.

No one source of funding is large enough to accommodate all the needs identified in the Regional Toxic Hot Spots Cleanup Plans. It is therefore necessary for the RWQCB to use whatever sources are available to address sites where no potential discharger has been identified. Using or considering multiple funding sources will increase the chances for the cleanup plans to be implemented. Because toxic hot spots are considered to be the worst sites and the sites where we have the best information on impacts, it is likely that any planned work will have a good chance for funding.

Staff Recommendation: Adopt Alternative 9.

The Consolidated Cleanup Plan should list the programs most likely to fund different aspects of the Regional Cleanup Plans.

***Issue 9: Findings in the Consolidated Toxic Hot Spots Cleanup Plan***

Present Policy: None.

Issue Description: The California Water Code requires the SWRCB to make a specific finding and recommendation in the Consolidated Cleanup Plan on the need for establishment of a toxic hot spots cleanup program (Water Code Section 13394(i)). This cleanup program would presumably be a new effort focused on implementing the Consolidated Cleanup Plan since the existing BPTCP would end after completion of the Regional and Consolidated Cleanup Plans.

Since these findings are directed to the California Legislature and focused on funding, the findings are not regulatory. Consequently, it is not necessary for OAL to approve this section (Government Code Section 11353).

The issue is: What findings and recommendations should be made on the need for a follow-up program to implement the Consolidated Cleanup Plan?

Alternatives: 1. Recommend that the BPTCP be continued as it currently exists.

The existing BPTCP started the task of identifying toxic hot spots and planning for their cleanup in 1990. The Program has focused resources on identifying problem areas using the best available scientific methods and approaches, development of Regional Cleanup Plans and now preparation of the Consolidated Cleanup Plan.

The BPTCP has provided new insights into locating and assessing water and sediment quality problems in California's bays and estuaries (please refer to SWRCB, 1996). No funding beyond the current year is available to support any new program activities. Certain activities that do not have Water Code-mandated deadlines (e.g., development of the California Enclosed Bays and Estuaries Plan) have yet to be completed. These activities could be completed using existing or redirected resources. The Consolidated Cleanup Plan would have to be implemented using existing resources.

2. Recommend that the focus of the BPTCP be changed to remove certain mandates and add new mandates.

The existing BPTCP has effectively identified toxic hot spots in several enclosed bays and estuaries in California. Plans to remediate high priority toxic hot spots have also been developed.

Consideration should be given to reassessment of the need for, or modification of, the existing BPTCP activities. Suggestions have been made over the years that the BPTCP be modified to focus activity on monitoring enclosed bays and estuaries and providing information for implementation of watershed management (SWRCB, 1996).

3. Recommend that the Consolidated Cleanup Plan be implemented through existing authorities and that watershed management be the focus of implementation measures. Identify a range of resource needs.

Under the California Water Code, the SWRCB and the RWQCBs have broad authority to regulate water quality. The tools for implementing a regulatory program are available currently but identification of problem locations has been difficult in some circumstances. The Consolidated Cleanup Plan lists many sites that are considered to be the worst-of-the-worst sites and many of the actions proposed to remediate the sites focus on existing regulatory approaches. To fairly address both point and nonpoint sources of pollution, new emphasis on prevention of toxic hot spots and watershed management should be highlighted and special funding could be sought to support these activities.

Under this alternative, the SWRCB would make findings on the number of toxic hot spots Statewide, present a range of costs to implement the Consolidated Toxic Hot Spots Cleanup Plan (from Table 6), and recommend that funding be provided for implementation of the cleanup plans and watershed management to the extent funding is allocated in the State budget.

4. Recommend a combination of Alternatives 1, 2 and 3.

Recommendation: Adopt Alternative 3.

The SWRCB should provide to the California Legislature: (1) findings on the number of known toxic hot spots, (2) findings on the relative rank of toxic hot spots, (3) findings on the estimate of how much funding is needed (i.e., a range) to implement the Consolidated Cleanup Plan, and (4) the need to create a program to fund cleanup.

Additionally, the SWRCB should address the need to fund watershed management.