

FINAL REPORT

North Bay Selenium Total Maximum Daily Load

STAKEHOLDER PROCESS ASSESSMENT

Prepared For:
San Francisco Bay Regional
Water Quality Control Board
And
TetraTech, Inc.



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Executive Summary

Introduction

This document presents the findings, analysis, conclusions and recommendations from the North San Francisco Bay Total Maximum Daily Load (TMDL) Stakeholder Assessment (Assessment) conducted by the Center for Collaborative Policy (CCP), a neutral program of California State University, Sacramento (CSUS). The Western States Petroleum Association (WSPA) is providing support to the San Francisco Bay Regional Water Quality Control Board (Water Board) to conduct this project. WSPA has contracted the technical services of Tetra Tech Inc. Tetra Tech in turn contracted the neutral services of CCP for public processes and stakeholder engagement. CCP is a fee-for-service program of CSUS and therefore has a financial contractual relationship with Tetra Tech (as ultimately funded by WSPA). However, CCP is defined contractually and in actual practice as fully independent of the perspectives of WSPA, Tetra Tech, the Water Board, and all other TMDL stakeholders. The findings, analysis, conclusions and recommendations in this Assessment represent the neutral, professional perspectives and interpretations of CCP only and are based on discussions with several related stakeholders and the results of associated project research. CCP's perspectives and interpretations represent an aggregate balance of the information derived from the Assessment process and do not necessarily represent, nor are intended to represent the perspectives or affirmation of individual stakeholders.

Project Description

The Water Board targeted the completion of a selenium TMDL for the North Bay sometime in late 2010. WSPA had hoped that the selenium TMDL would be completed sooner such that the completed TMDL would assist WSPA members in addressing pending water quality target changes that go into effect in May 2010. As such and on behalf of its industry members (dischargers to San Francisco Bay), WSPA approached the Water Board and offered to provide technical assistance to support completion of a North Bay selenium TMDL by May 2010. The Water Board agreed to incorporate WSPA support for technical and public process resources to a North Bay Selenium TMDL. To support the TMDL development and the public's role therein, the Water Board has proposed to create a North Bay Selenium TMDL Advisory Committee (Advisory Committee). The Water Board's expressed purpose of the Advisory Committee is to:

1. Receive stakeholder driven, interest-based input / advice about the Board's preparation of the North Bay Selenium TMDL, and
2. Identify levels of agreement amongst diverse stakeholders on the direction and approach of the North Bay Selenium TMDL.

Stakeholder Assessment Conclusions

Stakeholders Lack Shared Understanding of Bay Area Selenium Conditions: There is general confusion among stakeholders about selenium issues, conditions, and implications. These discrepancies include the basis for listing the Northern San Francisco Bay (North Bay) as an "impaired water body for selenium". These differences of opinion currently and will likely

continue to influence stakeholder perspectives about the proposed TMDL and may likely impede meaningful discussions and solutions. Similarly, there are compelling differences of opinion about the influence that Central Valley flows have on selenium conditions in the North Bay. A diverse cross section of North Bay stakeholders believe that Central Valley flows play a major role in North Bay selenium conditions. Perspectives of Central Valley Regional Board staff are that selenium loads in the San Joaquin River are adequately managed and are in fact, being minimized. Absent a shared perspective about current upstream conditions, most North Bay stakeholders will be reasonably limited in their ability to discuss North Bay-specific TMDL implementation actions.

Stakeholder Participation May Be Limited: Most appropriate stakeholders are identifiable. However, identifying representative urban and rural land managers that could speak effectively to non point source (NPS) conditions will be challenging. Most stakeholders interviewed will participate in the proposed process presuming that: the process is equitable and has defined periods of work, milestones, and systems of accountability. That said, some stakeholders will likely not participate for two key reasons. Some stakeholders feel that the proposed stakeholder effort is inappropriate for a TMDL process. More specifically these stakeholders are concerned that a TMDL process should be more focused on technical conditions and statutory requirement and that a final TMDL report should not be the result of a “negotiated settlement”. Additionally, some stakeholders are concerned about a potential conflict of interest and limited transparency of the process because of WSPA’s involvement. Some stakeholders are also concerned about resource demands that prohibit them from being involved in all Bay Area activities. The proposed effort will likely be a low priority for some stakeholders.

Recommendations

CCP believes it is feasible, appropriate, and very beneficial to convene a focused, voluntary, stakeholder advisory process for the North Bay selenium TMDL. North Bay stakeholders need a venue to dispel misunderstandings about selenium conditions and to better determine what they agree on, and are concerned about. There will be limits on some stakeholder participation (as described above). However, because this process should be voluntary and the stakeholders are limited to only providing advice, the absence of some stakeholders should not prohibit the greater potential benefit of convening parties that are able to participate. That said, should a subsequent group ultimately not reflect a reasonable cross-section of North Bay stakeholders, the results of said group may lack legitimacy.

The proposed Advisory Committee should agree to some basic guidelines and principles including the following (the full proposed list is found in Chapter 6):

1. Key stakeholders may be invited to participate in the Advisory Committee but the Committee can not be formally “chartered” or “seated” by the Water Board. Rather, such an advisory group must remain essentially “ad hoc”.
2. The Advisory Committee should be “consensus-seeking” but not at the expense of timely progress. The group should try to identify topics where there is existing agreement and should also spend a reasonable amount of time identifying where agreement can take place on key items.

3. Related to Item 3, the group should have structured, mutually agreed on operating rules that include a decision-rule method.
4. The process should have mutual assurances from the Water Board, technical support staff, and the participating stakeholders to stay on a fixed timetable with key milestones and systems of accountability to complete appropriate responsibilities.

The following organizations should participate as Non-Regulatory Advisory Committee members:

WSPA	Representative of key dischargers of wastewater to North Bay
Bay Area Clean Water Agencies	Representative of key dischargers of wastewater to North Bay
Bay Area Stormwater Management Agencies Association	Representative of key dischargers of stormwater to North Bay
BayKeeper	Leading water quality advocate for Bay Area
Clean Water Action	Leading water quality advocate for Bay Area. Also represents environmental justices advocacy / interests
Ducks Unlimited	Leading conservation advocate; focused non-profit, non-public agency research of environmental effects to waterfowl and other migratory avian species
CA Department of Fish and Game	State natural resources trustee. Landowner and NPS discharger of waters to the Bay
US Fish and Wildlife Service	Federal natural resources trustee. Landowner and NPS discharger of waters to the Bay
West County Toxics Coalition	Local advocacy group / environmental justice interests

Regulatory Advisory Committee Members - EPA, Central Valley and San Francisco Bay

Regional Boards: The respective Regional Boards and EPA should participate in all Advisory Committee meetings and discussions as affected stakeholders, regulating organizations, and technical advisors. This will require clarity from representatives of these agencies regarding what “hat” they may be wearing at any point during a stakeholder discussion. As advisors to the process based on their statutory responsibilities these agencies must have the latitude to inform the stakeholders about statutory “sideboards” and/or limitations. Non-regulating stakeholders should be informed if their discussions and direction appear likely to conflict with existing State and Federal statutes and guidelines. Conversely, non-regulating stakeholders should have the latitude (as informed by agency representatives) to proceed with a consensus or majority/minority recommendation, even if it is in conflict with an agency’s recommendations.

Contributing Organizations: Some organizations may provide technical assistance to the process. These may include the California Office of Environmental Health Hazard Assessment, US Geological Survey, US Fish and Wildlife Service, and others as appropriate.

Technical Support: In addition to services by Tetra Tech, technical specialists to conduct independent document reviews should also support the process. Technical specialists should be

highly qualified, experienced, and respected experts in fields related to selenium loading in the Bay and should be available to support the proposed Advisory Committee and the Water Board.

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1. Introduction

This document presents the findings, analysis, conclusions and recommendations from the North San Francisco Bay Total Maximum Daily Load (TMDL) Stakeholder Assessment (Assessment) conducted by the Center for Collaborative Policy (CCP), a neutral program of California State University, Sacramento (CSUS). As described in Chapter 2, the Western States Petroleum Association (WSPA) is providing support to the San Francisco Bay Regional Water Quality Control Board (Water Board) to conduct this project. As such, WSPA has contracted the technical services of Tetra Tech Inc. (Tetra Tech). With the direct oversight and approval of the Water Board, Tetra Tech has in turn contracted the neutral services of CCP. CCP is a fee-for-service program of CSUS and therefore has a financial contractual relationship with Tetra Tech (as ultimately funded by WSPA). However, CCP is defined contractually and in actual practice as fully independent of the perspectives of WSPA, Tetra Tech, the Water Board, and all other current and future TMDL stakeholders.

The findings, analysis, conclusions and recommendations of this Assessment represent the neutral, professional perspectives and interpretations of CCP only and are based on discussions with several related stakeholders and the results of associated project research. CCP's perspectives and interpretations represent an aggregate balance of the information derived from the Assessment process and do not necessarily represent, nor are intended to represent the perspectives or affirmation of individual stakeholders.

2. Environmental and Regulatory Setting

The history and physical nature of water resource use, quality, and compliance for the San Francisco Bay and contributing watersheds is exceptionally vast. It includes:

- Cultural practices prior to European settlement of the Western United States,
- Substantial land and water use practices that occurred after European settlement,
- Contributing flows from a geographic area the size of approximately two thirds of California, and
- A jurisdictional overlay of many local, State, and Federal organizations; each with a mandate to protect and enforce some aspect of water (and related) resources.

In that context, the following section is not intended to be an exhaustive description of conditions. That is not the purpose of this Assessment and no such description could be captured in a reasonably brief space. Rather, the following is a brief summary of the environmental and regulatory setting that “frames” the proposed North San Francisco Bay Selenium TMDL project.

Statutory and Policy Framework:

Section 303 of the Federal Clean Water Act (CWA), establishes a water quality assessment and planning process through which States are required to:

- Identify impaired waterbodies not meeting water quality standards,
- Set priorities for addressing such waters, and
- Develop load allocations designed to achieve applicable water quality standards.

Constituents of impairment (i.e., nutrients, temperature, trash, sediment, etc.) are regularly presented and updated in national and state-level lists of impaired waterbodies. These lists are called “303(d) lists”. The title refers to the citation in the CWA mandating the list. A load allocation necessary to achieve applicable water quality standards is referred to as a “total maximum daily load” or “TMDL”. A TMDL is a calculated maximum load (or sum of multiple loads) of a specific pollutant that a water body can carry on a daily basis and still meet applicable water quality standards. Developing a TMDL is one way to address and ultimately remove an impaired water body from a 303(d) list.

In California, the State Water Resources Control Board (State Board), through the nine Regional Water Quality Control Boards (Water Boards), is responsible for the identification of waterbodies that do not meet water quality standards. The Water Boards are responsible for the development of TMDLs. The development of a TMDL by a Water Board is part of a “Basin Plan Amendment” process. Basin Plan Amendments are considered a “certified regulatory program”, making them similar to but exempted from certain environmental compliance processes mandated under the California Environmental Quality Act (CEQA). That said, Water Boards generally follow public process guidelines consistent with CEQA.

Any proposed TMDL must be granted final approval by the U.S. Environmental Protection Agency (EPA). Section 303 of CWA allows that interested parties such as cities, business advocates, watershed groups, and other organizations may support the development of, or even lead the development of a TMDL under strict oversight of the state agency (or EPA). The State or Federal agency may adopt or reject such a TMDL based on a variety of factors.

North San Francisco Bay Selenium Conditions

Selenium in the Northern San Francisco Bay (North Bay) comes from many natural and human-induced sources / conditions. Upstream of the Bay Area, waters from California’s Central Valley have historically contributed to selenium concentrations. These concentrations were magnified from agricultural and managed habitat irrigation practices adjacent to the San Joaquin River wherein soils derived from marine sediments leached selenium into shallow groundwater through subsurface drainage. The discharge of subsurface drainage from some areas along the west side of the central San Joaquin Valley resulted in elevated selenium concentrations in wetland supply channels and other water bodies within the watershed and downstream. Industrial, urban stormwater and treated facility discharges throughout the North Bay as well as the Central Valley and Bay-Delta also contribute to overall selenium concentrations in the North Bay as do other non-point source contributions from overland and groundwater drainage (in addition to the San Joaquin Valley discharges described above).

Selenium is a bioaccumulative trace element which under certain conditions, can be mobilized through the food chain and cause both acute and chronic toxicity to fish and wildlife. In 1998 (and subsequent years), the State Board and the San Francisco Regional Board identified

portions of San Francisco Bay as impaired due to the presence of selenium. For the purpose of its regulatory and technical responsibilities, the Water Board has delineated the San Francisco Bay into discrete waterbody segments (Figure 1). Relative to that, the current (2006) and previous (2002) geographic reaches of selenium impairment in the northern Bay Area included the following segments.

- Sacramento/San Joaquin River Delta [within San Francisco Bay Regional Board],
- Suisun Bay,
- Carquinez Strait,
- San Pablo Bay, and
- Central San Francisco Bay.

For the purpose of this proposed TMDL, the North Bay is defined as the segments listed above. The current and previous description of the listing is: *“Affected use is one branch of the food chain; the most sensitive indicator is hatchability in nesting diving birds, significant contributions from oil refineries (control program in place) and agriculture (carried downstream by rivers); exotic species may have made the food chain more susceptible to accumulation of selenium; health consumption advisory in effect for scaup and scoter (diving ducks); low TMDL priority because Individual Control Strategy in place.”* Potential sources of selenium in the North Bay are defined in the 303(d) list as:

- *Industrial Point Sources,*
- *Agriculture,*
- *Natural Sources, and*
- *Exotic Species.*

Additionally (but not exclusively), selenium was also the subject of a California Department of Fish and Game (DFG) Selenium Verification Study (1986-1990) in which data showed elevated levels of selenium in the livers of waterfowl that feed on bottom dwelling organisms such as clams. The California Office of Environmental Health Hazard Assessment (OEHHA) issued a health advisory (1987) for the consumption of waterfowl from Suisun Bay, San Pablo Bay, and the Carquinez Straits.

While the Lower and South San Francisco Bay segments are also listed for selenium, hydrologic differences throughout the Bay have led the Water Board to pursue different selenium TMDLs for different segments of the entire San Francisco Bay system. The North Bay (as described above) differs significantly from the South Bay as it receives most of the fresh water and sediment inflow discharged to the Bay from upstream sources related to the Sacramento and San Joaquin River watersheds.

North Bay TMDL Preliminary Project Approach

The Water Board targeted the completion of a selenium TMDL for the North Bay sometime in late 2010. WSPA industry stakeholders discharge selenium into the North Bay. Pending State water quality targets pose enforcement and attainment challenges to WSPA stakeholders due to changes in currently allowable selenium concentrations and dilution factors of discharges. These

targets go into effect in May 2010. WSPA had hoped that the selenium TMDL would be completed sooner than May 2010 such that the completed TMDL would assist WSPA members in addressing the pending water quality targets. As such WSPA approached the Water Board and offered to provide technical assistance to the Board to support completion of a North Bay selenium TMDL by May 2010. The Water Board agreed to incorporate WSPA support for technical and public process resources to a North Bay Selenium TMDL. Although WSPA is providing assistance; the Water Board retains decision responsibilities and technical adequacy oversight for the TMDL, including the preparation of the TMDL technical report. The Water Board also has the primary responsibility to identify and actively recruit appropriate interested persons and to communicate with such persons to ensure that they are provided with reasonable opportunity to participate in the development of the North Bay TMDL. A memorandum of understanding, has been prepared between the Water Board and WSPA (collectively referred to as “the Parties”), describing the roles and responsibilities of the Parties. Additionally, a “Project Plan” that describes specific project tasks and scopes of services for project staff and consultants has been prepared by the Water Board. Both documents can be found on the Water Board’s North Bay TMDL website at:

<http://www.waterboards.ca.gov/sanfranciscobay/TMDL/seleniumtmdl.htm>.

As previously described, WSPA has contracted (with the approval of the Water Board), Tetra Tech to provide significant (but not all) technical support, and CCP to provide significant (but not all) public process support. Tetra Tech and CCP will focus on the following four major tasks that complement the Water Board’s work on this project:

1. Data Compilation and Review,
2. Model Evaluation and Application,
3. Stakeholder and Public Participation Process, and
4. Project Management.

To support the TMDL development and the public’s role therein, the Water Board has proposed to create a North Bay Selenium TMDL Advisory Committee (Advisory Committee). The Water Board’s expressed purpose of the Advisory Committee is:

1. To receive stakeholder driven, interest-based input / advice about the Board’s preparation of the North Bay Selenium TMDL, and
2. To identify levels of agreement amongst diverse stakeholders on the direction and approach of the North Bay Selenium TMDL.

The first purpose is to help stakeholders serve their interests and constituents by helping the Water Board understand the diversity of issues related to selenium management in the North Bay. The second purpose is to help the Board prepare the most durable and sustainable TMDL possible. The Water Board hopes to have the Advisory Committee work in a voluntary capacity and provide advice and review work products prepared by Tetra Tech and the others. The proposal by the Board is to have the Advisory Committee reflect a variety of interests related to selenium conditions in the North Bay. The proposed Advisory Committee would also be supported by technical review specialists. These highly qualified and experienced technical

specialists would inform and advise the Advisory Committee about selenium conditions in the North Bay, as well as be available for technical inquiries from the Advisory Committee.

3. Assessment Process

During late summer 2007, CCP conducted interviews with stakeholders that CCP determined were reasonably affected by, and associated with selenium conditions in the North Bay region. The proposed list of participants was not intended to be all-inclusive or exhaustive. The following presents the organizations contacted by CCP. **Bold Font** indicates the stakeholders that were available to be interviewed and that were ultimately interviewed.

Bay Area Stormwater Management Agencies Association	Ducks Unlimited
West County Toxics Coalition	BayKeeper
Bay Area Clean Water Agencies	WSPA
State Water Resources Control Board	US Fish and Wildlife Service
Central Valley Regional Water Quality Control Board	EPA
US Geological Survey (USGS)	Vallero Refinery
California Department of Fish and Game	Clean Water Action

All organizations were interviewed using a standardized set of questions (see in Chapter 4). All interviews were confidential and the interview summaries are proprietary to CCP. Interviews were conducted by CCP staff members Dave Ceppos (Managing Senior Mediator), or Sarah Rubin (Associate Mediator/Facilitator), from August through October 2007. Of the original 14 stakeholders contacted, 1 chose to not participate in an interview. Of the remaining 13 stakeholders, interviews were conducted with 11. Of those that were interviewed, several organizations included more than one participant in the discussion such that the total number of stakeholders interviewed was 14 individuals. CCP maintains a record of communication with all stakeholders and the responses (or lack thereof) by those that were not interviewed. The findings are summarized in Chapter 4 of this report. Information gathered has been qualitatively evaluated to identify key assessment themes and conclusions in Chapter 5 and recommendations are provided in Chapter 6.

4. Assessment Findings

Introduction

This chapter presents comprehensive findings and responses from the Assessment interviews. As described in Chapter 3 and presented in Appendix B, CCP used a standard set of twenty-four questions for each interview. For the interviews and this summary, the questions have been grouped into two categories:

Interview Summary Category	Corresponding Interview Question(s)
Background Knowledge	1 to 12
Perspectives about Stakeholders and Stakeholder Processes	13 to 24

Common themes and differences among interview participants and organizations are identified in this chapter and are reported in summary form. Participants did not necessarily respond to each question and the findings are not quantified statistically. Rather, responses are aggregated and emphasis is given to topics reflecting collective interest and concerns of the interviewees. It further describes qualitative differences (e.g. “a majority of participants said “X”, “a small minority of participants believe “Y”). In some cases, the summary provides verbatim quotes when they are deemed to be either: 1) reflective of broadly held sentiments or, 2) reflective of a unique but substantive perspective.

The summary avoids attribution of comments to a participant however, there are some issues which are difficult to address without some recognition of the responsible entity. Lastly, the summary avoids editorial or analytical comments by the Assessment team. Analysis of participant comments and their implication on the feasibility of a stakeholder process is presented in Chapter 5.

Findings

Background Knowledge

1) What is your and/or your organization’s relationship / responsibility to the North Bay?

Participants described a range of responsibilities for the management of Bay Area resources including regulatory agencies (i.e., oversight, standards setting, sampling, etc.), environmental and conservation advocacy groups, industrial and trade organizations and technical specialists. Generally, participants had a common understanding about the general footprint of the proposed project area, however there was not a unified or even consistent description of the “North Bay”. One participant included Sausalito as a downstream boundary. Others felt the downstream boundary should end closer to the industrialized areas of the Central Bay. Many recognized that the jurisdictional boundaries of the Water Board(s) will dictate the project area, even though some thought the project area should not be bounded by those jurisdictional limits.

2) Do you know why selenium was listed as a constituent of impairment? Do you feel that the rationale for listing selenium is appropriate?

There were varying views as to why selenium was listed as a constituent of impairment. Some parties believe that selenium was originally listed as a result of the 1987 OEHHA health advisory for consumption of waterfowl. Some participants agree that this was an appropriate health advisory and subsequent listing. Several do not. Several participants are under the assumption that the listing occurred due to an impact to the beneficial uses of the San Francisco Bay (habitat

and wildlife), rather than due to a tissue consumption concern. These people as well as those that are generally opposed to the OEHHA advisory do not dispute a rationale for listing based on physiological impacts to the waterfowl and fish (Sturgeon) species in question.

Of particular note were the perspectives of some stakeholders regarding the current California Toxics Rule saltwater criterion for selenium (5 micrograms per liter [5 µg/L] or equivalent to 5 parts per billion). The criterion exists for the protection of aquatic species and there are varying opinions as to the effectiveness and appropriateness of the criterion. Some stakeholders want and expect the criterion to be lowered to improve protection for aquatic resources. Some stakeholders feel the criterion is inappropriately low for saline conditions and do not accurately represent the chemical composition of saltwater and impacts (or lack thereof) to aquatic species. While beyond the purview of the currently proposed TMDL, this topic requires resolution at a later date (to be determined) among various regulatory agencies. Should this decision take place after the completion of the currently proposed TMDL (a likely condition) the change in criterion is expected to have an impact on TMDL decisions and the implementation thereof.

3) What is your knowledge and opinion of general water quality in the North Bay and its relationship to selenium conditions?

There were varying views about the general water quality of the North Bay. A number of participants said they have difficulty making a judgment about current ambient quality because of the complicated contributing flow conditions into the North Bay from the Central Valley and other watersheds. These complications include but are not limited to seasonal flow variations, impacts related to flow diversions of the State and Federal Water projects in the south Delta, and limited characterization of non-point source flows. Some participants believe the North Bay to be “very polluted” from a variety of sources. Very few stakeholders had opinions about any synergistic effects between selenium and other physical constituents and any associated impacts thereof. A few participants did mention a potential relationship between selenium and mercury but acknowledged they were not aware of any conclusive information about such a relationship and its impacts.

Most participants talked about the impact of Central Valley water quality conditions. Most stakeholders believe that large selenium inputs from the Central Valley influence the total selenium load in the North Bay. Some discharger stakeholders believe such concentrations should be considered when load allocations are developed for the North Bay. Other advocacy stakeholders, while sharing the perception that Central Valley flows are a concern are less inclined to minimize load allocations in the North Bay in response to upstream inputs. Central Valley water regulators have a different opinion about upstream selenium conditions and do not describe these conditions as problematic. Rather, they describe upstream conditions as being largely under control and posing minimal impact to the Bay-Delta.

4) Who is affected by selenium impairment in the North Bay and how are they affected?

Several stakeholders expressed concerns about wildlife and the Bay-Delta aquatic system. Their specific concern is bottom feeding fish that can bioaccumulate selenium and related risks to the aquatic food chain. Of these stakeholders, a few expressed specific concerns about the role

bioaccumulation will play on humans through fish consumption (in particular, impacts to subsistence fish eaters). Others expressed concern about impacts to aquatic species health and productivity but not specifically about human health. Under both of these categories, most of these stakeholders want to ensure that dischargers are responsible for minimizing their selenium loads into aquatic system (within the Bay Area and upstream in the Central Valley).

Several stakeholders addressed the regulatory bases for the 303(d) listing and expressed a variety of opinions about the listing and its impacts. Some parties believe that the 1987 OEHHA waterfowl consumption health advisory is appropriate and reflects a need to minimize selenium concentrations throughout the Bay Area. Other parties believe that the OEHHA advisory is inappropriate because it focuses on waterfowl species they believe are unlikely to be consumed. Several parties do not have a clear idea about why the North Bay is listed on the 303(d) list for selenium.

Stakeholders responsible for point source and non-point discharges believe they are affected by selenium conditions by virtue of the regulations that exist and might be changed in the future (and the associated financial impacts). They are also concerned about the potential impacts to aquatic resources, however, they want to ensure that “equitable” solutions are created through a TMDL, such that they do not inherit an “undo burden”.

5) What do you know about the Federal total maximum daily load (TMDL) program, processes, etc? What, if any, opinions do you have about the TMDL program and its intended outcomes?

All participants were familiar with the TMDL process. There were major differences of opinions about the effectiveness of the program. Some think that the program would be more beneficial if it was implemented as specified in the CWA. Almost all participants talked about the way the program “should” work (in their opinion) and the “political reality” of the way the program “does” work. Many are not happy with the way they see the program working. Some think that completion of TMDLs is under-funded at the State and Federal levels and that implementation is ineffective because there is a lack of enforcement tools. Some participants think that TMDLs are rushed and do not allow for appropriate public input because of the combined time frames and the complexity of the issues usually addressed in TMDLs. Conversely, some stakeholders believe that expanded stakeholder efforts (such as that proposed for the North Bay TMDL and previously conducted for the South Bay Copper and Nickel TMDL) are inappropriate and ineffective because they try to treat the TMDL process as a negotiation, rather than a technical assessment. A few stakeholders representing a range of ideologies and responsibilities expressed frustration that TMDLs are supposed to address non-point source inputs to water bodies but that because such conditions are so hard to regulate, the TMDLs tend to focus on point source discharges. These stakeholders collectively questioned the benefit of such an approach to aquatic systems and in some cases, some stakeholders questioned the “equity” of such TMDL approaches.

6) What is your and/or your organization’s understanding of activities related to selenium since the San Francisco Bay Regional Water Quality Control Board listed the water body as impaired in 1998?

Many participants mentioned their participation in the Clean Estuary Partnership Roundtable (Roundtable) meeting held in August 2005. The regulatory participants and WSPA were most directly aware of activities since 2005. A common statement by most other stakeholders was that “not much has happened since then”. In general, stakeholders are aware of the potential risks of selenium and of TMDL efforts but have little knowledge of the ongoing efforts by different regulating and regulated parties that has lead to current conditions.

7) What is your understanding of how TMDL decision-making is done? Are the roles that water quality regulators play in this process clear?

Similar to responses to Question 5, some participants talked about how they perceive TMDL decision making should be done versus how it is done. Numerous participants said that regulators should make the decisions. Conversely, several others said that TMDL decisions are a matter of public and private impacts and that the public should have stronger involvement in the outcomes. Participants generally understand the respective roles that the Water Board and EPA play however there remain some questions about “who’s rules are we following?” There are also inconsistencies in stakeholders’ understanding of the State Board’s role in TMDL approval.

8) Is the role that WSPA is playing clear and do you have any questions or comments about this relationship?

A majority of participants did not initially feel clear about the role WSPA is playing in the process (CCP offered explanations to all participants during the interviews). Some participants feel that WSPA’s role is a conflict of interest because of their dual role as a regulated entity funding a portion of the regulatory process. In one case a stakeholder felt there might be a conflict of interest because WSPA’s technical consultant, Tetra Tech is also a consultant to the EPA and others. Generally speaking, most participants had a greater concern with WSPA’s role than specifically regarding Tetra Tech. In most cases, the stakeholders generally accepted Tetra Tech’s role and their effectiveness to be neutral and comprehensive. Some participants expressed an interest in hearing what WSPA’s expectations of the process are.

Other topics of concern included one participant stating an importance of getting information from WSPA’s industry members. Another stated that it is important to them that that the Board understands how things work and what makes sense regarding future TMDL implementation. They further expressed hope that there can be regulatory flexibility to “tweak things” for “real world” conditions.

9) What’s your understanding of existing data and research on selenium in the North Bay?

Several participants had minimal understanding of existing data and research on selenium in the North Bay. A few participants talked about their desire to see more data collected. One

participant talked about the need for a more comprehensive approach to collecting and analyzing information. More specifically, several stakeholders listed key resources and conditions they would like to have a better understanding about including: impacts of selenium to birds, fish and the entire food web, the spatial extent of bioavailable selenium; the role that seasonal variations play on selenium conditions, and the role and extent of selenium presence specifically in Bay sediments. That said, there also remains a discrepancy between several stakeholders about the breadth of available data and its functional use. One participant stated “there are lots of assumptions with this issue and it is hard to break through old assumptions.” Another noted that generally speaking, stakeholders “should be careful when discussing the need for more data. This notion is a fallacy since there is sufficient data to show impairment and therefore action should be taken.”

Numerous participants talked about bioaccumulation. The degree of importance this issue poses to the TMDL varied. One participant wondered if some other species could “be out there bioaccumulating like the clams, but isn’t known yet”. Lastly (and consistent with responses to Question 3, almost all stakeholders are curious about existing conditions in the Central Valley, the data that supports these conclusions, and whether the Central Valley and San Francisco Bay Regional Boards are coordinating on this topic and TMDL.

10) Are there new studies that should be conducted? Are there new data that should be considered?

There were fairly limited responses to this question. Of the participants that did respond, items warranting new studies included getting a better understanding about:

- any physical relationship between mercury and selenium, and
- the role that bioaccumulated selenium has on migrating waterfowl populations and their viability in summer breeding.

New data that should be considered included:

- A recent dissertation on selenium toxicity in white sturgeon (Linville, 2006),
- Recent published work on selenium toxicity in juvenile white sturgeon (Tashijn and Hung),
- Recent population surveys of white sturgeon by DFG, and
- Recent conceptual models prepared for the CALFED Bay-Delta Program Delta Regional Ecosystem Restoration Implementation Plan.

11) What are the implications to your organization from a future selenium TMDL?

Responses to this question were varied. From the perspective of financial resource implications, some participants expressed concerns that they cannot participate in the proposed effort because of the demands of so many other regional activities. Regulated parties expressed optimism in the proposed stakeholder approach and remain hopeful that it will translate into a TMDL that is feasible for their interests.

Regarding resource management implications, several parties are concerned about whether a selenium TMDL can be developed in the target time frame and whether the results will be protective of human and aquatic ecosystem health. Several parties are hopeful that a “science-based” approach will be effective, defensible, and beneficial for resource improvements.

12) What would an effective selenium TMDL implementation look like and who would be affected?

Commonly identified affected parties included:

- Central Valley dischargers,
- Petroleum Refineries,
- Bay Delta Land Managers, and
- Publicly owned treatment works (POTW).

That said, the degree to which these parties would/should be affected varied greatly. One participant said that little can be done to reduce selenium discharges from the refineries and that what POTW’s contribute is negligible. One participant stated that all potential dischargers need to be identified and that all should be expected to make significant reductions. This would include all NPS dischargers, and that these dischargers would also need to make significant reductions. A mechanism to quantify these reductions would also be needed. One participant said it depends on how measurement takes place (i.e. fish tissue and which fish and what time of the year; waterfowl populations and physiology, etc).

Numerous participants felt that Central Valley stakeholders need to be involved. Some characterized the effort as a watershed issue that requires a joint approach of upstream stakeholders in the Central Valley and downstream stakeholders in the San Francisco Bay region (and the respective Boards) working together to create a unified TMDL. A diverse set of participants noted the importance of being transparent about if and why Central Valley inflows might not be included in the process. Most of these participants had very strong opinions about the appropriateness of conducting a North Bay TMDL if it largely focuses on point source discharges and subsequently ignores historically degraded Central Valley flows. Some of these stakeholders expressed concerns about the adequacy of a San Francisco Bay Regional Board approach that would seek to "avoid" upstream conditions. One participant suggested that Central Valley farmers need to have their Irrigated Lands Program Agricultural Waivers revised to address selenium and that a timeframe to complete that revision should be set.

Process / Stakeholder Questions

13) What is your experience in multi-stakeholder resource management processes?

A majority of participants had experience in multi-stakeholder resource management processes. Generally, participants did not have very positive experiences in stakeholder efforts. A number of participants talked about the difficulty of genuinely involving “regular people” in this type of process. The science is very complex and the amount of time that is necessary to participate

fully is beyond the reach of the average person (outside of the environmental field and/or has a family). This holds true for stakeholder representatives as well.

As previously described, a few participants do not believe in stakeholder processes for this type of regulatory effort. In the words of one participant, “policymaking shouldn’t be a negotiation.” Some see a stakeholder process as a misinterpretation of “public participation since the results are a political negotiation to make stakeholders happy”. All participants agreed that the process should be “science driven” and that there should be no “back room deals.” Some participants talked about the need for all stakeholders to understand the necessity for quality information.

14) Is it important that you have an influence on the proposed process and if so, what would need to happen to ensure you feel you’ve had an influence?

Many stakeholders addressed their answer to this question under previous items. Most participants that did further respond to this question had a common desire to have other stakeholders understand their perspectives. Conversely (and related to responses in Question 14), some stakeholders have little concern about whether they will influence the process. They believe that the proposed effort is in addition to baseline public process practices that the Water Board must follow and they feel that they have adequate recourse to influence a TMDL effort through those means.

15) How would you balance your intention to have an influence with the interests of other stakeholder participants, taking into consideration the context of the overarching CEQA linkage?

For many stakeholders the answer to this question lies in their unique perspectives on the “appropriate” use of science. More specifically, many stakeholders stated that in a perfect situation, stakeholders competing to influence the process will be irrelevant because science-based conclusions will drive load allocations and implementation conclusions. Regarding CEQA, most stakeholders support the necessary public process steps of CEQA. However several stated their concern (similar to statements in Question 13) that it is difficult to get comprehensive public input through such mandatory steps as public meetings and open comment periods.

16) Were previous stakeholder discussions about selenium in the Bay Area effective and if so how?

A majority of participants talked about their experience at the Roundtable. Many did not view the effort favorably. Some viewed the Roundtable as an “insider discussion” where “uncertainties were blown up” and those with the strongest personalities or voices had the most air time. Similarly, several of these stakeholders felt concerned because there seemed to be little follow through on results after the Roundtable meeting.

17) As currently envisioned, do you think the Advisory Committee and Technical Support Committee structure would be effective? If not, what might prohibit effectiveness and what could be done to ensure that the current effort is effective?

Participants' opinions varied. Some do not think the effort will be effective as they do not think a process of this type is appropriate. Some participants voiced concern around tension that could arise between the Advisory Committee and Technical Support Committee regarding technical sentiments that conflict with stakeholder interests. A similar concern raised by some participants is the question of "what are the issues that can really be considered?" and what can the Advisory Committee "really give feedback on?" Further, a few stakeholders pointed out that there has been "political strife" regarding Bay Area selenium issues. Some of these participants further stated that there is "no political will" to resolve selenium contamination issues in the Bay Area.

Notwithstanding the sentiments above, a majority of stakeholders expressed cautious interest in the proposed effort and felt that if managed equitably and in a transparent way, there might be benefits to their interests, and to Bay Area aquatic resources. More specifically, collective responses from stakeholders indicate that the process will be most effective if:

- All parties are treated equal and act in good faith with each other,
- WSPA proves to be an engaged, equivalent stakeholder with nothing to hide and a willingness to be open minded,
- Solid science is the basis for decision-making,
- The Water Board shows a sincere commitment to listen and be advised by the stakeholders, and
- Demands on the time / resources of Advisory Committee members are minimal.

18) Would you consider participating as a stakeholder in a North Bay Selenium process?

The majority of interview participants confirmed they are willing to participate.

19) Who else would be appropriate to be involved in a North Bay stakeholder process?

A range of potential participants were suggested including (not prioritized):

- U.S. Bureau of Reclamation
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- California Department of Fish and Game
- Environmental Defense
- Natural Resources Defense Council
- Central Valley agricultural drain stakeholders
- Central Valley Regional Water Quality Control Board

20) What would need to happen to ensure that appropriate stakeholders become involved and stay involved in a TMDL process?

See responses to Question 17.

21) What are the best locations to hold stakeholder meetings? Times of day? Day of week?

The participants provided no strong preferences. The Water Board's headquarters in Oakland is considered a central location for most stakeholders. A few stakeholders suggested moving the meeting locations around to different locations throughout the proposed project area.

22) Given your response earlier about who is affected, what are the most effective methods to inform and involve affected stakeholders?

Several stakeholders did not have an answer to this question. The few that did offered a small range of options. The most common answer was to coordinate and hold public meetings. Related to this, some participants said that using public notices about the availability of the future TMDL report would be effective. One person suggested using email lists and similar electronic outreach tools but also acknowledged that this would be difficult to compile and manage in a way that it could address all stakeholders equally.

23) Are there others we should interview?

Few participants had anyone else to add to the list.

24) Is there anything else you want to add?

Several participants used this item to offer confidential insights about other stakeholders. In some cases these were cautionary statements regarding the activities of and between the regulators. Other participants used this item to reiterate or add a recommendation about technical project support. In particular, the Assessment team received updates on the work and potential role of the U.S. Geological Survey.

5. Analysis of Findings

Chapter 4 summarized the assessment interviews. This chapter considers those responses and other available information to assess the feasibility of a North Bay TMDL stakeholder process. Stakeholder efforts can take many forms and are influenced by myriad conditions. The purpose of the interview questions was to assess whether conditions are feasible to bring a diverse set of affected stakeholders together to achieve the two primary purpose statements developed by the Water Board. To reiterate, the Board hopes to:

1. Receive interest-based input / advice about the preparation of the North Bay Selenium TMDL, and

2. Identify levels of agreement amongst diverse stakeholders on the direction and approach of the North Bay Selenium TMDL.

Collecting advice from stakeholders can be done in ways ranging from highly structured (i.e., surveys, interviews, etc.) to generally informal (i.e. public workshops, etc) methods. The collection of advice need not reflect a cohesive discussion between stakeholders but rather should reflect a true attempt to collect diverse opinions. Conversely, any stakeholder process that seeks to identify levels of agreement between stakeholders must include a few basic variables. Including the following:

- A representative cross section of participants,
- Working together in structured, facilitated sessions, to
- Identify mutually understood and beneficial perspectives.

To identify stakeholder “agreements”; even on a cursory level without any subsequent steps to establish deeper shared perspectives between stakeholders, still requires some basic “multi-party techniques” that are different than simply offering a public meeting where the bias of opinions belongs to the stakeholders that “show up”. The following section describes how CCP “tests” the feasibility of such an approach.

Conditions of Feasibility

CCP uses a range of elements to assess the feasibility of starting and conducting successful “multi-party” stakeholder processes. They are termed “*conditions of feasibility*”. In the context of the public process requirements for TMDL efforts, in concert with the expressed goal of identifying levels of agreement between stakeholders, the applicable conditions for feasibility are:

- Appropriate stakeholders are identifiable
- Appropriate stakeholders will participate
- Stakeholders have shared meaning about the issues at hand
- Stakeholders have legitimate spokespersons
- Stakeholders will have future interactions
- There is no assurance of a better outcome
- There is external pressure to reach a conclusion
- Stakeholders have adequate resources to conduct a process
- There is a realistic timeline

Figure 2 presents a graphical representation of the status of feasibility conditions for the proposed North Bay TMDL. Compiling and analyzing the results of stakeholder interviews is a qualitative exercise by CCP. The process relies on using best professional judgment and experience to assess the raw data derived from stakeholders. The conditions for feasibility can vary in importance from one project to another, based on the unique aspects of the project at hand. To assess the status of feasibility in Figure 2 (e.g. low, medium, or high), CCP looked at a variety of factors from the interview results. These factors included (but were not limited to):

- Basic numerics of responses (i.e. a majority of stakeholder believe something),
- Key themes and trends in responses (i.e. no majority perspectives exist but discrete differences in smaller groups are obvious),

- Disparities in stakeholder influence (i.e. all stakeholders are not created equal. Sentiments of potentially more influential stakeholder(s) may necessarily influence the feasibility conditions), and
- Threat and risk (i.e. some stakeholder sentiments can pose threat / risk to a proposed process by a variety of means).

Analysis of Conditions

Regarding the conditions for feasibility, the following presents CCP's analysis and conclusions.

Stakeholders have Shared Meaning: There seems to be a high level of shared understanding about statutory requirements / processes of conducting TMDLs. However, there is a compelling general confusion about selenium issues, conditions, and implications. Various stakeholders have various beliefs but shared perspectives are uncommon. Differentiating which beliefs are factual is difficult and currently infeasible because the very act of determining a "fact" is based on a stakeholder's unique perspectives and ideologies and requires some joint dialogue between different stakeholders. Related to this, while there is a general understanding of the bioaccumulation conditions of selenium, there is a lack of shared perspective as to why selenium was listed on the 303(d) list. More specifically, some parties believe that selenium was originally listed as a result of the OEHHA 1987 health advisory for the consumption of waterfowl. Other parties believe that the listing occurred due to an impact to the beneficial uses of the San Francisco Bay (habitat and wildlife), rather than due to a tissue consumption concern only. Of the stakeholders that believe the OEHHA advisory is the basis for the listing, some believe that it is an appropriate health advisory and subsequent listing. Several do not. Of the parties that believe the listing was based on broader impacts to beneficial uses, some support that basis while others believe it is inappropriate because of the pending decision about the selenium toxics criteria for the Bay Area.

The overarching conclusion from this situation is that stakeholders currently can not effectively discuss certain aspects of North Bay selenium conditions in a balanced manner because they have little shared perspective (let alone agreement) about the underlying regulatory and physical conditions.

Similarly, a diverse cross section of North Bay stakeholders believe that large selenium inputs from the Central Valley influence the total selenium load in the North Bay. Most stakeholders also believe that conducting a North Bay TMDL without including these upstream conditions / stakeholders is inappropriate. Perspectives of Central Valley Regional Board staff are that selenium loads in the San Joaquin River (particularly those from the Grasslands region) are adequately managed and are in fact, being minimized. The differences between these beliefs need to be reconciled because they directly influence related TMDL concepts of load attribution and appropriate responsibilities for load reductions. Absent a shared perspective about current upstream conditions, most North Bay stakeholders will be reasonably limited in their ability to discuss North Bay-specific TMDL implementation actions.

Appropriate Stakeholders are Identifiable: Most appropriate stakeholders are identifiable. Federal and State agencies with statutory responsibilities for the North Bay are easily identified.

Stakeholders generally recognized as discharging selenium into the North Bay are represented by industry organizations (refineries, POTWs, etc.). Defining the appropriate number and diversity of conservation groups, local environmental health advocates, and water quality advocates is more challenging. The complex scientific issues with this case, coupled with the limited project timeline mean that those advocates who already have been following selenium issues in some manner are most likely the most appropriate candidates for participation. Parties that are unfamiliar with the issues can be identified but their ability to participate could be hampered by other demands. Similarly, identifying an equitable representation of urban and rural land managers that could speak effectively to NPS conditions will be challenging. Such limitations could impact any future determination of “reasonable assurances” regarding if and how NPS selenium loads can be reduced.

Appropriate Stakeholders Will Participate: This condition is somewhat uncertain, the results of which will likely be contingent on:

- The way a process is structured,
- The duration of the process, and
- The resource demands (i.e. monetary costs, staff resources, time to travel and attend meetings) of the process.

In the context of State public process requirements (i.e. CEQA or a State “certified regulatory process), and in a necessary attempt to balance resource demands, several stakeholders question whether participating in a discrete stakeholder process for the selenium TMDL provides appropriate benefits for their interests. Participation in a focused stakeholder effort inherently requires a dedication of time and resources. Some stakeholders indicated it is likely in their best interest to not participate in the focused effort and to rather submit their input through the standard State public comment processes for TMDLs.

Stakeholders Have a Legitimate Spokesperson(s): Similar to the condition about parties being identifiable, stakeholders with State and Federal statutory responsibility can identify legitimate spokespersons. Industrial dischargers are represented by industry organizations and can also identify legitimate spokespersons. Advocacy organizations can identify legitimate spokespersons from their specific group but it is uncertain if other advocacy groups in the area will deem these spokespersons as representing their constituencies as well. This is not to preclude that they won’t or can’t, but rather that this is an topic of uncertainty that should be addressed in the near future.

No Stakeholder has an Assurance of a Much Better Outcome in a Different Venue:

This is a challenging condition and it is tempered by what is actually meant by “outcome”. From the questions posed by CCP, it is clear that most stakeholders would find a beneficial outcome from a process that better educated them in an equivalent way about selenium conditions in the North Bay and upstream (see “Shared Meaning” above). When considering “outcomes” in the context of strategic benefits to self interest, stakeholders’ perspectives are more challenging. Discharger stakeholders have a vested interest in seeing the selenium TMDL completed by 2010. This is related to pending changes in State and Regional Water Board policies that could have profound effects on water quality criteria and associated enforcement on water dischargers in the

North Bay region. Non-discharger stakeholders have no such constraints and it is clear that their definition of a “better outcome” is not necessarily consistent with the outcomes sought by dischargers. State public process requirements limit the Water Board’s ability to create “binding” solutions between stakeholders in this dilemma. However, it is reasonable and likely beneficial for the Board to try to identify conditions where diverse stakeholder perspectives could be mutually accommodated.

Stakeholders Will have Future Interactions with Each Other: In the context that all parties have a relationship to the San Francisco Bay, it is likely that there will be some future interaction with each other. The timeline of the proposed process (discussed above and below) will likely require close coordination between several diverse stakeholders. The degree to which the parties might work together on the implementation of the TMDL appears possible but only in the sense of how regulated, regulating, and advocacy groups discuss this topic in the future. It seems less likely that stakeholders will work on a regular basis to address actual load reduction actions. These actions are likely to be carried out by dischargers and land managers.

Stakeholders Identify External Pressures to Reach Agreement: As stated above, discharger stakeholders have pressure to see the selenium TMDL completed by 2010 due to policy changes. Other advocacy and resource management stakeholders don’t have a similar regulatory timeline however, they have their own incentives to see a selenium TMDL completed as a means to enact tangible steps to improve aquatic resource conditions in the Bay Area. Despite the potential difference in motivation, most parties seem to have shared incentives to complete a selenium TMDL in the near future.

Stakeholders Have Adequate Resources to Conduct a Process: Not surprisingly, stakeholders have different breadth and depth of resources to support their involvement in the proposed process. For some stakeholders, resource limitations will be too great to ignore and will impede their participation. Others will be able to absorb related impacts. It is possible that the lack of a critical mass number of stakeholders could call into question the legitimacy of the process if it is obvious that equitable representation of interests is not being achieved. Such a condition does not currently seem to exist but there remains the potential it could happen.

Realistic Timeline for Completion: Many stakeholders believe that it will be challenging to complete the TMDL in the proposed timeframe. Many stakeholders do not believe that meaningful progress can be made on selenium conditions by focusing a TMDL on the North Bay (and under the jurisdiction of San Francisco Bay Regional Board) only. Rather, they believe this is a watershed issue that requires a joint approach of upstream stakeholders in the Central Valley and downstream stakeholders in the San Francisco Bay region (and the respective Boards) working together to create a unified TMDL. Many feel that if this approach was utilized it would lengthen the timeframe of the project but would make the results more durable. As discussed several times, the proposed timeline has various advocates and detractors, each with different motivations. It is uncertain if these interests can be reconciled and whether the Board and EPA would and could support extending the TMDL process beyond the May 2010 target.

Other General Conditions

Other stakeholder conditions informing CCP's analysis follow:

- Some participants feel that a TMDL should not be a “negotiation” but rather, a defined technical process by the Board to assess, characterize, and assign appropriate selenium loads. Similarly, all participants want the TMDL to be “science-based”.
- There is concern from some stakeholders that the proposed TMDL is being partially funded by WSPA and that this could impede an equitable process and outcomes. Related to this, a small number of stakeholders expect that WSPA's consultant Tetra Tech will be inclined to support WSPA's interests. This is not intended to question the Tetra Tech's reputation, but rather reflects a presumption that private companies inherently represent their clients as best as possible.
- Some parties would like a stakeholder process to include comprehensive field visits and field based discussions about actual conditions that are / might be contributing selenium loads to the Bay Area. Additionally, some parties want a comprehensive discussion of how NPS load contributions will be characterized and addressed / minimized as part of a TMDL implementation plan.

6. Recommendations

Introduction

State requirements and guidelines for TMDL public processes hold that all stakeholders are equal and that input from stakeholders should be assessed and used in an equivalent manner. In that context, creating a unique stakeholder group to advise on a TMDL process is laudable as a means to further enhance public participation and integrate key issues into the process. Such an effort must be done in a manner that is effective and beneficial (for the Water Board and the stakeholders) while remaining consistent with the statutory intent of CEQA such that said stakeholder group holds no primacy over the input of other stakeholders.

Pursuant to Section 303(d) of the CWA and as published in 40 CFR 130.7, EPA policy is that there should be “*full and meaningful public participation*” in the TMDL development process. In guidance, EPA has explained that final TMDLs submitted to EPA for review and approval should describe the State's public participation process, including a summary of significant comments and the State's responses to those comments. Furthermore, 40 CFR 130.37 requires that States provide the public with at least 30 days to review and comment on all aspects of a TMDL listing. EPA Region 9 TMDL guidance additionally states:

“Although the State can address minimum federal requirements concerning public participation by providing a 30 day notice and comment period and preparing a comment responsiveness summary, EPA encourages that, where feasible, the State

communicate with the public earlier in the process of developing a particular TMDL to discuss the TMDL approach and stakeholder involvement opportunities.”

It further states:

“...there are additional ways of providing for public participation in TMDL development beyond the minimum.” ...including

- *Public Notice and Comment,*
- *Stakeholder Consultation plus Public Comment Period, and*
- *Extensive Stakeholder Collaboration plus Public Comment Period.*

Recommendations

CCP believes it is feasible, appropriate, and very beneficial to convene a focused stakeholder process for the North Bay Selenium TMDL. CCP’s experience is that environmental compliance efforts that rely exclusively on general public meetings are less likely to result in durable and sustainable results. Focused efforts such as that proposed by the Water Board allows for more robust, meaningful understanding of complex water quality topics. It also creates a framework for dialogue between affected parties; a scenario that is very difficult to achieve in formal “public hearing-like” meetings most typically associated with environmental compliance requirements.

CCP has prepared the following general recommendations / principals that should enhance the process:

1. The proposed stakeholder group should be advisory in nature and should be preferably referred to as “Advisory” by name.
2. Key stakeholders may be invited to participate in the Advisory Committee but the Committee can not be formally “chartered” or “seated” by the Water Board. Rather, such an Advisory group must remain essentially “ad hoc”.
3. The Advisory Committee should be “consensus-seeking” but not at the expense of timely progress. More specifically (and in support of the proposed purpose), the group should try to identify topics where there is existing agreement and should also spend a reasonable amount of time identifying where agreement can take place on key items. That said, attempts to reach agreement / consensus can not be unwieldy and unduly time consuming as such agreements are at best, advisory and non-binding.
4. Related to Item 3, the group should have structured, mutually agreed on operating rules that include a decision-rule method.
5. Consistent participant attendance should be encouraged but can not be mandatory. That said, consistency and “institutional memory” will be a key to successful outcomes. The use of alternate and rotating participants should be discouraged and avoided.

6. The process should have mutual assurances from the Water Board, technical support staff, and the participating stakeholders to stay on a fixed timetable with key milestones and systems of accountability to complete appropriate responsibilities.
7. The process should be facilitated by a neutral third-party with expertise in stakeholder group process, TMDLs, and associated environmental compliance topics.
8. All participants should act in their self-interest AND in good faith to the process and the other stakeholders. While it is not feasible or appropriate for this effort to be a multi-party negotiation, should the proposed stakeholder process be convened, the facilitator described in Item 7 should exercise responsibility to ensure that all stakeholders act in good faith at all times.
9. The process should be supported by neutral technical advisors that are deemed by the Board (and as advised on by the Advisory group) to have appropriate technical skills / experience to assess the adequacy of technical analysis conducted by Tetra Tech and others.
10. TMDLs are adopted via a Basin Plan amendment process that includes public participation requirements. There is no State legal requirement for the Water Board to or any associated party to subsidize stakeholder participation in baseline public process steps, nor in any expanded stakeholder process (such as the proposed Advisory Committee). While examples exist where parties related to and/or supporting a TMDL have provided support to other stakeholders, such subsidies are voluntary. Therefore, there is no basis to provide subsidies to potential stakeholder participants in the proposed selenium TMDL unless one or more associated parties volunteer such support. *NOTE: This conclusion may create or exacerbate inequitable conditions between stakeholders with varying resources*

Proposed Advisory Committee Participants

The following organizations should participate as Non-Regulatory Advisory Committee members

WSPA	Representative of key dischargers of wastewater to North Bay
Bay Area Clean Water Agencies	Representative of key dischargers of wastewater to North Bay
Bay Area Stormwater Management Agencies Association	Representative of key dischargers of stormwater to North Bay
BayKeeper	Leading water quality advocate for Bay Area
Clean Water Action	Leading water quality advocate for Bay Area. Also represents environmental justices advocacy / interests
Ducks Unlimited	Leading conservation advocate; focused non-profit, non-public agency research of environmental effects to waterfowl and other migratory avian species

CA Department of Fish and Game	State natural resources trustee. Landowner and discharger of waters to the Bay
US Fish and Wildlife Service	Federal natural resources trustee. Landowner and discharger of waters to the Bay
West County Toxics Coalition	Local advocacy group / environmental justice interests

Regulatory Advisory Committee Members – EPA, State Board, Central Valley and San Francisco Bay Regional Boards: The respective State Board, Water Boards and EPA should participate in all Advisory Committee meetings and discussions as affected stakeholders, regulating organizations, and technical advisors. This will require clarity from representatives of these agencies regarding what “hat” they may be wearing at any point during a stakeholder discussion. As advisors to the process (based on their statutory responsibilities) these agencies must have the latitude to inform the stakeholders about statutory “sideboards” and/or limitations. Non-regulating stakeholders should be informed if their discussions and direction appear likely to conflict with existing State and Federal statutes and guidelines. Conversely, non-regulating stakeholders should have the latitude (as duly informed by agency representatives) to proceed with a consensus or majority/minority approach to a topic, even if that approach is in conflict with the agency’s recommendations.

Contributing Organizations: Some organizations may be expected to provide informational technical assistance to the process through presentations, workshops, etc. These may include staff from the OEHHA, USGS, US Fish and Wildlife Service, and others as appropriate.

Technical Support: In addition to services provided by Tetra Tech, it is expected that technical review specialists will be convened. CCP supports this idea and expects that technical specialists will be highly qualified, experienced, and respected experts in fields related to selenium loading in the Bay. Specialists may include individuals from academia, USFWS, National Marine Fisheries Service, Ducks Unlimited, and others as appropriate. Initial Technical Support Committee members should be proposed by the Water Board and subsequently advised on and modified (if warranted) by Advisory Committee members. The Technical Support Committee should provide neutral review of all project-related technical products and should provide summaries and advice to the Advisory Committee. Similarly, the Technical Support Committee should be available to respond to project related inquiries from the Advisory Committee.

Process

CCP generally supports the initial proposals of the Board to conduct a series of Advisory Committee meetings. These meetings will be associated with key technical milestones for the project as lead by the Water Board and related to work conducted by Tetra Tech. The last meeting will also serve as a CEQA Scoping Meeting. As discussed further below, CCP is concerned that the amount of proposed meetings (four) is insufficient to address the level of complexity that selenium issues require. Nonetheless, CCP supports the initial attempt for the process to be completed within four meetings but recommends flexibility by the Board should the process require additional stakeholder meetings.

As part of the four meetings proposed by the Board, CCP recommends that appropriate time be focused on baseline information / education about selenium conditions, and related stakeholder perspectives. The Board intends to hold focused discussions about the updated selenium Conceptual Model at the proposed March 2008 meeting. CCP believes that this should be augmented and expanded to provide meaningful education under two key categories:

1. Stakeholders should be provided salient information about the regulatory and technical facts of the North Bay Selenium TMDL (i.e., the Conceptual Model and other technical discussions).
2. Stakeholders need an opportunity to discuss / diagnose their respective beliefs about selenium conditions in the Bay Area and Central Valley watershed.

CCP proposes that as part of Meeting 1, all interested stakeholders be prepared to describe their perspectives about Bay Area water quality, particularly in the context of selenium conditions. In advance of Meeting 1, the facilitator (and potentially Water Board staff) should assist the meeting participants so they can prepare focused perspectives / discussion points that clearly articulate their concerns, beliefs, goals, etc. The Meeting 1 discussion should be structured such that selenium conditions and related topics are the focus and that participants are confident that their perspectives will be addressed in the future (if feasible). The discussion must also be bounded such that items not related to selenium can be acknowledged, and concerned stakeholders are directed to appropriate other venues outside of the proposed TMDL process. Methods of accountability should also be identified such that appropriate topics will be addressed and resolved in a timely and mutually agreed on manner. Lastly, there should be a point in Meeting 1 wherein stakeholders can discuss the proposed TMDL process (in the context of the previously described discussion) and can affirm the proposed approach or suggest any beneficial adjustments in the process.

Additionally, if feasible there should be time in Meeting 1 dedicated to a technical presentation from Central Valley Board representatives and other project technical staff about the status of upstream selenium conditions.

Between Meeting 1 and the proposed Conceptual Model discussion at Meeting 2, the facilitator, Board staff, and project technical staff should meet and address stakeholder input. Meeting 2 should subsequently provide a venue for project technical staff to present the current status / analysis of selenium conditions (via the Conceptual Model efforts), cross-reference such information with stakeholder feedback, and identify next steps in the process. Additionally, the stakeholder group should ratify their operating structure / decision-rule, and other related organizational tools.

Subsequent meetings should proceed as proposed with a caveat that appropriate and warranted adjustments can / should be made to best serve the process

Conclusion

State and Federal public process requirements are invaluable to uphold public trust responsibilities of agencies, and to literally enhance the public's trust. However, the demands of daily life often results in a dilution or complete absence of public participation in key public events. Oftentimes, the issues at hand have direct effects on diverse stakeholders without them realizing it. In the case of TMDLs, the topics and background are so complex that it is difficult for laypersons to make an effective contribution to the process even if they are available. Focused stakeholder efforts that are organized to enhance required public processes are an invaluable method to ensure that key, knowledgeable stakeholders are aware and involved on an issue and can represent broader stakeholder sentiments. Such is the case for the proposed North Bay Selenium TMDL.

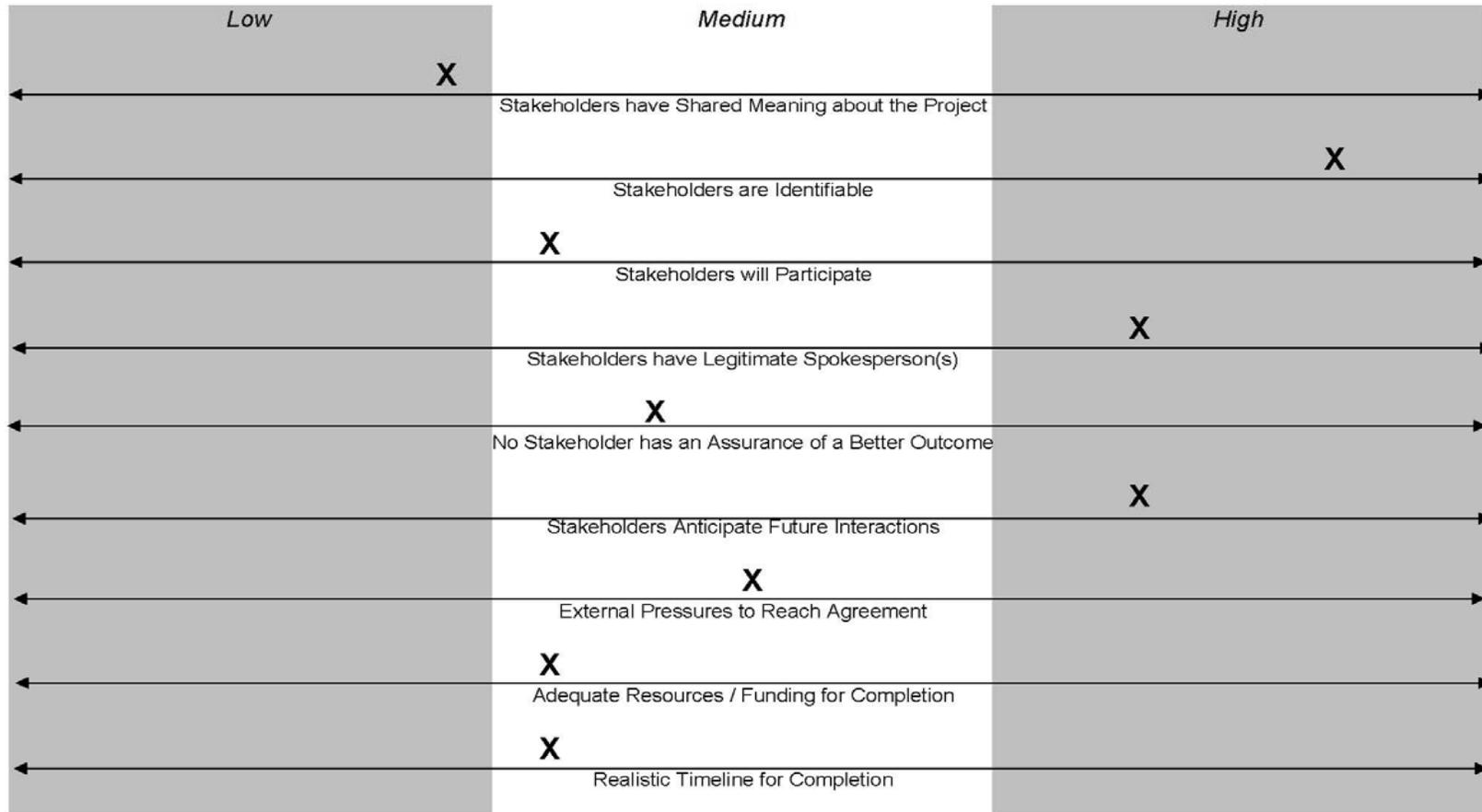
FIGURES

FIGURE 1



Figure Courtesy of San Francisco Regional Water Quality Control Board

FIGURE 2
North Bay Selenium TMDL - Stakeholder Process Feasibility Assessment
Range of Feasible Conditions



Glossary

CCP	Center for Collaborative Policy
CEQA	California Environmental Quality Act
CSUS	California State University, Sacramento
CWA	Clean Water Act
DFG	California Department of Fish and Game
EPA	U.S. Environmental Protection Agency
NPS	Non-Point Source
OEHHA	California Office of Environmental Health Hazard Assessment
POTW	Publicly Owned Treatment Works
TMDL	Total Maximum Daily Load
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
WSPA	Western States Petroleum Association