Submitted via email and hard copy on April 9, 2010

Ms. Jan O'Hara
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Proposed Amendments to the San Francisco Bay Basin Plan – ***Addition of Surface Water Bodies and Beneficial Uses to Chapter Two of the Basin Plan***

Dear Jan:

The City of Sunnyvale appreciates the opportunity to submit the following comments regarding the proposed amendments to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) Regarding *Addition of Surface Water Bodies and Beneficial Uses to Chapter Two of the Basin Plan.*

The City supports actions to provide additional clarity and consistency within the Basin Plan. The City's comments address two proposed actions; 1) clarification of the limited water contact recreation ("L" REC-1) beneficial use designation and 2) future designations of shellfish harvesting beneficial uses (SHELL) to water bodies.

1) Clarify the Definition of "L" REC-1 in the Basin Plan

The draft Basin Plan Amendment (BPA) proposes to "*replace the Table 2-1 designation "L" limited, for the water contact recreation beneficial use, as "L" is not defined in the Basin Plan and its meaning is unclear.*" (Staff Report p.2) Rather than deleting this useful refinement of the current very broad REC-1 beneficial use designation, the City requests that a specific, rather than implicit definition of Limited Water Contact Recreation ("L" REC-1) be included in the Basin Plan (see example definition below).

This Limited Contact Recreation use has been used as a point of reference over the last approximately 15 years by Water Board staff and the Board when developing and adopting alternative bacteriological effluent limits (e.g., 500 MPN/100 mL fecal coliform) for POTWs with only Limited Water Contact Recreation uses existing in the vicinity of their discharges (e.g., NPDES permits for EBDA, EBMUD, SF SE, SBSA).

The Appendix A Proposed Basin Plan Amendment on page 1 proposes to insert, in part, the following language: "*Beneficial use designations for any given water body do not rule out the possibility that other beneficial uses exist or have the potential to exist. Existing beneficial uses that have not been formally designated in this Basin Plan are protected whether or not they are identified.*"

The Limited Water Contact Recreation beneficial use is an example of a use that exists in various locations in water bodies throughout the Bay although it has not been comprehensively designated in the Basin Plan. This fact is supported by the results of multiple site specific receiving water user studies. These user studies were required by the RWB, to be conducted by POTWs in the vicinity of their outfalls, to document the extent if any of full immersion body contact recreation (with likely ingestion of water) (i.e. REC-1 uses). This verification of the absence of full immersion body contact recreation was part of the NPDES permit approval process for granting limited water contact based effluent limits (e.g., 500 MPN/100 mL fecal coliform technology based effluent limits).

Similar receiving water user studies were required to be conducted by Sunnyvale and San Jose (and others) during the early to mid-2000's to determine the appropriate level-of-use single sample maximum (SSM) Enterococcus limit to be included in their NPDES permits (along with the 35 cfu/100 mL 30-day geometric mean technology based effluent limit). The Fact Sheet (p. F-20) to Sunnyvale's current NPDES permit (Order No. R2-2009-0061) documents the user survey results:

> "The Discharger has previously conducted a study, from June 2003 to December 2004, and submitted results in a final report, *City of Sunnyvale Water Pollution Control Plant Receiving Water User Survey Confirmation Study,* dated December 23, 2004, demonstrating that the "lightly used" water contact category is conservative for both Moffett Channel and Guadalupe Slough. Therefore effluent limitations for Enterococcus bacteria are protective of water contact beneficial uses of the receiving water."[1]

This BPA staff report (p. 3) notes that Board staff first solicited input on this project on March 31, 2003. Part of that 2003 scoping effort included a memorandum from Board staff to Interested Parties dated March 27, 2003 on the subject of "Definitions of Beneficial Uses and Preliminary Criteria for Their Designation." The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) provided initial comments on the 2003 proposed amendments to the Basin Plan waterbody list and associated beneficial uses by letter dated June 17, 2003 (copy attached).

Those comments also focused primarily on similar suggested updates to the recreational beneficial use definitions to include subcategories of uses based on degree of contact and seasonal uses. The SCVURPPP letter contained the following definition of Limited Water Contact Recreation and recommended it for inclusion in the Basin Plan. Sunnyvale, as a member of SCVURPPP, continues to support the 2003 recommendation to include this clarifying Limited Water Contact Recreation use definition in the Basin Plan.

---

[1] While the use determination did not change, the 276 cfu/100 mL "lightly used" SSM limits included in the 2003 permit were removed from the 2009 permit for consistency with subsequent 2004 UPEPA guidance clarifying that the intended use of SSMs was for beach closure decisions. See Fact Sheet p. F-20.

"Limited Water Contact Recreation: Limited Water Contact Recreation beneficial uses are defined as uses in which a limited amount of contact with water is reasonably possible or where Primary Water Contact Recreation is limited by physical conditions. Representative Limited Water Contact Recreation activities include but are not limited to fishing[2] boating, hunting while standing in water, tidepool and marine life study, and other activities involving limited contact with water incident to shoreline activity. Representative conditions where Primary Water Contact Recreation is limited by physical conditions include but are not limited to areas with very shallow water depth, areas in which access to a waterbody is restricted (fenced, signed, etc.) and areas which are highly undesirable for recreation and/or require access via a dangerous route."

The City provided comments on the 2004 and 2009 Basin Plan Triennial Review also recommending in part adoption of the subcategory beneficial use of Limited Water Contact Recreation. The City's May 30, 2008 2009 Triennial Review comments (copy attached) noted that two categories of subcategories of REC had been included in the 1971 Basin Plan:

> *The 1971 Interim Basin Plan included two subcategories of REC beneficial uses (excerpt attached to fax copy of this letter).*
>
> - *Rec 1A – Water contact recreation which involves extensive body contact with the water such as swimming and wading.*
> - *Rec 1B – Water contact recreation which involves limited contact with water, such as fishing and boating.*

Both DPH and USEPA guidance documents support adopting subcategories of the recreational use designation. The October 24, 1990 Memo from Don Womeldoft, Chief of Environmental Management Branch, Department of Health Services to James Baetge, Executive Director, State Water Resources Control Board "*Request for Clarification of Beneficial Use Definitions of State Water Related to Bacterial Standards*" was the basis for the 500 MPN/100 mL median fecal coliform effluent limitation adopted and continued in multiple POTW NPDES permits, since the mid-1980s. This action has allowed for significant reduction in the use of chlorination and dechlorination chemicals, and the production and discharge of disinfection byproducts.

The March 2004 USEPA document "*Implementation Guidance for Ambient Water Quality Criteria for Bacteria*" indicates that states may adopt subcategories of recreational uses. Examples given include "primary contact uses modified to reflect low flow situations or waterbodies significantly impacted by wildlife sources of fecal contamination." EPA defines secondary contact activities as those activities where most participants would have very little direct contact with the water and where ingestion of water is unlikely. Examples given include wading, canoeing, motor boating, and fishing.

---

[2] Fishing includes all activities from boats and the shoreline, in-water fishing, bait collection, frog collecting, crayfish fishing, clam harvesting, etc.

USEPA (2004) also noted that for fecal coliform water contact criteria states have "*generally adopted a secondary contact water quality criterion of 1000 cfu/100 mL geometric mean, which is five times the geometric mean values used by many states and authorized tribes to protect primary contract recreation. This water quality criterion has been applied to secondary contact uses and to seasonal recreation uses during the months of the year not associated with primary recreation.*"

The City strongly encourages the RWB to adopt language into this BPA clarifying the definition of and applicability of the Limited Water Contact Recreation beneficial use. There is extensive RWB past precedent for this action, along with supporting DPH and USEPA guidance. This action will provide needed guidance to RWB permit writers in developing consistent permit limits and conditions that will provide the appropriate (i.e. not overly protective) level of protection to the actual existing level of recreational use in given water bodies. The alternative of providing an unnecessary level of protection would come at the cost of requiring excessive use of chemicals to disinfect and dechlorinate the effluent, unnecessary production and discharge of harmful disinfection byproducts such as trihalomethanes, and undesirable public safety concerns associated with chemical handling.

2) Provide for Establishing Subcategories of Shellfish Harvesting Uses

The City recognizes that this BPA is not intended to address shellfish harvesting uses. The BPA Staff Report Table 2 Definitions and Applicability of Beneficial Uses (p. 11) notes under the shellfish harvesting (SHELL) beneficial use applicability column:

> "*The State Board is in the process of evaluating beneficial uses associated with shellfish harvesting, including COMM and SHELL. Therefore, SHELL is not being designated to water bodies at this time, pending completion of the statewide policy effort.*"

The City agrees that it is appropriate to defer designation of SHELL to water bodies until the State Water Board (SWB) finishes it reassessment of the shellfish harvesting beneficial use definition itself. The scoping document for the SWB May 3, 2010 public scoping meeting on this SHELL project states the following:

> *"The focus has to do with evaluating the use, not the status of the shellfish themselves or water quality. This stems from the fact that bacterial indicators for shellfishing are based on public consumption health standards for commercial growers. These standards are very strict and allow for very little flexibility. This effort will evaluate looking at recreational vs. commercial shellfishing uses and whether or not we can differentiate the use."*

The associated scoping meeting Public Notice states the Project Goals to include in part to:

> *"Better define the geographic extent of recreational shellfish beneficial use" and to "Create flexibility in how shellfish standards for recreational use are implemented by looking at how a Reference System and Antidegradation Approach might apply."*

The City provided comments on this SHELL issue as part of its May 30, 2008 comments (copy attached) on the 2009 Basin Plan Triennial. The City provided additional SHELL designation and implementation related comments in its more recent March 22, 2010 comments regarding the proposed BPA to adopt Enterococcus water quality objectives. A common comment was that updates and refinements to the shellfishing portions of the Basin Plan be consistent with the "National Shellfish Sanitation Program (NSSP), Guide for the Control of Molluscan Shellfish." That guidance specifies that each growing area be correctly classified (based on a sanitary survey, triennial review, and annual review) ranging from Approved to Prohibited. Of particular relevance to POTWs is the NSSP recommendation that:

> *"An area classified as prohibited shall be established adjacent to each sewage treatment plant outfall or any other point source outfall of public health significance."*

It may be some number of years before the SWB completes its development and adoption of statewide modifications to the SHELL definition and designation. In the interim, the City recommends including some minor Basin Plan modifications to provide needed guidance to RWB permit writers in developing consistent permit limits and conditions (e.g., harvesting prohibitions) that will provide the appropriate level of protection to the actual existing level, if any, of shellfish harvesting adjacent to POTW outfalls.

As an example, the City's March 22, 2010 comment letter on the Enterococcus BPA included the following recommended clarification. For consistency with the NSSP Prohibited classification for shellfish harvesting areas adjacent to POTW outfalls, the City recommended that the following sentence (underlined) be added to Footnote b to Basin Plan Table 3-1 Water Quality Objectives for Coliform Bacteria (underlined wording from the June 2007 Ocean Plan Amendments Scoping Document Issue 2 Alternative 2 for adoption of a "Fecal Coliform Standard for Shellfish"):

b. Source: National Shellfish Sanitation Program. *The standards would not be applicable where shellfish are not harvested for recreational or commercial purposes.*

An example of the type of information that could be collected to support this harvesting determination, was the 18 month visual user survey conducted by City staff of potential REC-1 and SHELL activities along Moffett Channel and Guadalupe Slough. As cited in the City's 2009 NPDES permit Fact Sheet (p. F-11):

> *"Although South San Francisco Bay is listed to support shellfish harvesting, according to a City of San Jose report, Alternative Effluent Bacteriological Standards Pilot Study, 2003, representatives from the California Department of Fish and Game have stated that no shellfish harvesting occurs in the San Francisco Bay south of Foster City. In addition, the Shellfish Harvesting (SHELL) beneficial use likely does not exist in Moffett Channel or Guadalupe Slough. Both water bodies are characterized with soft mudflats and subtidal marsh, which are not suitable shellfish habitats. The Discharger's 2003 beneficial use survey of Moffett Channel and Guadalupe Slough found no attempts by the public at shellfish harvesting over a period of 18 months."*

We appreciate the opportunity to provide these comments. If you have any questions, please contact me at (408) 730 - 7268 or Dr. Tom Hall of EOA at (510) 832 – 2852 x110.

Sincerely,

Lorrie Gervin
Environmental Division Manager

Cc: Bruce Wolfe, RWQCB
Naomi Feger, RWQCB
EOA, Inc.
Robert Falk, Morrison & Foerster
Amy Chastain, BACWA

Attachments:

A. SCVURPPP June 17, 2003 Comment Letter on RWB March 27, 2003 "Definitions of Beneficial Uses and Preliminary Criteria for Their Designation"

B. Sunnyvale May 30, 2008 Comment Letter on RWB 2008 (2009) Basin Plan Triennial Review

June 17. 2003

Mr. Steve Moore, Section Leader
Policy and Planning Section
California Regional Water Quality Control Board,
San Francisco Bay Region
1515 Clay Street. Suite 1400
Oakland, CA 94612

Dear Mr. Moore:

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) appreciates the opportunity to provide you these initial comments on the proposed amendments to the Basin Plan waterbody list and associated beneficial uses. The comments are based on a memorandum from you to Interested Parties dated March 27, 2003 on the subject of "Definitions of Beneficial Uses and Preliminary Criteria for Their Designation." SCVURPPP understands that there may have been subsequent changes to the information contained in that memo and would appreciate the opportunity to provide additional comments in the future on any such changes

SCVURPPP supports these efforts to update the Basin Plan and encourages Board staff to also consider clarifying and refining some of the definitions of beneficial uses. Our comments below focus primarily on suggested updates to the recreational beneficial use definitions. We understand that these are state-wide definitions. However, as discussed below, we believe that the current REC-l definition does not adequately address the key variable of relative exposure, and hence relative risk to the public. The current definition lumps together high exposure swimming with very low potential exposure uses such as fishing.

As early as 1990, the CA Department of Health Services (DHS) set forth a recommendation[1] that the definitions of Water Contact recreation should be revised to be consistent with the Federal Water Quality Criteria document[2]. Their recommendation was that the uses be classified into three broad categories rather than two with the potential for human exposure as the fundamental difference between uses. The recommended categories were as follows:

- Primary Contact Recreation;
- Limited Water Contact Recreation; and
- Non-contact Water Recreation.

---

[1] Memorandum from DHS Environmental Management Branch to James Baetge, Exclusive Director,.SWRCB, October 24, 1990.

[2] Federal Water Pollution Control Administration, Water Quality Criteria: Report of the National Technical Advisory Committee to the Secretary of the Interior, April 1, 1968, Washington. D.C.

This Limited Contact Recreation use has been used as a point of reference over the last several years by Board staff and the Board when developing and adopting alternative bacteriological effluent limits (e.g., 500 MPN/100 mL fecal coliform) for discharges to receiving waters with documented limited contact recreation. The 2002 USEPA guidance document on implementation of bacteriological criteria provides additional example of and rationale for such subcategories of recreational uses.

SCVURPPP supports this general "refined use" concept and its inclusion in the Basin Plan. Some suggested draft definition language is provided below with related rationale.

Primary Water Contact Recreation: Primary Water Contact Recreation beneficial uses are defined as uses that reasonably involve contact with water that include a substantial likelihood of ingesting water. Representative activities include but are not limited to swimming, water skiing, and skin diving.

Limited Water Contact Recreation: Limited Water Contact Recreation beneficial uses are defined as uses in which a limited amount of contact with water is reasonably possible or where Primary Water Contact Recreation is limited by physical conditions. Representative Limited Water Contact Recreation activities include but are not limited to fishing[3] boating, hunting while standing in water, tidepool and marine life study, and other activities involving limited contact with water incident to shoreline activity. Representative conditions where Primary Water Contact Recreation is limited by physical conditions include but are not limited to areas with very shallow water depth, areas in which access to a waterbody is restricted (fenced, signed, etc.) and areas which are highly undesirable for recreation and/or require access via a dangerous route.

Non-contact Water Recreation: Non-contact Water Recreation beneficial uses are defined as uses which involve proximity of water but do not require contact with water. Representative activities include but are not limited to picnicking, sunbathing, hiking, beachcombing, camping, pleasure boating, hunting on land, and sightseeing.

Issues, Caveats, and Qualifying Statements:

Following is a short list of issues related to the recreational uses defined above which would need to be considered if the definitions were to be adopted as part of a revised Basin Plan. These issues could either be accounted for in designating uses, in defining water quality criteria for the uses, and/or as introductory discussion points prior to the definitions in the Basin Plan.

1. *Some recreational activities may require careful consideration to determine the appropriate beneficial use category.* It may be necessary to carefully define some recreational activities with a series of descriptive attributes to determine the

[3] Fishing includes all activities from boats and the shoreline, in-water fishing, bait collection, frog collecting, crayfish fishing, clam harvesting, etc.

appropriate category for that activity. For example, wading by children may either be primary contact or limited contact recreation, depending on the specific situation (wading knee deep in a bay with the potential may be a significantly different activity than "puddle splashing" in several inches of water in a concrete channel), and it may not be immediately obvious whether it would be most appropriate for kayaking to be defined as a primary or limited contact recreation activity.

2. *Primary Contact Recreation can be subcategorized.* The document "Ambient Water Quality Criteria for Bacteria — 1986"[4] set forth the concept that the Primary Contact Recreation use could be subcategorized as follows:

    a. Designated beach area;

    b. Moderate full contact recreation area;

    c. Lightly used full contact recreation area; and

    d. Infrequently used body contact recreation area.

    In that document it was recommended that sampling frequencies and water quality criteria derivation could be related to the intensity of use.

3. *The uses associated with a water body or a section of a waterbody may change temporarily.* Federal regulation allows for seasonal uses, provided that the criteria adopted to protect such uses do not preclude the attainment and maintenance of a more protective use in another season[5]. This seasonal use concept may or may not be appropriate on a broad scale, however the general concept may be appropriate on a short term or seasonal scale under the following types of conditions: high flow, storm events, and/or low flow or limited water conditions. Under these representative or similar conditions, it may be appropriate to temporarily change the use of a waterbody from Primary Water Contact Recreation to Limited Water Contact Recreation, or from Limited Water Contact Recreation to Non-contact Water Recreation.

4. *Issues Related to Water Quality Criteria to Protect Beneficial Uses:*

    a. Water Quality Criteria for the Primary Water Contact Recreation beneficial use should be risk (health) based. Currently US EPA recommends roughly 1 illness per 100 recreation events as a tolerable level of risk for body contact recreation. CA DHS staff is in agreement with this concept, but is the opinion that EPA's tolerable level of risk may not be sufficiently health protective.

    b. Water Quality Criteria for the Limited Water Contact Recreation beneficial use should also be risk-based. To implement this, several issues would need to be agreed upon at a policy level. For example, is the level of risk associated with Primary Water Contact Recreation

---

[4] EPA440/5-84-002.

[5] CFR 131.10(f)

appropriate for the Limited Water Contact Recreation beneficial use? If so, the water criteria could be scaled by the expected level of exposure associated with the Limited Water Contact Recreation relative to the primary contact recreation[6] If not, a decision would need to be made relative to the appropriate level of risk associated with this beneficial use.

c. Water Quality Criteria for the Non-contact Water Recreation beneficial use will not be risk (health) based as it is assumed that no human exposure occurs. The criteria will likely be based on aesthetics or other criteria.

In closing, **SCVURPPP** appreciates the opportunity to provide these comments and recommendations. We look forward to continuing to work with you and your staff throughout this Basin Plan Amendment process. If you have any questions, please call.

Sincerely,

Adam Olivieri. Dr. PH, P.E.
Program Manager

cc

[6] During primary water contact recreation, it is assumed that ~50-100ml of water is ingested. Limited Water Contact Recreation likely involves much less water, therefore the concentration of a pathogenic agent could be higher in a Limited Water Contact Recreation waterbody and still result in the same level of risk as a Primary Contact Recreation area.

EOA, Inc.

Eisenberg, Olivieri & Associates
Environmental and Public Health Engineering

May 30, 2008

Ms. Naomi Feger
Senior Environmental Scientist
San Francisco Bay Regional Water Quality Control Board
1515 Clay St., Suite 1400
Oakland, CA 94612

Sent by Fax and Email

SUBJECT: Comments on 2008 Basin Plan Triennial Review

Dear Ms. Feger:

These comments are submitted by EOA on behalf of the City of Sunnyvale. The City appreciates the opportunity to provide input on the priority of issues to be addressed by Basin planning staff. The City recognizes that there are limited staff resources available for this Basin Plan Triennial Review (BPTR) and that some desirable updates will have to be deferred to later years.

One of the two highest priorities for the City is adoption of the Beach Act Water Quality Objectives, and associated implementation guidance, to enable permit limits to routinely be set based on fecal coliform, enterococci, or E.coli instead of total coliform. (A related suggested concurrent Basin Plan change would be to add a new beneficial use of Limited Contact Recreation). The second highest priority is evaluation of the shellfish beneficial use given its potential to impact bacteriological limits. More detailed comments on these two issues are provided below.

Other suggested issues described below are ones the City also commented on during the 2004 BPTR, that made it onto the 2004 issues list, but with relatively low priorities. They are included here to keep them "on the radar screen" to be addressed when resources become available.

Adopt U.S. EPA Beach Act Recreational Contact Standards (Issue 3.1)

The City supports adoption of the Beach Act criteria as water quality objectives consistent with the requirements of Water Code Section 13241. These are numerically the same values that have been included in Basin Plan Table 3-2 but as criteria, not WQOs. The City supports removing total coliform from Table 4-2 (as an outdated and inaccurate indicator organism). The City further supports inclusion in Chapter 4 guidance on how Water Quality Based Effluent Limits (WQBELs) are to be calculated from the bacterial WQOs (i.e. with initial and as appropriate subsequent dilution). Useful background information on this bacterial WQO issue, and how it can be evaluated relative to protection of shellfishing beneficial uses, can be found in the joint effluent and receiving water study conducted by the City of San Mateo and the South Bayside

System Authority (SBSA) in support of changing from total to fecal coliform effluent limits ("Chlorination Reduction Evaluation and Recommendations for Modified Effluent Coliform Limitations," November 1997).

A recommended related Basin Plan change would be to add a sub-category beneficial use of Limited Contact Recreation and to narrow the current definition of Water Contact Recreation (REC-1). REC-1 would then be more technically based and associated with protection of full body contact exposure, such as swimming. Incidental type exposures, such as fishing, with a lower health risk, would then logically fall under Limited Contact Recreation.

The 1971 Interim Basin Plan included two subcategories of REC beneficial uses (excerpt attached to fax copy of this letter).

- Rec 1A – Water contact recreation which involves extensive body contact with the water such as swimming and wading.
- Rec 1B – Water contact recreation which involves limited contact with water, such as fishing and boating.

DOHS and USEPA have supported adopting subcategories of the recreational use designation in guidance documents. The October 24, 1990 Memo from Don Womeldoft, Chief of Environmental Management Branch, Department of Health Services to James Baetge, Executive Director, State Water Resources Control Board "*Request for Clarification of Beneficial Use Definitions of State Water Related to Bacterial Standards*" was the basis for the 500 MPN/100 mL median fecal coliform effluent limitation adopted in several POTW NPDES permits, such as SBSA, since the mid-1980s. This has allowed for significant reduction in use of chlorination and dechlorination chemicals, and production and discharge of disinfection byproducts.

The May 2002 Draft USEPA "*Implementation Guidance for Ambient Water Quality Criteria for Bacteria*" indicates that states may adopt subcategories of recreational uses. Examples given include "primary contact uses modified to reflect low flow situations or waterbodies significantly impacted by wildlife sources of fecal contamination." EPA defines secondary contact activities as those activities where most participants would have very little direct contact with the water and where ingestion of water is unlikely. Examples given include wading, canoeing, motor boating, and fishing.

USEPA noted that states have "*generally adopted a secondary contact water quality criterion of 1000 cfu/100 mL geometric mean, which is five times the geometric mean values used by many states and authorized tribes to protect primary contract recreation. This water quality criterion has been applied to secondary contact uses and to seasonal recreation uses during the months of the year not associated with primary recreation.*"

{Alternate limits for bacteria ranked 4 in the 2004 BPTR and Limited REC-1 ranked 25.}

Evaluation of the Shellfish Beneficial Use for San Francisco Bay (Issue 2.4)

The City agrees with the issue description that there is a need for a "refinement of the spatial and patterns of shellfish harvesting uses" and to "subcategorize the SHELL beneficial use of San Francisco Bay for recreational shellfishing." The City would encourage staff to incorporate in the Basin Plan some of the important historic information in this regard developed by the Water Board's own Shellfish Program in the late 1970's and early 1980's. (Basin Plan Section 5.2.8 Shellfish references Water Board Resolutions No. 74.14, 78-8 and No. 83-10). Multiple shellfish surveys and sanitary surveys were conducted during that time by Water Board staff, Department of Fish and Game, and others. Copies of these reports are available at the UCB Water Resource Center Archives.

The City would also suggest that updates and refinements to the shellfishing portions of the Basin Plan be consistent with the "National Shellfish Sanitation Program, Guide for the Control of Molluscan Shellfish." That guidance species that each growing area be correctly classified (based on a sanitary survey, triennial review, and annual review) as:

- Approved Waters – Growing waters from which shellfish may be harvested for direct marketing;
- Conditionally Approved – Growing waters meeting approved classification standards under predictable conditions. These waters are open for harvest when water quality standards are met (e.g., dry weather), and are closed at other times.
- Restricted Waters – Growing waters from which shellfish may be harvested only if they are relayed or depurated before direct marketing.
- Conditionally Restricted – Growing waters do not meet the criteria for restricted waters if subjected to intermittent microbiological pollution, but may be harvested if shellfish are subjected to a suitable purification process.
- Prohibited Waters – Growing waters from which shellfish may not be harvested for marketing under any conditions. (Section IV.03.D(5)(a) Prohibited Areas states that "An area classified as prohibited shall be established adjacent to each sewage treatment plant outfall or any other point source outfall of public health significance, with the prohibited area subject to several criteria).
- Unclassified Waters – Used by some states for growing waters that are part of a state's shellfish program but are inactive, i.e. there is no harvesting, and the state does not conduct any water quality monitoring or maintain a sanitary survey.

The City sees this as a moderately high priority. Adopting into the Basin Plan the already developed subcategories of uses and procedures of the NSSP should take relatively little "new" effort. The proposed State Water Board supported shellfish survey should be conducted in a manner to provide information to support classification of areas of the Bay by the appropriate subcategory.

Updates of Regulatory Programs

Permit Limit Issues

The City recommends that the Basin Plan be updated to provide more guidance and clarity on certain issues affecting how effluent limits are derived and calculated pursuant to the State Implementation Plan (SIP). Some of the changes are to provide consistency with the SIP, others would be to address issues on which the SIP is either silent or ambiguous. The City realizes that some of the following requested changes could be considered state-wide issues and perhaps could be dealt with through changes to the SIP. Given the local importance of these permitting issues, and challenges associated with getting the SIP appropriately updated in a timely manner, the City recommends that Board staff move ahead with updating the Basin Plan while continuing to encourage SWRCB staff to update the SIP.

The issues described below affect almost every discharger NPDES reissuance. The suggested guidance will help permit writers maintain a high level of consistency between permits over time.

Two interrelated permitting activities include conduct of Reasonable Potential Analyses (RPAs), and calculation of effluent limitations. The Basin Plan should be amended to provide additional guidance on the definition of and selection of background receiving water station location(s) for individual dischargers. This is particularly problematic for shallow water estuarine dischargers. Currently, there are many possible approaches, such as nearest available, "upstream", single versus pooled stations, largest dataset, most recent dataset, etc. It is an issue since it affects the data to be used in and thus the outcome of RPAs, some effluent limit calculations, and how hardness is calculated.

Guidance on derivation and application of metals translators is also needed. Translators are affected by most of the same point of application issues as for background stations selection (above) plus issues such as whether discharger specific or regional/pooled translators should be used.

Guidance on data quality objectives is needed. The SIP often relies on single maximum observed values for decision making. Guidance is needed how to deal with outliers/suspect datapoints, old datasets, number of years of data to use, minimum size datasets, etc. {Low to moderate priority, moderate level of effort. RPA ranked 19 in 2004 BPTR. NPDES editorial changes ranked 12.}

Mixing Zone Policy

Sunnyvale strongly supports development of a sound, technically based mixing zone policy that includes shallow water dischargers. Hydrodynamic modeling tools exist to accomplish this in estuarine conditions. Results from such modeling should be allowed to be used by all dischargers on a case by case basis while the policy is being developed. {Low to moderate priority, moderate to high level of effort. Dilution policy ranked 22 in 2004 BPTR}

Chronic and Acute Toxicity

The Basin Plan sections on toxicity, particularly chronic toxicity, need significant updating. First however, there the City recommends there be a review of a representative cross section of test results, to determine the regulatory value of the data being provided by such testing versus the cost. {Acute toxicity update ranked 25 in 2004 BPTR.}

It is recommended that the equivalent to a "reasonable potential analysis" mechanism be developed and included to provide permit writers a technical and policy basis for determining, based on past performance, whether limits/triggers still need to included when permits are reissued each time. The RPA could also be used to help determine when monitoring frequency changes may be appropriate. {Low to moderate priority, moderate to high level of effort. Toxicity RPA ranked 32 in 2004 BPTR.}

Water Recycling

The City is a long-standing proponent of water recycling. Sunnyvale recommends that the Basin Plan section on water recycling be significantly updated and include language more strongly supportive of all forms of water recycling. Such text changes would give water recycling proponents another tool to help educate water recycling opponents. {Moderate priority, relatively minor level of effort. Water recycling ranked 9 in 2004 BPTR.}

Revisions to New Laws, Plans and Regulations

Many permitting decisions are made based on rulings (Orders) from the SWRCB in response to petitions of RWQCB permitting actions. Other decisions are made based on court rulings on appeals of these SWRCB permit petition rulings. It is recommended that these important SWRCB and court rulings affecting permitting be referenced in Chapter 5 of the Basin Plan. {Low to moderate priority, relatively minor level of effort. This item was included in NPDES Editorial Changes ranked 13 in the 2004 BPTR.}

Tributyltin (TBT) WQO Update

EPA adopted final TBT criteria in December 2003. It is suggested that the Footnotes to Basin Plan Tables 3-3 and 3-4 should be updated to read as shown below to reflect this. The chronic and acute values are not included in the Basin Plan tables since they have not been formally adopted as WQOs pursuant to Water Code Section 13241. However they are used in Reasonable Potential Analyses. The final chronic and acute values of 0.0074 ug/L and 0.42 ug/L are higher than the draft values (but are still based on very limited data, per the Criteria document)

Table 3-3 Footnote "j"
j. Tributyltin is a compound used as an antifouling ingredient in marine paints and toxic to aquatic life in low concentrations. U.S. EPA has published Ambient Aquatic Life Water Quality Criteria for Tributyltin (TBT) – Final (EPA 822-R-03-031, December 2003).

These criteria are cited for advisory purposes.

Table 3-4 Footnote "o"
o. Tributyltin is a compound used as an antifouling ingredient in marine paints and toxic to aquatic life in low concentrations. U.S. EPA has published Ambient Aquatic Life Water Quality Criteria for Tributyltin (TBT) – Final (EPA 822-R-03-031, December 2003). These criteria are cited for advisory purposes.

On behalf of Sunnyvale, I thank-you for the opportunity to provide these comments. We look forward to working with you on this triennial review process. The City encourages you to hold workshops and/or form workgroups to address each of the major issues. If you would like to discuss these comments further, please call.

Sincerely,
EOA, Inc.

Thomas W. Hall, Ph.D.
Managing Environmental Engineer

C: Lorrie Gervin, Sunnyvale
Michele Pla, BACWA
Pete Schafer, San Jose