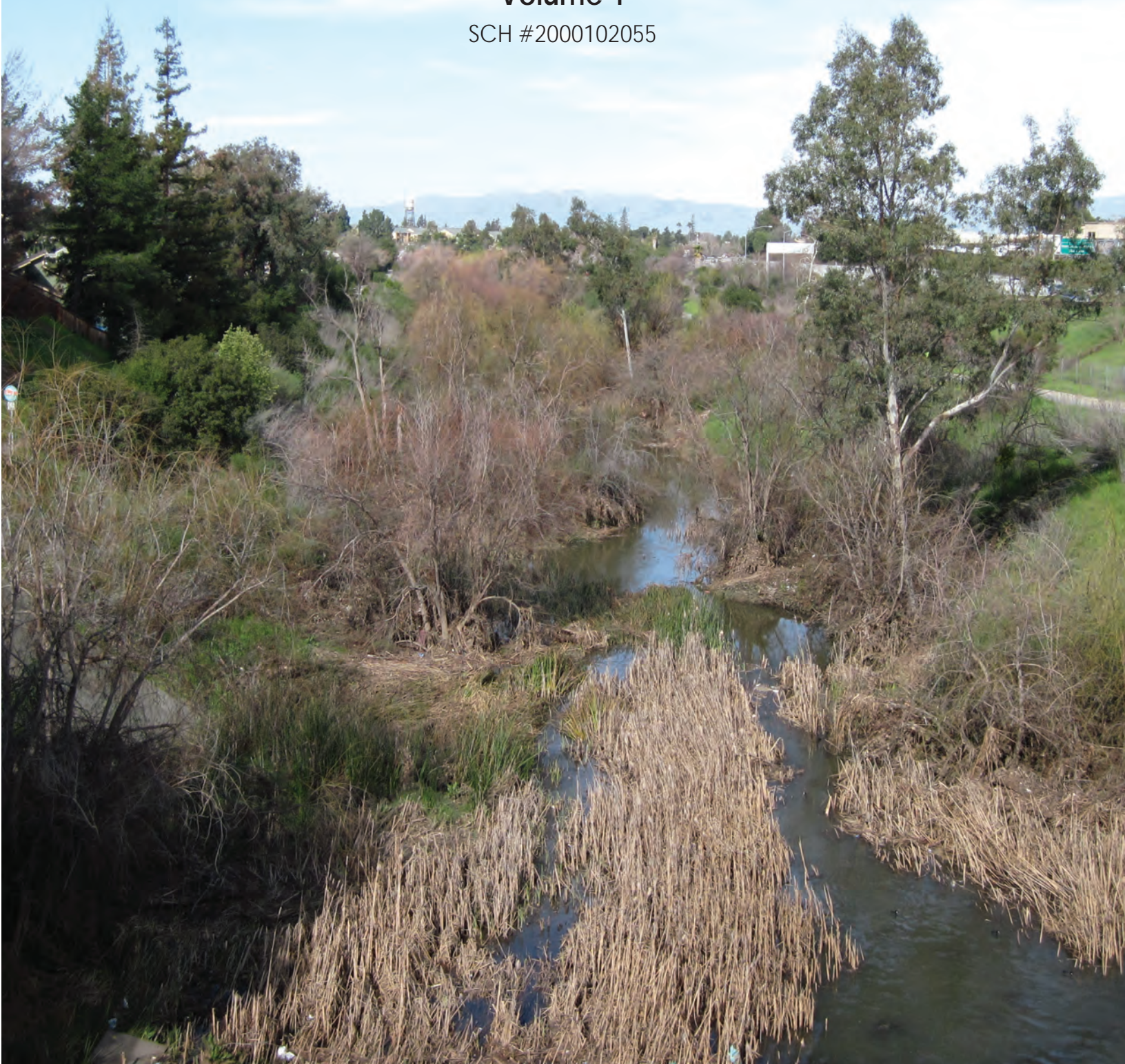


Stream Maintenance Program Update

Final Subsequent Environmental Impact Report

Volume 1

SCH #2000102055



Santa Clara Valley Water District

December 2011

Final
Subsequent Environmental Impact Report
Santa Clara Valley Water District
Stream Maintenance Program Update
2012–2022

Volume I of II

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December 2011

Horizon Water and Environment. 2011 (December).
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Final Subsequent Environmental Impact Report.
HWE 10.005. Oakland, CA.

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1.1 FSEIR Context

The Stream Maintenance Program (SMP) Update (SMP Update or Proposed Project) has been proposed by the Santa Clara Valley Water District (SCVWD). A Draft Subsequent Environmental Impact Report (DSEIR) for the SMP Update was prepared and distributed for public review on August 8, 2011, by SCVWD, as the lead agency under the California Environmental Quality Act (CEQA). This Final Subsequent Environmental Impact Report (FSEIR) addresses the potential environmental impacts of the proposed SMP Update and approvals necessary to continue carrying out its responsibilities in an environmentally responsible and cost effective manner, to act as the County of Santa Clara's (County) flood protection agency and the steward for its streams and creeks.

The FSEIR is subsequent to the 2002 SCVWD Stream Maintenance program EIR. The Proposed Project would update the 2002 SMP, as necessary, to address new conditions and maintenance needs of SCVWD. The SMP Update (including the 2012 SMP Manual [Appendix A] and this CEQA document) is intended to support permitting for the next 10-year planning period beginning in 2012 and ending in 2022. However, the SMP is ongoing, and the time horizon for this FSEIR is indefinite. These SMP Update documents are intended to fully replace the original documents that guided the SMP from its inception through 2012. The 2012 SMP Manual (included as Appendix A in Volume II of this FSEIR) and the contents of the FSEIR are meant to be read as companion documents. The FSEIR references or summarizes information (including figures and tables) presented in the 2012 SMP Manual frequently to avoid repeating information. The reader is encouraged to review the 2012 SMP Manual while reviewing the FSEIR.

The overall flood management goals of the SMP Update are to maintain the design flow or appropriate conveyance capacity of SCVWD facilities, and to maintain the structural and functional integrity of SCVWD facilities. To meet these goals, the SMP Update would prioritize and administer maintenance activities to achieve the following objectives:

- remove sediment to maintain the hydraulic, safety, and habitat functions of the creek systems;
- manage vegetation to maintain the hydraulic, safety, and habitat functions of the creek systems, and to allow for levee inspections and maintenance access;
- stabilize beds and banks of creeks and canals to protect existing infrastructure, maintain public safety, reduce sediment loading, protect water quality, and protect habitat values; and
- avoid, minimize, or mitigate impacts on the environment by incorporating stream stewardship measures into maintenance activities.

The SMP Update also seeks to obtain and maintain multi-year programmatic permits to regulate Proposed Project activities.

See Chapter 2, *Project Description*, of the revised DSEIR (Volume II) for a complete description of the Proposed Project.

This document has been prepared pursuant to the requirements of CEQA. Section 15132 of the State CEQA Guidelines state:

The Final EIR shall consist of:

The draft EIR or a revision of the draft [included as Volume II, the DSEIR as revised based on public comments and other necessary updates]

A list of persons, organizations, and public agencies commenting on the DSEIR [included in Section 3.2 of this FSEIR]

Comments and recommendations received on the DSEIR, either verbatim or in summary [included in Section 3.3 of this FSEIR]

The responses of the Lead Agency [in this case, SCVWD] to significant environmental points raised in the review and consultation process [included in Section 3.3 of this FSEIR]

Any other information added by the Lead Agency [in this case, SCVWD] [included in Section 3.4 of this FSEIR]

The FSEIR provides the Santa Clara Valley Water District, public, responsible agencies, trustee agencies, and permitting agencies with information about the potential environmental effects associated with the adoption and implementation of the updated SMP. The FSEIR presents the comments received on the DSEIR and responses to these comments. The findings and a statement of overriding considerations are included in the public record but not in the FSEIR.

1.2 Comments on the DSEIR

The DSEIR was submitted to the State Clearinghouse for distribution to state agencies and was available to agencies and the public for review and comment for 45 days between August 8 and September 21, 2011. A public meeting was conducted on September 13, 2011 to receive oral and written comments. One member of the public spoke at that meeting. Letters of comment were received from state agencies and commissions; regional/local agencies, municipalities, and districts; organizations; and individuals.

1.3 Organization and Contents of the FSEIR

The FSEIR, which consists of two volumes, will be the subject of a hearing to certify the SEIR. **Volume I** provides:

Chapter 1, Introduction, presents the FSEIR context and its objectives, summarizes the public review period for the DSEIR, and describes the organization and contents of the FSEIR.

Chapter 2, Summary of Public Participation, summarizes the environmental and public review process, pursuant to CEQA.

Chapter 3, Responses to Comments and DSEIR Revisions, lists and gives identifiers to agencies, organizations, and members of the public who commented on the DSEIR during the public review process, replicates in full the comment letters received, and gives responses to those comments. Comments within each letter are numbered sequentially. Excerpts of text from the DSEIR that have changed as a result of the comment/response are shown within the response, for ease of reference (in addition to being shown in Volume II).

Appendix A presents the Notice of Completion and Environmental Document Transmittal for the DSEIR.

Appendix B presents the DSEIR distribution list.

Appendix C provides an August 22, 2011 letter from Ann Draper of the SCVWD Watershed Stewardship Division to Shin-Roei Lee of the San Francisco Regional Water Quality Control Board, which is referenced as an attachment in a response to Comment D-9.

Appendix D provides the Joint Aquatic Resource Permit Application that was submitted with the original SMP permit applications to the San Francisco RWQCB, DFG, USACE, USEPA, USFWS, and NMFS in 2001, which is referenced as an attachment in a response to Comment N-21.

Appendix E includes the Inter-Agency Working Group meeting notes from August 26, 2010; October 20, 2010; and July 21, 2011, which are referenced as an attachment in a response to Comment N-21.

Volume II is the DSEIR, as revised subsequent to its publication and public review. Revisions are shown with ~~strikethrough~~ text for deletions and underlined text for additions.

Chapter 2

SUMMARY OF PUBLIC PARTICIPATION

2.1 Notice of Preparation and Public Scoping

Scoping refers to the public outreach process used under CEQA to determine the coverage and content of an SEIR. The scoping comment period offers an important early opportunity for public review and comment on the focus of the CEQA analysis. The scoping process for an SEIR is initiated by publication of the Notice of Preparation (NOP), as required by CEQA, which provides formal notice to the public and to interested agencies and organizations that a DSEIR is in preparation. During the scoping period, agencies and the public are invited to comment on the project, the approach to environmental analysis, and any issues of concern to be discussed in the DSEIR. Scoping also can assist the lead agency with identification of project alternatives and mitigation measures. CEQA does not require public meetings during the scoping phase.

In accordance with State CEQA Guidelines (14 CCR 15082[a], 15103, 15375), SCVWD circulated an NOP for the Proposed Project on August 31, 2010 (Appendix B of the DSEIR, contained in Volume II of the FSEIR). The NOP, in which SCVWD was identified as lead agency for the Proposed Project, was circulated to the public; to local, state, and federal agencies; and to other interested parties. The purpose of the NOP was to inform responsible agencies and the public that the Proposed Project could have significant effects on the environment and to solicit their comments so that any concerns raised could be considered during the preparation of the DSEIR. In addition, SCVWD held a public scoping meeting on September 22, 2010, to provide the public with another opportunity to comment. Comments received in response to the NOP are included in Appendix B of the DSEIR (contained in Volume II of the FSEIR), and the preparers of the DSEIR considered these comments. No comments were received at the public scoping meeting.

2.2 Notice of Availability of the DSEIR and Public Review

After the DSEIR was completed, the District issued a notice of availability, providing agencies and the public with formal notification that the document was available for review. The notice was sent to the State CEQA Clearinghouse, all responsible and trustee agencies, persons and organizations requesting a copy, and the county clerk's office for posting. The notice also was published in the *San Jose Mercury News*, the *Morgan Hill Times*, and the *Gilroy Dispatch*. These actions triggered a 45-day public review period, during which the District received and collated public and agency comments on the project and the document.

SCVWD hosted a public hearing after release of the document on September 13, 2011, at SCVWD's offices. The purpose of public circulation and the public hearings was to provide

agencies and interested individuals with opportunities to comment on or express concerns regarding the contents of the DSEIR.

For those interested, written comments or questions concerning the DSEIR could be submitted within the review period and directed to the name and address listed below. Submittal of written comments via e-mail (Microsoft Word format) was encouraged.

Santa Clara Valley Water District
Attention: Sunny Williams
5750 Almaden Expressway
San Jose, CA 95118-3686

E-mail: smp_update@valleywater.org
Subject Line: SMP Update EIR Comments

During the review period for the DSEIR, all documents related to the Proposed Project were available for review on any SCVWD business day between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday at SCVWD headquarters, located at the address shown above, and on SCVWD's Web site at www.valleywater.org under Quick Links, Public Review docs. The documents also were available at the libraries listed below during their normal operating hours.

Dr. Martin Luther King, Jr. Library
150 E. San Fernando Street
San Jose, CA 95112

Morgan Hill Public Library
660 W. Main Avenue
Morgan Hill, CA 95037

Palo Alto Public Library
1213 Newell Road
Palo Alto, CA 94303

Cupertino Public Library
10800 Torre Avenue
Cupertino, CA 95014-3207

Milpitas Public Library
160 N. Main Street
Milpitas, CA 95035

Alviso Library
5050 N. 1st Street
San Jose, CA 95134

2.3 Preparation of the FSEIR and Public Hearing

CEQA requires the lead agency to prepare an FSEIR, addressing all substantive comments received on the DSEIR before approving a project. The FSEIR must include a list of all individuals, organizations, and agencies that provided comments on the DSEIR, and must contain copies of all comments received during the public review period along with the lead agency's responses.

After review of the FSEIR, SCVWD staff will recommend to SCVWD's Board of Directors whether to approve or deny the Proposed Project. This governing body then will review the FSEIR, consider SCVWD staff recommendations and public testimony, and decide whether to certify the FSEIR and approve or deny the Proposed Project.

If significant impacts are identified in the FSEIR that cannot be mitigated, a statement of overriding considerations must be included in the record of the Proposed Project approval and mentioned in the Notice of Determination, to be filed with the State Office of Planning and Research and at the office of the County Clerk (14 CCR 15093[c]).

Chapter 3

RESPONSES TO COMMENTS AND DSEIR REVISIONS

3.1 Comments Introduction

Comments provided on the DSEIR by agencies, organizations, and individuals during the public review period (August 8 through September 21, 2011) are documented in this chapter. A list of all commenters is provided in Section 3.2. SCVWD received 14 letters, containing a total of 177 comments. Comments could be submitted by letter, facsimile, email, voicemail, or verbally at public meetings; those received and responses to them are presented in Section 3.3.

3.2 List of Comment Letters Received

The comment letters received on the DSEIR were sorted by date, and then alphabetically by last name for those received on the same date. They were then assigned a letter designation on this basis. The commenters and identifiers are presented in order of receipt in Table 3-1. Table 3-2 presents the comment letters by commenter type.

Table 3-1. Commenters on the DSEIR (numerical by alpha-letter number)

Letter No. (# of Comments)	Commenter	Date of Comment
A (1)	Anthony Eulo, Program Administrator, City of Morgan Hill	August 19, 2011
B (1)	Libby Lucas, California Native Plant Society	September 13, 2011
C (3)	Libby Lucas, California Native Plant Society	September 15, 2011
D (25)	William Hurley, San Francisco RWQCB	September 19, 2011
E (1)	Cynthia Riordan	September 20, 2011
F (3)	Gary Arnold, District Branch Chief, CalTrans	September 21, 2011
G (4)	Libby Lucas, California Native Plant Society	September 21, 2011
H (7)	Libby Lucas, California Native Plant Society	September 21, 2011
I (2)	Libby Lucas, California Native Plant Society	September 21, 2011
J (6)	Cy Oggins, California State Lands Commission	September 21, 2011
K (1)	Libby Lucas, California Native Plant Society	September 27, 2011
L (1)	John Beall, 56 Centre St., Apt. 10, Mountain View, CA 94041	September 28, 2011
M (9)	Julie Gantenbein, Water and Power Law Group, PC; representing Guadalupe Coyote RCD	September 28, 2011
N (113)	Carl Wilcox, California Department of Fish and Game	October 5, 2011

Table 3-2. Commenters on the DSEIR (by commenter type)

Letter No. (# of Comments)	Commenter	Date of Comment
State Agencies and Commissions		
F (3)	Gary Arnold, District Branch Chief, CalTrans	September 21, 2011
J (6)	Cy Oggins, California State Lands Commission	September 21, 2011
N (113)	Carl Wilcox, California Department of Fish and Game	October 5, 2011
Regional/Local Agencies, Municipalities, and Districts		
A (1)	Anthony Eulo, Program Administrator, City of Morgan Hill	August 19, 2011
D (25)	William Hurley, RWQCB, San Francisco RWQCB	September 19, 2011
Organizations		
B (1)	Libby Lucas, California Native Plant Society	September 13, 2011
C (3)	Libby Lucas, California Native Plant Society	September 15, 2011
G (4)	Libby Lucas, California Native Plant Society	September 21, 2011
H (7)	Libby Lucas, California Native Plant Society	September 21, 2011
I (2)	Libby Lucas, California Native Plant Society	September 21, 2011
K (1)	Libby Lucas, California Native Plant Society	September 27, 2011
M (9)	Julie Gantenbein, Water and Power Law Group, PC; representing Guadalupe Coyote RCD	September 28, 2011
Individuals		
E (1)	Cynthia Riordan	September 20, 2011
L (1)	John Beall, 56 Centre St., Apt. 10, Mountain View, CA 94041	September 28, 2011

3.3 Comments, Responses to Comments, and DSEIR Revisions

This section presents a copy of each comment letter that was received on the DSEIR during the review period, bracketing the individual comments in alpha and numeric order. Responses to issues raised in each letter follow immediately after the letter, sequentially.

Letter A

From: [Anthony Eulo](#)
To: [smp_update](#);
Subject: SMP Comments
Date: Friday, August 19, 2011 3:48:57 PM

A1

When conducting sediment and vegetation removal in the past, the District's activities have created low spots in the channel which become temporary or nearly-permanent ponds in the local creek. With landscape runoff feeding the ponds throughout the summer months, a mosquito breeding habitat is created in these low spots. Efforts should be made to maintain the flow in the creeks.

Anthony Eulo
Program Administrator
City of Morgan Hill Please Think **Before** You Print
100 Edes Court
Morgan Hill, CA 95037
408-310-4179
[City Environmental Programs on Facebook](#)

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Response to Comment A-1

As indicated in Table 2-12 of the DSEIR, several Sediment Removal BMPs would be in place to avoid the creation of "low spots" in maintained reaches. BMP SED-2 would require the grading of channels to ensure that the transitions between areas upstream and downstream of the maintenance area would be smooth. In addition, BMP SED-3 stipulates that low-flow channels would undergo contouring to restore preconstruction conditions as closely as possible. In addition to these specific measures, the more general objectives of the SMP Update would provide consideration of pre- and post-project conditions of maintenance sites. Therefore, the creation of low spots or other adverse features that would degrade the physical or biological processes of the channels would be avoided to the extent possible.

The District encourages County residents to contact the Santa Clara County Vector Control District if they are experiencing mosquito or other vector control issues. Residents may request services for mosquito abatement using the Vector Control District website (<http://www.sccgov.org/portal/site/vector>) or by calling 408-918-4770.

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2.3

Meeting Date: Sept 13, 2011

- ▶ Complete this form and return to Clerk.
- ▶ Comments may be limited to a specified time allotment.
- ▶ If you elect to distribute informational items to the Board/Committee, the Clerk is required to obtain a copy and keep it as part of the public record. Fifteen (15) copies of informational handout items should be supplied to Clerk for distribution to the Board/Committee, executive staff, and for the public record and public information copy.

Personal Information: Except for your name and city of residence, the information requested below is voluntary and used by staff to contact you if necessary. When you request to speak before the legislative body, your name and city of residence are included in the Santa Clara Valley Water District's official minutes.

Name: <u>LIBBY LUCAS</u>	Address: <u>174 YERBA SANTA AVE. LOS ALTOS CA 94022</u>
Phone: <u>650 948-3552</u>	
Email: <u>JLUCAS1099@aol.com</u>	

Organization/Business Name (if applicable):

<input checked="" type="checkbox"/> Item LISTED on the Agenda (Item No. <u>2.3</u>)	<input type="checkbox"/> Item NOT LISTED on the Agenda (Public Comment)
Subject: <u>STREAM MAINTENANCE PROGRAM EIR</u>	Subject:

Note: The law does not permit Board/Committee action on or extended discussion of any item not on the agenda, except under special circumstances. If Board/Committee action is requested, the matter can be placed on a future agenda.

I ~~do not~~ wish to address the Board/Committee; however, I would like to have the following question(s) answered:
SHOULD REQUEST LANGUAGE FOR CONSERVATION AND PESTICIDE PROTOCOLS, SEASONAL CONSTRAINTS ON THE SPRAYING IMPACTS TO CRITICAL HABITAT AND RECREATION,

I do not wish to address the Board/Committee; however, I would like to have the following statement(s) read into the record:
AND ON GLOBAL WARMING AND SEA LEVEL RISE IMPACTS TO WATERWAYS AND TO SHORELINE BE INCLUDED IN DRAFT EIR, (AND VEGETATIVE HABITAT)

Notice to Lobbyist: In compliance with the District's Lobbyist Ordinance (Ord. 10-01) you **must** identify yourself as a lobbyist and the client(s) or business or organization on whose behalf you are representing.

I am a Registered Lobbyist and I represent: _____
I am an Unregistered Lobbyist and I represent: _____

Information about lobbying the Santa Clara Valley Water District may be found on the Internet by accessing the Board of Directors' website on the District's home page at <http://www.valleywater.org>.

TIPS FOR ADDRESSING THE BOARD OR COMMITTEE

- Approach the public podium as soon as your name is called.
- Speak directly into the microphone.
- Clearly state your name for the record.
- If you are a lobbyist, identify yourself and your clients.
- You are limited to the time allotted. Please watch the speaker clock on the podium.
- If you wish to speak to the Board/Committee on an item that is **not on the agenda**, there will be an opportunity under the section "Time Open for Public Comment on any item not on the Agenda." Complete a *Request to Speak* form and provide it to the Clerk. The Board/Committee Chair will call your name and indicate the allotted speaking time.
- If you wish to speak to the Board/Committee on an item on that is **on the agenda**, complete a *Request to Speak* form and provide it to the Clerk. When the specific item is considered, the Board/Committee Chair will call your name and indicate the allotted speaking time.

B1
B2

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Response to Comment B-1

Regarding the request for language on conservation protocols, this comment is not entirely clear regarding what is meant by conservation; this response assumes a concern about habitat conservation.

Habitat conservation is discussed on a variety of points in Section 3.3, *Biological Resources* of the DSEIR. Habitat conservation plans are specifically discussed under Impact BIO-46: Conflicts with Adopted Habitat Conservation Plans or Natural Community Conservation Plans. This impact discusses potential effects of stream maintenance activities on the *Santa Clara Valley Habitat Plan* and the *Three Creeks Habitat Conservation Plan*.

Regarding the request for language on pesticide protocols and seasonal constraints on the spraying impacts to critical habitat, the potential impacts of herbicide use have been thoroughly considered throughout the development of the SMP Update and related impact analysis, and herbicide use was determined to not have significant impacts because of multiple factors. Reference is made to Appendix J of the DSEIR, which discusses the District's proposed use of pesticides (including herbicides) in depth. Specific topics addressed by this appendix include: the process by which the District determines which herbicides to use; the herbicides used and their specific purposes; the species potentially at risk from those herbicides; the federal and state regulations related to herbicide use, including federal injunctions related to use in aquatic and upland habitats for endangered species; use limitations for various classes of herbicide; and additional herbicide use guidelines.

All herbicide use is conducted by registered pesticide applicators (RPAs), in accordance with label instructions and a set of BMPs designed specifically for the SMP Update. Herbicide use directly within active waterbodies additionally must follow the requirements of the NPDES general permit for use of aquatic herbicides. All RPAs observe standard BMPs, such as use of personal protective equipment, observance of appropriate "dry times" (i.e., herbicides are applied far enough in advance of precipitation events such that runoff of the herbicide into water bodies is not of concern). The SMP Update-specific BMPs for herbicide use are summarized below (please see Table 2-12 in the DSEIR for the full text of each BMP):

- BMP GEN-2: Instream Herbicide Application Work Window. This BMP restricts the season of use, to further reduce the potential for herbicide runoff beyond "dry time" requirements. This BMP also includes additional restrictions for streams known to support steelhead.
- BMP GEN-8: Protection of Sensitive Fauna Species from Herbicide Use. This BMP contains special restrictions for herbicide use in habitat areas for particular species of concern, including steelhead, California red-legged frog, California tiger salamander, salt marsh harvest mouse, and Bay checkerspot butterfly.
- BMP GEN-24: On-Site Hazardous Materials Management. This BMP contains a variety of measures to properly manage hazardous materials on-site, such as

secondary containment that would capture the herbicide if the primary container were to fail.

- BMP GEN-26: Spill Prevention and Response. This BMP includes measures to reduce the potential for accidental releases and identifies the measures to be taken in the unlikely event of a release. This includes training of staff and having equipment on-site for containment and cleanup.
- BMP HM-4: Posting and Notification for Pesticide Use. This BMP contains public notification requirements to reduce the risk to the public from herbicide use.

All of these factors were considered in the impact analysis; as mentioned above, herbicide use was evaluated and found to be less than significant in the DSEIR, and the following impact discussions are of particular importance:

- Impact BIO-3: Disturbance of Sensitive Plant Communities
- Impact BIO-4: Impacts to Serpentine-Associated Special-Status Plant Species
- Impact BIO-6: Impacts to Serpentine-Associated Special-Status Invertebrates
- Impact BIO-8: Impacts on Steelhead
- Impact BIO-9: Impacts on the Pacific Lamprey and Monterey Roach
- Impact BIO-11: Impacts on the California Tiger Salamander
- Impact BIO-12: Impacts on the California Red-Legged Frog
- Impact BIO-22: Impacts on the San Francisco Common Yellowthroat
- Impact BIO-23: Impacts on the Least Bell's Vireo
- Impact HAZ-1: Use, Transport, or Accidental Release of Hazardous Materials such that a Significant Hazard to the Public or Environment Would Result
- Impact HAZ-5: Create Safety Hazards or Releases of Hazardous Materials in Proximity to a School
- Impact WQ-4: Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by the Use of Pesticides, including Herbicides

Regarding the request for language on pesticide protocols and seasonal constraints on the spraying impacts to recreation, potential temporary impacts on recreation because of vegetation management activities, including application of herbicides, are discussed under Impact REC-3: Temporary Disruption of the Use of, or Access to, Recreational Facilities. As

stated in this impact discussion, in-channel vegetation management activities may result in temporary disruption of recreational facilities. However, closures would be localized to a specific maintenance site, and alternative recreational opportunities would continue to be available along other streamside trails and recreational facilities in the overall Project Area (e.g., city and county parks).

Additional discussion of potential human health impacts resulting from herbicide use is provided under the following impacts in the DSEIR:

- Impact HAZ-1: Use, Transport, or Accidental Release of Hazardous Materials such that a Significant Hazard to the Public or Environment Would Result
- Impact HAZ-5: Create Safety Hazards or Releases of Hazardous Materials in Proximity to a School
- Impact WQ-4: Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by the Use of Pesticides, including Herbicides

The SMP Update-specific BMPs to protect against significant impacts to the public during herbicide use are summarized below (please see Table 2-12 in the DSEIR for the full text of each BMP):

- BMP GEN-24: On-Site Hazardous Materials Management. This BMP contains a variety of measures to properly manage hazardous materials on-site, such as secondary containment that would capture the herbicide if the primary container were to fail.
- BMP GEN-26: Spill Prevention and Response. This BMP includes measures to reduce the potential for accidental releases and identifies the measures to be taken in the unlikely event of a release. This includes training of staff and having equipment on-site for containment and cleanup.
- BMP GEN-36: Public Outreach. This BMP describes the public outreach methods that are to be implemented before initiation of maintenance activities. Outreach includes newspaper notices, neighborhood work notices, Web site postings, and signs posted in advance of trail closures.
- BMP GEN-37: Implement Public Safety Measures. This BMP states that if work is proposed adjacent to recreational trails, warning signs will be posted several feet beyond the limits of the work.
- BMP HM-4: Posting and Notification for Pesticide Use. This BMP contains public notification requirements to reduce the risk to the public from herbicide use.

The District agrees that global climate change and sea level rise have the potential to affect waterways and associated shoreline habitat. This may necessitate changes in the District's approach to maintenance and, perhaps more importantly, to flood management as a whole

in the lower portions of its maintenance reaches. However, the District is not aware at this time of any information to suggest that this may become an issue of concern for stream maintenance within the next 10 years of this program (the permit lifetime). As described in Chapter 2, *Project Description* of the DSEIR, the District would continue to conduct comprehensive reviews of its stream maintenance program at 5-year intervals, using the most current scientific information, and would adjust the program accordingly. This would include any appropriate changes related to the issues that the comment highlights.

From: JLucas1099@aol.com [mailto:JLucas1099@aol.com]

Sent: Thursday, September 15, 2011 11:27 AM

To: Raymond Fields

Subject: Stream Maintenance Draft EIR

Ray,

C1

As per my phone call, for some reason did not find a mention of the 3rd Addendum to Stream Maintenance DEIR in the Stream Maintenance DEIR that was in Palo Alto Library for review. Where should I be looking?

C2

Then, in thinking about protocols, was wondering what training you gave to staff for maintenance practices in regards critical habitat and special plant species...based on what biological review and consideration of what seasons especially to look for and to avoid impact to all such critical habitat and special plant species?

Do regulatory agencies offer any such workshops to the District and to watershed open space districts?

C3

The extent of a ten year permit without particular protocols in place makes me nervous. What am I missing?

Libby

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Response to Comment C-1

Information regarding the 3rd Addendum work activities has been incorporated into the SMP Update, in the discussion on page 2-21 in Section 2.2.4 and the associated analysis under each applicable section in Chapter 3, *Environmental Setting and Impact Analysis*, of the DSEIR.

Response to Comment C-2

Before initiation of SMP Update activities, one or more qualified SCVWD biologists would review the proposed maintenance activities to determine the biological resources that may occur in maintenance areas and the BMPs applicable to those resources. All SCVWD biologists are extremely well qualified; many have been with SCVWD for decades, and all are well trained in the biology of the plants and animals within the Project Area. SCVWD also employs specialists in certain areas, such as botany and fisheries, to address more technical, species-specific issues. Therefore, the BMPs listed in Table 2-12 of the DSEIR would be implemented, based on careful review of the applicability of these practices to any given program maintenance activity at hand.

Furthermore, SCVWD maintenance staff members include biologists with years of experience in implementing these and similar BMPs. These biologists are very familiar with the biota of SCVWD facilities. When new maintenance staff members are employed, they are trained by experienced SCVWD biologists and maintenance staff members regarding appropriate procedures. In certain circumstances, such as when maintenance activities occur in habitat of fully protected species (such as the California clapper rail and salt marsh harvest mouse), qualified biological monitors are present to oversee that BMPs are applied effectively.

Response to Comment C-3

Specific protocols would be in place for the 10-year SMP Update permitted period. SCVWD field staff would be trained annually on listed species and habitat identification. Any sensitive areas within a work site would be identified by a qualified biologist before initiation of the work activity. BMPs would be implemented specific to the habitat and species in that area, including having a qualified biologist(s)/monitor section off areas where listed plant species or other methods may occur, to protect special-status species as described in BMPS GEN-6 through GEN-15.5 in Table 2-12 of the DSEIR. SCVWD notes that the SMP has been ongoing for a 10-year term over 2002–2012, with no substantial problems arising.

Please also see response to Comment C-2.

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Matthew Rodriguez
Secretary for
Environmental Protection

California Regional Water Quality Control Board San Francisco Bay Region

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Edmund G. Brown Jr.
Governor

Letter D

September 19, 2011
Site No. 02-43-C0652
CIWQS Place ID No. 769408 (MB)

Sent via electronic mail: No hardcopy to follow

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

Attn: Ms. Sunny Williams
Email: smp_update@valleywater.org

Subject: Comments on the Draft Subsequent Environmental Impact Report for the Stream Maintenance Program, Santa Clara County, SCH No. 2000102055

Dear Ms. Williams:

The San Francisco Bay Regional Water Quality Control Board (Water Board) appreciates the opportunity to review the *Draft Subsequent Environmental Impact Report for the Stream Maintenance Program in Santa Clara County* (SDEIR). The SDEIR assesses anticipated environmental impacts resulting from routine stream maintenance activities within the creeks and canals under the 1,000 foot elevation contour that are in the jurisdiction of the Santa Clara Valley Water District (District). The District is in the process of applying for permit re-issuance for the Stream Maintenance Program (SMP) as the existing permit expires February 2012. The District has updated the SMP to reflect new conditions, maintenance needs, technology/methods, and regulatory policies. The proposed revisions of the SMP include updating the maintenance activities (sediment removal, vegetation management, bank stabilization and minor maintenance) with the addition of management of animal conflicts.

The District has submitted the Application for 401 Certification/Waste Discharge Requirements for the SMP 2012-2022 Update (Application). The Application refers to the DSEIR for additional detailed information related to various sections of the Application including "Description of Activity and Environmental Impacts", "Avoidance of Impacts", and "Dredge & Fill Information". Water Board staff has reviewed the DSEIR and provides the following comments. Full responses to these comments are necessary to facilitate the permitting process and developing the final EIR.

Summary

We have the following comments on the DSEIR as described in more detail further below.

1. Project Description

Preserving, enhancing, and restoring the San Francisco Bay Area's waters for over 60 years

- a. Provide a distinction between maintenance to be conducted in each channel type.
 - b. Provide more detail to the explanation on work windows and related rain events.
 - c. Provide more detail to the description of maintenance work in waters of the State (outside of Corps jurisdiction).
 - d. Provide an explanation regarding how the District will evaluate sediment source control for creeks that experience high sediment loads and therefore, increased maintenance needs.
 - e. The CEQA assessment should provide a description of the types of activities which might warrant coverage under the State’s Aquatic Pesticide NPDES permit, or why coverage will not be necessary.
2. Mitigation and Monitoring
 - a. Provide more detail to the BMPs descriptions.
 - b. Provide a rationale for applying mitigation credits to the SMP renewal.
 - c. Provide more detail to the explanation regarding mitigation that would not be necessary for maintenance in canals.
 - d. Provide more detail to the explanation regarding the requirement to implement the Water Quality Monitoring Plan and Sediment Characterization Plan.
 - e. Provide more detail to the explanation regarding proposed mitigation for permanent impacts to waters of the State.
3. Alternative Analysis – Provide more detail to the explanations regarding limiting maintenance work to avoid and minimize adverse impacts to waters of the State.

Project Description – Specific Comments

1. Maintenance Activities and Channel Types: The DSEIR should clearly explain the distinction between implementation of SMP maintenance activities in channels with high habitat values and functions (i.e. natural and unmodified channels) and channels with lower habitat values and functions (i.e. engineered and modified channels). The DSEIR states that all maintenance activities will occur in all of the District’s channels; however, it is not clear if the District will minimize maintenance activities to only when it is determined necessary and use alternative methods (i.e. different BMPs or less invasive techniques) of implementing maintenance activities that are less damaging in natural and unmodified channels to protect the habitat and associated beneficial uses.
2. Work Windows: The District is proposing to conduct vegetation management activities (in/out-stream hand removal above ground and in/out-stream pruning) in “dry channels” year round or until December 31st for work to be conducted in steelhead creeks; and sediment removal and bank repairs in dry channels until December 31st. However, the maintenance activities will be terminated for the season if a rain event of 0.5 inches in 24-hours is forecasted. The DSEIR should include an explanation of the following:
 - a. Define “dry channel”.
 - b. Using a rainfall event of 0.5 inch in 24 hours as a trigger to stop maintenance in the channel may not be appropriate as rainfall has varying affects on in-channel flows depending on the creek and location in the watershed. For example, how will the

D1

D2



- D2
- District determine whether maintenance should be stopped or modified (i.e. additional BMPs) in the event of forecasted rain that is less than 0.5 inch in 24-hours for multiple consecutive days? Conducting maintenance in these types of conditions could potentially result in adverse impacts to water quality. Has the District considered using 10-percent of the channel forming flows as a trigger to stop maintenance as this would more channel-specific versus a general approach?
- c. The DSEIR should identify a specific plan that clearly explains the District's procedures to be implemented for various rain event scenarios (i.e. 0.5 inch/24 hours, less than 0.5 inch/24 hours for multiple consecutive days, rain events exceeding what was originally forecasted) including, but not limited to, before-during-after storm event inspections, BMPs, corrective action, etc.
- D3
3. Page 2-27: The DSEIR states "Upland vegetation activities and all other non-projected non-instream maintenance work may occur year-round, weather permitting. Upland vegetation activities would include work occurring above the bankfull hinge point (see figure 2-7) to the outer edge of SCVWD management area." It should be noted that the area between the "bankfull hinge point" and "top of bank" as identified in Figure 2-7 of the DSEIR is within the bed and bank of the channel and therefore, considered Water Board jurisdiction. Therefore, the District will be required to adhere to permit requirements related to maintenance activities within the bed and bank, and riparian corridor.
- D4
4. Figure 2-16: It appears the District plans to conduct sediment removal as "new work" along most of the Guadalupe Watershed. As considered in the 2002-2012 SMP, this again presents an opportunity to identify sediment sources that would benefit from stabilization to reduce maintenance needs.
- D5
5. Appendix J – Pesticide Regulatory Information: This document should indicate that the District may need to obtain coverage under the Statewide General National Pollutant Discharge Elimination System Permit for the Discharge of Aquatic Pesticides for Aquatic Weed Control in Waters of the United States General Permit No. CAG990005 (Order No. 2004-0009-DWQ).
- D6
6. The DSEIR states that average maintenance time for bank stabilization project is 10 days. Therefore, it seems more appropriate to have a specific work window cut off date instead of "until completion", which implies that the work can occur indefinitely.
- Mitigation and Monitoring**
- D7
1. Page 2-25: This section appears to imply that only sediment removal and bank repair activities will have field monitoring (inspections) of BMPs. The DSEIR should explain the process by which regular inspections of all BMPs will be conducted at all SMP maintenance sites.
- D8
2. Page 2-26: This section should indicate that all maintenance sites will have adequate BMPs supplies on site and implemented in the event of rain.
- D9
3. Page 2-36: Since the District has not satisfied all the mitigation requirements of the existing permit period (2002-2012), provide a rationale or justification for applying mitigation credits from the Stream and Watershed Protection component of the mitigation program for the 2002-2012 period for impacts that will occur during the new permit term.
4. Table 2-12: BMP Manual

- | | | |
|-----|----|--|
| D10 | a. | GEN-3 (Avoid Exposing Soils with High Mercury Levels): The District has proposed that any sediment removal that will occur above the 2.33-year flow level that has a mercury concentration of 20 ppm or greater will require remediation. This mercury concentration far exceeds the Water Board’s sediment re-use guidelines for wetland surface (0.43 ppm) and for wetland foundation (0.70 ppm). Provide a rationale that shows sediments with mercury concentration up to 20 ppm would not adversely impact water quality if exposed and subject to erosion. |
| D11 | b. | GEN-20 (Erosion and Sediment Control Measures): This BMP states that areas below the Ordinary High Water Mark (OHWM) are exempt from BMPs to control erosion and sedimentation. The District informed the Water Board during a meeting on August 12, 2011 that the Corps has defined OHWM as the top of bank specifically for the SMP renewal (2012-2022). Therefore, this BMP implies the entire bed and bank will be exempt from BMPs to control erosion and sedimentation. The DSEIR should also define OHWM as top of bank since the Corps has expanded their jurisdiction for the SMP renewal. The District needs to ensure that BMPs are implemented to avoid and minimize erosion and sedimentation of all exposed soil due to SMP activities during construction and post-construction. The DSEIR should clarify any distinction that may exist between BMPs to be implemented during construction activities and BMPs to be implemented after (post) construction activities are completed. |
| D12 | c. | GEN-28 (Fire Prevention): Appears to be missing some text. |
| D13 | d. | GEN-29 (Dust Management): This BMP should indicate that the water used to wash the various exposed surfaces (i.e. parking areas, staging areas, soil piles, graded areas, etc) will not be allowed to enter the water way. |
| D14 | e. | GEN-33 and GEN-34 (Dewatering for Non-Tidal Sites and Dewatering for Tidal Work Areas):

i. These BMPs should indicate that cofferdams will not be constructed with earthen fill because water quality may be adversely impacted in the event of a cofferdam failure.

ii. These BMPs should indicate that the District shall implement the Water Quality Monitoring Plan during dewatering activities in addition to adequate treatment. |
| D15 | f. | GEN-35 (Pump/Generator Operations and Maintenance): This BMP should include back-up measures in the event of a failure. |
| D16 | g. | SED-2 (Prevent Scour Downstream of Sediment Removal): This BMP should include monitoring of the transition zone and downstream for erosion for sediment removal activities. |
| D17 | h. | BANK-3 (Bank Stabilization Post-Construction Maintenance): Water Board staff recommends at least 48-hours notification of maintenance activities to be conducted at bank repair sites that are less than 2 years old. |
| D18 | 5. | Canal Maintenance: The DSEIR states “no mitigation is necessary for impacts to non-jurisdictional “other waters”, which are limited to unvegetated areas or inoperable canals.” The DSEIR should explain what is meant by “unvegetated” and “inoperable canals” and why these areas would not be subject to State jurisdiction and why mitigation would not be |

necessary for impacts to waters of the State that may occur. Water Board staff will consult the Water Board legal department regarding regulatory requirements for such areas.

6. Water Quality Monitoring Plan and Sediment Characterization Plan. The District will be required to conduct water quality monitoring and sediment characterization as specified in each approved plan. However, the DSEIR does not actually state that the District will actually implement the plans.
- a. On page 3.13-11, the DSEIR describes the Water Quality Monitoring Plan and Sediment Characterization Plan under the existing permit and associated testing results for the last few years. However, the DSEIR should explain that these plans are currently being revised for incorporation into the upcoming SMP, subject to Water Board approval.
 - b. For each Water Quality Impact (WQ-1 through WQ-9), the DSEIR should indicate that the Water Quality Monitoring Plan and/or Sediment Characterization Plan shall be implemented where required as specified in each plan.

7. Appendix C: 2012-2022 SMP Update Mitigation Approach Memorandum (Mitigation Memo)

a. The District is proposing to apply “21+” acres of mitigation for tidal impacts incurred during the 2002-2012 SMP period as “mitigation credits” for the 2012-2022 SMP Update for impacts to tidal habitat. The District must provide documentation that shows impacts to tidal habitat during the 2002-2012 SMP period have been fully mitigated and the amount of excess mitigation available to use as mitigation credits for impacts to be incurred during the next permit period.

b. In Sections 5.2 and 5.3, the District proposes mitigation that includes Invasive Plant Management Program and Riparian Restoration and Planting Program for impacts to wetlands and other waters, and woody riparian vegetation. These mitigation programs appear to be appropriate for woody riparian vegetation impacts, but not necessarily for wetland impacts as this type of mitigation would be considered out-of-kind and possibly off-site. That is, the Riparian Planting Program will be implemented along creek banks and floodplains and would consist of tree/shrub/low plant species and does not include aquatic vegetation species. The Invasive Plant Program would “address impacts by improving riparian habitat quality.” The Water Board understands and agrees that it is the intent of the District to design and implement a mitigation plan that will ultimately improve the habitat functions and values. Water Board policy is to first provide mitigation that is in-kind and on-site. However, it is understood that site conditions may not be suitable for in-kind mitigation and an alternative design that is considered out-of-kind but more suitable to improve the habitat functions and values may be more appropriate. The DSEIR should explain that the District will first consider mitigation that will provide the most appropriate habitat functions and values.

c. Mitigation Ratios

i. Riparian Planting Program and Invasive Plant Management. The District has proposed mitigation for impacts resulting from vegetation management and sediment removal activities, including impacts to wetlands (aquatic vegetation). The District has developed the Mitigation Feasibility Assessment

D19

D20

D21

D22



- D22
- that provides a process to determine the most appropriate riparian planting plan for habitats of low, medium, and high quality. The District is proposing a flat 1.2:1 mitigation to impact ratio with variable success criteria that would depend on the existing site conditions and habitat value (high, medium, low) of the mitigation site. The District does not include in the DSEIR (mitigation memo) an important consideration, which is to determine the most appropriate mitigation credit for situations in which the functions and values of the mitigation site do not match the functions and values of the impact site. For example, a discrepancy may exist if impacts that would occur in an area with high habitat value and the only mitigation site available is in an area of lower habitat value with a lower success criteria due to the existing low habitat value of the mitigation site, resulting in a habitat of lower value than that of the original impact site. The scenario does not take into consideration that low quality habitat created to mitigate for impacts to a high-value habitat site and vice versa. That is, the mitigation ratio should be variable to accommodate the various habitat values.
- D23
- ii. In-stream Complexity: The proposed mitigation ratio of 0.5:1 for impacts to in-stream complexity is not acceptable. In addition, Water Board staff does not agree with the mitigation rationale/basis behind proposing that “erosion, deposition, tree-falls, and debris mobilization within a few years following the removal of instream complexity will naturally reintroduce some complexity to the stream,” because it is difficult to pre-determine the level of complexity that would establish naturally. Therefore, the District should re-evaluate the impacts to in-stream complexity and develop a more appropriate mitigation proposal for the loss of complexity.

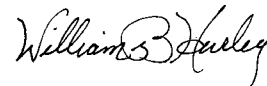
Alternative Analysis

- D24
1. Limited Work in Unmodified Channels and Geomorphic Alternatives: Although neither of these alternatives was chosen as the environmentally superior alternative, Water Board staff recommends limiting channel maintenance to locations that are necessary in order to avoid and minimize adverse impacts to water quality and beneficial uses. In addition, Water Board recommends improving habitat functions and values via geomorphic restoration/enhancement where possible.
- D25
2. The Alternative analysis did not include additional impacts that would occur during the removal of the dead vegetation after herbicide was applied. Therefore, it is possible that herbicide application with subsequent removal may result in more adverse impacts than if just hand removal was conducted. This would be considered an important distinction since vegetation management with herbicide is proposed along most of the locations in the District’s jurisdiction.

Again, full responses to these comments are necessary to facilitate the permitting process and should also be useful in developing the final EIR.

Please contact Margarete “Maggie” Beth at (510) 622-2338 or via e-mail at mabeth@waterboards.ca.gov if you have any questions.

Sincerely,



William B. Hurley
Senior Engineer

cc:

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Response to Comment D-1

In locations where SCVWD conducts channel maintenance, channels are categorized as either “modified” or “unmodified”; the classification “natural” does not exist for channels maintained under the SMP. Figure 5-1 in the DSEIR shows the locations of unmodified channels in the Project Area. At all its maintenance sites, regardless of channel type, SCVWD would evaluate on-site habitat functions and values before performing maintenance activities. For example, resource values of modified and unmodified channels are considered when planning and applying herbicide for vegetation management. In unmodified stream channels with higher resource values, SCVWD’s preferred approach for instream herbicide application is to apply spot spray or cut stump treatments that are targeted directly to the invasive or non-native vegetation. When SCVWD is working modified channels, these same techniques may be used, but depending on the size of the channel, length of management, and species, broadcast spray or foliar application techniques also may be used. In general, the equipment does not change between channel types, but the application technique may differ, depending on resource sensitivity and practical management considerations.

For all of its channel maintenance activities, SCVWD would use a series planning measures and BMPs to avoid and minimize potential impacts. To begin with, SCVWD would minimize its maintenance activities by focusing on those necessary to maintain channel conveyance capacity and fire safety to reduce flood risk and fire risk, respectively. In addition, the BMPs in the DSEIR (Table 2-12) describe the host of avoidance and minimization measures to specifically be taken for channels that involved particularly sensitive habitats. For example, BMPs GEN-4 through GEN-14 describe several avoidance and minimization measures to be taken to protect habitat for nesting birds, burrowing owls, bay checkerspot butterfly, salt marsh harvest mouse, clapper rail, bats, dusky-footed woodrat, and other sensitive plant, fish, and amphibian/reptile species. SCVWD always would minimize its maintenance activities, restricting them solely to the activities necessary to maintain channel conveyance, and thereby reduce flood risk.

SCVWD does distinguish between the resource values of channel types in planning for and applying herbicide as a vegetation management technique. In unmodified stream channels with higher resource values, SCVWD’s preferred approach for instream herbicide application would be to apply spot spray or cut stump treatments that are targeted directly to the invasive or non-native vegetation. In comparison, if SCVWD was working in modified channels, these same techniques may be used, but depending on size of the channel, length of management, and species, broadcast spray or foliar application techniques also may be used. In general, the equipment does not change between channel types, but the actual application technique may differ, depending on resource sensitivity and practical management considerations. The District implements these herbicide techniques in accordance with existing SMP permit authorizations and approved BMPs.

Response to Comment D-2

A “dry channel” is a channel where no flowing water is present in the channel.

To determine when to stop maintenance activities that occurred after October 15, SCVWD would rely on weather forecasts to prepare for situations when significant rains were anticipated. After October 15, 72-hour look-ahead weather forecasts from the National Weather Service (or local vendor such as the Western Weather Group) would be consulted. SCVWD would look for projected rainfall events with potentially more than 0.5 inches of rainfall anticipated within a 24-hour period (i.e., a significant rainfall event). If a significant rainfall was forecasted within the 72-hour forecast window, maintenance work that could result in sediment runoff to a stream would be stopped, to allow adequate time to install erosion control measures. This is a standard method of forecasting for significant rainfall events. Monitoring of channel-forming flows would not be appropriate because work could not be conducted in a channel if such flow was present.

The specific details for when maintenance actions would occur after October 15 are provided in BMPs GEN-1 and GEN-2. Pre- and post-maintenance monitoring activities are described in the discussion of annual implementation of maintenance work, beginning on page 2-25 of the DSEIR. Maintenance activities would be monitored and reported in the annual Post-Construction Report (PCR), discussed in Section 2.3 of the DSEIR.

Response to Comment D-3

Thank for you for this information regarding the extent of RWQCB jurisdiction.

Response to Comment D-4

The comment is correct that much of the new sediment removal work during the 2012–2022 SMP Update period is anticipated to occur in the Guadalupe River watershed. SCVWD supports the idea that reducing watershed sediment loads is a good method to reduce maintenance needs as well as protect overall watershed health.

Response to Comment D-5

Coverage for aquatic pesticide application under the General NPDES permit for aquatic weed control is described in Section 3-13, on page 3.13-29 of the DSEIR.

Response to Comment D-6

As stated in BMP GEN-1, all ground-disturbing work conducted after October 15 would be maintained in a rapidly “winterizable” state, and winterization would be completed before the occurrence of a significant rainfall event. Only bank stabilization activities that were more than 50 percent complete would continue after October 15, and such activities would continue until complete or until a significant rainfall event was forecast. If a significant rainfall event was forecast and the work was not complete, the site would be winterized and no further work would be conducted until the next season. This approach is more responsive to the Regional Board’s interests because it would allow SCVWD to complete necessary bank stabilization activities to reduce discharges of sediment to waterways. In other words, SCVWD’s approach would reduce the potential for failed banks to remain unaddressed over a winter season, thereby reducing potential sediment discharges and supporting beneficial uses to the greatest extent possible.

In no event would work be conducted indefinitely—all activities would follow the criteria as described above. SCVWD would work diligently to complete bank stabilization activities as quickly as possible, especially when they occurred towards the end of the work season.

Response to Comment D-7

BMPs would continue to be applied for all SMP Update activities. As noted in Chapter 2, *Project Description*, for all covered activities, appropriate resource protection measures and BMPs would be identified and included in the work order. The District would continue to maintain its internal tracking system, requiring field crews to verify that BMPs are applied properly. In addition, SCVWD would continue to employ a field inspector to randomly visit sites and verify proper BMP implementation along with other compliance confirmations.

Response to Comment D-8

SCVWD agrees that BMPs should be implemented before a rain event. If a significant rainfall was forecasted in the next 72 hours (using the methods previously described in response to Comment D-2), necessary supplies would be brought to the site and made available for implementation. Current 72-hour forecasts are very reliable. It is exceedingly unlikely that an unexpected storm would occur in a time frame that would prevent SCVWD from bringing winterization materials to a site and installing them, before a storm's arrival.

Furthermore, the cost to SCVWD associated with repairing insufficiently winterized sites would be substantial; it is in SCVWD's best interests to winterize active sites properly before a storm arrives. SCVWD's proposed approaches reflect its numerous years of experience in conducting similar activities and represent the best way to balance concerns relative to insufficient winterization with the need to complete necessary work to protect water quality during the winter season. In other words, SCVWD and the RWQCB share a common goal in having sites winterized in a timely manner, and seeing that necessary work is completed to prevent sediment discharges during the winter season. SCVWD's approach is designed to achieve that common goal.

Response to Comment D-9

The estimated impacts from the 2002 projected work amounts were the basis of the mitigation requirements for the existing permit period. The SMP is a continuing program for which all project impacts and mitigation have been examined in this SEIR. Thus, project activities and impacts since 2002 have been evaluated in conjunction with new activities and potential new impacts. Over the course of the first SMP period (2002-present), SCVWD has worked in fewer areas than originally projected in the 2002 EIR. SMP work activities through 2010, compared to the 2002 work projections, are summarized in Chapter 2, *Project Description*, and Tables 2-1, 2-2, and 2-3 of the DSEIR. Because SCVWD has not conducted all of the 2002 projected work, it has not incurred all of the impacts that were projected in 2002. SCVWD's Board recently approved purchase of a property (known as the "Castle & Cooke property") that will satisfy the remaining acquisition requirements in the first SMP mitigation period for California red-legged frog and a portion of the remaining freshwater wetland requirements. SCVWD is actively seeking additional properties to satisfy the remaining freshwater wetland requirements. Although SCVWD is completing all

existing SMP mitigation requirements, the original mitigation requirements were based on work estimates (projections). The estimated impacts in the 2002 FEIR projected work amounts are the basis for existing mitigation requirements.

At the end of the 2010 work season (encompassing 2002–2009), SCVWD committed to provide additional mitigation in both the Santa Clara and Pajaro Basins, beyond the actual work impacts incurred. Table 3-3 provides a summary of SMP sediment removal impacts incurred and mitigation provided to date. Table 3-3 compares the actual work completed by SCVWD to its mitigation obligation. By completion of the 2010 maintenance season, SCVWD had provided additional mitigation of 21.35 acres of tidal wetland habitat in the Santa Clara Basin (draining to San Francisco Bay) and committed to provide 9.41 acres of freshwater wetland habitat, compared to the 2002 SMP FEIR required mitigation amounts. As of 2010, the District had provided an additional mitigation amount of 6.2 acres of freshwater wetland habitat in the Pajaro Basin (draining to Monterey Bay), compared to the actual work impacts incurred.

Table 3-3. Comparison of Impact by Vegetation Type of Actual Sediment Removal (2002–2010) with 2002 SMP FEIR Projected Sediment Removal

Watershed	Vegetation Type	Projected and Done		Done (not projected)		Projected (not done)	
		Miles	Impact Acres	Miles	Impact Acres	Miles	Impact Acres
Lower Peninsula	Freshwater wetland	1.10	2.40	0.04	0.03	1.06	0.99
	Tidal wetland	0.50	0.24	0.07	0.08	0.06	0.06
	Not wetland	1.70	0.00	0.48	0.00	1.20	0.00
West Valley	Freshwater wetland	2.40	9.00	0.81	1.09	2.90	2.80
	Tidal wetland	1.50	4.80	0.00	0.00	3.50	7.10
	Not wetland	0.50	0.00	0.01	0.00	3.00	0.00
Guadalupe River	Freshwater wetland	5.40	14.70	3.08	1.96	1.70	4.90
	Tidal wetland	0.00	0.00	0.00	0.00	1.45	13.52
	Not wetland	0.60	0.00	0.39	0.00	0.67	0.00
Coyote Creek	Freshwater wetland	5.40	19.75	1.55	2.80	4.70	6.60
	Tidal wetland	1.30	3.03	0.08	0.05	0.22	0.80
	Not wetland	1.40	0.00	0.03	0.00	2.50	0.00
SF Bay Basin total	Freshwater wetland	14.30	45.85	5.49	5.88	10.36	15.29
	Tidal wetland	3.30	8.07	0.15	0.13	5.23	21.48
	Not wetland	4.20	0.00	0.91	0.00	7.37	0.00
Pajaro Basin total	Freshwater wetland	7.31	10.15		1.50	4.10	7.70
	Not wetland	0.45	0.00	0.31	0.00	2.70	0.00
Whole Program total	Freshwater wetland	21.61	56.00	5.49	7.38	14.46	22.99
	Tidal wetland	3.30	8.07	0.15	0.13	5.23	21.48
	Not wetland	4.65	0.00	1.22	0.00	10.43	0.00

Notes:

Excess SF Bay Mitigation: Freshwater wetland, 9.41 acres
Tidal wetland, 21.35 acres

Excess Pajaro Mitigation: Freshwater wetland, 6.20 acres

The excess mitigation is estimated by subtracting the "done not projected" impacts from the "projected not done" impacts.

Source: Data compiled by Horizon Water and Environment in 2011

Ann Draper, Assistant Officer of SCVWD's Watershed Stewardship Division, sent a letter on August 22, 2011, to Shin-Roei Lee of the San Francisco RWQCB, describing the completion status of the SMP mitigation program to date. This letter is provided in Attachment C. As stated in that letter, SCVWD is committed to continue monitoring the original 2002 mitigation program elements that have already been constructed. SCVWD also is strongly committed to completing its obligations for both the freshwater wetland creation and restoration, and the Stream and Watershed Protection programs. SCVWD will continue to work with the appropriate regulatory agencies to review and gain approval for potential mitigation sites, as opportunities for land acquisition become available.

It is also noted that where projected work did not occur during the 2002–2012 SMP period, those “projected but not worked” channel areas would be removed from the pool of channels where mitigation is provided in perpetuity. Removing these channels from having “perpetual mitigation status” would be necessary for SCVWD to use past over-mitigation towards new channel areas. By removing the “projected but not worked” areas from the pool of work areas where perpetual mitigation is provided, SCVWD would be enabling other “new work areas” to be available to have mitigation credit applied. It is recognized that the terminology and process of how past and future mitigation would be applied may be somewhat confusing. Appendix C in the DSEIR is revised entirely in Volume II of this FSEIR to and provides clarifications on this process.

Response to Comment D-10

Mercury sampling and guidelines for soil reuse or disposal is conducted according to the sediment sampling plan approved by the San Francisco RWQCB. The State standard threshold for hazardous levels of mercury in soil is 20 parts per million (ppm). If soil exhibits this high concentration, it cannot be reused for wetland surface cover or foundation material. If soil exhibits mercury concentrations over 20 ppm, it must be disposed at a Class 1 hazardous waste facility.

For excavated soil to be reused as wetland surface cover or foundation material, the soil would have to meet the state's sediment reuse guidelines, as stated in the comment. Results of soil analysis would be presented to and discussed with the San Francisco RWQCB before initiating any activities being taken at a work site. If soils to be excavated as part of a bank stabilization activity, for example, exhibited mercury concentrations at the hazardous level, the site may be left alone (i.e., to avoid disturbance to contaminated soil), excavated and then capped to prevent future mobilization, or over-excavated to entirely remove the contaminated area. Any excavated soil that met the state's guidelines for sediment reuse could be used for wetland restoration. However, excavated soil that did not meet the state's reuse guidelines would be taken to an appropriate landfill, depending on the mercury concentrations. In all cases, guidance from the RWQCB would be sought before any activity began.

Response to Comment D-11

Although USACE would take jurisdiction over all areas below top of bank, this does not mean that top of bank is equivalent to the Ordinary High Water Mark (OHWM) for the purposes of the Proposed Project and related environmental compliance. Therefore, the

BMP exempting erosion control measures below OHWM remains appropriate. Requiring such measures below OHWM would be infeasible because they would be subject to damage or dislocation during the subsequent rainy season, potentially creating greater problems than those that they are intended to address.

Response to Comment D-12

BMP GEN-28 on page 63 in Table 2-12 of the DSEIR is revised as follows:

1. All earthmoving and portable equipment with internal combustion engines will be equipped with spark arrestors.
2. During the high fire danger period (April 1–December 1), work crews will ~~have~~ have appropriate fire suppression equipment available at the work site.

Response to Comment D-13

The text in BMP GEN-29 (under number 4 in Table 2-12 of the DSEIR) is revised as follows:

The District will implement the Bay Area Air Quality Management District's (BAAQMD) required Dust Control Measures (<http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines%20May%202011.ashx?la=en>). Current measures stipulated by the BAAQMD Guidelines include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. Water used to wash the various exposed surfaces (i.e., parking areas, staging areas, soil piles, graded areas, etc.) will not be allowed to enter the water way.
5. All vehicle speeds on unpaved roads shall be limited to 15 mph.
6. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
7. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
8. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
9. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take

corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Response to Comment D-14

SCVWD uses various materials for coffer dams, including earthen fill, sandbags, k-rails, and inflatable barriers. When earthen fill is used and presents a concern relative to sediment discharge, visqueen is placed over the coffer dam. Therefore, SCVWD does not believe that a substantial risk of sediment discharge exists from failure of earthen coffer dams, and no revisions to the BMP are warranted.

Water quality monitoring of dewatering activities would be conducted according to the water quality monitoring plan presented to and approved by the San Francisco RWQCB. The water quality monitoring plan includes procedures for operational water quality monitoring. The results would be reported in the annual PCR, submitted to the RWQCB. Because water quality monitoring is a standard procedure required as a permit condition, further note of this action in the BMPs is unnecessary.

Response to Comment D-15

Staff would be on call during business hours, and security would be available at night and on weekends, to assist if a pump or generator failed. Pumps and generators would be regularly monitored for failure. As a standard operating procedure, if a pump or generator failed, then a new one would be brought to the work site.

Response to Comment D-16

SCVWD employs a field inspector to randomly visit work sites, to verify performance of BMPs and other aspects of maintenance activities. SCVWD is not aware of any past issues of downstream erosion from sediment removal activities.

Response to Comment D-17

It is important for SCVWD to be able to respond quickly and effectively to a damaged work site, to prevent the situation from worsening. The 24-hour notification of maintenance activities to be conducted at bank repair sites that are less than 2 years old is important to achieving that goal. For all other bank repairs, the permitting agencies would be given a greater period of time to review and comment, during the annual Notice of Proposed Work or via individual work orders, as discussed in Chapter 2, *Project Description*, of the DSEIR.

Response to Comment D-18

The following definitions have been added to the Glossary of Significant Terms. The definition of "unvegetated" has been added to page xxxii:

Unvegetated _____ Areas containing either no, or only ruderal, vegetation. Examples would be locations that are concrete, or that support primarily annual non-native grasses and forbs. These areas provide little to no habitat value and, as

such, maintenance activities in these locations would not have impacts requiring compensatory mitigation.

The definition of “inoperable canals” has been added to page xxi:

Inoperable Canals Canals that were historically, but are not currently, used to convey water for water supply purposes. Although inoperable, these canals typically convey storm and non-storm runoff entering from upslope locations. In general, these canals are unvegetated and do not support beneficial uses. However, pockets of wetland-associated or riparian vegetation exist in certain locations. Sediment removal, vegetation management, and bank stabilization activities in canals resulting in impacts to such vegetation (e.g., sediment removal that also results in removal of the associated vegetation) would require compensatory mitigation, consistent with the District’s mitigation program.

The definition of “non-jurisdictional” has been added to page xxiv:

Non-Jurisdictional This term refers to USACE jurisdiction and was not intended to apply to RWQCB jurisdiction, under which “waters of the state” typically are construed to apply to a broader set of water bodies than “waters of the U.S.” The District looks to the RWQCB’s input as to the extent and nature of jurisdiction regarding canals; regardless, the District believes that compensatory mitigation would only be necessary if maintenance activities had the potential to impact beneficial uses—specifically, in places where impacts to riparian or wetland vegetation would occur, but not in unvegetated areas.

Response to Comment D-19

The discussion of the SMP water quality monitoring and SMP sediment sampling (on page 11 in Section 3.13 of the DSEIR) is revised as follows, to indicate that the plans are under revision:

SMP Water Quality Monitoring

As part of its implementation of the existing SMP, SCVWD removed sediment from approximately 37 creeks, rivers, canals, or channels in the Project Area from 2007 through 2009, the most recent years for which data are available. SCVWD has been conducting water quality monitoring as required by permits (Order R2-2002-0028 and Order R3-2002-0008) issued by the San Francisco Bay and Central Coast Regional Water Quality Boards for the multi-year sediment removal program. As part of the SMP Update, these permits are in the process of being revised along with the associated Water Quality Monitoring Plans. Once updated and approved, these Water Quality Monitoring Plans will be incorporated into the final 2012–2022 SMP Update. In general, turbidity, water temperature, dissolved oxygen, and pH were monitored upstream and downstream of any in-channel water diversions before, during, and following sediment removal activities in creeks. During 2007, the removal of approximately 33,523 cubic yards of sediment from 17 project sites on 15 creeks did not result in any water quality exceedances, unplanned releases, or

episodes of noncompliance with permits (SCVWD 2008). The 2008 sediment removal activities removed 8,845 cubic yards of sediment from 14 project sites on 13 water bodies and did not result in any water quality exceedances, unplanned releases, or episodes of non-compliance (SCVWD 2009).

SMP Sediment Sampling

In addition to its water quality monitoring, SCVWD has sampled the sediments removed as part of its SMP implementation. Similar to the Water Quality Monitoring Plans discussed above, the existing Sediment Characterization Plans associated with the RWQCB permits are being revised, and once approved, will be incorporated into the final 2012–2022 SMP Update. Sediment sampling is undertaken to: comply with SCVWD’s current WDRs; characterize the sediments to establish if they are suitable for reuse as a construction material (“foundation limit”), a topsoil or soil amendment (“surface limit”); and determine what type of disposal may be required (e.g. reuse, landfill, hazardous waste collection site). An exceedance of a “hazardous limit” indicates that the soil should be considered hazardous waste.

In addition, each pertinent Water Quality Impact, Impact WQ-1 through Impact WQ-7, is revised as follows, to indicate that the appropriate plan will be implemented as specified:

Impact WQ-1: Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by Ground-Disturbing Activities (Significance Criterion A; Less than Significant)

Disturbing soil on the banks and within the beds of surface water bodies could cause sediment to be eroded and transported downstream. Adverse effects of accidental sediment releases could include increased turbidity, which could cause an increase in water temperature and a corresponding decrease in dissolved oxygen levels. Increased turbidity and water temperatures, and lower dissolved oxygen levels could potentially exceed water quality standards and impair beneficial uses. Where required, the applicable Water Quality Monitoring and/or Sediment Characterization plans will be implemented as specified by the RWQCB permits.

Impact WQ-2: Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by Instream Maintenance Activities (Significance Criterion A; Less than Significant)

The Proposed Project activities may be located in waters subject to tidal flows or water bodies with flowing water. As a result, SCVWD may need to prevent inundation by tidal flows and divert flowing water around the proposed maintenance activities by placement of dewatering systems and cofferdams. Where required, the applicable Water Quality Monitoring and/or Sediment Characterization plans will be implemented as specified by the RWQCB permits. The use and potential effects of these systems for each of the Proposed Project’s maintenance activities are described below.

Impact WQ-3: Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by the Accidental Release of Hazardous Materials (Significance Criterion A; Less than Significant)

The Proposed Project includes activities that would require the use of heavy equipment, which could result in accidental releases of hazardous materials and subsequent effects on stream water quality as described below. Where required, the applicable Water Quality Monitoring and/or Sediment Characterization plans will be implemented as specified by the RWQCB permits.

Impact WQ-4: Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by the Use of Pesticides, including Herbicides (Significance Criterion A; Less than Significant)

The use of pesticides, including herbicides, by the Proposed Project could result in potential violations of water quality standards or waste discharge requirements, if the pesticides were improperly applied, spilled into local water bodies, or transported to groundwater. Where required, the applicable Water Quality Monitoring and/or Sediment Characterization plans will be implemented as specified by the RWQCB permits.

Impact WQ-5: Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by the Disturbance of Existing Contamination (Significance Criterion A; Less than Significant)

SCVWD-maintained channels (and to a lesser extent, canals) would receive and convey stormwater runoff from surrounding developed areas. Contaminants from stormwater runoff, such as metals and petroleum residues, could adhere to fine sediments that settled and accumulated in the stream or canal bottom. Large quantities of organic matter mingled with fine sediments would encourage sorption of urban contaminants. Sediments near storm drain outfalls may contain high concentrations of urban contaminants. The transport of contaminated soils downstream could result in a violation of water quality standards or waste discharge requirements. Where required, the applicable Water Quality Monitoring and/or Sediment Characterization plans will be implemented as specified by the RWQCB permits.

Impact WQ-6: Compliance with CWA Section 303(d) Total Maximum Daily Loads (Significance Criterion A; Less than Significant)

Table 3.13-2 lists impaired water bodies and the corresponding TMDLs for each one as identified by the RWQCBs and USEPA. Only TMDLs approved by USEPA are enforceable. No additional contributions of 303(d) listed constituents are allowed until a TMDL has been approved. Currently, TMDLs established to control and reduce mercury and PCB contamination within the Project Area would apply to the

SMP Update. As part of the TMDL enforcement procedure, the RWQCBs could add TMDL conditions to municipal permits and WDRs. Where required, the applicable Water Quality Monitoring and/or Sediment Characterization plans will be implemented as specified by the RWQCB permits.

Impact WQ-7: Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by Sediment Handling and Disposal (Significance Criterion A; Less than Significant)

Sediment removed from stream channels during stream maintenance could contain contaminants. Improper handling and disposal of contaminated sediment could impact the beneficial uses of a stream. Also, sediment transport and disposal activities could result in sediment spills, which could impact water quality if sediments were spilled into the storm drain network or directly into water bodies. Where required, the applicable Water Quality Monitoring and/or Sediment Characterization plans will be implemented as specified by the RWQCB permits. The potential of the Proposed Project's activities to involve sediment handling and disposal is further described below.

Response to Comment D-20

By the end of the 2010 work season, the District had provided more mitigation in both the Santa Clara and Pajaro Basins than what was required, considering the work that was conducted and the impacts incurred. Volume II, Appendix C, Table 1 provides a summary of sediment removal impacts incurred between 2002–2010 and mitigation provided to date. This table compares impacts to mitigation requirements by accounting for three workprojection situations: (1) where work was projected and done; (2) where work was not projected and done; and (3) where work was projected and not done. As shown in the table, mitigation was accrued when the amount of work “projected and not done” was greater than the amount of work “done but not projected.” In other words, when the District overall did less work than they projected, but provided mitigation for the entire projected amount, then mitigation was provided without associated impacts as shown below the table. As of the conclusion of the 2010 maintenance season, the District had provided an additional 9.41 acres of freshwater wetland habitat and 21.35 acres of additional tidal wetland habitat in the Santa Clara Basin, and provided additional mitigation of 6.2 acres of freshwater wetland habitat in the Pajaro Basin. These additional mitigation acres that were provided are considered additional to the mitigation that was necessary, based on the actual impacts from work activities that were performed.

Response to Comment D-21

The comment reviews and describes the role that the *Invasive Plant Management Program* and *Riparian Restoration and Planting Program* elements of the 2012–2022 mitigation approach (Appendix C of the DSEIR) address potential impacts to woody riparian vegetation. The comment suggests less certainty exists regarding how these mitigation approaches may help address mitigating impacts to wetlands. The comment requests that SCVWD first consider using mitigation approaches that will provide the most appropriate habitat functions and values. The invasive plant management and riparian restoration

mitigation elements would improve multiple functions and values for on-site channel habitat for birds, amphibians, and other wildlife by providing shading, sources of organic matter, and coarse woody debris; improving overall channel corridor vegetation and bank structure; and providing other water quality benefits to aquatic species.

District studies on wetland vegetation growth suggest that the loss of instream wetland vegetation caused by SMP maintenance activities of sediment removal and vegetation management self-recovers on average within 1–2 years following maintenance activities.¹ Because of this and the difficulty in restoring instream wetland vegetation resulting from the loss and relocation of juvenile plantings during high flow events, SCVWD’s overall approach for on-site mitigation activities emphasizes ways to improve and enhance functions and values on-site (including those functions listed above), which together create an improved channel setting that also results in an improved aquatic habitat, likely to foster regrowth and the return of aquatic wetland plants. SCVWD agrees with the suggestion in Comment D-21 that SCVWD should prioritize mitigation approaches that are appropriate in terms of their replacement of impacts functions and values and, where possible, the replacement of in-kind functions and values on-site with similar in-kind functions and values as the top priority.

Response to Comment D-22

The comment indicates a possible misunderstanding about how the MFA assessment process would be used to evaluate conditions at bank stabilization sites versus its use in mitigating impacts caused by vegetation management and sediment removal activities. Unlike bank stabilization activities that typically are fairly limited in their length, vegetation management and sediment removal maintenance activities may occur at varying lengths across a reach of a flood protection channel. SCVWD would evaluate reaches comprehensively for their vegetation management and sediment removal needs. Based on an evaluation of the on-site reach areas to be impacted and the functions and values occurring at the maintenance reach, SCVWD would develop a reach-specific mitigation approach. The reach-specific mitigation approach may include several components of invasive plant management, riparian planting, and instream complexity development. For aspects involving riparian planting/restoration, the MFA process would be applied to determine performance standards.

As described in response to Comment D-21, SCVWD’s overall mitigation approach for reach-based vegetation management and sediment removal would be to prioritize and emphasize on-site mitigation steps to improve and enhance on-site functions and values. SCVWD agrees with the suggestions proposed in Comments D-21 and D-22, that SCVWD should prioritize mitigation approaches that are appropriate in terms of their replacement of impacts functions and values and, where possible, in-kind functions and values should be replaced on-site with similar in-kind functions and values.

¹ Santa Clara Valley Water District. 2002 (July). *Instream Wetland Vegetation Regrowth Study Fourth Annual Report: Results for 2001*. Prepared in accordance with the California Regional Water Quality Control Board, San Francisco Bay Region, Order 98-088. Prepared by G. Rankin and J. Hillman. San Jose, California.

Furthermore, as described in the response to Comment D-21, the invasive plant management and riparian restoration mitigation elements would improve multiple on-site functions and values for channel habitat, for birds, amphibians, and other wildlife, by providing shading, sources of organic matter, and coarse woody debris; improving overall channel corridor vegetation and bank structure; and providing other water quality benefits to aquatic species. Because habitat impacts caused by vegetation management and sediment removal activities are temporary in nature, the invasive plant management and riparian restoration mitigation elements would be applied at a 1.2:1 ratio. The additional 20 percent mitigation, beyond replacement mitigation, would be provided to address the temporal gap between the time when the maintenance impacts occurred and the time when the flood protection channel typically could be expected to “self-recover” in terms of regrowth of aquatic wetland and riparian vegetation.

Response to Comment D-23

The comment states that the proposed mitigation ratio of 0.5:1 for maintenance impacts to instream complexity features is not acceptable, and requests that SCVWD re-evaluate the mitigation proposal for the loss of instream complexity. Based on further review, SCVWD has revised the mitigation ratio for instream complexity mitigation to 1:1 (impact-to-mitigation). The discussion in the second paragraph under Mitigation Measure BIO-9 and Appendix L of the DSEIR is revised as follows, to reflect this modification:

If such high-quality features must be removed during Proposed Project activities, compensatory mitigation will be provided by the installation of instream complexity features on a ~~0.5:1~~ ~~(impact:mitigation:impact)~~ basis, on the basis of either the number of complexity features or the area that is affected hydraulically by the features that are removed; the fisheries ecologist will determine which of these two metrics is appropriate based on the values to fish provided by the impacted features. Thus, one instream complexity feature will be installed for every ~~two~~ one that ~~are~~ is removed, or an instream complexity feature hydraulically affecting roughly ~~half~~ the same area of the feature(s) removed will be installed. ~~This ratio is less than 1:1 under the understanding that erosion, deposition, tree falls, and debris mobilization within a few years following the removal of instream complexity will naturally reintroduce some complexity to the stream.~~

Response to Comment D-24

The District appreciates the comment and concurs with these recommendations.

Response to Comment D-25

SCVWD removes dead vegetation if it poses a fire or flooding hazard (i.e., accumulated fuel potential or bulk near bridges), or if specifically directed to do so by another agency or party. However, in cases where the dead vegetation posed no danger, it would be allowed to compost naturally on-site. In either case, vegetation management conducted using herbicides still would have less of an overall impact on the Project Area compared with hand removal because of the less frequent need to conduct follow-up removal. Herbicide application would require 1-2 trips to apply and remove (as needed) at a worksite, but

several trips per year would be needed to address regrowth using only hand removal techniques.

I'm here to talk about the Permanente Creek Flood Protection Project and the 2 alternatives to the hydrology and hydraulic analysis.

The first alternative would put flood detention basins in Rancho San Antonio County Park and McKelvey Park only and a flood catchment pipe along Cuesta Drive. No catchment basin would be dug in Cuesta Annex.


The 2nd alternative calls for detention basins in all 3 locations. Construction projects should be as noninvasive to the environment as possible and if your project can be successfully completed without destroying the Cuesta Annex, a 12 acre parcel in its natural state which is enjoyed by many residents and others and home to heritage fruit trees, oaks and many species of birds, why are you even offering a 2nd more destructive, \$7 million more costly alternative to the MVCC? Alternative 1 is more true to the language in your ballot measure Clean, Safe Creeks and the need to protect and preserve our natural environment. The impact on residents in terms of noise and air pollution and traffic congestion would be much less with alternative #1. Alternative #2 will bring mercury and other pollutants from the Lehigh Cement Plant into the Cuesta Annex.

E1



When our State is \$25 billion in debt it is incumbent upon you to

E1



show fiscal responsibility. If your board truly wanted to be the benchmark for using taxpayer dollars wisely, you would take the \$40 million which has been allocated to contain a flood which has a 1% chance of occurring in 100 years and redirect the money to repairing our reservoirs, many of which cannot be filled to capacity because, in the event of an earthquake, they would be damaged and flood communities in the area. The likelihood of that happening is significantly higher than 1%.

In the numerous meetings I have attended over the past year dealing with your Permanente Creek Project, I haven't heard one individual express concern that flood waters would reach his home. There is no history of flooding and this is a colossal waste of money.

Cynthia Riordan

Response to Comment E-1

This comment is not applicable to the Stream Maintenance Program and has been forwarded to SCVWD staff working on the Permanente Creek project.

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DEPARTMENT OF TRANSPORTATION

P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5541
FAX (510) 286-5559
TTY 711

Letter F



*Flex your power!
Be energy efficient!*

September 21, 2011

SCL-GEN
SCL000119
SCH# 2000102055

Ms. Sunny Williams
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3614

Dear Ms. Williams:

Stream Maintenance Program Update – Draft Subsequent Environmental Impact Report (DSEIR)

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the above-referenced proposed project. We have reviewed the DSEIR and have the following comments to offer.

Hydrology

F1

The Department will need to engage project level documents, to ascertain runoff or changes to flow patterns and streambed alterations, which could lead to scour conditions for bridges or culverts downstream of such activities. Project level hydrological studies may need to be conducted, as specific projects under the stream maintenance program progress.

Transportation Permit

F2

Project work that requires movement of oversized or excessive load vehicles on State roadways, such as the State roadways listed in Section 3.12.3 of the DSEIR, requires a transportation permit issued by the Department. To apply, a completed transportation permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to the address below.

Office of Transportation Permits
California DOT Headquarters
P.O. Box 942874
Sacramento, CA 94274-0001

Further information is available on the following website:
<http://www.dot.ca.gov/hq/traffops/developserv/permits/applications/index.html>.

Encroachment Permit

F3

Work that encroaches onto the State right-of-way (ROW) requires an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the

Ms. Sunny Williams/Santa Clara Valley Water District

September 21, 2011

Page 2

address below. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process.

F3

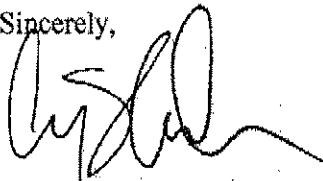
Office of Permits
California DOT, District 4
P.O. Box 23660
Oakland, CA 94623-0660

Further information is available on the following website:

<http://www.dot.ca.gov/hq/traffops/developserv/permits>.

Please feel free to contact Brian Brandert at (510) 286-5505, if you have any questions regarding this letter.

Sincerely,



GARY ARNOLD

District Branch Chief

Local Development-Intergovernmental Review

c: Scott Morgan (State Clearinghouse)

Response to Comment F-1

SCVWD is committed to avoiding impacts to infrastructure that result from its maintenance activities. The District is not aware of any situations during the first 10 years of the SMP when maintenance activities have led to scour conditions for bridges or culverts downstream. If information should become available in the future that suggested the potential for such problems, the District would investigate further, conduct any necessary studies, and adjust its maintenance activities accordingly.

Response to Comment F-2

SCVWD appreciates Caltrans' provision of information regarding the need for a transportation permit when moving oversized or excessive load vehicles on state roadways.

Response to Comment F-3

SCVWD appreciates Caltrans' provision of information regarding the need for an encroachment permit for work that encroaches onto the state's right-of-way.

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Letter G

From: JLucas1099@aol.com
To: [smp_update](#)
Subject: Stream Maintenance Program Update 2012-2022 DEIR
Date: Monday, September 19, 2011 3:38:31 PM

Santa Clara Valley Water District
2011

September 19,

Attention: Sunny Williams, SMP Update Comments
5750 Almaden Expressway, San Jose, CA 95118

Dear Santa Clara Valley Water District Board and Staff,

In regards the Draft Environmental Impact Report for the District's Stream Maintenance Program Update 2012-2022 there are a sufficient number of concerns in this long term permit that lead me to encourage you to include a five-year review and amendment window.

G1

~ In particular the issue of climate change may result in more frequent and intense storm events that may re-contour stream channels, and alter wetlands and marsh inundation regimen. Might it increase temperatures in watersheds sufficiently to place critical habitat for species in jeopardy or result in new listings on the Special Status Plant List? Should an alternative management plan be included in DEIR to accomodate this?

G2

I would like to forward to you the Midpeninsula Regional Open Space District's rare plant protection protocols in separate submittal which I requested from their Senior Resource Management Specialist, Cindy Roessler.

G3

~ The width of a riparian corridor and the depth of shade afforded by a stream's canopy are a critical factor in filtering out pollutants, controlling erosion and in avoidance of algae blooms. The Soil Conservation Service used to recommend a 50 to 75 foot riparian setback to accomplish basic water quality and stream stability. Can such buffers be mandated? In particular, I was unable to find criteria for maintaining a sustainable level of SRA, shaded riverine aquatic habitat, in streams that support coldwater and anadromous fish runs. Once the Carmel River developed lethal algae blooms that killed dogs. Will global warming make this more likely? Please monitor stream temperatures and retain as much vegetative shade cover on west banks as possible.

G4

~ In regards the use of chemical sprays, I did not find mention of the window of applicability that is mandated for certain species such as California Clapper Rail. As an example in Palo Alto Baylands Imazapyr use was timed to avoid Clapper Rail nesting season (a window in early weeks of September) in spraying phragmites. As explained by Bayland Ranger .."(It should be noted that rails do not utilize the flood basin. The extremely muted tidal action is not to their liking.) We created pre-determined crossing areas in non-pickleweed areas for the contractor to enter the phragmites treatment areas to minimize impact on salt marsh harvest mice A good deal of the treatment was done with people on foot with back pack sprayers. The contractor also used a vehicle called an aqua smog that allowed them to treat large stands of the weed effectively. We

G4

↑ also had staff present to do wildlife inspections. Signs were posted all around the treatment area in advance of the spraying. (re interface with adjacent recreation trail use) The four years of herbicide applications had limited success. We have tried other techniques such as black tarping and salt applications. We are still monitoring the success of these techniques. I believe we will need to use a multitude of techniques to control the phragmites in the basin." (Please note Palo Alto Flood Basin is listed as Clapper Rail habitat on DEIR map).

~ Do not remember the DEIR best management practices in regards the use of grazing, fire control or forest management measures in the watersheds. Will return to Palo Alto Library tomorrow for further review, however, would like to send these comments at this time.

Also would like to submit more detailed analysis of DEIR habitat maps along with historic maps of baylands marsh habitat that perhaps are more precise in certain areas.

Thank you for the opportunity to review this extensive Stream Maintenance Program 2012-2022 DEIR.

Libby Lucas, Conservation, CNPS
174 Yerba Santa Ave., Los Altos, CA 94022

From: [Cindy Roessler](mailto:Cindy.Roessler@MROSD.org)
To: jlucas1099@aol.com;
Subject: Rare plant protection at MROSD
Date: Thursday, September 15, 2011 4:30:34 PM

Perhaps the best place to see what our policy is to protecting rare plants is in our draft Resource Management Policies which are posted on our website here:

http://www.openspace.org/plans_projects/downloads/2011.02.RMPoliciesPrpsdUpdate.pdf

The best management practices we implement with our vegetation management contractor (including protection of rare plants):

- A District biologist will preview all work sites in the field prior to work by the contractor to determine site conditions and develop site-specific avoidance measures.
- Spraying of glyphosate in a Roundup Pro® formulation at terrestrial locations by spot spray method will be at 1.0 to 2.0% concentration.
- Application of glyphosate in a Roundup Pro® formulation at terrestrial locations by stump treatment method will be at 50 to 100% concentrate and placed on woody stump surfaces immediately after cutting.
- Spraying of aminopyralid in a Milestone VM® formulation will be applied by spot spray method with backpack sprayers only and at a rate of 7 fluid ounces per acre per year.
- No other herbicides, formulations or methods than specifically listed above are permitted under this contract. Surfactants and other adjuvants will be consistent with the Pest Control Recommendations. ***[note to Abbors – thus, Garlon and AquaMaster have been removed from services that we will request from contractor]***
- No herbicide treatment will occur within 15 feet of aquatic features. For purposes of this work, aquatic features are defined as any natural or manmade lake, pond, river, creek, drainageway, ditch, spring or similar feature that holds water at the time of treatment or typically become inundated during winter rains.
- Between 15 and 100 feet of aquatic features, herbicide use is restricted to spraying of glyphosate by backpack sprayer. Other herbicides, broadcast spraying (such as by boom sprayer) or tank spraying with hoses and wands are not allowed in this zone.
- No work will be conducted within 50 feet of rare plants. District biological staff will refer to maps of rare plants and conduct site assessment to determine the presence of rare species or potential habitat prior to work being conducted

by the contractor.

- District staff will work with Contractor to design site-specific mowing and brush cutting techniques to avoid nesting birds, such as but not limited to detection of wildlife in the project area, equipment modifications, mowing patterns and buffer strips.
- Contractor will have a Pest Control Business License and Qualified Applicator License.
- Contractor will implement all public and employee safety standards regarding the storage, mixing, transportation, disposal and application of herbicides
- Contractor will follow all herbicide label requirements, and to protect the environment, including but not limited to not spraying in sensitive areas, avoiding weather conditions that might result in drift, and avoiding native plant species.
- Contractor will conduct herbicide work in a manner consistent with Pest Control Recommendations provided by the District.
- Application of herbicides will be in accordance with the California Red-Legged Frog Injunction (“Court Issues Stipulated Injunction Regarding Pesticides and the California Red-Legged Frog”, <http://www.epa.gov/espp/litstatus/redleg-frog/rlf.htm> , retrieved on 1/23/2009).



Cindy Roessler
Senior Resource Management Specialist
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Midpeninsula Regional Open Space District
330 Distel Circle, Los Altos, CA 94022
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www.openspace.org | twitter: [@mrosd](https://twitter.com/mrosd)

Response to Comment G-1

SCVWD does not believe that the effects of global climate change on the frequency or intensity of storm events, or on sea levels, will be so much greater during the 10-year period 2012–2022, as compared to the 5-year period 2012–2016, to warrant restriction of the SMP Update to a 5-year period instead of 10 years. Any relevant impacts of global climate change on the effects of SMP Update activities during the period 2012-2022 were taken into consideration in the DSEIR.

Response to Comment G-2

SCVWD appreciates being provided the list of BMPs implemented by the Midpeninsula Regional Open Space District (MROSD) to protect rare plants. Please refer to the response to Comment H-2 with regard to this list (the list is provided in an e-mail from Cindy Roessler to Libby Lucas that is included as an attachment to Comment Letter G).

Response to Comment G-3

SCVWD does not have the authority to mandate the width of vegetated riparian buffers. Also, the need for adequate flood protection would preclude SCVWD’s ability to maintain a 50- to 75-foot vegetated buffer along all SCVWD-maintained streams. Under the updated program, SCVWD would continue to implement BMPs to minimize impacts to riparian vegetation (as described in Table 2-12 of the DSEIR) and would not remove riparian vegetation during maintenance activities unless necessary to meet flood protection needs or to conduct levee inspections.

SCVWD agrees that Shaded Riverine Aquatic habitat is important to limit maximum temperatures in certain reaches of stream, although as discussed under Impact BIO-8, canopy openings that provide more light also increase productivity, which directly benefits steelhead.¹ As a result, no standard “sustainable level” of Shaded Riverine Aquatic habitat is targeted by the SMP Update. Although global warming may increase stream temperatures somewhat, potentially increasing the likelihood of algae blooms, SCVWD does not believe that the effects of global climate change on stream temperatures will be substantial over the 10-year period of this SMP Update. The comment’s request for monitoring of stream temperatures and retaining vegetative shade cover on west banks of creeks is noted.

Response to Comment G-4

Per BMP GEN-6, which was included in the DSEIR, no maintenance work (including herbicide spraying) will be conducted in or immediately adjacent to suitable California clapper rail habitat prior to September 1 in any given year to avoid nesting rails.

¹ Casagrande, J. M. 2010. Distribution, abundance, growth, and habitat use of steelhead in Uvas Creek, California. Master’s thesis. San Jose State University, San Jose, California.

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Letter H

From: JLucas1099@aol.com
To: [smp_update](#)
Subject: Stream Maintenance Program Update 2012-2022 DEIR Comments continued
Date: Wednesday, September 21, 2011 11:35:09 AM

Santa Clara Valley Water District
5750 Almaden Expressway, San Jose, CA 95118

September 21, 2011

Attention: Sunny Williams, SMP Update Comments (cont.)

Dear Santa Clara Valley Water District Board and Staff,

In further review of the Draft Environmental Impact Report for the District's Stream Maintenance Program Update 2012-2022, I would like to draw your attention to certain deficiencies in elements of this DEIR.

H1

~ In maps denoting habitat for species of tiger salamander (Figure 3.3-10), red-legged frog (Figure 3.3-13), western pond turtle and San Francisco dusky-footed wood rat there is none shown north of Calero Reservoir. Please explain omission in designating viable vegetative stream habitat in North County watersheds?

H2

~ In regards best management practices for implementing spraying and vegetative controls in this foothills' watershed, based on appropriate mapping of biological indicators and rare plants, I would like to submit, as an attachment, the rare plant protection protocols of the Midpeninsula Regional Open Space District. Please note the eighth bullet which says "No work will be conducted within 50 feet of rare plants. District biological staff will refer to maps of rare plants and conduct site assessment to determine the presence of rare species or potential habitat prior to work being conducted by the contractor". Should SCVWD staff consider reference to Midpeninsula's biological staff and rare plant maps when conducting maintenance in Sierra Azul foothills watersheds of North County, for which this DEIR provides inadequate protocols for maintenance?

H3

~ Also, please incorporate the last bullet in this policy which notes that "Applications of herbicides will be in accordance with the California Red-Legged Frog Injunction ("Court Issues Stipulated Injunction Regarding Pesticides and the California Red-Legged Frog", <http://www.epa.gov/litstatus/redleg-frog/rlf.htm>, retrieved of 1/23/2009). The East Fork of Permanente Creek was found to have a red-legged frog colony at upper edge of Rancho San Antonio and further up creek on Monte Bello Ridge. Is prime Red-Legged Frog habitat likely to be found at similar elevations of Guadalupe, Los Gatos, Saratoga, Wildcat and San Francisquito Creeks? Please reference SCVWD's half a century of records of species observed in these upper stream watersheds.

H4

~ Mention is made in the DEIR of there being only two Habitat Conservation Plans approved for Santa Clara County at this time, a Zanker Road Resource Management HCP covering salt marsh harvest mouse habitat in Alviso, and a Metcalf HCP for the Bay Checker Spot Butterfly at Santa

H4 ↑ Teresa Hills. The mention includes the names of PG&E, Hicks Road and Vasona in association with the Metcalf HCP which appears confused. Also, does the Zanker Road Resource Management HCP accommodate SCVWD's Salt Marsh Harvest Mouse mitigation acreage in lower Coyote Creek? On page L-9 it states that "mitigation areas will be preserved and managed in perpetuity by SCVWD. Mitigation could occur on lands acquired or owned by SCVWD, or on permanently protected lands not owned by SCVWD but by another entity." Shouldn't it be important to clarify such mitigation lands on a map in order to coordinate the best conservative maintenance practices possible?
Lower Coyote Creek mitigation wetlands and critical habitat deserve more careful delineation in BMP's.

H5 ~ In Figures 3.3-18 and 3.3-20 does there need to be more precise mapping on location of critical habitat of endangered species and species of special concern? I will submit maps of regulatory agency sitings that do not entirely agree with marsh/wetlands critical habitat data represented on these figures. The continuity of habitat for the Salt Marsh Harvest Mouse seems to be compromised at confluence of Lower Penintencia and Coyote Creeks at Dixon Landing Road. Saratoga Creek should be changed to San Tomas Aquino Creek. The California Clapper Rail and Western Pond Turtle colony on Moffett Channel, bayward of Lockheed and Moffett Field need to be noted for seasonal considerations and conservative spray regimens. Sunnyvale East Channel overflow wetlands and Sunnyvale West Channel can use benign protocol. Where is Moffett Slough?

H6 ~ As mentioned at the September 13 Board Meeting's public hearing, I would urge the District to incorporate more stringent safety measures for chemical applications in relation to recreational use and wildlife corridors. Sensitive receptors have a wide range in severity of exposure for momentary as well as cumulative impacts from vegetative sprays. Cats have been known to pass through sprayed grass along a road and lick their fur with lethal results. Seasonal susceptibility criteria for steelhead and snowy plovers are of equal concern. Also please adjust the steelhead streams (Figure 3.3-8) to include Guadalupe Creek, and Los Gatos Creek, and Alamitos and Calero Creeks to sustain runs of brown trout. Shaded Riverine Aquatic habitat criteria is an important consideration in tree removal or vegetation management on these streams. Stream temperatures need to stay cool to sustain a cold water fishery which, with global warming, is becoming a critical concern.

H7 ~ Am still unable to find the best management protocols in this DEIR in regards grazing but hope you will include language that has already been prepared for the Santa Clara County HCP. This DEIR needs to find a means to include appropriate reference to scientific data and methodology of habitat conservation that has been achieved in the County's HCP, and which will be implemented within this permit's ten year time frame.

Thank you for the opportunity to comment further on this Stream Maintenance Program Update.

Sincerely,

Libby Lucas, Conservation, CNPS

174 Yerba Santa Ave., Los Altos, CA 94022

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Response to Comment H-1

The maps cited in the comment do in fact show habitat for these species north of Calero Reservoir. For example, the figures showing the areas where the California tiger salamander (Figure 3.3-10) and California red-legged frog (Figure 3.3-13) are extant indicate that these species likely are extant immediately north of Calero Reservoir. Areas farther north, where these species are indicated as having been extirpated, are heavily urbanized, have no recent records of the species, and lack suitable habitat for them. Figure 3.3-19 depicts locations of western pond turtle records but not western pond turtle habitat; all known locations of western pond turtle occurrence are shown in this figure. The DSEIR does not include a map showing locations of San Francisco dusky-footed woodrats.

Response to Comment H-2

SCVWD appreciates being provided the list of BMPs implemented by the MROSD to protect rare plants. However, SCVWD disagrees that the DSEIR provides inadequate protocols for protecting rare plants during maintenance activities. BMP GEN-9 provides for a qualified botanist to identify any work areas where special-status plants may occur, conduct a survey of those areas at a level of effort necessary to determine the locations of any such plants, and implement a number of measures to avoid and minimize, to the extent feasible, impacts to those plants. Such measures would include flagging or otherwise delineating in the field the locations of special-status plants and the identification, by the botanist, of buffers adequate to avoid impacts. In the event that impacts could not be avoided, the DSEIR provides compensatory mitigation for impacts to species that may be significantly impacted (Mitigation Measures BIO-4 and BIO-5).

SCVWD's BMP to protect special-status plants is analogous to the measures implemented by the MROSD, but the need for and objectives of the SMP Update differ from those of the MROSD, and thus complete consistency between the measures of the MROSD and SCVWD would be impractical.

Response to Comment H-3

The California red-legged frog injunction referred to in the comment applies to projects that do not have a Biological Opinion from the USFWS, covering impacts of pesticide use on the red-legged frog. SCVWD is in consultation with the USFWS regarding potential take of the red-legged frog as a result of SMP Update activities, including pesticide use. Thus, with issuance of a Biological Opinion by the USFWS for the SMP Update, the maintenance activities would not have to comply with the injunction. Nevertheless, many of the measures required by the injunction to avoid impacts to red-legged frogs are included in SCVWD's BMPs.

Please refer to Figure 3.3-13 regarding the expected distribution of the California red-legged frog. This figure also depicts the locations of all known records (including SCVWD's records) of the species within the Project Area. As indicated in this figure, the red-legged frog is expected to be extant in the upper reaches of the Guadalupe River watershed and the Los Gatos, Saratoga, Wildcat, and San Francisquito creek watersheds.

Response to Comment H-4

The comment indicates that the mention of PG&E, Hicks Road, and Vasona in association with the Metcalf HCP in the DSEIR “appears confused.” The name of PG&E’s HCP as referenced on page 3.3-189 of the DSEIR is the “Metcalf-El Patio, Metcalf-Hicks/Vasona HCP.”

What the comment means by the question, “... does the Zanker Road Resource Management HCP accommodate SCVWD’s Salt Marsh Harvest Mouse mitigation acreage in lower Coyote Creek?” is unclear. SCVWD’s salt marsh harvest mouse preserve in the Coyote Creek bypass is not included within or associated with the Zanker Road Resource Management HCP, which covers activities only within a confined area on the Zanker Road Resource Management site.

Illustrating the prime locations for mitigating SMP Update impacts on a map is not possible because of the large number of potential mitigation locations for any given impact and the number of types of mitigation that may be required. For example, numerous areas exist throughout the Project Area in which wetland or riparian habitat mitigation could occur, invasive plant removal could take place, or California tiger salamander mitigation could be achieved. SCVWD would assess mitigation needs as potential impacts occurred and would identify mitigation areas as described in the mitigation program.

SCVWD disagrees with the comment that “Lower Coyote Creek mitigation wetlands and critical habitat deserve more careful delineation in BMP’s.” BMPs apply equally to their focal resources (i.e., the resources being protected by the BMPs) wherever they occur, and they are not intended to be more or less stringent depending on the locations of those resources. The BMPs and mitigation measures included in the DSEIR are adequate to mitigate all impacts to biological resources to a level of less than significant (with the exception of habitat fragmentation impacts).

Response to Comment H-5

SCVWD believes that the mapping of Foothill yellow-legged frog habitat in Figure 3.3-18 and the mapping of habitat for the western snowy plover, California clapper rail, and Alameda song sparrow in Figure 3.3-20 are sufficiently precise for the purposes of environmental review by the DSEIR. Figure 3.3-18 depicts all known locations of foothill yellow-legged frogs and illustrates all areas where the species is thought likely to be extant. With regard to the mapping of “critical habitat”, the only critical habitat proposed or designated by resource agencies under the FESA for these species is proposed critical habitat for the western snowy plover, which is shown in Figure 3.3-20.

SCVWD understands that continuity of habitat along Lower Penitencia Creek and Coyote Creek is affected by the road crossings in the Dixon Landing Road/Interstate 880 area, but the effects of these road crossings on habitat continuity are outside the control of SCVWD and would be unrelated to SMP Update activities in these areas.

Figures 3.3-20 and 3.3-22 are revised to correctly label San Tomas Aquino Creek.

Figure 3.3-12 is revised to show the location of the western pond turtle occurrence north of Moffett Field. However, the BMPs in the DSEIR would be adequate to protect California clapper rails and western pond turtles wherever they may occur, and therefore no special considerations are needed for this particular area.

The question, “Where is Moffett Slough?” is confusing; Moffett Channel is located west of Pond A4 but is not explicitly labeled in any figures. SCVWD is unaware of a waterbody named “Moffett Slough.”

Response to Comment H-6

The BMPs and other procedures related to the application of pesticides that are described in Chapter 2, *Project Description*, and Appendix J of the DSEIR would be adequate to reduce impacts of pesticides on biological resources to the extent feasible, and the compensatory mitigation that would be provided would reduce impacts to wetlands, riparian habitats, steelhead, and other biological resources, resulting from pesticide application, to less-than-significant levels. Restrictions on timing, method, and location of pesticide application, as well as the relatively benign nature (from the perspective of toxicity) of the herbicides used by SCVWD, would minimize adverse effects of herbicides on biological resources other than the plants targeted by these herbicides.

The statement, “please adjust the steelhead streams (Figure 3.3-8) to include Guadalupe Creek, and Los Gatos Creek, and Alamitos and Calero Creeks to sustain runs of brown trout” is unclear. The brown trout is not native to County streams, and although it has been stocked in county streams in the past, such as in Coyote Reservoir in 1938¹, it is not known to be naturalized within Project Area streams. If the comment is suggesting that flows within those creeks should be adjusted to support this non-native fish, such an adjustment would adversely affect flows for steelhead and potentially increase competition for food or space between steelhead and non-native brown trout, which would be undesirable.

SCVWD agrees that Shaded Riverine Aquatic habitat is important, to limit maximum temperatures in certain reaches of stream, although as discussed under Impact BIO-8, canopy openings that would provide more light also would increase productivity, which would directly benefit steelhead.²

Response to Comment H-7

The comments regarding appropriate grazing protocols and incorporation of information collected for the HCP are noted. Please also refer to the response to Comment N-3 with respect to grazing. SCVWD used the best available scientific and professional data in preparing the DSEIR, including the draft Valley Habitat Plan and the resources that were used to prepare that plan.

¹ Leidy, R.A., G.S. Becker, and B.N. Harvey. 2005. Historical distribution and current status of steelhead/rainbow trout (*Oncorhynchus mykiss*) in streams of the San Francisco Estuary, California. Center for Ecosystem Management and Restoration, Oakland, CA.

² Casagrande, op. cit.

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Letter I

From: JLucas1099@aol.com
To: [smp_update](#)
Subject: Stream Maintenance Program Update 2012-2022 DEIR Comment #3
Date: Wednesday, September 21, 2011 4:25:23 PM

Santa Clara Valley Water District
5750 Almaden Expressway, San Jose, CA 95118

September 21, 2011

Attention: Sunny Williams SMP Update Comments (cont.)

Sunny,

Couple more comments, as a postscript,

11 ~ Appendix G Special Status and Locally Significant Plant Species Considered but Rejected for Occurance, A brief consensus of our California Native Plant Society Santa Clara Valley Chapter requests that this list be retained as viable species for review, in that these species could feasibly occur. In consideration of the extensive acreage of Santa Clara County land that, due to remote location and/or private ownership, has not been reviewed, it seems a responsible conservative program to retain all aspects of this Special Status and Locally Significant Plant Species listing.

12 ~ In regards retaining viability of mitigation habitat, to which the SCVWD is committed, might it be feasible to illustrate on a DEIR Figure map the prime habitat mitigation locations? For instance, the SRA mitigation for riparian losses on Guadalupe River that were to be achieved on a stretch of Guadalupe Creek from Almaden Expressway to Masson Dam, could be assessed as to extent of shaded riparian canopy and the successful return of a coldwater steelhead/salmon fishery. Do summer stream temperatures stay below 20.0 deg. C?

~ As seem to have run out of time today to deliver marsh habitat maps to your District offices could I please have a continuance on this aspect of data support submittal until next Tuesday, at the latest.

Thank you again for any and all considerations of these comments.

Libby Lucas, Conservation
Santa Clara Valley Chapter, CNPS
174 Yerba Santa Ave., Los Altos, CA 94022

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Response to Comment I-1

SCVWD disagrees with the comment that the special-status plants listed in Appendix G should be retained as species that reasonably could be expected to be significantly impacted by SMP Update activities. SCVWD and H. T. Harvey & Associates botanists carefully considered the distribution, habitat affinities, and elevation range of these species when determining which species may or may not occur within the Project Area, and considered the distribution, abundance, and level of endangerment of California Native Plant Society (CNPS) List 3 and 4 species when determining which of those species could be significantly impacted by SMP Update activities. All of the species on the list in Appendix G either are not expected to occur in the Project Area, or would not be impacted significantly by the Proposed Project. For the latter group, the number of individuals of these species that could potentially be impacted by SMP Update activities would be so low, relative to the species' regional populations and distribution, that SMP Update activities would not substantially impact these species' populations.

Response to Comment I-2

Illustrating the prime locations for mitigating SMP Update impacts on a map is not possible because of the large number of potential mitigation locations for any given impact and the number of types of mitigation that may be required. For example, numerous areas exist throughout the Project Area in which wetland or riparian habitat mitigation could occur, invasive plant removal could take place, or California tiger salamander mitigation could be achieved. SCVWD would assess mitigation needs potential impacts occurred and would identify mitigation areas as described in the mitigation program.

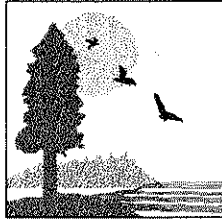
In response to the question regarding the reach of Guadalupe Creek between Almaden Expressway and Masson Dam, based on measurements conducted by SCVWD over the last 2 years, average summer time temperatures in this reach are below 20°C.¹

¹ SCVWD. 2011 (August). *Final Water Year 2010 Mitigation Monitoring Report for the Downtown and Lower Guadalupe River Projects*. San Jose, CA.

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CALIFORNIA STATE LANDS COMMISSION

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Sacramento, CA 95825-8202

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September 21, 2011

File Ref: SCH# 2000102055

Sunny Williams
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Subject: Supplemental Environmental Impact Report (SEIR) for the Santa Clara Valley Water District Steam Maintenance Program, Santa Clara County

Dear Ms. Williams:

Staff of the California State Lands Commission (CSLC) has reviewed the subject SEIR for the Steam Maintenance Program (SMP) Update (Update or Project), which is being prepared by the Santa Clara Valley Water District (SCVWD) as the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.). The CSLC has prepared these comments as a trustee and/or responsible agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters.

CSLC Jurisdiction

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code §6301 and §6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court.

On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

J1 | Based on a review of the information contained in the draft SEIR, CSLC staff has determined that the proposed Project may include portions of the Lower Guadalupe River and Coyote Creek. Both of these waterways include State-owned sovereign land. If any portion of the proposed Project extends into the beds of these waterways, a lease for the use of sovereign land will be required from the CSLC for the portion of the Project encroaching on State-owned lands. Prior to initiating activities in areas that may implicate the CSLC's leasing jurisdiction, please provide the CSLC Land Management Division staff listed at the end of this letter with additional information (e.g., detailed maps) to enable CLSC staff to determine which components of the Project will require a lease or amended lease.

Project Location and Description

The SCVWD is responsible for water supply, flood protection, and stream stewardship in Santa Clara County. The Project area includes streams within the Santa Clara and Pajaro basins. SCVWD flood protection facilities require maintenance to maintain the desired function of each facility. SCVWD approved the initial SMP in 2002 for a 10-year period, received authorizations from all permitting agencies with jurisdiction over the program and began work the same year. SCVWD seeks approval of the SMP Update and Program Manual for the next 10 years (2012-2022).

The SMP Update would be a continuation of past routine creek and canal maintenance activities in most of the same areas using many of the same techniques, but would incorporate a more comprehensive approach to managing and tracking the maintenance work and costs, monitoring environmental conditions, and providing program mitigation. The SMP Update would involve five categories of work activities:

- Bank stabilization;
- Sediment removal;
- Vegetation management;
- Management of animal conflicts; and
- Minor maintenance.

Bank stabilization treatment includes soft and hardscape elements. While SCVWD favors soft bank stabilization approaches in place of methods that create more hardened banks, hardscape elements may potentially include use of rock blankets, boulder revetments, concrete blocks, gunite slope protection, etc. Sediment removal activities may occur on approximately 43 miles of creeks and canals in the Project area, including approximately 19 miles of new channel areas not included in the original

program. New sediment removal activities are proposed to include portions of the Guadalupe River and Coyote Creek.

Environmental Review

Permits and Approvals

J2

- 1. Section 2.5 lists state and federal agencies granting permits and approvals to SCVWD to implement the SMP. Based on the jurisdictional determination for the Lower Guadalupe River and Coyote Creek, the CSLC may be a CEQA responsible and/or trustee agency and should be added to Table 2-10 (Agency Approvals).

Bank Stabilization

J3

- 2. Table 2-4 identifies bank stabilization treatments and notes whether the technique requires review by regulatory agencies. Please note that any bank stabilization treatment proposed on State-owned sovereign land would require CSLC review and approval.

Sediment Removal

J4

- 3. Table 2-5 provides the volume of sediment removed in cubic yards (cu yds) during the 2002-2009 time span of the original program (approximately 371,000 cu yds). Table 2-6 projects the amount of sediment removal work for the 10-year period between 2012 and 2022 in miles, but does not provide the volume projected to be removed in cu yds. Please provide the projected volume of sediment to be removed, generally during the 2012-2022 SMP, and specifically for the Guadalupe River and Coyote Creek areas. Any sediment removal proposed on State-owned sovereign lands would require CSLC review and approval.

J5

- 4. The SEIR states (page 3.6-20) that sediment removal activities could potentially disturb known existing contaminated sites. Portions of the Guadalupe River watershed within the Project area are affected by historic mercury mining activities. Soil and groundwater in some areas of this watershed contain hazardous levels of mercury contamination. Proposed maintenance activities involving ground disturbance, such as sediment removal and bank stabilization, may expose and potentially release mercury or methylmercury into the environment.

The SEIR relies on Best Management Practice (BMP) GEN-3 to avoid exposing soils with high mercury levels. BMP GEN-3 requires testing and remediation practices including excavation and removal of contaminated soils. The SEIR reaches the following conclusion:



“Implementation of BMPs to properly handle and remediate contaminated soils from Proposed Project maintenance activities, would prevent any planned maintenance activities (including sediment disposal or reuse) from disturbing known active contamination or remediation efforts. Through implementation of BMP GEN-3, activities in the Guadalupe River watershed would also avoid or minimize the potential for disturbance to existing mercury contamination. Therefore, this impact would be less than significant and no mitigation would be required.”

J5

While the CSLC supports efforts to avoid or minimize disturbance to existing mercury contamination and testing/remediation through implementation of BMP GEN-3, CSLC staff disagrees with the conclusion that the impact would be less than significant and no further mitigation would be required. Sediment removal activities from the proposed Project may still result in the potentially significant impact of exposing mercury and releasing mercury or methylmercury downstream onto CSLC-managed riverbeds and bays. Such an impact may constrain future CSLC actions in the interest of the State. These contaminants could become a liability or responsibility for projects that may be implemented by the CSLC or others on sovereign land. Future efforts to enhance and support Public Trust uses, including but not limited to navigation, recreation, access, habitat restoration and invasive species management, would potentially have to mitigate for disturbance of mercury and other metallic particles originating from upstream ground disturbance. Such impacts and mitigation could add substantial costs or controversy to future projects that benefit Californians, their enjoyment of public lands and waterways, and the habitat values of these areas.

CSLC staff requests that the SCVWD consider additional measures to mitigate this potentially significant impact (e.g., specification of treatments to contaminated soils excavated so as to eliminate, to the extent feasible, the potential for erosion or methylation of mercury into downstream waters, establishing work windows when water levels are at their lowest, etc.).

Cultural Resources

5. Section 3.4 states that ground-disturbing maintenance activities conducted under the proposed Project would have the potential to disturb known or previously undiscovered cultural resources within the Project area.

J6

The SEIR should state that title to all abandoned shipwrecks and all archaeological sites and historic or cultural resources on or in the tide and submerged lands of California is vested in the state and under the jurisdiction of the CSLC. Any submerged archaeological site or submerged historic resource remaining in state waters for more than 50 years is presumed to be significant. The recovery of objects from any submerged archaeological site or shipwreck may require a salvage permit under Public Resources Code section 6309. CSLC staff requests that the SCVWD consult with CSLC staff, in conformance with

J6



BMP GEN-40, should any cultural resources be discovered on the State's tide and submerged lands during the Project's ground-disturbing maintenance activities.

Thank you for the opportunity to comment on the SEIR for the Project. As a responsible agency, the CSLC may need to rely on the final SEIR for the issuance of a lease and, therefore, we request that you consider our comments prior to adoption of the SEIR.

Please send copies of future Project-related documents or refer questions concerning environmental review to Joan Walter, Environmental Scientist, at (916) 574-1310 or via e-mail at joan.walter@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Senior Staff Counsel Pam Griggs at (916) 574-1854 or via email at pamela.griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Mary Hays, Public Land Manager, at (916) 574-1812, or via email at mary.hays@slc.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Cy R. Oggins", is written over a faint, illegible typed name.

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
M. Hays, LMD, CSLC
J. Walter, DEPM, CSLC
P. Griggs, LEGAL, CSLC

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Response to Comment J-1

The District would coordinate with the California State Lands Commission (CSLC) regarding any maintenance activities to be conducted within the CSLC’s jurisdiction.

Response to Comment J-2

Table 2-10 on page 28 of the DSEIR is revised as follows, adding the California State Lands Commission to the list of agencies:

Table 2-10. Agency Approvals

Agency	Applicable Law/Regulations Guiding Jurisdiction	Current or Prior Permits or Approvals for Maintenance		
		Description	Original Date of Issuance	Date of Expiration
California Department of Fish and Game (DFG)	Fish and Game Code Section 1602	Lake and Streambed Alteration Agreement, Notification No. R3-200-0119	July 8, 2002	Dec 31, 2014
	Fish and Game Code Section 2081 (California Endangered Species Act)	N/A	N/A	N/A
<u>California State Lands Commission</u>	<u>State Lands Act</u>	<u>Lease of State Lands</u>	<u>Various</u>	<u>Various</u>

Response to Comment J-3

Please see response to Comment J-1. SCVWD would coordinate as necessary with CSLC regarding the techniques to be used for any bank stabilization activities within CSLC’s jurisdiction.

Response to Comment J-4

When developing projections, SCVWD identifies the locations for sediment removal, but does not project the associated sediment volumes. The volumes of sediment to be removed are determined on an annual basis through an assessment of that year’s project sites.

Response to Comment J-5

Please see the discussion in Section 3.13 of the DSEIR regarding water quality. Regulation of water and sediment quality is primarily under the jurisdiction of the State Water Resources Control Board and its Regional Water Quality Control Boards, per the federal Clean Water

Act and California Porter-Cologne Water Quality Control Act. Therefore, potential impacts of ground-disturbing activities, such as sediment removal and bank stabilization on water and sediment quality, are discussed in detail in Section 3.13.

Specifically, these potential impacts discuss SCVWD's evaluation related to existing mercury contamination for the Project Area, including lands that could be managed by the CSLC:

- **Impact WQ-5:** Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by the Disturbance of Existing Contamination
- **Impact WQ-6:** Compliance with CWA Section 303(d) Total Maximum Daily Loads
- **Impact WQ-7:** Water Quality Degradation Resulting in Violation of Water Quality Standards or Waste Discharge Requirements Caused by Sediment Handling and Disposal

The potential to disturb, distribute, and dispose existing mercury contamination in the Project Area is included in these impact discussions. Additionally, mercury and methylation were thoroughly discussed in the water quality section of the 2002 SMP FEIR.

In support of and in compliance with the Guadalupe River Mercury TMDL, issued by the San Francisco RWQCB in 2010, SCVWD conducts an extensive water and sediment quality monitoring program and has undertaken many projects in the Guadalupe River watershed to reduce mercury loading to San Francisco Bay. Most of this work has been performed in the upper Guadalupe River watershed and includes: removal of all visible calcine on SCVWD-owned land along Alamitos Creek; removal of 12,000 cubic yards of calcine material from Jacques Gulch; and installation of water circulation devices in the Almaden, Calero, Guadalupe reservoirs and Almaden Lake to reduce mercury methylation. These efforts have reduced the concentration of mercury moving downstream through the Guadalupe River watershed by over 80 percent, as reflected in data from SCVWD's mercury mass load monitoring efforts over the past 2 years. This mercury monitoring data and SCVWD's mercury reduction efforts are reported to the RWQCB and other federal and state agencies as part of specific regulatory requirements, including Clean Water Act Section 402 (NPDES), CWA Section 303 (TMDL), and Waste Discharge Requirements issued by the San Francisco RWQCB. Furthermore, ongoing SMP maintenance activities are regulated by the San Francisco RWQCB under CWA Section 401.

The SMP Update would further contribute to mercury load reduction by removing fine sediment containing mercury from the system, countywide. Removed sediment from maintenance channels would be tested and handled properly, to ensure contaminated sediment was not re-released to the creek system. BMPs, including work windows, would be implemented for all ground-disturbing activities. The applicable BMPs for ground-disturbing activities and potential impacts on mercury distribution are described in Table 2-12 of the DSEIR and identified in the water quality impacts referenced above. With implementation of the SMP Update BMPs, and in compliance with existing regulations over water and sediment quality (particularly within the Guadalupe River watershed), SCVWD would avoid, reduce, and minimize potential impacts on existing mercury contamination in

the County and, therefore, would prevent future impacts on CSLC management actions and Public Trust uses. As such, no significant impacts would be anticipated, and the two mitigation measures suggested by CSLC are unnecessary.

Response to Comment J-6

Please see response to Comment J-1. The District will coordinate as necessary with CSLC regarding impacts to any significant cultural resources under CSLC's jurisdiction that resulted from program maintenance activities.

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Letter K

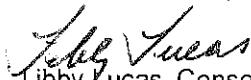
Subj: **Stream Maintenance Program Update 2012-2022 - map submittal**
 Date: 9/27/2011 10:43:16 AM Pacific Daylight Time
 From: JLucas1099@aol.com
 To: sunnywilliams@valleywater.org

Sunny,

Within the hour the maps that I will deliver to reception are:

- ~ A - South Bay Salt Pond Restoration Project Figure 3.6-7 Salt Marsh Harvest Mouse Habitat & Locations
- ~ B - 1978 EIR map of Endangered Species in Baylands locations of California Clapper Rail and Least Tern
- it should be noted that as bay waters rise these species are retreating to uplands and up sloughs inland to lower reaches of San Tomas Aquino, Sunnyvale East, Sunnyvale West, Stevens Creek and Matadero Creek
- ~ C - Coyote Creek Salt Marsh Harvest Mouse mitigation of 55 acre marsh to replace prime habitat lost in flood control project removal of oxbow and to assure continuity of corridor around end of Bay/Newby Island and mitigation to monitor Salt Marsh Yellow Throat populations - also creation of 14.5 acre water bird pond
- there are further wetland mitigation sites in Reach 2 and Reach 3 of Coyote Creek project to consider.
- ~ D - Guadalupe Creek SRA mitigation for loss to Downtown Guadalupe River Flood Project riparian corridor and degradation of coldwater fisheries habitat - from Almaden Expressway to Masson Dam - so Guadalupe Creek and Los Gatos Creek need conservative maintenance protocols suited to coldwater fishery streams
- ~ E - Please note if San Francisquito Creek future flood control project and present maintenance may impact old successful mitigation marsh of Faber Tract, and riparian mitigation for Matadero Creek.

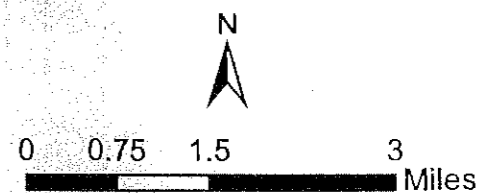
Hope this is somewhat clear as to my concerns with the Baylands maps in this Stream Maintenance DEIR that had wide red lines for routine stream and marsh maintenance in these sensitive mitigation habitat areas.


 Libby Lucas, Conservation
 174 Yerba Santa Ave., Los Altos, CA 94022

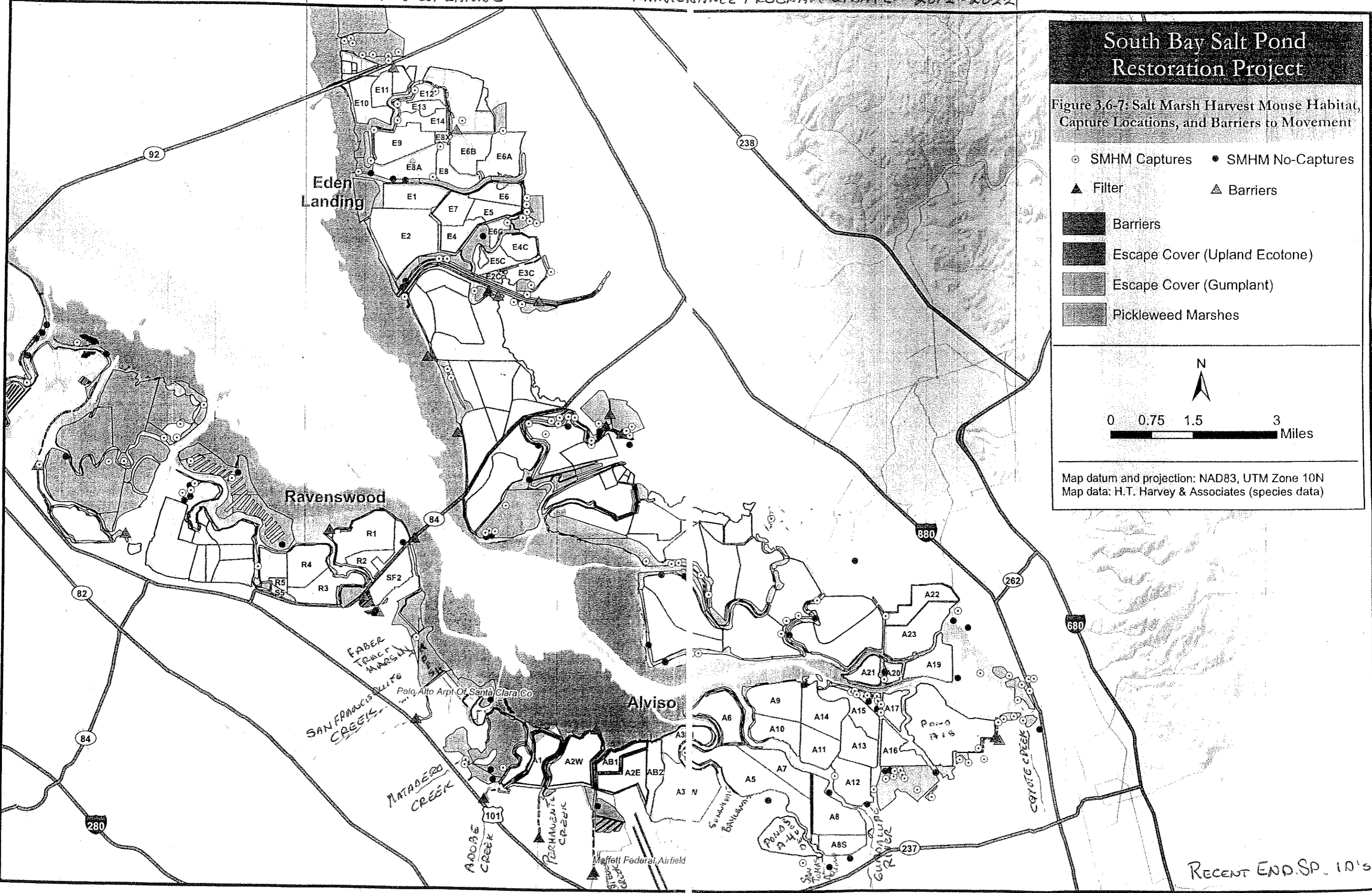
South Bay Salt Pond Restoration Project

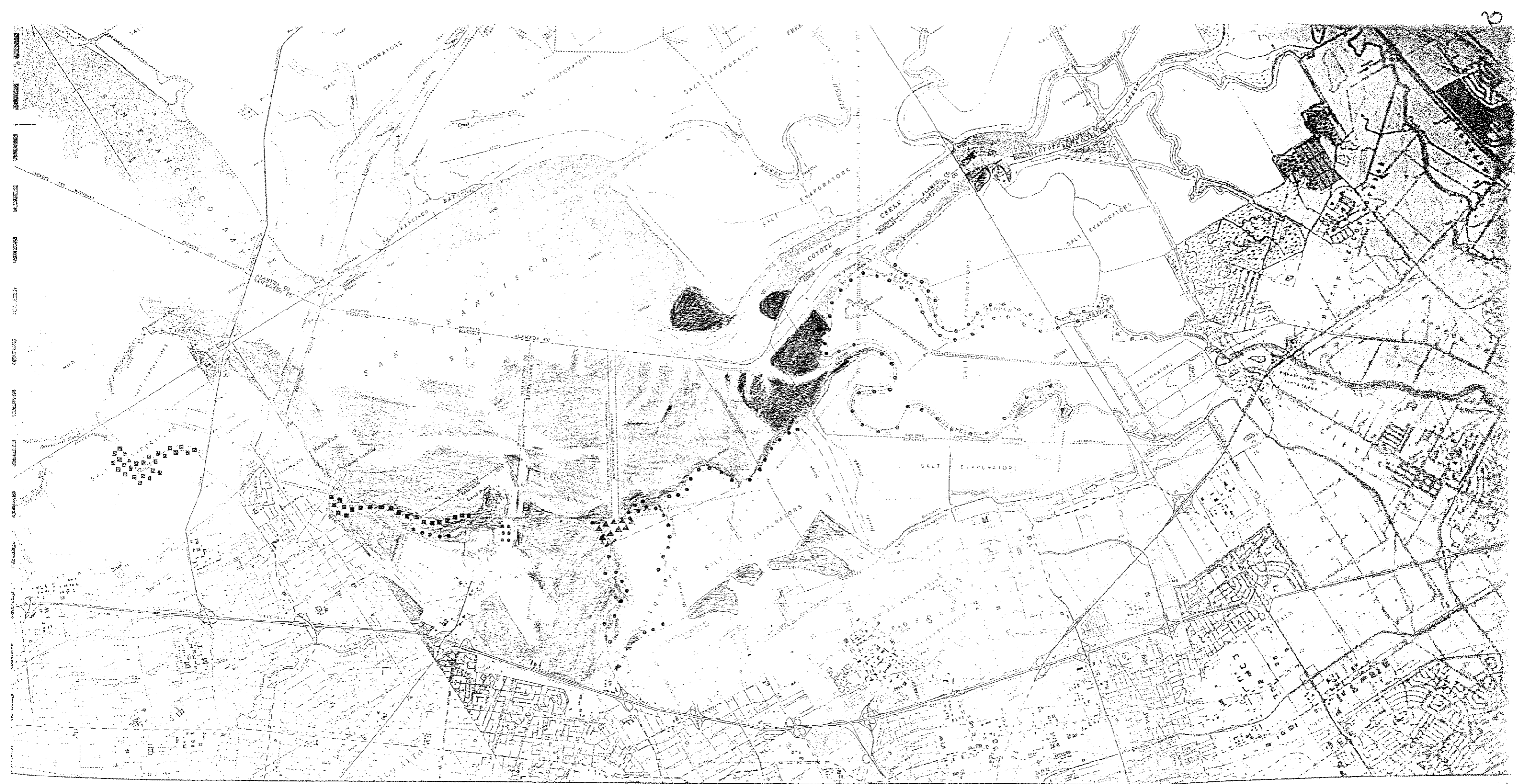
Figure 3.6-7: Salt Marsh Harvest Mouse Habitat, Capture Locations, and Barriers to Movement

- SMHM Captures ● SMHM No-Captures
- ▲ Filter ▲ Barriers
- Barriers
- Escape Cover (Upland Ecotone)
- Escape Cover (Gumplant)
- Pickleweed Marshes






Map datum and projection: NAD83, UTM Zone 10N
 Map data: H.T. Harvey & Associates (species data)





LEGEND:

-  CALIFORNIA CLAPPER RAIL PRIMARY NESTING AREAS (MID MAY)
-  CALIFORNIA CLAPPER RAIL SECONDARY NESTING AREAS (JUNE-JULY)
-  CALIFORNIA LEAST TERN NESTING AREA (LATE APRIL-JULY)

SALT MARSH HARVEST MOUSE -- PRESENT IN LOW NUMBERS THROUGHOUT THE BAYLANDS -- ALL BAYLANDS MARSH IS POTENTIAL HABITAT.

-  ESTUARINE FLATS
-  OPEN TIDAL FLATS AND SLOUGH FLATS
-  SALT PONDS
-  SALT MARSHES AND SLOUGH "EYEBROWS"
-  "UPLAND MEADOWS" AND "WET" GRASSLANDS
-  MANAGED MARSH, PRIMARILY FRESH WATER

Figure 4-8
ENDANGERED SPECIES
IN THE BAYLANDS

1978 EIR

SAN JOSE/SANTA CLARA
WATER QUALITY CONTROL PLAN



COYOTE CREEK SALT MARSH HARVEST HOUSE 5500 AC MITIGATION
 440 SALT MARSH YELLOW THROAT MITIGATION HOULTELAND & LOWER BRIDG POND MARSH

16.5 Ac.

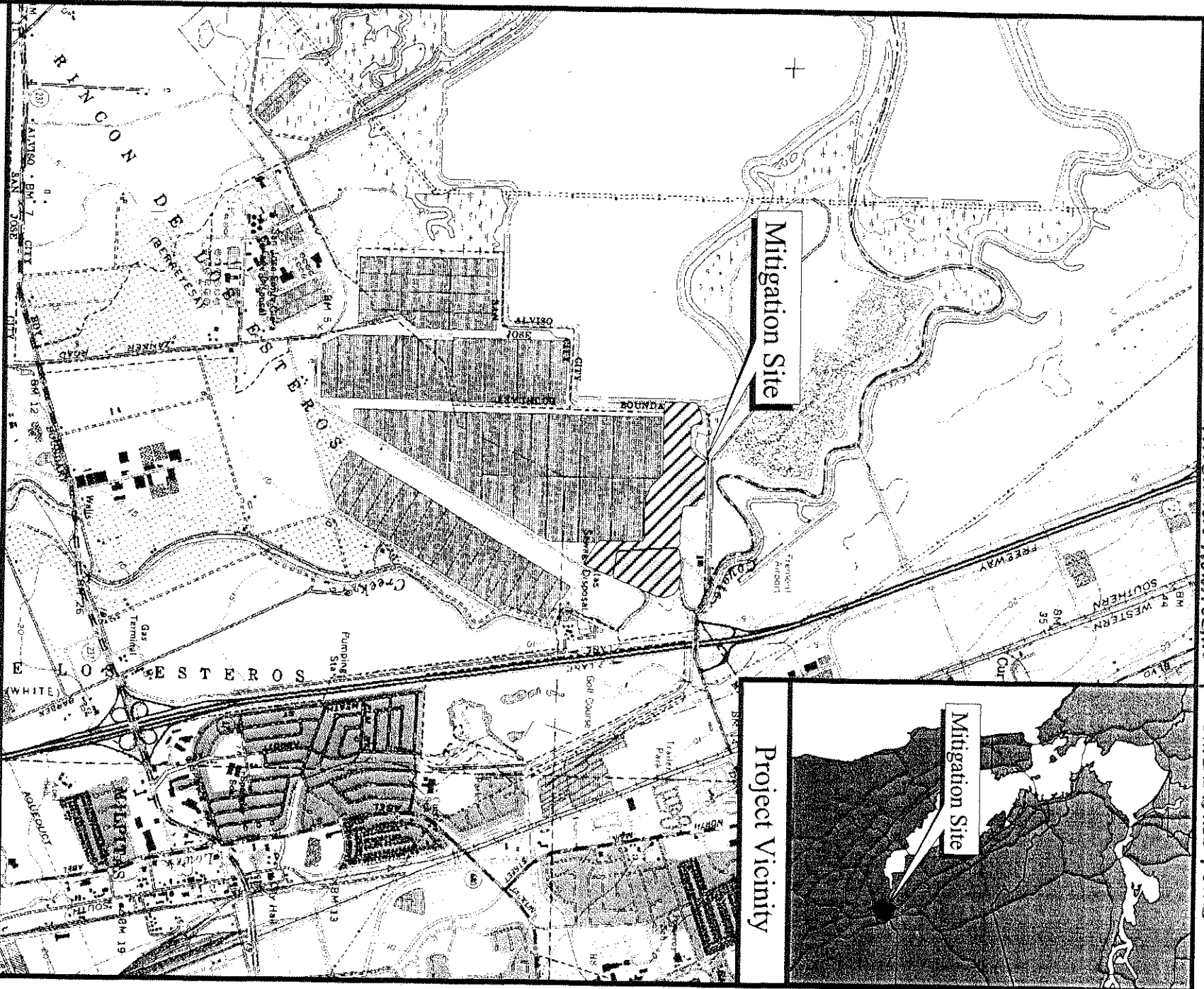


FIGURE 1. Lower Coyote Creek Wetland Mitigation Site.

CALIFORNIA WATERWAYS



COYOTE CREEK FLOOD CONTROL PROJECT

**REACH 1A WATERBIRD POND MONITORING PROGRAM
ANNUAL REPORT
JUNE 1999 THROUGH JUNE 2000**

2 March 2001

Prepared By:

**Cheryl Millett
Biologist
San Francisco Bay Bird Observatory
P.O. Box 247
Alviso, CA
95002-0247**

Prepared For:

**Louisa Squires
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA
95118**

1. EXECUTIVE SUMMARY

The San Francisco Bay Bird Observatory monitored bird use and managed pond water depth at the Coyote Creek Reach 1A waterbird pond. Work was done from June 1999 through June 2000 as part of ongoing monitoring since October 1993. The monitoring included surveys of waterbird use of the pond and measurements of water depth and salinity. Pond management included intake of water from Coyote Creek and outlet of water to Salt Marsh Harvest Mouse Marsh Management Area to maintain a pond water level that encouraged maximum waterbird use.

The waterbird pond continued to be used extensively by a large number of birds (35,276) of 48 different species as wintering habitat, spring and autumn migratory stopover habitat, and less so as breeding habitat. Overall bird use has continued to decline since the second year of the study (from a mean of 1333 in 1994-1995 to a mean of 739.7 in 1999-2000), with a continued decrease in shorebirds in particular. Generally, shorebirds were most abundant during spring and autumn migration, while waterfowl numbers were highest during fall migration and gulls were most numerous in winter.

Since the 1995 floods deposited sediments in the pond, it has been necessary to adjust the water management to maintain water depths at the target elevations (from 2.6 NGVD in 1993-1994 to 2.95 in 1999-2000). This increased target water level has been difficult to maintain during times of hot, dry weather, as seen in the low pond water depths in September 1999 and May 2000. It may be necessary to remove sediment if it becomes increasingly difficult to maintain target water levels in the pond. Removal activities should be planned to reduce impacts on pond inhabitants by avoiding the breeding season and fall and spring migratory seasons.

2. INTRODUCTION

The Santa Clara Valley Water District Waterbird Pond is located along Reach 1A of lower Coyote Creek. It was constructed as part of the Lower Coyote Creek Flood Control Project to mitigate for impacts of the project on bird use of an adjacent salt pond (Duke et. al 1996). Bird use of the waterbird pond has been monitored since 1993 (Otahal and Jaramillo 1998a). The purpose of this monitoring program is to determine the extent of use of the pond as stopover and winter habitat by migratory waterbirds, especially waterfowl and shorebirds (H.T. Harvey and Associates 1992). Salinity and water levels were monitored to maintain characteristics favorable for migratory waterbirds.

This report documents three monitoring tasks: 1) weekly surveys of birds present on the pond, 2) bi-monthly pond level measurements in feet (ft) NGVD (National Geodetic Vertical Datum) and 3) weekly pond salinity measurements. This report summarizes the findings of the June 1999 through June 2000 survey period.

3. METHODS

3.1 *Bird Census*

Avian use of the pond was monitored using total area counts, counting all individual waterbirds using the pond at one time. Non-waterbirds using the pond, for example swallows and raptors, were not included in surveys. Each survey took approximately one hour and was conducted in the morning hours irrespective of tide level. The observer traveled around the circumference of the pond and observed from three set points, enabling complete visual coverage of the pond. Surveys were conducted using binoculars and a spotting scope.

TABLE 1. Species, totals and mean number per survey observed during the June 1999 - June 2000 study period, separated by group.					
SHOREBIRDS:			WATERFOWL:		
SPECIES	TOTAL	MEAN PER CENSUS	SPECIES	TOTAL	MEAN PER CENSUS
UNIDENTIFIED DOWITCHER	7695	153.90	NORTHERN SHOVELER	7187	143.74
AMERICAN AVOCET	4519	90.38	GADWALL	1172	23.44
WESTERN SANDPIPER	2708	54.16	MALLARD	612	12.24
BLACK-NECKED STILT	1139	22.78	RUDDY DUCK	395	7.90
LEAST SANDPIPER	332	6.64	GREEN-WINGED TEAL	201	4.02
WILLET	121	2.42	CINNAMON TEAL	187	3.74
KILLDEER	98	1.96	NORTHERN PINTAIL	147	2.94
WILSONS PHALAROPE	79	1.58	CANADA GOOSE	62	1.24
MARBLED GODWIT	61	1.22	GREATER SCAUP	19	0.38
GREATER YELLOWLEGS	48	0.96	REDHEAD	6	0.12
DUNLIN	24	0.48	BLUE-WINGED TEAL	4	0.08
SEMIPALMATED PLOVER	5	0.10	BUFFLEHEAD	3	0.06
LESSER YELLOWLEGS	4	0.08	CANVASBACK	3	0.06
RED-NECKED PHALAROPE	2	0.04	AMERICAN WIGEON	1	0.02
LONG-BILLED CURLEW	1	0.02	COMMON GOLDENEYE	1	0.02
PECTORAL SANDPIPER	1	0.02	TOTAL	10,000	200.00
TOTAL	16,837	336.74	PROP. OF GRAND TOTAL	28.3	
PROP. OF GRAND TOTAL	47.7		MAXIMUM PER SURVEY	1,007	
MAXIMUM PER SURVEY	1,465		MINIMUM PER SURVEY	2	
MINIMUM PER SURVEY	0		NUMBER OF SPECIES	15	
NUMBER OF SPECIES¹	17				
GULLS:			OTHER WATERBIRDS:		
SPECIES	TOTAL	MEAN PER CENSUS	SPECIES	TOTAL	MEAN PER CENSUS
CALIFORNIA GULL	4964	99.28	AMERICAN COOT	790	15.80
HERRING GULL	1983	39.66	COMMON MOORHEN	21	0.42
RING-BILLED GULL	441	8.82	SNOWY EGRET	20	0.40
THAYER'S GULL	166	3.32	GREAT BLUE HERON	12	0.24
GLAUCOUS-WINGED GULL	12	0.24	GREAT EGRET	9	0.18
WESTERN GULL	8	0.16	PIED-BILLED GREBE	2	0.04
FORSTER'S TERN	7	0.14	TOTAL	854	17.08
MEW GULL	3	0.06	PROP. OF GRAND TOTAL	2.4	
BONAPARTE'S GULL	2	0.04	MAXIMUM PER SURVEY	94	
GLAUCOUS GULL	1	0.02	MINIMUM PER SURVEY	0	
TOTAL	7,587	151.74	NUMBER OF SPECIES	6	
PROP. OF GRAND TOTAL	21.5				
MAXIMUM PER SURVEY	1,526				
MINIMUM PER SURVEY	0				
NUMBER OF SPECIES	10				
OVERALL TOTAL	35,278	705.56			
MAXIMUM BIRDS PER SURVEY	1,844				
MINIMUM BIRDS PER SURVEY	78				
TOTAL NUMBER OF SPECIES¹	48				
¹ NOTE THAT THE TWO DOWITCHER SPECIES (SHORT-BILLED DOWITCHER AND LONG-BILLED DOWITCHER) ARE LUMPED UNDER UNIDENTIFIED DOWITCHER HERE AND THEREFORE CONSTITUTE TWO SPECIES.					

TABLE 2. Species, totals and mean number per survey observed during the July 1999 - June 2000 study period, separated by group.

SHOREBIRDS:			WATERFOWL:		
SPECIES	TOTAL	MEAN PER CENSUS	SPECIES	TOTAL	MEAN PER CENSUS
UNIDENTIFIED DOWITCHER	7693	167.24	NORTHERN SHOVELER	7187	156.24
AMERICAN AVOCET	3926	85.35	GADWALL	884	19.22
WESTERN SANDPIPER	2707	58.85	MALLARD	369	8.02
BLACK-NECKED STILT	1124	24.43	RUDDY DUCK	369	8.02
LEAST SANDPIPER	332	7.22	GREEN-WINGED TEAL	201	4.37
WILLET	121	2.63	CINNAMON TEAL	160	3.48
KILLDEER	92	2.00	NORTHERN PINTAIL	107	2.33
WILSONS PHALAROPE	79	1.72	CANADA GOOSE	62	1.35
MARBLD GODWIT	61	1.33	GREATER SCAUP	19	0.41
GREATER YELLOWLEGS	48	1.04	REDHEAD	2	0.04
DUNLIN	24	0.52	BLUE-WINGED TEAL	4	0.09
SEMIPALMATED PLOVER	5	0.11	BUFFLEHEAD	3	0.07
LESSER YELLOWLEGS	4	0.09	CANVASBACK	3	0.07
LONG-BILLED CURLEW	1	0.02	AMERICAN WIGEON	1	0.02
PECTORAL SANDPIPER	1	0.02	COMMON GOLDENEYE	1	0.02
RED-NECKED PHALAROPE	1	0.02	TOTAL	9372	203.74
TOTAL	16219	352.59	PROP. OF GRAND TOTAL	27.5	
PROP. OF GRAND TOTAL	47.7		MAXIMUM PER SURVEY	1,007	
MAXIMUM PER SURVEY	1,465		MINIMUM PER SURVEY	2	
MINIMUM PER SURVEY	0		NUMBER OF SPECIES	15	
NUMBER OF SPECIES ¹	17				
GULLS:			OTHER WATERBIRDS:		
SPECIES	TOTAL	MEAN PER CENSUS	SPECIES	TOTAL	MEAN PER CENSUS
CALIFORNIA GULL	4964	107.91	AMERICAN COOT	790	17.17
HERRING GULL	1983	43.11	SNOWY EGRET	20	0.43
RING-BILLED GULL	441	9.59	COMMON MOORHEN	16	0.35
THAYER'S GULL	166	3.61	GREAT BLUE HERON	11	0.24
GLAUCOUS-WINGED GULL	12	0.26	GREAT EGRET	9	0.20
WESTERN GULL	8	0.17	PIED-BILLED GREBE	2	0.04
FORSTER'S TERN	7	0.15	TOTAL	848	18.43
MEW GULL	3	0.07	PROP. OF GRAND TOTAL	2.5	
BONAPARTE'S GULL	2	0.04	MAXIMUM PER SURVEY	94	
GLAUCOUS GULL	1	0.02	MINIMUM PER SURVEY	0	
TOTAL	7587	164.93	NUMBER OF SPECIES	6	
PROP. OF GRAND TOTAL	22.3				
MAXIMUM PER SURVEY	1,526				
MINIMUM PER SURVEY	0				
NUMBER OF SPECIES	10				
OVERALL TOTAL	34,026	739.70			
TOTAL NUMBER OF SPECIES ¹	48				

¹NOTE THAT THE TWO DOWITCHER SPECIES (SHORT-BILLED DOWITCHER AND LONG-BILLED DOWITCHER) ARE LUMPED UNDER UNIDENTIFIED DOWITCHER HERE AND THEREFORE CONSTITUTE TWO SPECIES.

Table 6

Rare, Endangered, or Locally Unique Birds in the Project Area

Species ¹	Reach			
	1A ²	1B ²	2	3
California Brown Pelican (FE, CE, CP)	X			
Double-crested Cormorant (SC-2)	X			
California Gull (SC-3)	X	X		
Northern Harrier (SC-2)	X	X	X	
Sharp-shinned Hawk (SC-2)		X		
Cooper's Hawk (SC-2)		X		
Black-shouldered Kite (CP)		X	X	X
Golden Eagle (CP, SC-3)		X		X
California Clapper Rail (FE, CE, CP)	X	X		
Western Bluebird (CSE)		X	X	
Yellow Warbler (SC-2)		X		
Salt Marsh Yellowthroat (CSE)	X	X	X	X

¹Federal Endangered (FE), California Endangered (CE), California Fully Protected (CP), California Special Concern (SC-1, SC-2, SC-3), and California Standard Exception List (CSE)

²REACH 1A is the stretch of Coyote Creek north of Newby Island and downstream of Lower Pentencia Creek; flood-control facilities are not proposed here.

REACH 1B is Coyote Slough and included in the three feasible, structural alternatives.

Table 7

Rare, Endangered, or Locally Unique Birds
in Vicinity of Project Area

Species¹

White Pelican (SC-1)

Peregrine Falcon (FE, CE, CP)

California Black Rail (CR, CP)

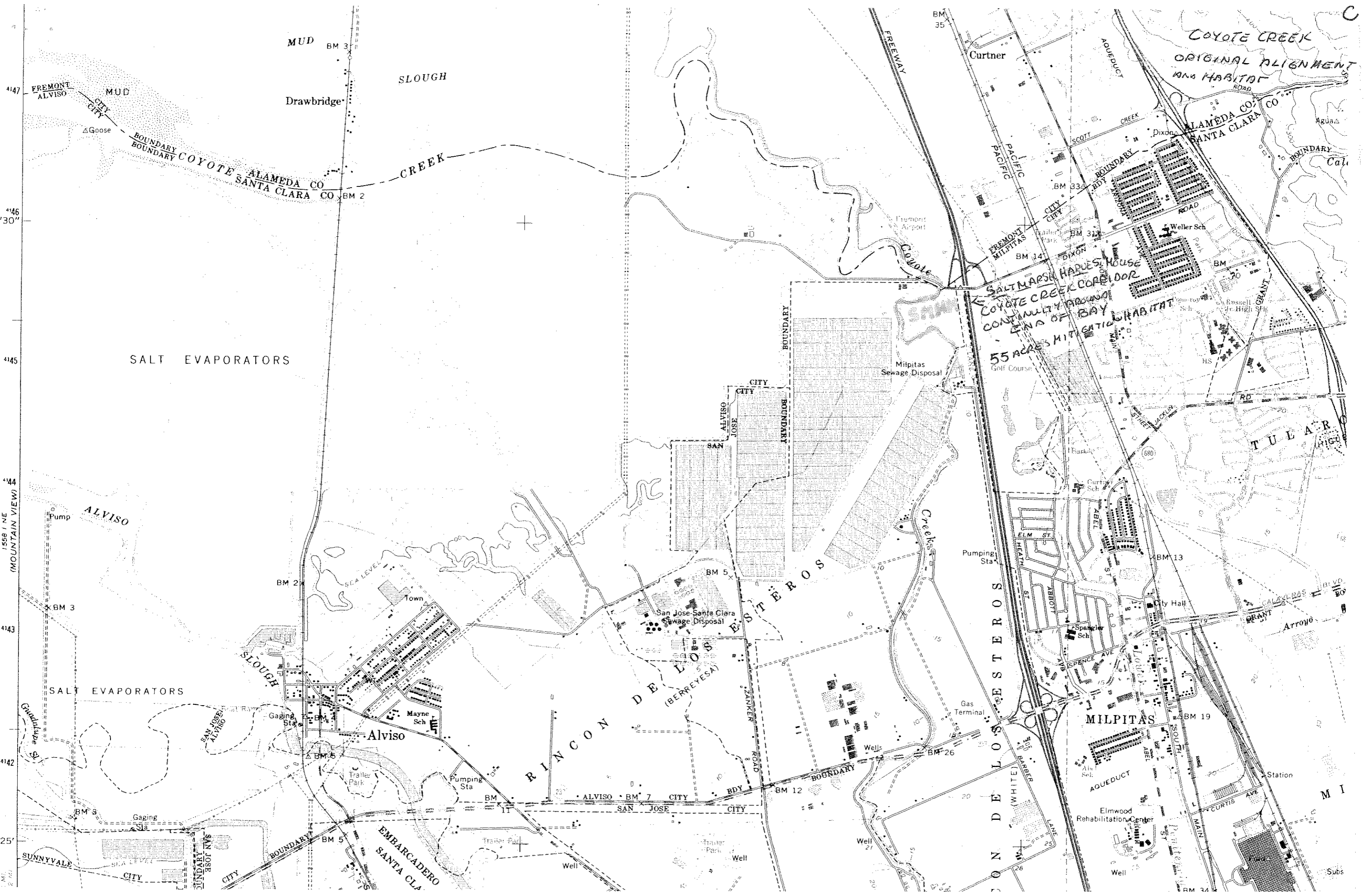
Snowy Plover (SC-2)

California Least Tern (FE, CE, CP)

Burrowing Owl (SC-2)

Short-eared Owl (SC-2)

¹Federal Endangered (FE), California Endangered (CE), California Fully Protected (CP), California Special Concern (SC-1, SC-2, SC-3), and California Standard Exception List (CSE).



417
416
30"
415
414
1566 1 NE (MOUNTAIN VIEW)
413
412
25'

SALT EVAPORATORS

SALT EVAPORATORS

MUD
Drawbridge
SLOUGH

BOUNDARY COYOTE CREEK
BOUNDARY ALAMEDA CO
BOUNDARY SANTA CLARA CO

ALVISO

Alviso

RINCON DE LOS ESTEROS
(BERREYESA)

San Jose-Santa Clara
Sewage Disposal

San Jose

ALVISO

CITY

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

FREWAY

PACIFIC

FREMONT MILPITAS

BOUNDARY

MILPITAS

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

Curtner

SCOTT

DIXON

BOUNDARY

BOUNDARY

BOUNDARY

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BOUNDARY

Weller Sch

Russell Jr High Sch

Curry Sch

ABEL

SPENCER AVE

LOBBY

HEATH ST

ELM ST

Pumping Sta

Gas Terminal

Wells

Wells

Wells

Wells

Wells

Wells

Wells

Wells

COYOTE CREEK
ORIGINAL ALIGNMENT
AND HABITAT

ALAMEDA CO
SANTA CLARA CO

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

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BOUNDARY

SALT MARSH HAPLES HOUSE
COYOTE CREEK CORRIDOR
COMMUNITY AROUND
END OF BAY
55 ACRES MITIGATION HABITAT

MILPITAS

AGUEDUCT

Elmwood Rehabilitation Center

Wells

Wells

TULARO

CLAY BAS BLVD

GRANT ST

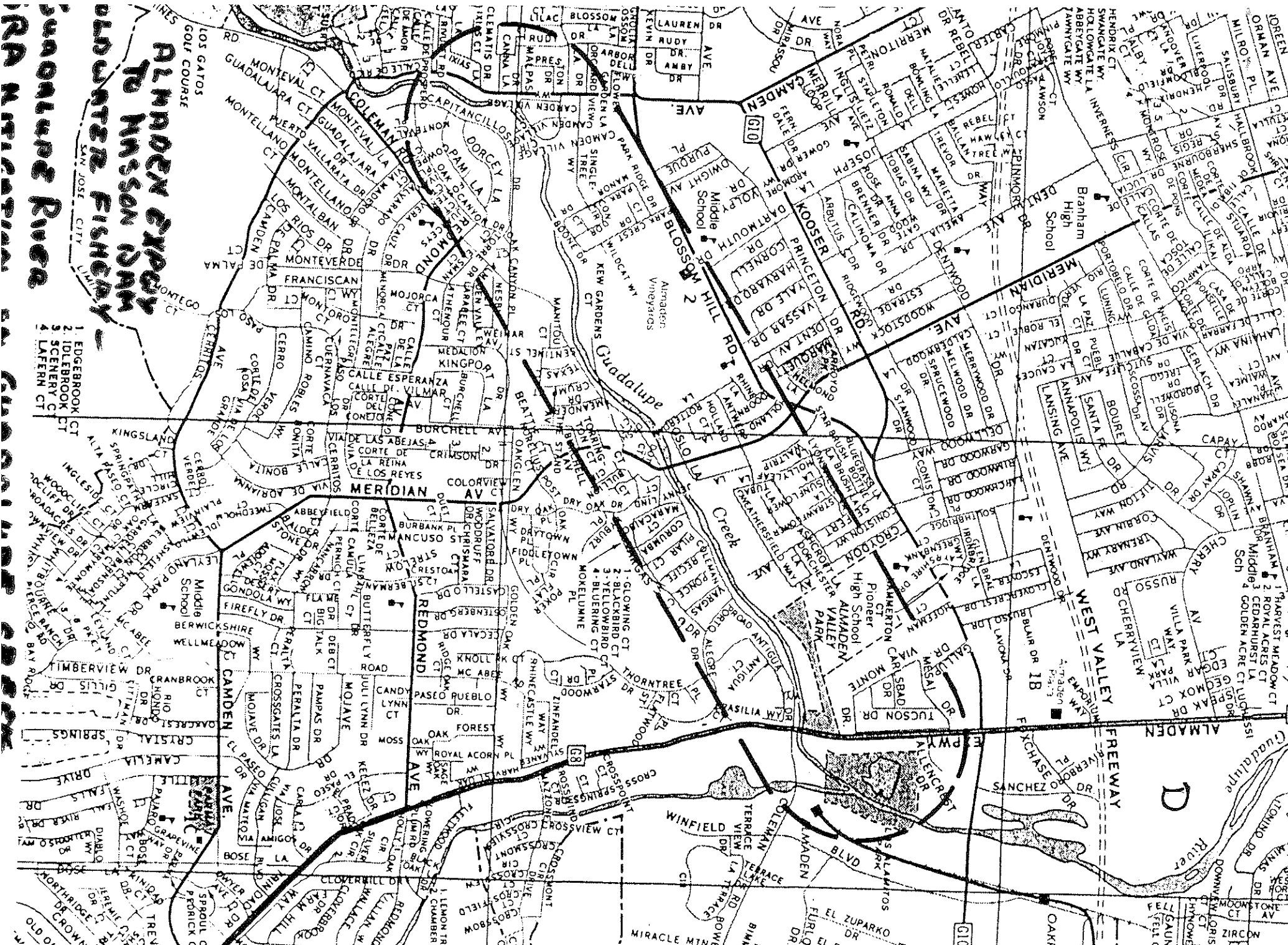
ARRIJO

STATION

CURTIS AVE

Wells

Subs



ALMADEN EXPOSED TO WNSON DAM
DOWNSTREAM FISHERY

OFF-SITE MITIGATION - SRA RIPARIAN SHADE/CANOPY - FOR DOWNTOWN GUADALUPE RIVER PROTECT
SCUD - IN PERPETUITY

Funding a watershed moment in flood plan

State agency tentatively grants \$8M for first of several projects to keep San Francisquito Creek in its banks

BY JASON GREEN
Daily News Staff Writer

A funding drought for a plan to prevent San Francisquito Creek from overtopping its banks could be over.

The California Department of Water Resources on Wednesday recommended awarding \$8 million to the San Francisquito Creek Joint Powers Authority for construction of the first in a series of projects to stave off a 100-year flood.

Scheduled to be built in two phases, the San Francisco Bay to Highway 101 project will ramp up flood protection for East Palo Alto and Palo Alto by widening the mouth of the creek, relocating levees and excavating the channel, said Len Materman, the authority's executive director.

"We're pretty excited about this," Materman said of the \$8 million award. "It represents a huge infusion of cash to start construction."

The funding, however, isn't locked in quite yet. The Department of Water Resources will take public comment on its award recommendations over the next two weeks. Of the 41 agencies that applied for funding in April, 23 didn't make the cut, and Materman expects them to ask the state agency for a change of heart.

Looking to retain its award, the authority's board of directors approved a letter Thursday thanking the state agency and underscoring the importance of the Bay-101 project.

"This vital funding will allow us to begin to solve the flooding risk since a storm damaged approximately 1,700 properties in our watershed 13 years ago. The project recommended for funding will protect residents living below sea level in homes with roof lines below an uncertified levee, and protect major local, state, and federal infrastructure," the letter states.

The award won't cover the full cost of the Bay-101 project, which could total \$24 million, but it represents a major

ON THE WEB
For more information about the San Francisquito Creek Joint Powers Authority, visit www.sfcjpa.org

CREEK, page A4

Future Project

the Daily News

CREEK

From page A1

step forward for a flood-control plan that has historically struggled for funding, said Palo Alto Council Member Pat Burt, who sits on the authority's board of directors.

"It's probably the single-largest outside funding we've received," Burt said.

The authority also hopes to apply \$10 million in Measure B funds toward the project, Burt said. The remaining gap could be plugged with matching funds or potentially through an assessment district, he added.

Formed shortly after the creek flooded in 1998, the authority changed course with the hiring of Materman in 2008, Burt said. Instead of focusing on an all-encompassing plan backed by congressional dollars, the authority has developed a series of flood-control projects and pursued alternate sources of funding from agencies such as the Department of Water Resources.

So far, the strategy appears to be working, Burt said. Palo Alto has secured a grant to replace the Newell Road bridge and Menlo Park is working on a similar effort with the Middlefield Road bridge. Both bridges are among four that will need to be replaced to increase the creek's capacity to handle a 100-year flood.

Meanwhile, Caltrans is steaming forward with a plan to add a second culvert where the creek passes under Highway 101.

"We've been able to cobble together some pieces that didn't seem possible ... when this change in strategy occurred," Burt said.

The Bay-101 project is the most important piece of the puzzle, Materman said. Without it, upstream improvements, such as the removal of bottlenecks, won't be effective. With the funding secured, construction could start sometime next year.

"We're getting much closer to turning shovels on a project that will make the area safer," said Materman, noting that the ultimate goal is to nullify the flood insurance requirement for 5,300 properties in Palo Alto, Menlo Park and East Palo Alto.

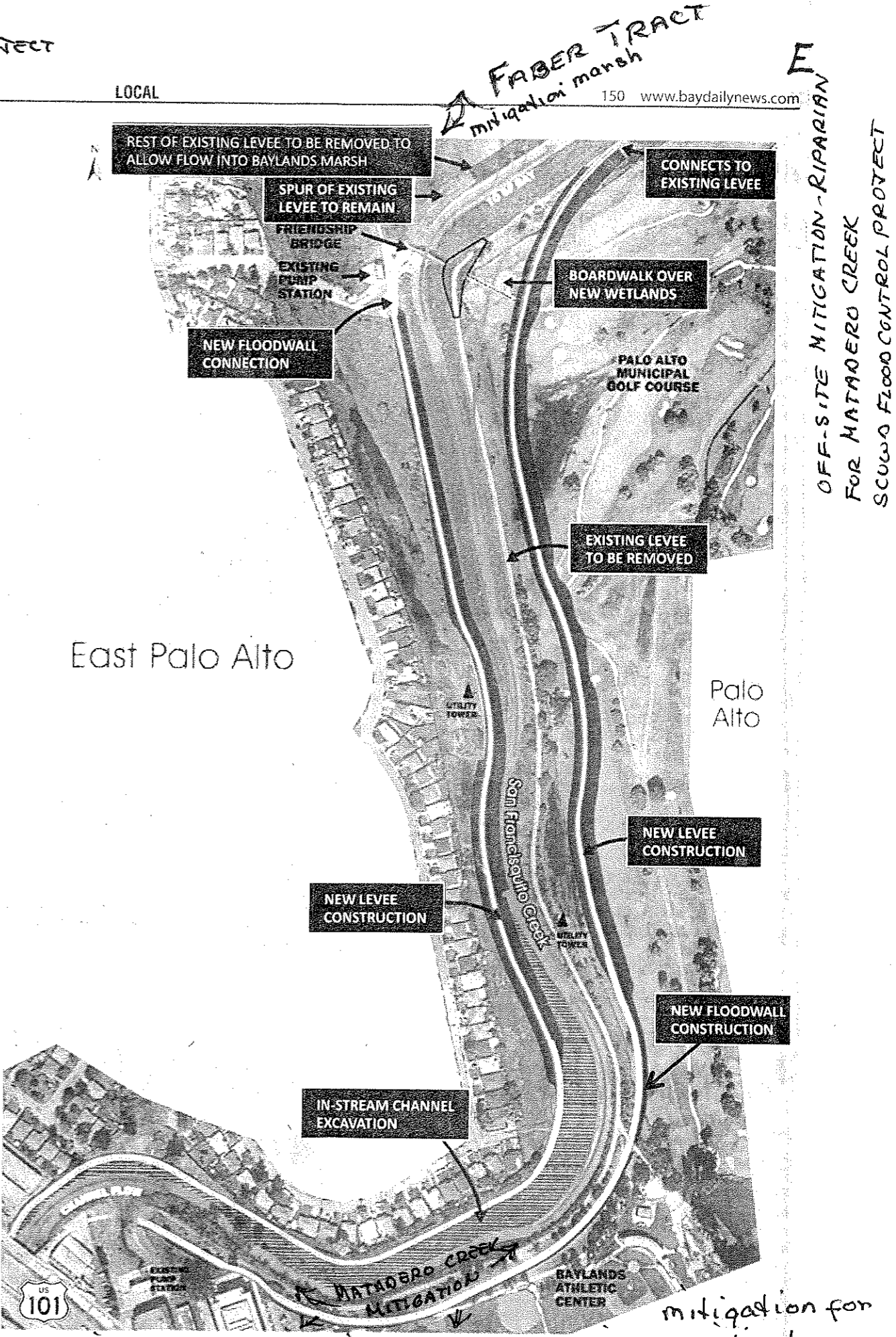
Palo Alto resident Lorraine Brown welcomed news of the progress Friday. Her house was among those damaged when the creek spilled out of its banks in 1998. She recalled passing her young children through a window to a firefighter as a combination of creek and storm drain waters flooded her Walter Hays Drive residence.

"I will be the happiest person in the world," she said, "if my house never floods again."

Email Jason Green at jgreen@dailynews.com.

Image courtesy of the San Francisquito Creek Joint Powers Authority

LOCAL



SCWS - mitigation in perpetuity -

mitigation for impacted mitigation

OFF-SITE MITIGATION-RIPARIAN FOR MATADERO CREEK SCWS FLOOD CONTROL PROJECT

Response to Comment K-1

SCVWD appreciates the maps and information that were provided with this comment. Because these maps are associated with Comment H-5, please also refer to the response to Comment H-5.

The salt marsh harvest mouse map from the South Bay Salt Ponds Restoration Project (provided with the comment) was used to help prepare Figure 3.3-22 of the DSEIR.

The DSEIR also reflects any relevant information regarding the California clapper rail and California least tern that are provided on the 1978 map. With respect to the comment that “as bay waters rise these species are retreating to uplands and up sloughs inland to lower reaches of San Tomas Aquino, Sunnyvale East, Sunnyvale West, Stevens Creek, and Matadero Creek,” SCVWD is not aware of any records of these species, nor any observations reported by birders or others, to suggest that these species are occurring farther up these creeks now than they did historically.

The information provided regarding SCVWD’s salt marsh harvest mouse, San Francisco common yellowthroat, and wetland mitigation areas, as well as bird use of the Coyote Creek Reach 1A waterbird pond, is noted. These areas, and the species that use them, were all considered in the DSEIR analysis.

The comment suggests that maintenance in the reach of Guadalupe Creek (between Almaden Expressway and Masson Dam) and in Los Gatos Creek need to be conservative to protect coldwater fisheries (e.g., from the loss of Shaded Riverine Aquatic habitat). SCVWD agrees that Shaded Riverine Aquatic habitat is important to limit maximum temperatures in certain reaches of stream, although as discussed under Impact BIO-8, canopy openings that would provide more light also would increase productivity, which would directly benefit steelhead.¹

The comment asks whether the future San Francisquito Creek flood protection project, and the current maintenance of that creek, may impact mitigation habitat within the Faber Tract. The San Francisquito Creek project’s CEQA document would analyze the effects of the project on the Faber Tract and on existing riparian mitigation associated with the Matadero/Barron Creeks Long-Term Remediation Project. The San Francisquito Creek Joint Powers Authority is the lead agency for that project. San Francisquito Creek is not connected to the Faber Tract, so present maintenance activities would not impact the Faber Tract.

This comment lists several mitigation areas that would be affected by SMP Update activities. In some cases, such as *Lepidium* management in the salt marsh harvest mouse mitigation habitat in the Coyote Creek bypass, SMP Update activities would help to maintain the functions and values of the mitigation site. Similarly, vegetation management activities along stream reaches that were so heavily shaded as to adversely affect stream productivity may create canopy openings that would increase productivity and benefit steelhead.²

¹ Casagrande, op. cit.

² Ibid.

Although the comment briefly references mitigation sites, the comment does not pose a question or identify any deficiency in the DSEIR, and thus a response is not possible.

Michael Stevenson

From: John Beall [jhnbeall@yahoo.com]
Sent: Wednesday, September 28, 2011 1:58 PM
To: smp_update
Subject: Comments for Stream Maint. Program DSEIR
Attachments: TUC BMP Statements_110825.xls

Sunny,

L1 My comments include the attached excel file with Draft BMP's for invasive plants in right of ways. It is being developed by a committee of the California Invasive Plant Pest Council. The SCVWD has turned its levees and our streams into a highway for invasive plants. Yet the Stream Maint Program DSEIR does not mention how they will work to avoid encouraging invasive plants from propagating while doing stream maint.work. Constantly sprayed, cut, and disturbed streams and levees are a magnet and a highway for new weeds to infest our county.

The SCVWD has done extensive surveys of plants along creeks over the last 75 years. These plant lists should be checked for "rare" noxious weeds (CDFA and USDA lists). If listed weeds have been found at some point in time the SCVWD should revisit the sites to see if they still exist at the sites (or if the weeds have spread or no longer exist at the sites).

Thanks,
John Beall
56 Centre st. apt 10
Mountain View Ca 94041

John Beall

Planning Statements

BMP#	BMP Statement	Reviewer's Comments	Source BMP Statements	Source
PL1	Plan to integrate cleaning routines in all land management activities.			
PL2	Survey for invasive plant infestations before implementing activities.		Prior to implementing land management activities scout for, locate and document invasive plant infestations.	WI DNR Roadside Invasives, BMP #SD1; p. 11
PL3	Plan to minimize the movement of viable invasive plant material during activities.			
PL4	Schedule activities to maximize the effectiveness of control efforts and minimize potential for introduction and spread of invasive plants.		Plan activities to limit the potential for introduction and spread of invasive species, prior to construction.	WI DNR Roadside Invasives, BMP #SD3; p. 13
PL5	Plan to minimize disturbance during activities.			
PL6	Monitor sites, transport routes and right-of-ways during day-to-day activities and post-management activities; determine necessary treatments based on the presence of invasive species.		Monitor and evaluate the success of revegetation in relation to project plans and specifications.	National Park Service Pacific West Region Weed Prevention in Parks Best Management Practices for Maintenance & Construction Activities, p. 11, Post-work Revegetation, Monitoring
PL7	Inform and educate the general users in the area about common invasive plants, their impacts, and ways to prevent their introduction and spread.			
PL8	Prevention for inter-agency communication, design, planners			
TEV1	Integrate cleaning routines of tools, equipment, vehicles and pack animals into all activities.			
TEV2	Before starting field work, identify areas where tools, equipment and vehicles can be cleaned.		Identify sites where heavy equipment and vehicles can be cleaned.	National Park Service Pacific West Region Weed Prevention in Parks Best Management Practices for Maintenance & Construction Activities, p. 4
TEV3/4	Inspect and clean tools, equipment, vehicles and pack animals before and after each activity for soil and plant material.			
CB1	Wear clothing, gear, and footwear that prevents the spread of soil and plant material.			

CB2	Carry appropriate cleaning equipment to remove soils, seeds, and plant material.
CB3	Clean clothing and footwear in areas that are already infested with invasive plants, and easily accessible for monitoring for new infestations.
CB4	Clean clothing, gear, and footwear before leaving an area infested with invasive plants.
WD1	Designate waste disposal areas for invasive plant materials.

Carry appropriate equipment (i.e. wire brush, small screwdriver, boot brush) to help remove soils, seeds, plant parts, seeds and invertebrates.	<i>WI DNR Roadside Invasives, BMP #VM6c; p. 20</i>
Clean clothing and all equipment in areas that are easily accessible for monitoring and control if necessary.	<i>WI DNR Roadside Invasives, BMP #VM5c; p. 20</i>
Plan for appropriate cleaning of clothing, footwear, and gear and inform workers about possible seeds carried on their clothing, footwear and gear.	<i>WI DNR Roadside Invasives, BMP #VM6b; p. 20</i>
Designate an area for dumping woody material if it is infested with invasive species.	<i>WI DNR Roadside Invasives, BMP #TM9a; p. 26</i>

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Response to Comment L-1

The current extent of invasive plants in the Project Area is discussed throughout Section 3.3, *Biological Resources* of the DEIR. In particular, starting on page 3.3-32, a discussion of various invasive species currently present in the Project Area is presented. Impact BIO-1 includes a discussion of the potential to increase invasive species cover (see the second paragraph on page 3.3-69). Impact BIO-44 specifically discusses invasive species. Reviewers are directed to review this impact discussion and Mitigation Measure BIO-16 in particular, which provides a detailed, two-pronged approach to addressing invasive plants in the county. This measure incorporates the California Invasive Pest Council's guidance.

See also the discussion on the riparian planting component of the SMP Update mitigation program (revised Appendix C of the FSEIR, Volume II). This component would involve increasing the quality and quantity of native-dominated riparian plants throughout the county. This program has been developed to inhibit re-colonization by invasive plant species.

In addition, several BMPs address invasive species. BMP VEG-2 describes proper disposal of removed invasive species to prevent further propagation. BMP REVEG-2 states that revegetation and replacement plantings would consist of locally collected native species.

SCVWD staff, trained to recognize invasive and noxious weeds, would conduct annual surveys of creeks maintained under the SMP Update. As discussed in the DSEIR, SMP Update Manual, and the compensatory mitigation program (including the Invasive Plant Management Program and the Riparian Planting Program), the SMP Update would incorporate appropriate measures to survey, monitor, and reduce the extent of invasive plants throughout the county while elevating the quality and quantity of native riparian plants.

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September 28, 2011

Sunny Williams
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686
E-mail: smp_update@valleywater.org

Re: SMP Update EIR Comments

Dear Ms. Williams,

Please find attached the Guadalupe Coyote Resource Conservation District's comments on the Santa Clara Valley Water District's "Stream Maintenance Program Update 2012–2022 Draft Subsequent Environmental Impact Report." Thank you for the opportunity to comment, and for extending the deadline for comment.

Please contact Nancy Bernardi (gcrd@pacbell.net) with any questions regarding these comments.

Sincerely,



Julie Gantenbein
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2140 Shattuck Ave., Suite 801
Berkeley, CA 94704
(510) 296-5590
jgantenbein@waterpowerlaw.com

Attorney for the Guadalupe Coyote
Resource Conservation District

**Comments on Stream Maintenance Program Update 2012–2022 Draft Subsequent
Environmental Impact Report**

**Carson Cox
Consultant, Guadalupe-Coyote Resource Conservation District
September 28, 2011**

The Guadalupe Coyote Resource Conservation District provides these comments on the Santa Clara Valley Water District's (SCVWD) Stream Maintenance Program Update 2012–2022 Draft Subsequent Environmental Impact Report (2012 SMP DSEIR).

The GCRCD works to promote preservation of species diversity and management of riparian corridors for protection of wildlife, aquatic resources and water quality. We have become involved in the flood control projects on the Guadalupe River in furtherance of this work.

We have significant concerns regarding the environmental impacts of SCVWD and U.S. Army Corps of Engineer's construction, operation and maintenance of the flood control projects on the Guadalupe River. While we recognize the importance of flood protection, we disagree with the manner in which it has been carried out on the Guadalupe River to date. We believe that the geomorphological function of the river has been severely compromised, with corollary impacts to fisheries, fishery habitat and recreation. We believe a better strategy for flood protection would be to remove infrastructure from the floodplain, and restore geomorphological function to the river. We will continue to advocate for this strategy, but we recognize there are limitations on its implementation that should be addressed collaboratively. So, we remain committed to working with the SCVWD and other jurisdictional agencies to help adaptively manage the flood control projects while we continue to look for opportunities to restore and enhance the geomorphological function of the river for the benefit of flood protection, fisheries and recreation. In the interest of ongoing collaboration, we offer comments and recommendations on the 2012 SMP DSEIR to help assure the 2012-2022 Stream Maintenance Program (2012 SMP) balances environmental protection with the SCVWD's obligations to provide flood protection.

Given the length and complexity of the document, we organize our comments topically.

Process

Annual Work Sequence

The GCRCD is concerned that the process for design and implementation of SMP activities does not include pre-implementation consultation with appropriate resource agencies to ensure that Best Management Practices (BMPs) are incorporated and potential environmental impacts are avoided or minimized. We request that the 2012 SMP process be revised to include an annual pre-implementation review of proposed work with resource agencies to discuss site-specific requirements, environmental constraints, and BMPs.

The 2012 SMP provides a three-phase process for work planning, implementation and review:

1. Work Plan Development
 - Initial survey and identification of work needs
 - Site assessment and project designs for proposed projects
 - Annual Work Plan submitted to agencies, with additional Notices of Proposed Work (as needed)
2. Implementation
 - Pre-maintenance planning, logistics, site-specific requirements, constraints, and BMPs
 - Work implemented during the summer season, or as described in the work order
3. Annual Reporting
 - Post-Construction Report (PCR) summarizing work conducted and mitigation monitoring
 - End-of-year meeting with SCVWD staff to review prior year's work

DSEIR, § 2.3.1, pp. 2-25 - 2-30, Fig. 2-41.

The proposed 2012 SMP process includes an end-of-year “lessons learned meeting” between resource agency and SCVWD staff to review the Post-Construction Report and to “evaluate the effectiveness of both resource protection and maintenance methods used in the preceding construction season.” *Id.*, p. 2-30. While we agree there is value in a post-action review, we submit that there is equal or greater value in pre-action coordination designed to proactively avoid impacts. The preference should be for avoidance rather than mitigation of impacts.

We believe that a step for early resource agency review could be incorporated into the SMP process without causing undue delays. Phase 1 of the 2012 SMP Annual Work Sequence already proposes that “[p]re-work meetings would be held with appropriate SCVWD staff to discuss site-specific requirements, environmental constraints, and BMPs.” *Id.*, § 2.3.1, p. 2-25.

Agency consultation could be incorporated into this step.

M1

Agency consultation is necessary to assure the SCVWD properly exercises its broad discretion under the program. For example, BMP VEG-3: Use Appropriate Equipment for Instream Removal states: “[w]hen using heavy equipment to cut or remove instream vegetation, low ground pressure equipment, such as tracked wheels will be utilized to reduce impacts to the streambed.” *Id.*, Table 2-12, p. 2-70. The BMP does not specify when the use of heavy equipment may or may not be appropriate, or what type of wheel to use under different conditions. We understand that BMPs must be broad enough to permit general application. However, the potential environmental impacts from the use of heavy machinery in a stream will be significant under many circumstances and potential impacts should be discussed with regulatory agency staff prior to implementation.

Over the last decade the GCRCD has commented on a number of SMP actions which we believe have resulted in unintended, but significant, impacts to the stream. A simple review process with regulatory agency staff could ensure that all relevant information, including actions necessary to maintain project features and avoid or mitigate potential impacts to natural resources, are fully considered prior to the action.

Public Outreach

M2

The Public Outreach BMP states, “[l]ocal governments (cities and County) will be notified of scheduled maintenance work. The annual work plan will be submitted to the public works departments, local fire districts, and the District’s Zone Advisory Committee.” *Id.*, Table 2-12, p. 2-65. The GCRCD is a public agency constituted pursuant to the Public Resources Code §§ 9151 *et seq.* We respectfully request that notification of scheduled maintenance work and a copy of the annual work plan be provided to the GCRCD as an interested government agency.

Notification

M3

The Bank Stabilization Post-Construction Maintenance BMP (BMP BANK-3) states, “[t]he District may maintain or repair bank stabilization projects that are less than 2 years old that are damaged by winter flows. The District will notify the regulatory agencies 24 hours prior to beginning the work and the work will be reported as part of the Post-Construction Report submitted by January 15 of each year or if necessary, the subsequent year.” *Id.*, Table 2-12, p. 2-71. The above referenced 24-hour notice period will not permit meaningful review of the proposed action or alternatives.

The GCRCD is concerned that without a meaningful review by regulatory agencies there will be a tendency to repeat the initial maintenance treatment regardless of its effectiveness. We therefore request that the BMP be revised to include a reasonable review period (generally 30 days or more) for repair of maintenance sites within the first two years of project completion, and include an assessment of causal factors of damage and consideration of alternate design approaches. Resource agency review and consideration of both root causes of project damage and alternate design approaches for avoidance of future damage will help insure that design limitations are identified and corrected. Although we recognize that this recommendation will require additional planning and coordination by SCVWD staff, taking the time to properly

M3



identify the cause of damage will help make the program more efficient, economical and environmentally effective long-term.

Impact Assessment and Mitigation Measures

The 2012 SMP DSEIR discusses a number of potentially significant direct and cumulative project impacts, as well as the mitigation measures and BMPs designed to reduce or avoid these impacts. However, the GCRCD is concerned that several potentially significant impacts, particularly on salmonid habitat, are not adequately addressed. Specifically, we believe that the following issues need to be more thoroughly addressed in the Final SEIR document:

1. Impacts to Chinook salmon and necessary mitigation;
2. Direct disturbance of steelhead and Chinook habitat from heavy equipment in the stream channel;
3. Direct and cumulative impacts from sediment removal activities; and
4. Direct and cumulative impacts from bank stabilization activities.

We describe each of these potential impacts below.

Impacts to Chinook salmon and necessary mitigation

The 2012 SMP DSEIR contains conflicting and inadequately-supported statements regarding the status and occurrence of Chinook salmon in the SMP project area, and does not adequately assess and mitigate for potentially significant impacts to this species from the program.

M4

The DSEIR correctly identifies Chinook salmon as a native species utilizing habitat in the project area for migration, spawning, and rearing. *See* DSEIR, p. 3.3 169-170. The DSEIR also recognizes that a portion of the project area is designated as Essential Fish Habitat (EFH) by the Pacific Fishery Management Council’s *Salmon Fishery Management Plan* under authority of the Magnuson-Stevens Fishery Conservation and Management Act (*id.*, p. 3.3 171-173). Further, the DSEIR recognizes that Chinook salmon, though rare, would be impacted by proposed project activities. *Id.*, p. 3.3-169. These findings indicate that impacts to Chinook habitat from project activities would meet the threshold of significance under state CEQA guidelines as described in Section 3.3.2 Regulatory Setting.

However, the DSEIR also contains statements regarding the status of Chinook in the project area that directly conflict with the above findings. For example, in Section 3.3.4: *Impact BIO-14: Impacts on Non-Special-Status Fish and Amphibians* the DSEIR states, “genetic analysis has confirmed that Chinook in South Bay streams are all derived from hatchery stock.” *Id.*, p. 3.3-169. However, in the subsequent Section 3.3.4: *Impact BIO-15: Impacts on Essential Fish Habitat* the DSEIR states, “although spawning has been documented in SCVWD-maintained creeks, whether up-migrating adults have hatched on these creeks or if the adults that were observed were direct strays from other areas is unknown.” *Id.*, 3.3-171. The second statement, that the natal origin of spawning Chinook is “unknown” directly conflicts with the previous statement that “genetic analysis has *confirmed* that Chinook in South Bay streams are



↑ *all derived from hatchery stock.” Id., p. 3.3-169 (emphasis added). The DSEIR does not cite adequate data to establish this latter assertion. The modern scientific method demands a certain degree of precision and objectivity when analyzing data, and care should be taken to ensure the accuracy of statements made. It does not appear that the impact analysis for Chinook salmon presented in the DSEIR meets standard scientific practices for consistency and objectivity.*

M4 If the natal origin of spawning Chinook is unknown, or if conflicting evidence is on record, the conservative approach under CEQA would be to proceed on the assumption that the population is native or naturalized. *See, e.g., 14 CCR §15064(g) (“[i]f there is disagreement among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant...”)*. The fact that a significant portion of the project area is currently designated by the Pacific Fishery Management Council’s *Salmon Fishery Management Plan* as Essential Fish Habitat only reinforces this approach. The DSEIR however, takes the opposite approach. The document states that Chinook are successfully spawning and rearing in the project area, but finds “[b]ecause no evidence exists that Chinook salmon have naturalized in SCVWD-maintained creeks, Proposed Project activities are not expected to affect adversely the viability of this species’ populations in the Project Area. As a result...impacts on this species would be less than significant.” *Id., p. 3.3-173.*

The DSEIR’s finding (that no evidence exists that Chinook salmon are native or naturalized in the project area and thus no significant impacts can be expected from project activities) is wrong. The GCRCDD has entered evidence into the administrative record establishing the historical presence of self-sustaining Chinook salmon runs in the project area. *See e.g., letter from U.S. Fish and Wildlife Service to U.S. Army Corps of Engineers (June 23, 1995) (Attachment 1); John E. Skinner, A Historical Review of the Fish and Wildlife Resources of the SF Bay Area (prepared on behalf of California Department of Fish and Game) (June 1962) (Attachment 2))*. We acknowledge that historical presence of Chinook in the system does not conclusively establish that the current Chinook run is native and self-sustaining. However, historical presence, in addition to designation of EFH and regular and ongoing use of the project area by Chinook for migration, spawning and rearing, does support our argument that the river can support salmon, and the SCVWD’s actions in operating and maintaining its water supply and flood control projects impact the salmon that are presently in the system. The SCVWD’s participation in the Fish and Aquatic Habitat Collaborative Effort, which commits the SCVWD to spend \$ 42 million to contribute to the restoration of salmon and steelhead in the Guadalupe River and Coyote and Stevens Creek, would also seem to support this argument.

We request that SCVWD revise its CEQA analysis to quantify and evaluate potential impacts to Chinook populations and habitat from project activities, identify available best management practices to avoid these impacts, and develop mitigation measures for unavoidable impacts. We further request that statements in the 2012 SMP DSEIR regarding status and origin on Chinook salmon in the project area be corrected to reflect standards of scientific objectivity.

Equipment in the Stream Channel

M5 ↓ Although the 2012 SMP includes BMPs to reduce impacts from heavy machinery in the stream channel (e.g. VEG-3 and GEN-23), the DSEIR impact assessment does not present an

M5

evaluation of such impacts, nor are impacts to fish habitat from heavy equipment addressed as part of the SMP project's mitigation requirements.

Disturbance from heavy equipment in streams can have significant impacts on fish and benthic macroinvertebrate populations. Salmonids such as steelhead and Chinook are particularly susceptible to such disturbance as these species rely on interstitial spaces in gravels and cobbles for egg and fry development. Salmonid juvenile and adults also depend on macroinvertebrates produced from the same interstitial spaces in gravel habitat as a major food source. Disturbance to these habitat elements by heavy machinery during stream maintenance activities (e.g., bank stabilization, vegetation management, and sediment removal) from direct crushing or filling of interstitial spaces with fine sediment can therefore be reasonably expected to result in significant impacts to steelhead, Chinook salmon and other native fishes.

The GCRCD requests that the 2012 SMP SEIR be revised to include a specific analysis on impacts to fish habitat from heavy machinery use in the active channel. This assessment should include an assessment of impacts to fish habitat in general, as well as specific impacts to Chinook and steelhead spawning and rearing habitat quality and quantity. This assessment should be used to estimate potential impacts from the use of heavy machinery in the active stream channel as part of proposed 2012 SMP activities, assess the adequacy of existing BMPs and propose additional BMPs as appropriate, and evaluate the need for specific mitigation measures to address significant impacts to Chinook and steelhead spawning and rearing habitat quality and quantity.

Sediment Removal Activities

The GCRCD is concerned that the impact assessment mitigation strategy presented in the 2012 SMP DSEIR does not fully address direct and cumulative impacts from sediment removal activities. In addition, the impact assessment and mitigation should include Chinook salmon.

Direct Impacts. The 2012 SMP DSEIR identifies direct impacts from sediment removal activities, including those on salmonid spawning and rearing habitats. To mitigate for these impacts the SCVWD will implement gravel augmentation, described as follows: “[i]f more than 500 square feet of high-quality gravel will be removed along steelhead streams, compensatory mitigation will be provided by the installation of suitable spawning gravel along the affected creek at a 1:1 (mitigation:impact) ratio on a square footage or acreage basis.” DSEIR, *Mitigation Measure BIO-8: Augmentation of Spawning Gravel*, p. 3.3-123-124.

The GCRCD fully supports mitigation for impacts to high-quality gravel. We have long maintained that gravel habitat for Chinook and steelhead in the project area is negatively impacted by ongoing construction, operation and maintenance of SCVWD facilities, thus we welcome the proposal to mitigate for sediment removal activities. However, we are concerned that the DSEIR does not explain how the “500 square feet of high-quality gravel” threshold was established and are concerned that it will not address many, if not most, impacts to Chinook and steelhead habitat from sediment removal activities.

M6

Mitigation Measure Bio-8 presents a number of criteria to determine whether gravel impacted by SMP sediment removal activities is “high-quality” including the criterion “Minimum patch size greater than 1.1 m² (Trush 1991).” *Id.*, p. 3.3-124. However, the DSEIR does not state a scientific basis for finding that mitigation is necessary only when impacts to high quality habitat are in excess of 500 square-feet. The GCRCD questions why mitigation is required only after the 500 square-feet threshold, when Trush 1991 as referenced in the criteria appears to establish that impacts to otherwise high quality gravel over a patch size of 1.1 square-meter, or 11.8 square-feet, is biologically significant. The GCRCD requests that the basis for the 500 square-feet mitigation threshold be assessed and explained, and/or the mitigation threshold for sediment removal activities be refined to conform to the biological patch size significance level established by Trush 1991. Lastly, the GCRCD requests that the impact assessment and mitigation strategy for sediment removal activities be expanded to include Chinook salmon in applicable stream reaches throughout the project area.

Cumulative Impacts. The GCRCD is concerned that the impacts assessment and mitigation strategy do not adequately address cumulative impacts from sediment removal activities on Chinook and steelhead habitats. The 2012 SMP DSEIR does not present an assessment of the impacts of proposed sediment removal activities when added to sediment-related impacts from closely related past, present, and planned flood control and water supply activities. This assessment is necessary in order to identify the full scale of potential impacts, especially to Chinook and steelhead spawning and rearing habitats, and to identify necessary impact avoidance and mitigation strategies.

As a specific example, assessment of cumulative impacts is necessary to be able to calculate the adequacy of the 500 square-foot mitigation trigger for gravel augmentation in mitigation measure Bio-8 discussed above. It is impossible to establish a mitigation threshold for impacts to high-quality steelhead habitat from individual sediment removal actions unless one also understands how gravel/salmonid habitat has been, is being, and likely will be impacted by the operation of water supply and flood control facilities. Past, current and future project impacts to gravel supply throughout the project area dictate the environmental significance of individual sediment removal actions, and thus must be included as a factor in determining appropriate impact avoidance and mitigation strategies.

We request that an assessment of cumulative impacts from related past, present and future flood control and water supply activities be presented, and that impact and mitigation thresholds be designed to address both site-specific and cumulative impacts.

Direct and cumulative impacts from bank stabilization activities

Direct Impacts. The GCRC D is concerned that the DSEIR does not adequately assess potential impacts from bank stabilization activities on fish present in the project area, particularly salmonids. With respect to impacts to steelhead, the DSEIR describes impacts from bank stabilization activities as “difficult to quantify, because stabilization activities cannot be projected and because the magnitude of the impact of stabilization would depend on the type of repair method used and the location of the repair.” DSEIR, p. 3.3-106. Although the DSEIR estimates that approximately 1 mile of bank stabilization work per year will be done throughout the project area, the DSEIR concludes that “little long-term adverse impact to steelhead habitat is expected to occur as a result of 2012–2022 bank stabilization activities.” *Id.*, p. 3.3-106.

Although the GCRC D understands the difficulty in quantifying impacts from maintenance activities that cannot be specifically predicted, there does appear to be an approach available for cumulative assessment of potential impacts from bank stabilization activities. The DSEIR states that the SCVWD “has made a commitment that no more than half of the bank repairs will consist of impervious hardscape bank stabilization work (all watersheds combined) each year.” DSEIR, *Appendix A: 2012 Stream Maintenance Program Manual*, p. 6. Given the estimate of 1 mile of bank stabilization work based on 2002 to 2012 SMP program activities, this could result in up to ½ mile per year of hardscape being installed in the project area from 2012-2022. The DSEIR should use this as a conservative estimate of type and extent of impact to carry out a quantified analysis of proposed bank stabilization activities.

As part of this assessment, mitigation implementation thresholds and rates should be evaluated. For example, *Mitigation Measure BIO-9: Augmentation of Instream Complexity for Non-Tidal Stream Fish* mitigates for the loss of high value habitat features from maintenance activities, including bank stabilization, on a 0.5:1 (mitigation:impact) basis (DSEIR, p.3.3-124-125). No analysis is presented regarding how this basis was developed. The DSEIR should contain an evaluation of whether the 0.5:1 (mitigation:impact) compensatory mitigation basis is sufficient given the scale of potential impacts (i.e. ½ mile of new hardscape per year, or 5 miles of new hardscape over the full project period).

Cumulative Impacts. The above quantified impact assessment approach should be used to evaluate cumulative impacts of bank stabilization activities in conjunction with recent, ongoing and planned flood control and water supply actions. A significant amount of the stream banks in the project area have been armored or otherwise hardened for flood control and water supply purposes in recent years. The 2012 SMP project proposes to harden up to an additional five miles of stream bank between 2012 and 2022 (*DSEIR, Appendix A*, p. 6) which can reasonably be expected to have a significant impact on salmonid habitat, riparian cover, and ecosystem functions. The GCRC D requests that the 2012 SMP SEIR present an evaluation of proposed bank stabilization impacts in the context of these recent, ongoing, and expected stream bank hardening actions.

Best Management Practices

For the 2012 SMP, the SCVWD Board of Directors has established a Water Resources Stewardship Ends Policy stating, “[p]rogram elements are designed to avoid, minimize or mitigate potential impacts in balance with the need to conduct work in streams to carry out the District’s mission.” DSEIR, *Ends Policies – Board of Directors Established, E-4 Water Resources Stewardship, Appendix A*, p. 3. The GCRCD supports this policy and its expression in the development of BMPs for proposed project activities. However, additional BMPs are necessary to prioritize low- environmental- impact maintenance activities, and request that BMPs be reviewed and augmented as appropriate to ensure that the Water Resources Stewardship Ends Policy is achieved.

In addition, the GCRCD has the following specific comments:

Bank Stabilization BMPs. The DSEIR contains only three BMPs for bank stabilization:

- 1) Bank Stabilization Design to Prevent Erosion Downstream
- 2) Concrete Use Near Waterways
- 3) Bank Stabilization Post-Construction Maintenance

Id., p. 2-71.

Given the potentially significant impact of bank stabilization activities (both on an individual activity and cumulative basis) the GCRCD requests that the BMP list be expanded to include specific practices for prioritization of soft bank stabilization approaches that minimize impacts to stream habitats. The DSEIR does contain introductory statements indicating that the SCVWD is in favor of such approaches: “SCVWD favors the use of soft bank stabilization approaches that use bio-technological approaches in place of methods that create more hardened banks.” DSEIR, p. 2-15. However, specific BMPs are necessary to insure that soft bank stabilization practices receive priority during the planning of individual maintenance activities

Management of Animal Damage BMPs. The GCRCD requests that the BMP *Avoid Redistribution of Rodenticides* (DSEIR, *ANI-1*, p. 2-72) be revised to reflect the increased secondary toxicity of new anticoagulant rodenticides. New anticoagulant rodenticides developed in the past four to five years are significantly more toxic than previous generations and pose an increased risk of secondary, non-target species poisoning. Of particular concern is secondary mortality to owls, hawks and other wildlife that may feed on dead or dying rodents containing toxic levels of anticoagulants. The GCRCD requests that the ANI-1 BMP be reviewed and revised as appropriate to reflect the latest BMPs, including restrictions on use, frequency of carcass retrieval interval, and other methods of reducing and avoiding secondary mortality.

Conclusion

Please contact Nancy Bernardi (gcrd@pacbell.net) with any questions regarding these comments.

Sincerely,



Carson Cox

Consultant to the Guadalupe
Resource Conservation District

Attachment II



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services

Sacramento Field Office

1800 Cottage Way, Room E-1803

Sacramento, California 95825-1846

IN REPLY REFER TO:

In Reply Refer To:
PN 21227592

June 23, 1995

District Engineer
Corps of Engineers, San Francisco District
Attention: Regulatory Functions Branch (Molly Martindale)
211 Main Street
San Francisco, California 94105-1905

Subject: Public Notice No. 21227592, Santa Clara Valley Water District,
Ground Water Recharge Project Located on Ten Creeks in Santa Clara
Valley, Santa Clara County, San Jose, California

Dear Sir:

The U.S. Fish and Wildlife Service (Service) has reviewed Public Notice 21227592, dated May 16, 1995. The proposed project if permitted by the U.S. Army Corps of Engineers (Corps) would annually permit the construction and removal of 39 gravel dams and permit the installation of a concrete foundation for a wooden flashboard dam. The proposed dams would be constructed on 10 separate creeks entering the Santa Clara Valley. The proposed permit would be issued for a 5-year period. The following comments have been prepared under the authority, and in accordance with the provisions, of the Fish and Wildlife Coordination Act.

Project Description

The Santa Clara Valley Water District (SCVWD) proposes to place and remove up to 23,834 cubic yards (CY) of gravel annually for the construction of 39 gravel dams. These dams are constructed on an annual basis to impound water for percolation into the groundwater table of Santa Clara Valley.

Gravel dams would be constructed on the following creeks: Coyote Creek (5 dams), Stevens Creek (3 dams), East Little Llagas Creek (3 dams), Tennant Creek (2 dams), Madrone Channel (7 dams), Llagas Creek (3 dams), Los Gatos Creek (4 dams), Saratoga Creek (4 dams), Guadalupe Creek (4 dams), and Guadalupe River (3 dams). Dams constructed on Madrone Channel and lower Coyote Creek would be in place throughout the year unless removed to prevent possible flooding during high water events.

Service Mitigation Policy

Because wetlands in California are relatively scarce due to past and current losses, the riparian, emergent wetlands, and instream habitats within Coyote Creek, Stevens Creek, East Little Llagas Creek, Tennant Creek, Llagas Creek, Los Gatos Creek, Saratoga Creek, Guadalupe Creek, and Guadalupe River, have been identified by the Service as Resource Category 2. These wetlands and instream habitats are of high value to migratory birds, amphibians, and fish. The Service's mitigation goal for this resource category is no net loss of in-kind habitat value, which means that for any habitat value losses due to the project, in-kind habitat/value would be sought. "In-kind replacement" means to provide or manage substitute resources to replace the habitat value of lost resources, where such substitute resources are physically and biologically the

same or closely approximate to those lost.

Wetland and instream habitats within Madrone Channel have been identified as Resource Category 3. The Service's mitigation goal for resource category 3 is no net loss of habitat value while minimizing loss of in-kind values. If losses are likely to occur, then the Service recommends ways to immediately rectify them or reduce or eliminate them over time.

It is the Regional policy of the Service to ensure no net loss of wetland acreage or value, which ever is greater. To offset unavoidable resource losses from acceptable projects, the Service recommends that appropriate mitigation be provided. The Council on Environmental Quality regulations for implementing the National Environmental Policy Act (NEPA) define mitigation to include: 1) avoiding the impact; 2) minimizing the impact; 3) rectifying the impact; 4) reducing or eliminating the impact over time; and 5) compensating for impacts. The Service supports and adopts this definition of mitigation and considers the specific elements to represent the desirable sequence of steps in the mitigation process.

Natural Resources

Historically, the Guadalupe River and other waterways in the Santa Clara Valley probably supported self-sustaining runs of both salmon and steelhead trout. However, modifications to these waterways through urban encroachment and flood control projects have resulted in the loss of riparian and instream habitats. Furthermore, secondary impacts of development has resulted in changes to the annual hydrology, and water quality within these drainages.

Currently, small but significant runs of adult chinook salmon and steelhead trout persist along certain streams within the Santa Clara Valley. Steelhead trout and steelhead redds have been detected in Guadalupe River, Coyote and Upper Penitencia Creeks. Adult chinook salmon and salmon redds have been observed in the Guadalupe River (Instream Recharge Program Draft Environmental Impact Report, 1995). Steelhead trout migrate into freshwater coastal streams from ocean waters to spawn, generally during January, February, and March each year. After spawning, the adults return to the ocean. Young steelhead usually spend 2 years in the stream system before migrating to the ocean. The bulk of the downstream migration of steelhead smolts typically occurs from March through May, although some movement may occur all year. JTE

Salmon have been reported to enter the Guadalupe River as early as August, but would be expected to be present in the river from November through January. After spawning adult chinook salmon die. The downstream migration of yearling chinook salmon typically takes place during the months of March, April, and May.

Anadromous fish face numerous obstacles in their attempts to establish and maintain self-sustaining populations within the project area. Upstream and downstream fish passage problems (e.g. lack of attractive flows, blocked fish ladders, and drop structures without fish passage), sporadic base flows, high water temperatures, inundation/dewatering of redds through dam construction, and insufficient spawning and rearing habitats are all factors which prevent the recovery of anadromous fish populations in the Santa Clara Valley.

Several streams within the project area also provide habitat for resident populations of rainbow trout. Other fish species present within the streams of Santa Clara Valley include, Sacramento blackfish, Sacramento squawfish, Sacramento sucker, channel catfish, threespine stickleback, bluegill, largemouth bass and mosquitofish.

In addition to providing habitat for fisheries resources, these stream corridors provide rare open space within the urban setting of San Jose. The diverse habitats along these corridors provide cover, water, food, and nesting areas for a large and diverse number of bird species. A draft EIR/EIS prepared for the Upper Guadalupe River Flood Control Project reported a total of 121 species of birds within the River corridor. Numerous small mammals and herpetofauna are known to use the near-stream habitats as well. Species of note include red-legged frogs, western spadefoot toad, and western pond turtle.

Resource Impacts

The Service is particularly concerned with the project's historic and current impacts on the Guadalupe River, Stevens, and Coyote Creek, as these streams and their tributaries support significant runs of steelhead trout and chinook salmon and resident populations of rainbow trout. Specific concerns and impacts include: 1) sediment releases when dams are removed or are washed out during winter storms; fine sediments and the high organic content of washed out ponded areas adversely impact spawning gravels and smother eggs and juvenile fish; 2) dewatering of the stream downstream of the dam site during construction activities. Construction of dams may strand fish; 3) dams remaining in place year-round prevent upstream migration of anadromous fish unless adequate fish passage is provided; 4) ponds created behind dam sites create poor habitat for spawning and juvenile salmonids and contribute to increased water temperatures affecting fish populations within the pool and downstream of the dam site; 5) increases in water elevations near ponds may contribute to vegetative and riparian losses, further contributing to increased water temperatures, increased bank erosion and sedimentation due to the loss of bank stability, and decreased food availability for fish and other wildlife species; and 6) increased sedimentation within ponded areas contributes to changes in the stream geomorphology, further contributing to stream instability, increased erosion, increased sedimentation, and higher water temperatures.

Sensitive Species

The project site contains suitable habitat for the California red-legged frog, western spadefoot toad, and western pond turtle. The California red-legged frog was proposed endangered on February 2, 1994 (59 FR 4833), and the western spadefoot toad and the western pond turtle are Category 2 candidate species (59 FR 5896). Habitat destruction, alteration, and the introduction of non-native fish and amphibian species [such as largemouth bass (*Micropterus salmoides*) and bull frogs (*Rana catesbeiana*)] have been referenced as reasons for the decline of these species. This project will contribute to the continued decline of these species within Santa Clara Valley.

Recommendations

The Service recognizes the progress that SCVWD has made in developing a more environmentally sensitive project. SCVWD's recent addition of a fisheries biologist to their staff should help the District's ability to assess impacts to fisheries resources and develop effective measures to remediate ongoing impacts. However, it remains the Service's position that this project will result in continued substantial impacts to significant aquatic resources.

The current practice of breaching the dam and constructing a low flow channel for a maximum of 50 feet above the dam site, may result in a wide braided channel upstream of the dam which cannot be negotiated by fish and may contribute to elevated water temperatures. SCVWD should consider consulting with an expert in fluvial geomorphology to develop structural features which would restore or establish a low flow channel once a dam has been removed.

SCVWD has identified potential impacts due to flooding to the riparian habitats adjacent to the proposed dam locations. Approximately 0.6 acre of riparian habitat and 1,400 linear feet of shaded aquatic habitat would potentially be lost due to this project. SCVWD has proposed to mitigate for the 0.6 acre loss on two mitigation sites by creating approximately 1.5 acres of riparian habitat and 1,804 linear feet of shaded aquatic habitat. Mitigation ratios developed for this project are based on canopy type, with non-native habitat replaced at a ratio of 1:1 and native canopy with native understory replaced at a ratio of 3:1. The Service recommends that all riparian communities be replaced at the higher 3:1 ratio, utilizing native vegetation. To mitigate for the loss of shaded aquatic and stream habitats due to ponding the Service recommends the adoption of the special conditions identified below.

As gravel dams only contribute approximately 15 percent (22,000 AF/yr) of SCVWD's total recharge capabilities, the District should continue to explore alternatives to the summer dam program. Specifically, SCVWD should make further use of off-stream recharge ponds and injection wells. Both of these methods are proven technologies and are currently being used by the District.

Year-round standing water has the potential to severely impact California red-legged frog populations by allowing predator populations to increase over-time in the habitat and by allowing bullfrogs greater dispersal ability into refugia for the red-legged frog. Water releases from impounded areas have the potential to flush California red-legged frog eggs and larvae into unsuitable habitat and may cause a same-year reproductive failure for that segment of the population. Due to the presence of a proposed species we recommend that the Corps conference on the effects of the proposed action on the California red-legged frog. Should the California red-legged frog become listed during the next five years, the Corps would be required to initiate consultation on the species pursuant to the Endangered Species Act of 1973, as amended.

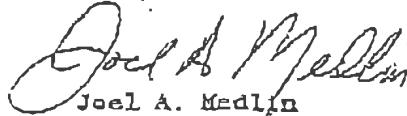
Conclusions

In our previous responses to the Corps on this project, the Service has recommended permit denial. The Service continues to object to the issuance of this permit. Should the Corps continue to permit this activity, the following special conditions should be included as part of this project.

1. Summer dam construction will not begin until after May 15 of each year. All dams will be removed prior to October 1 of each year.
2. Prior to the issuance of any future permit for this activity, SCVWD shall develop a anadromous fisheries management plan and eliminate barriers to anadromous fish migration along the Guadalupe River, Coyote Creek, and Stevens Creek. This measure is designed to provide direct replacement of lost habitat due to the historic and continuing activities of SCVWD.
3. When fish passage problems are resolved for a particular reach of stream or river, the permittee will install fish passage structures at all summer and permanent dams along that reach within 6 months. Any fish passage structure constructed will be acceptable to the Service, the National Marine Fisheries Service, and California Department of Fish and Game.
4. As summer dams are removed each year, a low flow channel will be constructed to connect the low flow channels above and below the dam site.
5. All summer dams constructed on Stevens Creek will have fish passage structures acceptable to the Service, the National Marine Fisheries Service, and California Department of Fish and Game.

IF you have any questions about these comments, please contact Mark Littlefield (Wetlands Branch) at (916) 979-2113, or Alison Willy (Endangered Species) at (916) 979-2752.

Sincerely yours,



Joel A. Medlin
Field Supervisor
Department of the Interior
Coordinator

cc: Reg. Dir. (AFWE), FWS, Portland, OR
Dir., CDFG, Sacramento, CA
Reg. Mgr., CDFG, Reg. III, Yountville
EZA, San Francisco
NMFS, Santa Rosa
Applicant

References

Draft Environmental Impact Report, Instream Recharge Program, (March 1995), Santa Clara Valley Water District, Prepared by R.T. Harvey and Associates and David J. Powers and Associates, Inc.

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF FISH AND GAME
WATER PROJECTS BRANCH

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An Historical Review of the

FISH AND WILDLIFE RESOURCES OF THE SAN FRANCISCO BAY AREA

By

JOHN E. SKINNER

WATER PROJECTS BRANCH REPORT No. 1

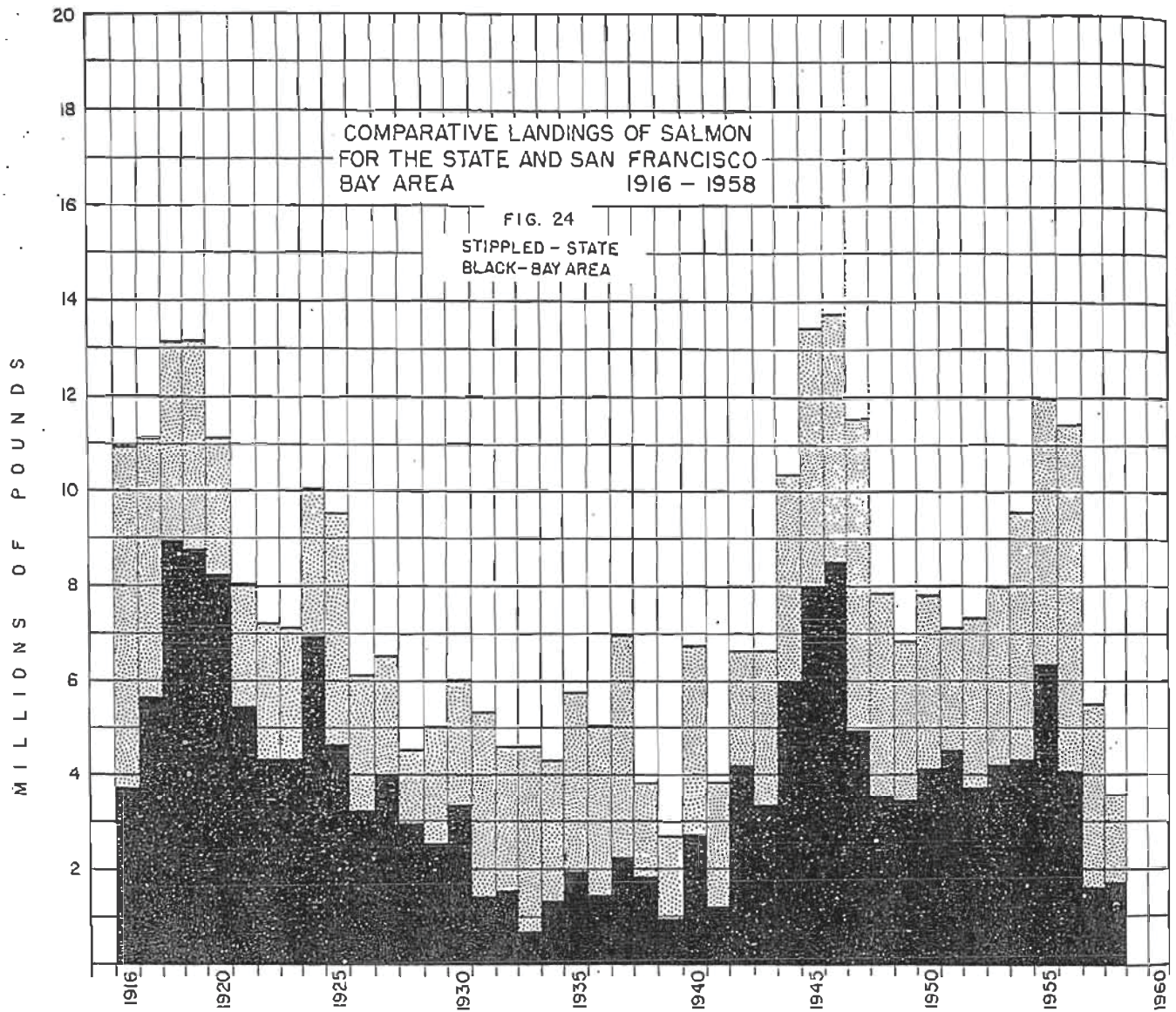
EDMUND G. BROWN
Governor

WILLIAM E. WARNE, Administrator
The Resources Agency

WALTER T. SHANNON, Director
Department of Fish and Game

June, 1962





was made in 1917. The average was between one and two million pounds a year, but the fishery could have sustained perhaps two to three times that much. Legislative action banning the use of gill nets in what was the principal shad fishing area all but eliminated the commercial fishery after 1957.

Striped Bass. Striped Bass were introduced into Carquinez Strait in 1879 from New Jersey. By 1890 a few were being taken commercially and the species was highly favored in the San Francisco market. They commanded a good price and supported a fair fishery until legislative action in 1935 prohibited the commercial take. Like shad, almost all were taken and landed in San Francisco, Pittsburg and other ports in the Bay Area.

Between 1916 and 1935 the landings averaged 600 to 700 thousand pounds a year and twice exceeded a

million pounds. The peak commercial catch, reported at 1,776,000 pounds, occurred in 1908.

Striped bass have been popular with sportsmen since their introduction. The total take by anglers each year is in the neighborhood of 600,000 to 1,200,000 fish, or two to four million pounds.

The combined landings of these three species at San Francisco have varied considerably with salmon, of course, being the most influential. Since 1916 the least amount recorded was 1,333,641 pounds in 1941, and the highest better than 12 million pounds in 1918. The average is just under 6 million pounds a year.

The annual state-wide landings have fluctuated with the Bay Area catch, the low of just under 4 million pounds coming in 1941, and the high of over 17 million occurring in 1917. The state-wide average is between seven and nine million pounds. The percentage

ANADROMOUS FISHERIES

INTRODUCTION

The anadromous fishes of the Bay Area include such favored species as king and silver salmon, steelhead trout, sturgeon, striped bass and American shad. With the exception of shad and striped bass, all are native species. Several other anadromous species are found in the Bay (Appendix C-1), although they are rare or of minor importance to the sport or commercial fisheries.

The general distribution of steelhead trout (*Salmo gairdnerii*), commonly called steelhead, is in the coastal streams of the Pacific Coast of North America, from the United States-Mexico boundary or possibly even Baja California northward to and including Alaska, according to Shapovalov and Taft (1954). The general distribution of silver salmon (*Oncorhynchus kisutch*) is from some of the streams entering Monterey Bay, California, to the Amur River in Asia, according to Shapovalov and Taft. In California both species become increasingly common from south to north.

Steelhead are common to both the Sacramento and Klamath River systems. Silver salmon are native to the Klamath River but not the Sacramento River.

Silver salmon enter the commercial catch through the offshore troll fleet, but in the San Francisco Area are a minor constituent of the salmon fishery.

The king or chinook salmon (*Oncorhynchus tshawytscha*) fishery in California has always been centered in the Bay Area. Originally most of the State's catch was made inside the Golden Gate, principally by the gill net fishery. After 1900, the ocean troll catch increased rapidly and by 1915 surpassed the river gill net catch.

Within the Bay, the principal method of taking king salmon was, from the earliest days, by means of gill or trammel nets.

The fishing area was modified greatly by legislative action, and finally in 1957, was closed altogether to most types of commercial fishing. Since then, the entire commercial salmon catch has come from the ocean.

The striped bass (*Morone saxatilis*) fishery is almost exclusively confined to the Bay Area. Prior to the removal of this fish from the roster of commercial species in 1935, the same men, using essentially the same boats and gear employed in the salmon fishery, also fished for striped bass. The fishing area and legislative restrictions of this fishery closely parallel those of the salmon fishery.

As in the case of the striped bass, almost 100 percent of the shad (*Alosa sapidissima*) catch was made in the Bay Area. The fishery was pretty much restricted to

the river between Carquinez Strait and Rio Vista, until 1951 when the upstream limit for commercial fishing was moved down-river to Stake Point near Pittsburg. The same fleet and essentially the same methods as described for salmon and striped bass was employed for shad. Legislation in this fishery closely paralleled that for the striped bass and salmon fisheries.

KING SALMON

The Commercial Fishery

Early History. Indians along the river apparently were actively engaged in fishing for king salmon when Juan Batiste de Anza first sighted Carquinez Strait in 1776. The Indians are said to have used nets and fished for them from rafts. The interior Indians were also known to rely heavily upon them for food. Crude weirs, spears and frequently clubs or bare hands were used to capture them.

Later on (1850), Italian immigrants began to fish for them in the Sacramento and San Joaquin Rivers and San Pablo Bay. During the gold rush and the railroad building era they were an important item of food wherever they were found. Eventually commercial salmon fishing extended for a considerable distance up the Sacramento River and into many of its tributaries.

Early accounts by Livingston Stone, the famous fish culturist of the U. S. Fish Commission, testify to the great abundance of king salmon in the upper reaches of the Sacramento in the early years. For many years he operated Baird Hatchery on the McCloud River, taking eggs for the purpose of introducing king salmon elsewhere in the United States.

During the 1850's salmon fishing and processing became a lucrative business. Quick to grasp the great potential of the salmon resource three men, George W. and William Hume and A. S. Hapgood initiated one of the most profitable enterprises on the West Coast. William Hume had arrived in Sacramento in 1850 from the East Coast and talked his brother, George, into coming West in 1855. On a return trip to the East Coast in 1863 George induced his boyhood friend and schoolmate, A. S. Hapgood, a tinner, to come to Sacramento.

Hapgood arrived in Sacramento on March 24, 1864 and he and the Hume brothers immediately set about their task. By late summer or early fall a crude but nonetheless functional canning operation under the name of Hapgood, Hume and Company was established. This was the first cannery on the West Coast and the first salmon cannery in the world. Their can-

nery was built on a floating scow in the town of Washington (Broderick) on the Sacramento River across from the city of Sacramento.

The first season's operation was not entirely successful since only half of the 4,000 cases canned were merchantable. Each case contained four dozen one-pound cans. The young industry also received a temporary set-back when skeptical Americans would have nothing to do with the product. After considerable searching they found a ready market for canned salmon in Australia and later South America. Poor salmon runs in 1864, 1865 and 1866 forced them to look elsewhere to enlarge their business. As a result they established the first cannery on the Columbia River near Eagle Cliff in 1866. But by 1883 there were 21 canneries in California, most of them in the Bay Area.

Our first quantitative records concerning salmon catches in those early years are largely from cannery records.

Shortly after the gold rush many rivers became badly silted, which all but destroyed their use for salmon. Railroad construction crews did similar damage by dynamiting along the Sacramento River and its important spawning tributaries. Often, streams were made impassable to salmon as a result of the rocks and debris permitted to enter them. Lumbering was also responsible for silting and blocking many of the smaller spawning tributaries.

The salmon runs of the Sacramento and San Joaquin river system have fluctuated a great deal since records were first kept. Peak runs have occurred at intervals of 8 to 30 years followed by poor catches midway between the peaks.

Water development projects have made serious inroads on the salmon populations of California, particularly in the Central Valley. Dams were built on streams tributary to the San Joaquin River prior to 1900. In the last 25 years a large number of public and private projects and the gigantic Central Valley Project have been built on the major rivers in the Central Valley. These projects have unquestionably had a great influence on king salmon and other anadromous species by preventing access to spawning areas above the dams, and by reducing the flow of water below the dams or changing the general regime of the streams.

In the early years silver salmon and steelhead runs, also, were adversely affected by saw mills, flour mills and water supply reservoirs on the coastal streams.

It is beyond the scope of this report to provide but a small portion of the available information on the king salmon of the Sacramento-San Joaquin system. Several excellent publications are listed in the references which describe the life history and fishery for this species.

Although the fishery for king salmon is centered in the Bay Area, few kings actually spawn in any of

the local streams. They generally enter the larger rivers along the coast north of San Francisco. By far the greatest proportion however, has always passed through the Golden Gate to ascend the Sacramento and San Joaquin rivers on the way to ancestral spawning grounds in these rivers and their tributaries.

There were three principal methods employed in commercially fishing salmon before 1870. The most profitable, drift gill netting, was introduced shortly after 1850 by the Italians. Fyke net fishing was employed also at this time and according to Jordan and Gilbert (1887) in 1852 and 1853, fishermen commonly caught 700 to 800 pounds a day in their fyke nets at Rio Vista. Sweep seines were used but no mention is made of the success encountered.

The gold rush and inflationary conditions led to a rapid expansion of the fishery. Jordan states that between 1850 and 1860 salmon frequently brought a dollar a pound and that five dollars was a small price for a whole salmon. Complete data are lacking on the amount of salmon caught and canned before 1870 but during 1864 and 1865 two thousand cases (48 one-pound cans each) were canned each year. Little else about the fishery is available until 1872.

1870 to 1915. By 1870 the king salmon runs began to decline and the newly formed (1870) State Board of Fish Commissioners expressed concern for the fishery. Hydraulic gold mining activities had all but destroyed the American, Feather, and Yuba Rivers, according to their reports. Even so, the catch about 1874-1875 was 4 to 5 million pounds, worth \$500,000 a year.

The U. S. Fish Commission sent Mr. Livingston Stone to California in 1872 to procure salmon eggs for the East Coast. He arrived in August of that year and immediately set up operations on the McCloud River. Thus began salmon fish cultural operations in California. It is from Stone's annual reports that much of our early knowledge of Sacramento king salmon was obtained.

Because of the decline in the fishery the California Commission contracted with the U. S. Commission to supply eggs for propagation purposes to stock the Sacramento River. Shortly thereafter, the commercial salmon catch began to increase and by 1880 had reached almost 11 million pounds. At the time, the increase was attributed chiefly to fish cultural operations by the early pioneers, thus lending great impetus to this phase of fishery management. Since 1872 many millions of fry have been released into the river and this activity still continues today. Shebley (1922) summarized fish distribution activities in California through 1921. His article also gives an account of the history of fish cultural operations in this State.

Jordan and Gilbert (1887) provide an idea of the fishery of their time in the following paragraph:

"Since 1866 salmon fishing has fallen off very fast at Collinsville and Black Diamond (Pittsburg). In the

the items in Table 12 to be the principal constituents in the diet of king salmon.

TABLE 12
FOOD OF ADULT KING SALMON.

Item	Percentage of Total Volume
Northern Anchovy	29.1
Rockfishes	22.5
Euphausiids	14.9
Pacific herring	12.7
Squid	9.3
Other Fishes	7.3
Crab Megalops	4.0

From August to November (season closed to fishing November 15 to February 11) anchovies were the major item. They probably continue to be the most important item until herring arrive in November or December. Herring are the principal item from at least February to April when euphausiids, squid and crab megalops predominate. Rockfishes become important in May and are the most frequent item in June and July when anchovies again begin to occur.

Within San Francisco Bay northern anchovies were the most common item observed; however, as a rule salmon taken in the Bay are maturing and Merkel found that most salmon had ceased feeding.

Ocean Life. After the juvenile salmon enter the ocean, their movements are not well known, but marked Sacramento River fish have been taken south of Monterey and north to British Columbia. One marking experiment, for example, indicated a majority of those released in the Sacramento River were later caught off Washington and Oregon.

King salmon are voracious feeders and grow exceedingly fast while in the ocean. By the time they mature three to seven years later, they may weigh in excess of 70 pounds. The average weight upon returning is 20 pounds, although 50 pound fish are not uncommon. Kings are the largest of all salmon, with individuals of over 100 pounds having been caught.

Most king salmon mature at three or four years; however, grilse, that is, fish which mature after one growing season in the ocean, are not uncommon. After maturing in the ocean salmon return to their native streams to spawn and die. The amount of straying is remarkably low.

Sources of Mortality. While in the ocean king salmon themselves are prey for other species of fish. They are also subjected to an intense troll fishery by both sport and commercial fishermen. Upon entering the Sacramento-San Joaquin system, they formerly were subjected to the highly efficient gill net fishery in Carquinez Strait and Suisun Bay. Legislation enacted in the spring of 1957 and effective September 27 of that year eliminated the latter source of exploitation.

The young fish before entering the ocean must also cope with numerous hazards. In the first place the alevins and fry are prey for many other species of fish. Secondly, they are vulnerable to a great many water diversions all along the Sacramento and San Joaquin Rivers and the Bay until they finally pass out of the Golden Gate.

Pollution is still another hazard and adults as well as the young are susceptible. Warren (1949) reported the kill of a considerable number of adult salmon from sewage pollution while the fish were on their spawning migration in the Tuolumne and San Joaquin rivers.

The young may find themselves in a particularly precarious position with respect to pollution in the Bay Area because of the tidal prism; they may be flushed back and forth through several tidal cycles before escaping from contaminated areas.

SILVER SALMON AND STEELHEAD TROUT

In the Bay Area both silver salmon and steelhead are important primarily for their contribution to the sport fishery. Steelhead are, or were, found in a number of tributaries to San Francisco Bay including the Sacramento River system, and in the principal tributaries of Tomales Bay as well as most coastal streams. With a few exceptions silver salmon were restricted to coastal streams in the Bay Area. They are not native to the Sacramento River but were introduced there in 1956.

Since 1927 it has not been permissible to take steelhead commercially. Silver salmon have formed a very minor part of the ocean salmon catch in the Bay Area and were unknown to the Sacramento-San Joaquin gill net fishery until 1957 when returns of the 1956 experimental stocking by the California Department of Fish and Game contributed substantially to an otherwise poor salmon catch.

When Captain Wakeman, under hire of the State Board of Fish Commissioners, in 1870 surveyed the fisheries of the Bay Area, his survey included the coastal streams from Spanishtown on Pilarcito's Creek to Pescadero. He described the wretched conditions of the streams due to the logging, saw mills and flour mills located on them. The inference from his description is that the streams had once been very productive of silver salmon and steelhead trout but at the time of his survey were greatly degraded. The fish taken were sold locally rather than being shipped to San Francisco.

Wakeman points out that trout and salmon from these streams brought 75 cents per pound in 1870. He claims that a wagon load of these "beautiful" fish weighing 2 to 30 pounds each were taken daily from Pescadero Creek between October and March. Apparently San Gregorio Creek also produced fish in commercial quantities at that time.

SILVER SALMON

Silver Salmon Sport Fishery

Silver salmon ascend most coastal streams and support a seasonal fishery in the winter. They are taken by anglers both in the streams and in the lagoons at the stream mouths. Pescadero and Papermill Creeks are probably the most notable streams in the area. Actual data on the number of anglers who engage in silver salmon fishing, or on their catch, are not available.

The sport troll fishery in the ocean takes a fair number of silvers, but the proportion is quite small as compared to king salmon. The year 1957 was an exception in that king salmon catches were poor while silver salmon were much more abundant than usual.

Veteran anglers feel the silver is a gamier fish than the king when taken on rod and reel.

Introduction of Silver Salmon into the Sacramento River System. Preliminary results of the experimental introduction of silver salmon into the Sacramento Valley have been impressive. The initial stocking took place in March of 1956 when 43,025 yearling silvers were released in Mill Creek, Tehama County, by the California Department of Fish and Game. The time and location of these and subsequent releases are shown in Table 13:

TABLE 13
TIME AND LOCATION OF SILVER SALMON
INTRODUCTIONS TO SACRAMENTO
RIVER SYSTEM, 1956-1958

Date	Location	Number of Fingerlings
March 19, 21, 22, 1956	Mill Creek at Child's Meadow	24,150 (total)
March 20, 1956	Mill Creek at Ward Dam	6,300
March 23, 1956	Mill Creek at Clough Dam	12,757
February 14-19, 1957	Mill Creek at Child's Meadow	28,340 (total)
March 20-21, 1957	Mill Creek at Clough Dam	12,575
April 17-29, 1958	Mill Creek at Ward Dam	38,003 (total)
April 15, 1958	Mill Creek at Child's Meadow	10,797
December 15, 17, 1958 ¹	Sacramento River at Bull's Ferry	21,418 (total)
December 16, 1958 ¹	Chico Creek Ponderosa Way	4,624
December 17, 1958 ¹	Deer Creek at Highway 99E	9,489

¹ These were fish raised at Coleman National Fish Hatchery of the U.S. Fish and Wildlife Service from eggs taken from returning adult silver salmon of the 1956 and 1957 plants.

The first recorded adult fish to be taken by angling was in August 1956. In 1957 silvers were caught by commercial fishermen in the Delta. The first naturally spawned silvers were observed by Departmental personnel in Mill Creek in the winter and spring of 1958

when 49 fish averaging one to four inches were taken in traps.

In December of 1956 three of the fish stocked the previous March strayed into the American River on their return from the ocean and were taken at Nimbus Hatchery. Silver salmon have since appeared in the Feather and Mokelumne rivers also.

The following gives an indication of the early success of the introduction (Data from Quarterly Reports of F7R Sacramento-San Joaquin Salmon and Steelhead Study).

For the 1957-58 season (July 1, 1957-June 30, 1958) fishery personnel actually counted 1,523 returning adult silver salmon in the upper Sacramento River. Through tagging operations it was estimated that the total run consisted of approximately 4,180 two-year-old fish of the 1957 plants and 2,240 three-year-old fish from the original 1956 release. The estimated catch by anglers, extended on a basis of 41 tag returns, was 312 fish.

During the 1958-59 season the run was estimated at 5,600 three-year-old fish and 6,000 two-year-old fish.

Table 14 gives the numbers of each species passing the Clough Dam counting station on Mill Creek, Tehama County, during the period September 28-October 31, 1957.

TABLE 14
SALMON AND STEELHEAD PASSING THE CLOUGH
DAM COUNTING STATION, MILL CREEK, TEHAMA
COUNTY (SEPTEMBER 28-OCTOBER 31, 1957)

Species	Number	Percentage of Total
King Salmon	465	16.6
Silver Salmon	1,506	53.7
Steelhead Trout	833	29.7
	2,804	100.0

Silver Salmon Life History Notes

In the Bay Area, silver salmon occur in most of the creeks directly tributary to the Pacific Ocean and at least a few streams tributary to San Francisco Bay. Perhaps the most notable streams in this region in which silver salmon now occur are Pescadero, San Gregorio, Gazos, and Papermill creeks.

Silver salmon have been the subject of a number of investigations in California, but have been overlooked to some extent in favor of the larger and more valuable king salmon.

Shapovalov and Taft (1954) made an exhaustive study of the life history of this species, and their work includes the findings of other investigators as well. Most of the ensuing information on this species is based upon their work. Their studies were conducted from 1932 to 1942, principally on Waddell Creek, Santa Cruz County. This is a typical coastal stream just south of Pescadero, except that at the time of the study it had been relatively untouched by logging or other human activities for many years. It was also closed to fishing.

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Lehman (1953) studied the fecundity of this species and found that egg production is correlated with age, length and weight. He found that production of Hudson River shad varied from 116,000 to 4,680,000 eggs per fish. This is much greater than has been previously reported by other investigators.

Embryology. The incubation rate has been established for this species under experimental conditions and found to vary from 6 days at 57° F. to 3 days at 74° F. Under natural conditions in California rivers, hatching probably occurs in 4 to 6 days.

Stream Life. The young fish gradually move downstream after hatching, but may remain in certain freshwater localities for extended periods of time. They are abundant in the lower Sacramento and San Joaquin Rivers (near Rio Vista and Antioch, respectively) during the late summer and fall, and are prevalent throughout the entire Delta as late as the month of October. Most of the young fish move into brackish water the fall and winter following hatching, but a few appear to remain until the following year.

Bi-weekly seine samples taken over a period of a year near Antioch on the San Joaquin River indicate the young reach an average length of about 3 to 4 inches by October. Seine samples throughout the Delta in two consecutive years (1956 and 1957) indicate some variation in the average length of fish at different locations but most were between the values given. Mansueti and Kolb state that they may attain a length of 6 or 7 inches in 7 months under favorable conditions on the East Coast.

Their food habits on our coast have not been studied in detail although several shad examined at the California State Fisheries Laboratory contained anchovies and euphausiids. The diet is probably similar to that of Atlantic Coast shad in consisting principally of small shrimp, copepods and aquatic worms. Insects may be important to the juvenile fish in freshwater.

Ocean Life. Virtually nothing is known about shad once they reach San Pablo Bay. A few fish have been taken incidentally by commercial fishermen near Monterey, but they do not appear regularly in any type of gear or at any location. Well defined north-south ocean migrations occur on the Atlantic Coast but such has not been observed here.

By the time they return to spawn, the males average three pounds and the females almost four pounds. Six to eight pound fish are quite rare.

Sources of Mortality. Young fish are subjected to the same hazards as downstream migrant salmon and steelhead in the Sacramento system. These hazards include diversions, predators, irrigation pumps and pollution. The larvae particularly, may suffer exceptional mortality since they are pelagic and vulnerable to the many plankton feeding fishes in these river systems.

Shad are most abundant in the Bay Area during late fall and winter. The young probably prefer the shore-

line as they move downstream and hence would be vulnerable to diversions and polluted areas along the river banks.

The Tracy Pumping Plant and the Pacific Gas and Electric Company's Contra Costa Steam Plant have been particularly troublesome diversions in the past.

Shad are an extremely delicate fish and the slightest physical injury usually results in death. The effects of various pollutants on shad are not known, but it may be inferred that this species is more susceptible to toxic or deleterious substances than many other species.

MISCELLANEOUS ANADROMOUS FISHES

In addition to the anadromous species already discussed there are a few others which either pass through the Bay Area to spawn in the freshwater tributaries or spend most of their life in the Bay except to spawn in freshwater.

The Pacific lamprey (*Entosphenus tridentatus*) can be observed each spring, mostly during the period April to June, as they attempt to pass over the dams of Central Valley streams. They spawn in the smaller tributaries of the rivers they ascend. Like salmon, the adults die after spawning.

Just what role this parasite plays in the overall picture of our fishery resources has not been determined. It is not caught commercially and is generally disdained by all who come in contact with it. Lampreys are eaten by several species of fish, but so far as is known they are not an important forage species. It might be mentioned here, however, that lampreys are used as bait in the commercial sturgeon fishery on the Columbia River.

These parasites attach themselves to the host fish by means of their mouth, which is so modified as to form a very effective suction disk. Once attached they rasp through the skin and flesh of the victim and suck out the body fluids.

Lampreys are used as food to some extent, particularly by the Indians of several coastal streams.

Freshwater smelt (*Hypomesus olidus*) and Sacramento smelt (*Spirinchus thaleichthys*) are common in the Delta from late winter to early summer. They spawn in many of the same areas as striped bass and shad but do not ascend the rivers much above tide-water. Their most important contribution is as forage for food and game fishes, particularly striped bass. They seldom exceed 5 inches in length and are extremely delicate. They travel in large schools which are followed and preyed upon by larger carnivorous fish.

Other anadromous fish which are rare or occasionally stray into the Bay are the pink, chum and red salmon.

COMMENTS ON THE FUTURE OF THE ANADROMOUS FISHES

The continued maintenance of our anadromous fish resources is one of the gravest problems facing fishery managers. Dams and other barriers reduce stream flows, destroy and block spawning grounds and prevent the upstream passage of fish. They may also hinder the downstream migrants even where successful methods have been employed to pass the adults upstream over the dam. Industrial and agricultural diversions are responsible for the loss of enormous numbers of the small downstream migrants. Poor logging and mining practices destroy spawning areas or form barriers to the ascent of fish. In some instances poor logging practices have destroyed entire small watersheds through erosion and destruction of the stream bottoms and the upsetting of the temperature regimes to such an extent as to cause severe reductions in fish populations and fish food organisms.

In California, generally, dams appear to be the most serious factor in diminishing salmon runs. Untold miles of spawning tributaries have either been inundated or cut off by impassable barriers. Shasta Dam alone on the Sacramento River eliminated approximately 50 percent of the available spawning area of this river system. Fortunately, the flow and temperature regime below the dam is favorable to salmon. Friant dam eliminated about 36 percent of the spawning area of the Upper San Joaquin River. Folsom Dam on the American River also eliminated valuable spawning areas. The latter loss was at least partially compensated for by Nimbus Hatchery with its capacity of 30 million eggs annually (Equivalent to 6,000 female spawners). Similarly, Coleman Fisheries Station on Battle Creek near Redding has made up in part for the loss of spawning areas above Shasta Dam. No such provision was made at Friant Dam.

At the present time the principal spawning areas on the Feather River are still accessible. A ladder on Sutter-Butte Dam enables fish to negotiate this obstruction. The gigantic dam being constructed by the State above Oroville, however, will eliminate more spawning area and result in controlled flows below the dam. State agencies are cooperating to bring about the greatest protection of the river's salmon resource.

As the California Water Plan progresses, even greater curtailments in spawning areas are inevitable. On the Sacramento River the proposed Iron Canyon Dam, if built, will cut off an area used by 94 percent of the present salmon runs in this river system. This estimate is based on annual counts of salmon spawners (Hallock 1957).

Perhaps the greatest potential blow to all anadromous species, and a number of other species as well, are the salt water barriers being considered for the Bay Area. A number of plans for such barriers have been suggested, all of which would have major repercussions

on the anadromous fisheries resources of the Sacramento-San Joaquin River systems.

At the present time the only one under serious consideration is the modified Biemond Plan which, incidentally, is also the most favorable from a fisheries point of view. Fisheries personnel under contract to the Department of Water Resources are now evaluating the effect of this plan on the fisheries resources. Information already has been published for other salt water barrier plans including that of the Junction Point Barrier, which it is believed would affect the resources on about the same order of magnitude as the Biemond Plan. Fisk (1957) has estimated the effects of the Biemond Salinity Control Barrier Plan on fish life. (Table 31)

These reductions are expected to occur even though several types of fish salvage facilities will be employed.

The "California Water Plan" embodies over 200 major dams throughout the State, many of which would affect anadromous fish. The Delta area, as one of the focal points in the plan, would see the construction of more and greater diversions and pumping facilities.

All of these facts impressively point out that many adverse developments from water manipulation projects, as far as anadromous fish are concerned, can be expected for some time to come.

Projects such as those outlined are not the only source of concern. More urban and industrial development, particularly in the Bay Area and along the Sacramento and San Joaquin rivers, must also be anticipated. This will result in a greater volume of waste which must be adequately treated if pollution problems are not to be intensified.

Fortunately, significant advances have been made in abating domestic sewage pollution in and around the

TABLE 31
ANTICIPATED EFFECT OF THE PROPOSED BIEMOND SALINITY CONTROL BARRIER ON FISH LIFE UNDER TWO PROPOSALS

Species	River System	Anticipated Population Loss or Gain in Percentage	
		Single Screen ¹	Three Screens ²
King Salmon	Sacramento	-12.0	-3.4
King Salmon	San Joaquin	-18.0	-4.3
King Salmon	Mokelumne	-24.0	-24.0
Silver Salmon	Sacramento	-14.0	-3.4
Steelhead Trout	Sacramento	-9.0	-1.2
Striped Bass	Sacramento-San Joaquin	-15.0	-15.0
Shad	Sacramento-San Joaquin	-25.0	-25.0
White Sturgeon	Sacramento-San Joaquin	-5.0	-5.0
Catfish	Sacramento-San Joaquin	-25.0	-25.0
Panfish (Black bass, Sunfish, etc.)	Sacramento-San Joaquin	+25.0	+25.0

¹ Under this plan there would be a single large fish screen at the Delta Pumping Plant.

² In addition to the fish screen at the pumping plant, screens are proposed at Walnut Grove on the Sacramento River and Paradise Cut on the San Joaquin River.

THE FRESHWATER FISH AND FISHERIES OF THE SAN FRANCISCO BAY AREA

HISTORICAL REVIEW

The freshwater fish fauna of the San Francisco Bay Area is quite varied and supports a large angling population. This was not always so, however, the area originally was deficient in natural lakes and warmwater streams and the many varieties of so-called warmwater or spiny-rayed gamefish. The only native warmwater gamefish found here was the Sacramento perch (*Archoplites interruptus*).

Salmonids on the other hand inhabited virtually every stream. Native populations of rainbow trout (*Salmo gairdneri*) were found in most streams with a year-around supply of cool water. Silver salmon and steelhead also favored the cooler waters and utilized many of the intermittent streams for spawning.

Salmonids as a group have always been particularly favored both for food and sport and even in the early days of San Francisco were heavily exploited by anglers. Besides angling they were taken by spears, traps, weirs, explosives and any other available means.

As the population of the Bay Area increased between 1850 and 1890, the local redwood forests were timbered off and public water supplies were developed. Coastal streams suffered from pollution by sawdust, grist, and siltation. The streams were obstructed by log jams and were dammed to form water supply reservoirs and to harness their energy for the operation of sawmills and flour mills. Records of the Fish and Game Commission relating to this early period indicate the local salmonid fisheries suffered a severe setback.

It is of passing interest to note that the first hatchery and fish cultural station in California was established on the grounds of the University of California at Berkeley in 1869. The station, operated by "The California Acclimatization Society", and operated under the supervision of Mr. J. G. Woodbury, sold the fish to the State Fish Commission.

Immediately after the legislature established the State Board of Fish Commissioners (1870) this body set about to import prominent gamefish species of the East and Midwest. The black basses, panfishes (green sunfish, bluegills, etc.) catfishes, perches, and eastern brook and brown trout were among the freshwater varieties introduced. Most of them did extremely well in their new environment. As a matter of fact, the introduced species now sustain virtually all warm-

water angling in the Bay Area. The more common freshwater fish species are listed in Appendix F-1. Initial introductions of selected species now occurring in the Bay Area are given in Appendix F-2.

About 1884 the State Board of Fish Commissioners was concerned about the vanishing Sacramento perch. The species was disappearing at an alarming rate, presumably because of overfishing and reclamation. More recently, the introduction of alien species also has been blamed for the perch scarcity.

Sacramento perch and several non-game varieties found their way into the San Francisco commercial trade to some extent before 1870. They were obtained by seining in the Delta, in the lower reaches of the rivers tributary to the Delta, and in Clear Lake, Lake County.

The largemouth and smallmouth basses (*Micropterus salmoides* and *Micropterus dolomieu*) respectively, both highly esteemed as food and gamefish in the East and Midwest, were among the first varieties brought to California. They were brought out by Livingston Stone in 1874 and stocked in Alameda Creek and the Napa River. By 1890, most of the suitable lakes and streams in the Bay Area were well stocked with them.

The white catfish (*Ictalurus catus*) and brown bullhead (*Ictalurus nebulosus*) were introduced by Stone in 1874. Panfish and crappies were first introduced between 1890 and 1891 into Southern California and made their way to Bay Area waters through later transplantations.

White catfish and brown bullheads increased at such a prolific rate that they supported a substantial commercial fishery from the turn of the century until 1953 when the fishery was abolished by the legislature. Most of the catch, though landed at Pittsburg, was made in the Delta. Special fyke nets were employed.

Other freshwater species entering the commercial catch included carp (*Cyprinus carpio*), which were first introduced from Europe in 1872, and the native hardhead (*Mylopharodon conocephalus*), squawfish (*Ptychocheilus grandis*), splittail (*Pogonichthys macrolepidotus*), and Sacramento blackfish, (*Orthodon microlepidotus*). For the most part the latter species were taken incidental to shad and salmon by the Pittsburg fleet and landed at either Pittsburg or San Francisco. The Department of Fish and Game issues special permits to commercial operators to fish for some of these

ANADROMOUS FISHERIES

Any detailed analysis of the factors affecting the abundance and landings in this group of fishes would be exceedingly difficult. Environmental conditions have been so greatly modified by man's activities that it is virtually impossible to ascertain the relative effect of any one factor on these resources.

King Salmon

The commercial fishery formerly consisted of the gill net fleet, which always operated inside the Golden Gate, and the ocean troll fleet. The former was abolished by the legislature in 1957.

The gill net fishery landings exhibited tremendous fluctuations from year to year throughout the recorded history of the fishery. However, the trend over the ninety-year period for which catch figures are available was downward. The 1957 catch was the smallest ever recorded.

There are several explanations which could account for the decrease. One cause can be ascribed to water development projects in California. Virtually every permanent stream the full length of the Central Valley has one or more dams constructed across it. These have eliminated spawning areas and adversely affected temperature and flow regimes. Unscreened water diversions also take a heavy toll of small fish.

Since both the gill net fishery and the ocean troll fishery operated on the same salmon stocks the latter certainly contributed substantially to the reduction in the gill net landings. There has been a large increase in the size of the ocean troll fleet and its catch over former years as well as a spectacular increase in the ocean sport fishery in the last 15 years.

Although the salmon resources certainly have been overfished at various periods throughout the last 50 or 60 years, it is quite unlikely that overfishing alone has been responsible for the long-term decline.

Pollution has also been involved in the salmon decline. However, it is impossible to demonstrate the relative effects of pollution on the resource. Mining and logging pollution and silt have been prevalent in some streams, domestic sewage and dairy pollution in others, and cannery and winery wastes in still others. Along the Bay proper, the numerous industrial waste outfalls threaten the small downstream migrants which are inadvertently swept into the vicinity of them. Untreated or inadequately treated domestic sewage discharges both in the Bay and in upstream tributaries create similar problems.

Striped Bass

Generally speaking, this fishery has remained relatively stable. The species was completely removed from the commercial category in 1935 and since then

has been subjected to hook-and-line fishing only, except for fish which were taken incidentally with shad and salmon by the gill net fishery. The sport fishery is so intense it is believed that up to 25 percent of all legal-sized fish are removed from the fishery each year.

A review of the catch records and other pertinent data revealed a decline in the fishery from 1944 through 1955. As a consequence, further restrictions in size and bag limits were put into effect to bring the fishery into balance. This appears to have been accomplished.

Under present conditions, it appears that the sport fishery is now exerting sufficient pressure to have a definite influence on striped bass stocks. The governing factor, however, lies in the change in environmental conditions. These have been modified so greatly over the past fifty years that there has been an appreciable loss in the total habitat available to striped bass.

At least three adverse factors, excluding angling, are affecting the striped bass population: reclamation, water development projects, and pollution. It would be next to impossible to evaluate the relative importance of each. Reclamation, many years ago, resulted in extensive habitat changes which removed rich nursery grounds. Water development projects have modified temperature, flow, and salinity patterns in the Delta and in spawning areas, and numerous diversions take a heavy toll of fish. Pollution has resulted in an extensive loss of habitat, destruction of forage organisms, and, frequently, in the outright killing of the fish themselves.

The absence of striped bass in many areas of the Bay may be taken as rather clear evidence of pollution. South San Francisco Bay in particular can be cited, and there are other once-favorable localities which are now similarly devoid of striped bass.

Shad

Shad landings, in the past, have been influenced strongly by economic conditions. Generally the catch was considerably less than the fishery could have supplied. Nevertheless, there appears to have been a definite decline in the fishery, unrelated to economic conditions, and presumably caused by the same factors which have influenced salmon and striped bass populations. The most significant recent development with respect to the shad resource is the evolution of the sport fishery in the past few years.

WATERFOWL

There has been a decided reduction in the waterfowl of the Bay Area, both in resident and wintering populations. Reclamation of the marshlands and tidal flats has unquestionably been the major causative factor in the decrease. Most of the breeding areas around

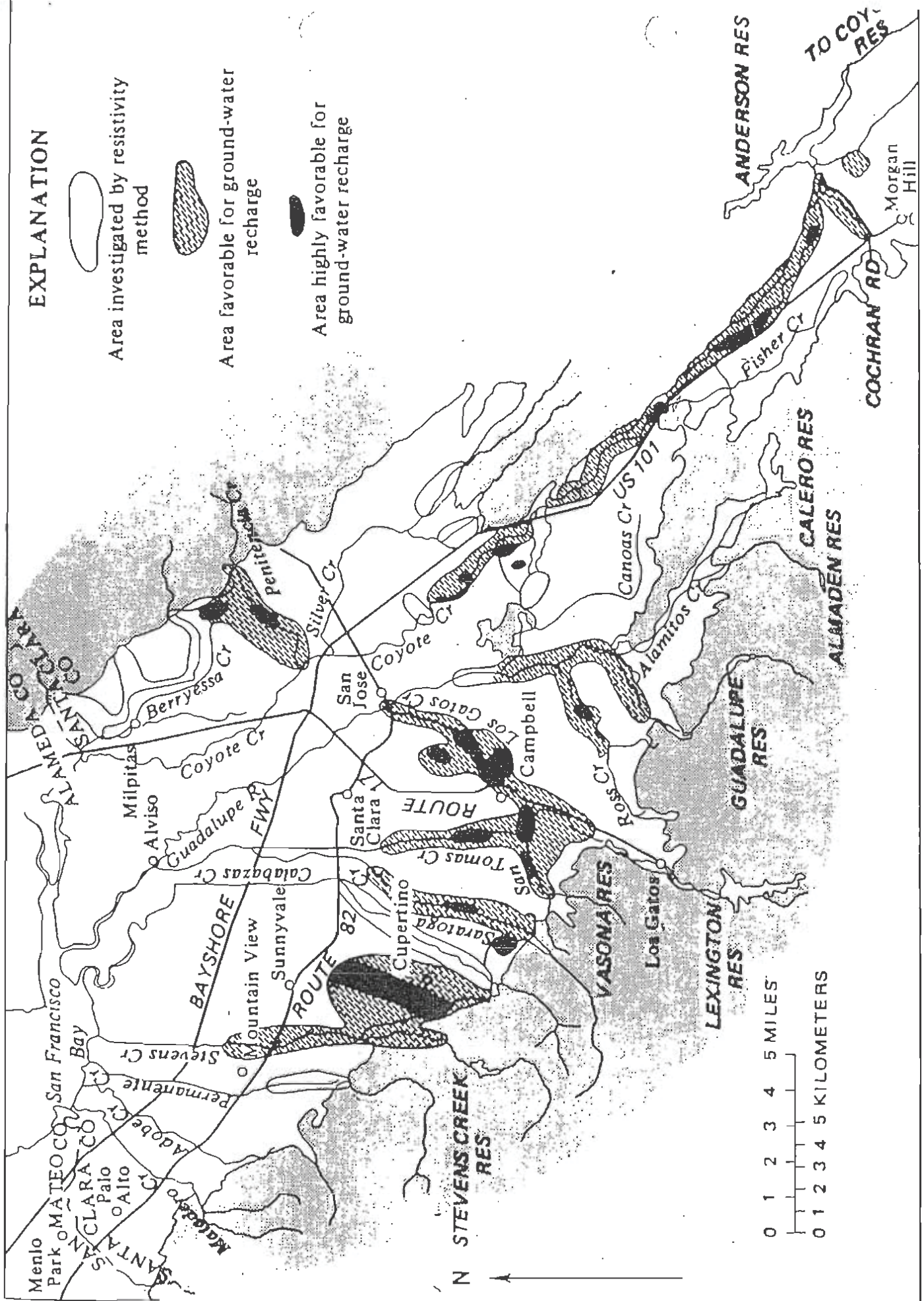


FIGURE 48.—Areas favorable for ground water recharge in southern Santa Clara County. After Page and Wire (1969).

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PLATE VI

Present distribution of salmonid, oyster, and sturgeon fishery resources and waterfowl breeding areas in the San Francisco Bay area.

LEGEND



Shurgeon—Areas of concentration and spawning.



Waterfowl—Current breeding areas (not intense anywhere).

Silver salmon



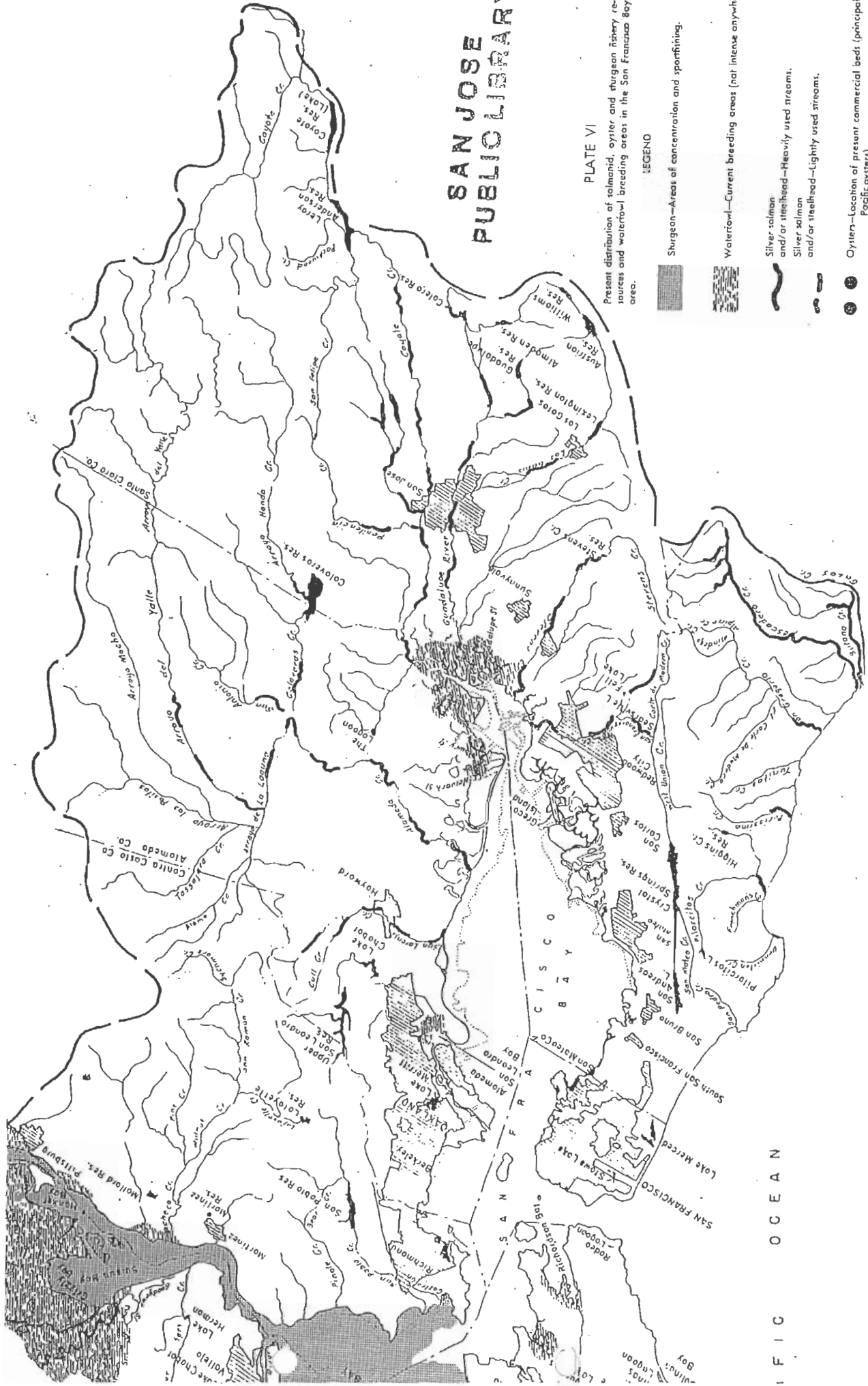
and/or steelhead—Heavily used streams.

Silver salmon



and/or steelhead—Lightly used streams.

Oysters—Location of present commercial beds (principally Pacific oysters).



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PLATE IV

Historical salmonid migration routes, probable distribution and commercial clamming areas.

LEGEND



Clams—Areas of commercial exploitation prior to 1915.



Salmon and steelhead—Historical migration routes.



Silver salmon and/or steelhead—Probable historical distribution.



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Response to Comment M-1

This SMP Update is a continuation of a program that has been ongoing since 2002. Since the initiation of the SMP, the District has provided advanced notification of proposed work, either as part of the Notice of Proposed Work (first phase of the annual work sequence) or as an individual work order (for projects occurring after Phase 1 of the work sequence). In either case, regulatory agencies have been able to provide comments or request additional information from the District regarding proposed work during this notification period. This opportunity for comment/questions before implementation of work would continue under the 2012-2022 SMP Update.

In addition, the regulatory agencies participate annually in a “lessons learned” meeting that provides an opportunity to identify appropriate refinements to the program. Although other refinements to the notification and review process have been discussed, to date, the concerns identified by the commenter have not been raised by the regulators.

Response to Comment M-2

The Notice of Proposed Work (NPW) for the Stream Maintenance Program is sent to city public works departments that may have approval authority over SCVWD’s maintenance activities. The District’s Zone Advisory Committee, now the Flood Protection and Watershed Advisory Committees) assist SCVWD’s Board of Directors with policies and issues pertaining to flood protection and stream stewardship. The Advisory Committee includes representatives of the cities and the County as well as at-large members who represent the community. The local fire districts receive the NPW to ensure access for emergency response vehicles. Guadalupe Coyote RCD (GCRCO) may obtain a copy of the NPW by submitting a Public Information Request through Access Valley Water at www.valleywater.org.

BMP GEN-36 in Table 2-12 of the DSEIR is revised as follows:

The ~~annual work plan~~ NPW will be submitted to public works departments, local fire districts, and the District’s ~~Zone Advisory Committee~~ Flood Protection and Watershed Advisory Committees.

Response to Comment M-3

SCVWD appreciates the concern expressed in the comment. As noted in response to Comment D-17, the 24-hour notification time frame for follow-up maintenance activities conducted at bank repair sites that are less than 2 years old would be important to prevent a situation from worsening. This time frame would allow SCVWD to be able to respond quickly and effectively to a damaged work site. For all other bank repairs, the permitting agencies would be given a greater period of time to review and comment, when notified as part of the annual Notice of Proposed Work or via individual work orders, as discussed in Chapter 2, *Project Description*, of the DSEIR.

Response to Comment M-4

The comment makes the following statement, which is not supported by the DSEIR: “The DSEIR (correctly) identifies Chinook salmon as a native species utilizing habitat in the project area for migration, spawning and rearing.” In fact, the discussion on page 136, in Section 3.3 of the DSEIR, identifies Chinook as not native, stating “that the rivers and creeks of Santa Clara County are home to 12 native species of fish,” and, “The non-special-status fish and amphibians that would be impacted by the Proposed Project are relatively abundant and widespread, with the exception of the Chinook salmon, which is *not native* [emphasis added] to South Bay streams.” The comment is correct to note that, although the Chinook salmon in the Project Area are recognized as strays from hatchery releases, the National Marine Fisheries Service (NMFS) still considers habitat used by Chinook salmon in the South Bay as essential fish habitat (EFH). However, to meet the threshold for significance under CEQA and the State CEQA Guidelines, the species itself would have to be rare; the term rare, as defined by Section 15380 is as follows: “a) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or b) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered ‘threatened’ as that term is used in the Federal Endangered Species Act.”

The Central Valley fall-run Chinook salmon in the South San Francisco Bay do not warrant a “rare” designation. The NMFS completed a comprehensive, scientific review in 2008 and found that Central Valley fall-run Chinook salmon populations, whose range includes the Sacramento and San Joaquin Rivers and tributaries, were more robust than previously thought. Subsequently, this Distinct Population Segment did not warrant a “threatened” status under the Endangered Species Act, and long-term trends show the population to be stable. Additionally, the fish found in the South Bay are genetically consistent with hatchery fish (i.e., Feather River stock), and the hydrology and temperature of South Bay streams do not, and historically have not, supported a fall-run fish that can ascend larger rivers as early as July. The comment may be confusing the term “naturalization” with “natal,” in which a non-native species is said to be naturalized “when its reproduction is sufficient to support it.” Whether the fish have naturalized in Santa Clara Valley is not known, or to cite the language in the DSEIR (in the third paragraph under Impact BIO-15), “Although spawning has been documented in SCVWD-maintained creeks, whether up-migrating adults have hatched on these creeks or if the adults that were observed were direct strays from other areas is unknown.”

SCVWD appreciates that the GCRC has entered information into the administrative record. However, these documents do not establish the historic presence of a self-sustaining Chinook salmon run, and no disagreement exists among expert opinion regarding the facts about the significance of an effect on the environment (see previous paragraph regarding NMFS findings). The USFWS document was written before much data collection effort had begun to determine the origin of the Chinook salmon in the County, and the record simply states that Chinook salmon were observed in the Guadalupe River. When reading and interpreting Skinner (1962), as in the comment, the entire document should be cited and coupled with an understanding of the life history of salmon and steelhead. This is particularly important when used to discuss the occurrence of Chinook salmon in County

streams. The content of the Skinner document relies heavily on commercial catch records and not on specific stream survey data, especially in regard to the County. Rather, some vague correlation is presented that salmon may make use of South Bay streams, although language is used in the document that strongly suggests just the opposite. Please refer to page 58, regarding Chinook salmon: “Although the fishery for king salmon is centered in the Bay Area, few kings actually spawn in any of the local streams. They generally enter the larger rivers along the coast north of San Francisco Bay. By far the greatest proportion however, has always passed through the Golden Gate to ascend the Sacramento and San Joaquin rivers are the way to ancestral spawning grounds in these rivers and tributaries.” The non-site-specific reference to “few kings actually spawning in any local streams” in the Bay Area is indicative that some Chinook salmon may have strayed from their “ancestral” course and the fact that streams within San Francisco Bay, particularly South Bay streams, flowed to the Bay intermittently.

SCVWD has committed considerable resources to determine the origin of Chinook salmon in Santa Clara Valley. Chinook and steelhead populations’ genetics, radio telemetry and trapping of adult Chinook, and historical ecology assessments are a few of the efforts SCVWD has funded and shared with the GCRCD. The most current, scientific information has been utilized in this DSEIR analysis as well as in other documents SCVWD has produced. Therefore, SCVWD believes that its analysis of Chinook salmon in the DSEIR is correct and revisions for this species are not required. Mitigation measures (i.e., gravel augmentation, instream complexity) and BMPs (GEN-1, -2, -4, -8, -20, -23, -26, -30, -32, and -33) in the SMP Update would provide ancillary protection for Chinook salmon while still focusing on native fish that are imperiled (i.e., steelhead). If more current, creditable, scientifically defensible information is available in the future, SCVWD will utilize that new information.

Response to Comment M-5

The comment suggests that heavy equipment in stream channels will have a substantial effect on fish habitat and benthic macroinvertebrate populations, and that the effects of heavy equipment in streams are not adequately described in the DSEIR. SCVWD acknowledges the effects of heavy equipment, but disagrees that such impacts were inadequately addressed in the DSEIR. Heavy equipment only would be operating within stream channels during sediment removal and bank stabilization projects. During such projects, the physical alteration of the substrate (e.g., removal in the case of sediment removal, and removal or replacement of at least a portion of the channel bed with more stable materials in the case of bank stabilization) would have a much greater effect on fish habitat and benthic macroinvertebrates than simply the operation of heavy equipment. Because the use of heavy equipment would occur in areas where even greater impacts from sediment removal and substrate alteration would happen, as discussed in the DSEIR, a lengthy discussion of the additional effects of using equipment to perform these activities is unnecessary. In addition, crushing of invertebrates by heavy equipment was discussed in the DSEIR (e.g., the second paragraph on page 3.3-52).

Nevertheless, the DSEIR is revised as follows to include explicit discussion of the effects of heavy equipment on the stream substrate and on macroinvertebrate populations:

The ninth paragraph in Bank Stabilization, Fish, under Determination of Impacts to Wildlife and Fisheries has been added (on page 3.3-50 of the DSEIR):

Bank stabilization activities often necessitate the operation of heavy equipment within the stream bed (after dewatering). Movement of heavy equipment may compact the substrate, potentially killing benthic invertebrates (which may serve as prey for fish), embedding gravel within finer sediments, and otherwise altering habitat for fish and their prey.

The fourth paragraph on Invertebrates, under Determination of Impacts to Wildlife and Fisheries (on page 3.3-52 of the DSEIR):

Invertebrates. Invertebrates occur in and adjacent to channels where bank stabilization activities are planned. In these areas, invertebrates could be either killed directly (e.g., by crushing) or adversely affected by the loss of host plants or disturbance of refugia. For species such as moths and butterflies, host plants may be damaged or killed as a result of work site clearing (e.g., before the installation of bank armoring or during the creation of access roads or staging areas), crushing by equipment, trampling by personnel, and soil compaction by heavy equipment. In addition, these species may be adversely affected by habitat conversion, which could result from the unintentional introduction of non-native grasses and forbs to work sites. Bank stabilization activities often necessitate the operation of heavy equipment within the stream bed (after dewatering). Movement of heavy equipment may compact the substrate, potentially killing benthic invertebrates, embedding gravel within finer sediments, and otherwise altering habitat conditions.

Following the sixth paragraph under Impact BIO-8 (starting on page 3.3-99 of the DSEIR):

Bank stabilization and sediment removal activities often necessitate the operation of heavy equipment within the stream bed (after dewatering). Movement of heavy equipment may compact the substrate, potentially killing benthic invertebrates (which may serve as prey for steelhead), embedding gravel within finer sediments, and otherwise altering habitat for fish and their prey.

The second paragraph under Impact BIO-9 (on page 3.3-109 of the DSEIR):

As described under *Determination of Impacts to Wildlife and Fisheries*, proposed maintenance activities may result in adverse effects to habitat used by both of these fish through dewatering, fish relocation, increased turbidity, changes in habitat structure, effects of heavy equipment use on these species, their prey, and their habitat, and other impact pathways. Permanent habitat impacts to these species' habitats are expected to be very limited but could potentially occur if bank stabilization activities replaced their habitat with hardscape. Electrofishing for fish relocation, stranding, herbicide and surfactant use, and increased turbidity may result in the direct injury or mortality of individual fish.

SCVWD agrees with the comment that disturbance of stream sediments can result in adverse effects on fish habitat, including salmonid spawning habitat, and the DSEIR includes

compensatory mitigation measures (Mitigation Measures BIO-8 and BIO-9 addressing gravel augmentation and replacement of instream habitat complexity) and a number of BMPs (e.g., GEN-4, -20, -26, and others) to minimize the effects of SMP Update activities on fish habitat.

Response to Comment M-6

SCVWD is pleased that the GCRCDD supports gravel augmentation as a mitigation measure. After discussions with the NMFS, SCVWD has revised the mitigation strategy for gravel augmentation, reducing the threshold for evaluation of gravel for suitability as spawning habitat, and for mitigation, to 100 square feet of “high quality” gravel impacted instead of 500 square feet that was outlined in the DSEIR. SCVWD has analyzed the last 10 years of sediment removal data to understand what the magnitude for replacement may look like for mitigation. SCVWD believes, and NMFS supports, the 100-square foot threshold as a fair compromise to minimize impacts to steelhead while still providing benefit to the species. The objective for sediment removal in this program includes removing sediment for channel capacity to alleviate or reduce flooding, remove mercury laden or other contaminated soils, ensure proper function of instream structures (i.e., stream gauge, fish ladder, outfalls, tide gates), and provide for anadromous fish passage. All of these objectives would provide benefits to the community while some would provide direct benefits to the natural resources. As previously stated, although directed at steelhead, this mitigation measure would provide benefit to Chinook salmon.

Therefore, the discussion under Mitigation Measure BIO-8 of the DSEIR is revised as follows:

[in the second sentence of the first paragraph]

SCVWD will implement gravel augmentation as mitigation for SMP impacts to CCC and SCCC steelhead spawning habitat. If more than ~~500~~100 square feet of sediment removal is proposed along steelhead streams, an SCVWD fisheries ecologist will assess the sediment removal site for spawning and rearing habitat quality before the initiation of work.

[in the first sentence of the last paragraph]

If more than ~~500~~100 square feet of high-quality gravel will be removed along steelhead streams, compensatory mitigation will be provided by the installation of suitable spawning gravel along the affected creek at a 1:1 (mitigation:impact) ratio on a square footage or acreage basis.

Furthermore, the identical sentences in the Mitigation Monitoring and Reporting Plan Matrix in Appendix L of the DSEIR are likewise revised.

Appendix C in the DSEIR is revised entirely in Volume II of this FSEIR.

SCVWD concludes that with this mitigation, the Proposed Project would not make a considerable contribution to any significant cumulative impacts relative to spawning gravel.

Therefore, no further assessment of cumulative impacts beyond that already conducted in the DSEIR is necessary to evaluate the size threshold for mitigation, or for any other reason.

Response to Comment M-7

Per the comment, third paragraph under Impact BIO-8 (on page 3.3-99 of the DSEIR) is revised as follows so that the discussion of bank stabilization impacts to steelhead includes more quantification of the potential impacts to habitat used by these fish. These revisions include the assumption that no more than half of bank repairs would consist of impervious hardscape bank stabilization work, as well as information on the extent of modified and unmodified channels that were impacted by bank stabilization projects in the Santa Clara and Pajaro Basins during the period 2002–2010 (this information provides a crude estimate of the potential annual bank stabilization needs during the 2012-2022 period):

The extent of potential impacts to steelhead and their habitat resulting from bank stabilization activities is difficult to quantify, because stabilization activities cannot be projected and because the magnitude of the impact of stabilization would depend on the type of repair method used and the location of the repair project. However, the extent of bank stabilization work that is expected to occur in steelhead habitat would be relatively low, based on SMP activities conducted since 2002. Between 2002 and 2010, approximately less than 1 mile of bank stabilization work per year has occurred throughout the Project Area, including non-steelhead streams}. SCVWD's records indicate that less than 20 percent of this bank stabilization work occurred in unmodified channels, which likely provide the highest-quality habitat for steelhead. Furthermore, SCVWD expects that no more than half of the bank repairs during the period 2012–2022 to consist of impervious hardscape bank stabilization work. As a result, and because of the potential long-term benefits of bank stabilization to steelhead habitat described above, little long-term adverse impact to steelhead habitat is expected to occur as a result of 2012–2022 bank stabilization activities.

Please see response to Comment D-23 regarding revisions to Mitigation Measure BIO-9.

Cumulative impacts of the SMP Update on biological resources are described in Section 4.5 of the DSEIR. The cumulative impacts analysis considered the effects of proposed SMP Update activities in combination with effects of other projects, including SCVWD's capital projects and other activities that could affect biological resources such as streams, streambanks, riparian habitat, and fish. That impacts analysis determined that, with the implementation of mitigation measures not only by the SMP Update, but also by SCVWD's capital projects and other projects that could affect these resources, cumulative impacts to these resources (aside from habitat fragmentation impacts) would be less than significant. The SMP Update would mitigate its impacts on steelhead and their habitat, including both instream habitat and riparian habitat, adequately; SCVWD is in consultation with NMFS to obtain approval to impact steelhead and its habitats.

Response to Comment M-8

As shown in Table 2-4 of the DSEIR, the majority of bank stabilization methods would use biotechnical or “soft” features. SCVWD is committed to prioritizing softscape approaches for bank stabilization. However, site conditions would vary and flood protection would be the first goal for stream management activities. As stated on page 2-17 of the DSEIR, “sites with eroding or destabilized banks are evaluated for their local on-site soil conditions, slope stability, channel position, and geomorphic processes. An overall assessment is performed to determine the most appropriate treatment to stabilize the bank, with consideration of habitat, species use, and other site beneficial uses. Based on the condition assessment, the SCVWD design engineer will develop a treatment approach that stabilizes the streambank while trying to minimize the use of hardscape. Depending on work site conditions and hydraulic forces, the design engineer may favor the use of hardscape elements over softscape treatments if there is an increased risk for potential failure of the softscape treatments over the longer-term.”

Evaluation of all potential impacts resulting from bank stabilization activities using both biostabilization and hardscape techniques were conducted in each resource section in Chapter 3, *Environmental Setting and Impact Analysis*, of the DSEIR. Please refer to the specific “bank stabilization” subheadings under each impact. BMPs necessary to reduce the level of potentially significant impacts resulting from bank stabilization efforts are identified under each impact.

More BMPs than just the three bank stabilization-specific BMPs (BANK-1 through BANK-3, detailed in Table 2-12 of the DSEIR) would apply to bank stabilization efforts. For example, construction-related impacts of bank stabilization installation for soft or hardscape designs would be similar, and appropriate BMPs such as GEN-1, -20, -26, and -33 (identified by resource topic in Chapter 3 of the DSEIR) would be applied for construction of each work site, whether the design included hardscape or not. Impacts of softscape and hardscape bank stabilization approaches would be mitigated through the Mitigation Feasibility Assessment and implementation of on-site and/or off-site mitigation.

The SMP Update and relevant BMPs are designed to meet the Water Resources Stewardship Ends Policy; one of the governance policies of SCVWD’s Board of Directors, adopted in April 2004 and revised in July 2011. Preference for use of soft bank stabilization approaches would be incorporated directly into the SMP Update. No further mitigation measures or BMPs would be necessary to reduce impacts of bank stabilization activities.

Response to Comment M-9

This comment requests that BMP ANI-1 be revised to reflect the increased secondary toxicity (i.e., poisoning of raptors or scavengers that eat poisoned rodents) of new anticoagulant rodenticides. However, SCVWD uses older, “first-generation” formulations of anticoagulants rather than these newer, more toxic formulations. SCVWD proposes to use two anticoagulants, diphacinone and chlorophacinone, both of which are considered first-generation chemical compounds by USEPA¹. First-generation anticoagulants are chronic in their action, requiring multiple feedings over several days to a week or more to produce

¹ U.S. Environmental Protection Agency. 2011. Final risk mitigation decision for ten rodenticides. Available at: <http://www.epa.gov/pesticides/reregistration/rodenticides/finalriskdecision.htm>.

death, whereas second-generation anticoagulants (e.g., bromadiolone and brodifacoum) are more potent and can produce death after one feeding. Non-target species such as raptors or scavengers would have to eat multiple poisoned rodents for mortality to occur from the first-generation pesticides used by SCVWD.¹ A study published by Eason et al. in 2002² stated that the risk to avian predators from secondary poisoning from first-generation anticoagulants appeared to be an order of magnitude lower than that of second-generation anticoagulants. As a result, SCVWD is using anticoagulants that have the lowest risk of secondary poisoning but will still be effective for SCVWD's needs, rather than using the newer pesticides about which the comment expresses concern.

Comparing the two anticoagulants used by SCVWD, diphacinone has a higher risk of secondary toxicity than chlorophacinone. Therefore, SCVWD uses diphacinone only when chlorophacinone is not adequately effective. For example, SCVWD did not use diphacinone at all in 2010 because it was not determined to be necessary. In cases where diphacinone is required, it typically is inserted belowground for gopher control. Any gophers killed by diphacinone are expected to die underground, where a very low potential exists for raptors or scavengers to detect and eat them. Nevertheless, BMP ANI-1 will be revised to further minimize the risk of secondary poisoning, as follows:

Carcass surveys will be conducted periodically when acute poisons and first generation anticoagulants are used. The frequency of the carcass surveys will be specific to the type of rodenticide used. In areas where rodenticides are used, carcass retrieval surveys will be conducted as follows to minimize secondary poisoning impacts:

- Acute toxins-Daily, carcass surveys, beginning the first day after application until the end of the baiting period for acute toxins used above-ground .
- Anticoagulants-Weekly for anticoagulants Within 7 days of installation of first generation anticoagulant bait, and weekly thereafter. Anytime a carcass is found, daily carcass surveys will begin for as long as carcasses are found until no carcasses are found during a daily survey. Once no carcasses are found, carcass surveys will return to the weekly carcass survey timeline maximum from the date of initial installation of an anticoagulant bait station.

In addition, twice per year District biologists will conduct daily carcass surveys for a full cycle of a baiting trap, to minimize secondary poisoning impacts. To verify that the frequency of carcass surveys is adequate, a biologist will conduct daily carcass surveys 2 times per year over one baiting cycle. Based on the results of these surveys, the timing of carcass surveys will be adjusted if necessary.

Any spilled bait will be cleaned up immediately.

Thus, carcass surveys for anticoagulant use will commence one week after application (because these anticoagulants can take up to a week to kill rodents) and will continue daily thereafter, as long as carcasses continue to be found during each visit.

¹ U.S. Environmental Protection Agency. 1998. R.E.D. Facts. Rodenticide cluster. Prevention, Pesticides and Toxic Substances (7508W). EPA-738-F-98-004.

² Eason, C. T., Murphy, E. C., Wright, G. R. G., Spurr, E. B. 2002. Assessment of risks of brodifacoum to non-target birds and mammals in New Zealand. *Exotoxicology* 11:35-48.



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 CHARLTON H. BONHAM, Director



Letter N

October 5, 2011

Ms. Sunny Williams, Environmental Planner
 Santa Clara Valley Water District
 5750 Almaden Expressway
 San Jose, CA 95118
sunnywilliams@valleywater.org

Dear Ms. Williams:

Subject: Stream Maintenance Program Update 2012-2022, Draft Subsequent Environmental Impact Report, SCH #2000102055, Santa Clara County

The Department of Fish and Game (DFG) has reviewed the Santa Clara Valley Water District's (District) document provided for the subject program, and we have the following comments.

General Comments:

N1

1. Due to the widespread implementation of burrowing rodent control activities, including the use of rodenticides, DFG advises the District to prepare a Pesticide/Pest Management Plan for appropriate wildlife agency review and approval.

N2

2. Due to the planned widespread use of herbicides for vegetation management, DFG advises the District to prepare an Herbicide Use Plan for appropriate wildlife agency review and approval.

N3

3. DFG advises the District to prepare a Grazing Management Plan for appropriate wildlife agency review and approval.

N4

DFG acknowledges there are both ecological services-based and land acquisition-based components to the mitigation program for the Stream Maintenance Program Update (SMP). While some ecological services-based mitigation is acceptable, DFG emphasizes the need for land acquisition-based mitigation. It is a requirement for impacts to state-listed species. DFG requests that text be added to the draft Subsequent Environmental Impact Report (SEIR) stating "The District shall provide for compensatory mitigation by acquiring or protecting appropriate mitigation lands and populations of special status species with a conservation easement that is made out in favor to the appropriate wildlife agencies. Any mitigation lands with a conservation easement shall include an endowment and long-term management plan."

N5 4. The document makes numerous references to "work area percentage" for sediment removal and vegetation management activities. There are several references to Chapter 2 to find discussion on this. However, "work area percentage" is not mentioned in Chapter 2. Please provide a thorough description of how "work area percentage" will be calculated for these activities.

N6 5. The document describes the development of several Habitat Mitigation and Management Plans for special-status species. DFG requests that these plans be submitted to DFG for review and approval prior to being finalized.

7. DFG recommends the District revise and clarify different types of temporal biological impacts in the Final EIR. Types of temporal impacts may include one-time temporary habitat impacts that can be restored, short-term habitat impacts that can be restored, permanent impacts where habitat is permanently removed, and repeated impacts where habitat is either permanently removed or habitat begins to re-establish and is repeatedly removed. This last type of impact generally is the greatest and the final EIR should identify additional incremental mitigation for these types of impacts.

N7 Species presence in the habitat types during the various types of impacts should also be evaluated and impacts to listed and sensitive species should be mitigated. For listed species, take could occur with temporary impacts, short-term impacts, permanent impacts and repeated impacts. DFG recommends the District analyze repeated impacts to see if any listed or sensitive species would be affected by these impacts and if habitat and species re-establish in between impact events, then additional mitigation beyond one-time compensation should be identified in the Final EIR.

DFG generally recognizes temporary impacts as those where the impacted site supports an herbaceous vegetation habitat that can grow to maturity in a single growing season, the impacted site is recontoured and seeded by October 31 of the year of the temporary impact; and the impact site achieves vegetation success as described in a Vegetation Restoration Plan approved by DFG.

DFG recommends short-term habitat impacts be described as single year impacts to sites supporting woody vegetation, such as chaparral or riparian areas, where the impacted site is re-planted with appropriate, naturally occurring vegetation prior to November 30 within the year of impact and the site is managed and monitored for a multi-year period to achieve revegetation success as described in a Vegetation Restoration Plan approved by DFG.

DFG recommends permanent impacts be any impacts that permanently remove habitat or remove the habitat for more than two growing seasons. DFG recommends that all permanently impacted habitat types be mitigated by

N7 ↑ conservation and enhancement of similar habitat on at least a 1:1 ratio. If the habitat is sensitive or support sensitive or listed species, DFG recommends additional mitigation.

DFG recommends the repeated or recurring impacts be carefully evaluated to determine whether the activities will permanently remove habitat or whether habitat is expected to temporarily re-establish in between impacting events. Also, repeated impacts should be analyzed to identify whether sensitive or listed species will be impacted by the action and whether sensitive or listed species could re-establish in the area in between impacting events. Any impacts to sensitive or listed species should be mitigated by the permanent conservation enhancement, management and funding of occupied habitat sufficient to offset the impacts. Recurring impacts that repeatedly take listed species should be mitigated through additional incremental habitat conservation or sufficient habitat should be conserved and managed to conserve the species.

DFG will consider the analysis of impacts and the mitigation measures in the Final EIR related to these topics when developing permits and approvals as a responsible agency. The District should obtain a California Endangered Species Act (CESA) Incidental Take Permit (ITP) for any take of state listed species. DFG is available to work with SCVWD to develop a 10-year ITP to provide take authorization for state listed species impacts during the next 10-year SMP implementation period. Additionally, approval and implementation of the draft Santa Clara Valley Habitat Plan, if finalized as a Natural Community Conservation Plan with an associated permit, may also be able to contribute to overall species conservation and may mesh with certain mitigation needs of the SMP.

Executive Summary

N8 | *Pages ES-6 and 2-17 (Chapter 2) – Sediment disposal sites:* The draft SEIR identifies several sediment reuse locations but states that the District may add other upland or aquatic sites to its disposal options. Additional disposal sites should be identified in the Final SEIR. Any additional new sediment reuse location sites would require additional California Environmental Quality Act (CEQA) review.

N9 | *Pages ES-7 and 2-20 (Chapter 2) – Tree removal:* The draft SEIR states that the removal of trees and shrubs less than or equal to 12 inches diameter at breast height (dbh) is permissible only if they are required for bank stabilization projects, ecological health/stewardship purposes, or to maintain flow conveyance. What is the rationale for increasing the maximum diameter of tree removal from 6 inches dbh under the 2002-2012 SMP to 12 inches dbh under the SMP Update (2012-2022)? In addition, describe how the District will determine when it is appropriate to remove a tree for health and/or stewardship purposes.

N10 | *Page ES-8 – Grading:* Among the items listed under Minor Maintenance Activities proposed under the SMP Update, the District proposes to grade small areas without vegetation above stream banks to improve drainage and reduce erosion. Please disclose the estimated area that would be graded for this purpose.

N11 | *Page ES-8 – Canals:* The draft SEIR states that the SMP Update would include routine and periodic maintenance on canals. Please clarify whether sediment removal activities are anticipated to occur when canals are dry or whether dewatering will be required.

Pages ES-10 and 2-26 (Chapter 2) – Work windows: The draft SEIR describes a work window for sediment removal, in-stream vegetation and herbicide application, and bank stabilization, which would generally occur between June 15 and October 15. The document then states that if the fall season remains dry, work could continue until the first significant rainfall event occurred (defined as local rainfall of 0.5 inches or greater within the watershed over a 24-hour period), and that no instream work (excluding hand pruning and hand removal in non-steelhead streams) would continue later than December 31.

N12 | DFG advises the District to retain the same type of work window that has been utilized under the existing SMP, which allows work to continue beyond October 15 until October 30 if more than 50 percent of a project is complete. Certain activities (such as small sediment removal projects or vegetation management) that may be stopped quickly and the site winterized effectively may be appropriate to continue into the fall season, pending a dry weather pattern. However, activities such as bank stabilization, large sediment removal projects, or any projects involving dewatering should be restricted to the June 15 through October 15 work window (with the extension to October 30 for projects that are more than 50 percent complete) due to the fact that these types of projects are not easily completed and the site winterized appropriately on short notice. Significant rainfall has begun in October during the past two fall seasons. These work windows are established to minimize impacts and appropriately protect the existing aquatic resources and should be adhered to.

N13 | *Pg ES-11 – Impervious hardscape:* The draft SEIR states that the District has committed that no more than half of non-in-kind bank repairs will consist of impervious hardscape each year. DFG commends the District for striving to reduce the amount of hardscape used in District streams. However, much of the existing hardscape in District streams has been inappropriately placed in past years (much of it prior to the existence of the SMP). DFG advises the District to replace hardscape with natural materials, including plantings, in as much of the District SMP projects as practicable, rather than using “no more than half of non-in-kind repairs” as a benchmark for determining the use of hardscape versus more natural materials in bank repair projects.

Chapters 2 and 3

N14 ↓ *Page 2-5 – Table 2-2:* Footnote 1 below the table refers to sediment removal. Please correct the footnote to say “Certain locations may have been the subject of channel hand

N14 ↑ removal more than once during the 2002-2009 period, but their length are only counted once in this column.”

N15 | *Page 2-6 – Table 2-3:* The table shows one-foot of in-kind repair for the Santa Clara Basin, and 6,403 feet of in-kind repair for the Pajaro Basin. Please clarify what is meant by this (is this in reference to hardscape or softscape?).

N16 | *Page 2-6 – Dam outlet structures:* The draft SEIR states that the SMP includes channel maintenance at dam outlet structures immediately downstream of reservoirs. Please clarify whether this activity is included under the District's Dam Maintenance Program, and if so, why it is covered under the SMP, and how impacts resulting from this activity would be properly tracked and mitigated under the two programs.

Pages 2-15 and 2-16 – Table 2-4: Table 2-4 presents proposed mitigation ratios for various bank stabilization methods. While many of the proposed mitigation ratios that incorporate planting appear to be appropriate for the given bank stabilization method, several of these were mitigated at higher ratios under the original SMP. There is no rationale provided for the District's decision to lower these mitigation ratios.

For example, 2A (live construction with boulder toe) is mitigated at 1:1 if the boulder toe is vegetated or 1.5:1 if the boulder toe is not vegetated. The mitigation ratio for this method where the boulder toe is not vegetated was 3:1 under the original SMP. Several other examples with a similar issue regarding an unvegetated boulder toe are 3A (contour wattling with boulder toe), 4A [brush mattress (brush layering) with boulder toe], and 5A [surface matting (erosion mats) with boulder toe]. In all of these instances, the original SMP incorporated a 3:1 mitigation ratio for an unvegetated boulder toe. Please incorporate the original agreed upon 3:1 mitigation ratio.

Other examples include 7 (cellular confinement), 8 (rock blanket), 8A (boulder revetment, which was named boulder rip-rap under the original SMP), and 9A (articulated concrete blocks with planted areas), which are proposed at a mitigation ratio of 2:1, while under the original SMP, those methods were mitigated at a ratio of 3:1. Again, the document does not explain the rationale for lowering the mitigation ratios for these methods under the SMP Update. DFG advises the District to increase the proposed mitigation ratios for these methods (with the exception of 9A; see discussion in next paragraph) to the levels provided under the original SMP unless the District can provide an adequate rationale for reducing them.

In addition, DFG advises the District to eliminate certain bank stabilization methods, including 9 (articulated concrete blocks), 9A (articulated concrete blocks with planted areas), 10 (concrete crib walls), and 12 (gunite slope protection), due to the fact that the District has had little to no need for installing these methods under the original SMP, they are prone to failure when installed, their lack of habitat value, and the fact that other natural methods are available and have been demonstrated to be equally or more effective.

N17

N18 | *Page 2-24 – Emergency repairs:* The draft SEIR lists activities that are not included in the SMP Update, including emergency repair work. Please note that it is not necessary to notify DFG before beginning emergency (as defined in Section 21060.3 of the Public Resources Code) repair work necessary to protect life or property. DFG must be notified within 14 days after beginning emergency repair work. Information regarding emergency repair work can be accessed at <http://www.dfg.ca.gov/habcon/1600/forms.html>.

N19 | *Page 2-27 – Gabions:* The bottom paragraph mentions the use of “hard structures” including sacked concrete and gabions. DFG advises the District to eliminate the use of sacked concrete as a type of bank stabilization method (see discussion above). Gabions are not included in Table 2-4 and should be eliminated from the text in this section.

N20 | *Page 2-27 – Hybrid bank stabilization:* The term “hybrid” used in Table 2-4 should be defined in the text on this page where the terms “hardscape” and “softscape” are defined. Please clarify how the use of hybrid bank stabilization methods fit into the District’s commitment that no more than half of non-in-kind bank repairs will consist of impervious hardscape each year. Does the “no more than half” include hardscape such as rock toe that is a component of the hybrid methods? If not, would it be accurate to say that the District can achieve this commitment?

N21 | *Pages 2-35, 3.3-42, 3.3-43, 3.3-72, 3.3-73, 3.3-79, 3.3-87, 3.3-99, 3.3-144, and 3.3-163 – Mitigation in perpetuity:* The draft SEIR discusses the original mitigation program developed to address compensatory mitigation for the SMP 2002-2012, and the fact that the mitigation provided for the stream reaches in that original program continues in perpetuity. The document states that the compensatory mitigation program proposed for the SMP 2012–2022 addresses potential impacts anticipated for new work sites that were not included in the original SMP 2002–2012 work projections and not accounted for in the initial mitigation package, and that additional mitigation would be required for the new work sites only. This implies that the intent of the original SMP 2002–2012 is to mitigate for impacts to stream reaches that would undergo repeated maintenance in perpetuity.

DFG needs clarification on this proposition. Margaret Paul (Environmental Scientist, DFG) stated that the CEQA and Lake and Streambed Alteration Agreement (LSAA) negotiations, which she participated in, of the SMP 2002–2012 was to mitigate in perpetuity for impacts that occurred (some repeatedly) within the term of the original SMP 2002-2012. The original SMP was not developed such that there could be repeated impacts in perpetuity without additional CEQA review, permitting, and mitigation after the original SMP 2002-2012 term.

Under CEQA, the SMP 2012–2022 is a project. The District has identified the term of this project as ten years. It is assumed that there may be repeated disturbances to certain areas during the ten-year term of the SMP program. DFG permits and approvals will cover impacts to those areas for the ten-year term. If, after the ten-year term, the District wishes to continue to implement the SMP, this would be considered a new project under CEQA, which would require new CEQA review, permitting, and mitigation.

N22

Pages 2-36, 3.3-73, and 3.3-79 – Programmatic mitigation program: The draft SEIR describes the District's mitigation approach under the new SMP 2012-2022, which includes a new component where ecological services are provided annually on an as-needed basis. Please describe what is meant by bullet number 3 (New Programmatic Mitigation) on page 2-36, and how the instream complexity and gravel augmentation mitigation programs differ from ecological services-type mitigation.

N23

The draft SEIR states that the District proposes to choose between long-term land acquisition projects or ecological services-based annual mitigation projects for its maintenance impacts. A portion of the mitigation identified for state listed species in the draft SEIR relies on the implementation of Mitigation Measure BIO-1 and Mitigation Measure BIO-2, which may include, but do not require, in-perpetuity mitigation. Fish and Game Code Section 2081 requires impacts to any state listed species be fully mitigated and fully funded. A component to an ITP requires conservation of lands that have these species present. DFG will consider, for an ITP, a dual component strategy of conservation of the species on occupied land that will be both 1) land that will be conserved as part of the mitigation into perpetuity and 2) land that would need wildlife habitat enhancement.

Page 2-37 – Table 2-9: Table 2-9 presents the proposed mitigation ratios for sediment removal and vegetation management activities under different types of mitigation components. It is unclear how some of these mitigation ratios were developed. Please clarify how each of these ratios was derived. DFG would review this on a case by case basis.

N24

However, DFG finds several of the ratios provided in Table 2-9 to be inadequate to compensate for the impacts. For example, how did the District determine a mitigation ratio of 1.2:1 for the invasive plant management program and the riparian restoration and planting program? Planting or restoration of 1.2 acres for every acre of riparian habitat impacted does not appear to adequately compensate for the temporal loss that would occur while the newly planted or restored riparian habitat grows to attain the equivalent functions and values of the impacted riparian habitat.

Another example is the mitigation ratio of 0.5:1 for instream habitat complexity features. DFG does not agree that placing 0.5 acres of instream habitat complexity for every acre of impacted stream adequately compensates for the impact to instream habitat complexity. DFG advises the District to reevaluate the mitigation ratios provided in this table and adjust them to adequately compensate for the incurred impacts, along with a justification for each ratio.

Page 2-38 – Permits and approvals: Table 2-10 lists the agency permits and approvals issued for the SMP, including their original dates of issuance and dates of expiration. Please revise the table to accurately portray the 1602 LSAA issued by DFG:

- R3-2001-0119 issued on July 8, 2002; expiration date of December 31, 2006
- Extension issued December 1, 2006; expiration date of December 31, 2007

N25

- N25 ↑
- Extension issued December 3, 2007; expiration date of December 31, 2008
 - Extension issued December 17, 2008; expiration date of December 31, 2009
 - Extension issued January 7, 2010; expiration date of December 31, 2010
 - 1600-2009-0361-R3 issued January 12, 2011; expiration date of December 31, 2014

N26

Page 2-40 – Work windows: Table 2-11 shows a comparison of key differences between the 2002 SMP and 2012 SMP Update. There are a couple inconsistencies in the table and other parts of the document. The last column on page 2-40 shows a work window of July 1 to October 15 for bank stabilization, whereas there are several references to June 15 (including pages ES-10 and 2-26 and BMP GEN-1) as the beginning of the instream work window for activities including sediment removal, herbicide application, and bank stabilization. Please correct the table to accurately reflect a consistent work window.

The last column in Table 2-11 states that work may continue until completion, or until the first 5-day forecast that includes significant rainfall. There are numerous references in other parts of the document (including but not limited to pages 8 and 41 in the SMP Manual, page 2-26, and page 3.3-161) to a 48-hour, 3-day, or 72-hour forecast. Please modify the table and text to reflect a consistent forecast (5-day) on which to base a decision to continue work. Please note that other comments in this letter address the District's proposal to continue work instream after October 15.

N27

Page 2-41 – Rodenticides: The last row in Table 2-11 under Management of Animal Conflicts describes a change from the 2002 SMP pertaining to rodenticides and fumigants. Under the original 2002 SMP, no rodenticides or fumigants were to be used near salt marsh harvest mouse (*Reithrodontomys raviventris*) range, one-half mile of burrowing owl (*Athene cunicularia*) locations, or potential range of sensitive amphibians. Under the 2012 SMP Update, the requirements change, where no rodenticides or fumigants will be used within the current mapped potential range of sensitive amphibians, and specifically designed bait stations will be used to prevent entry of California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana aurora draytonii*), foothill yellow-legged frog (*Rana boylei*), or salt marsh harvest mouse.

Does the District propose to use the designed bait stations to prevent entry of amphibians as a precautionary measure since there is to be no use of rodenticides within the current mapped potential range of sensitive amphibians, or does the second measure conflict with the first? How does the specifically designed bait stations effectively exclude a species such as salt marsh harvest mouse, while allowing other access to target species of rodents? BMP ANI-3 on page 2-73 indicates that the District intends to implement a 656-yard buffer around known locations of burrowing owl where no rodenticides or fumigants will be used. Table 2-11 does not appear to reflect this measure.

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Page 2-44 – Snags: Table 2-11 states that hand removal of woody vegetation may be done for ecological health/stewardship, including snag removal. DFG considers snags to be an important wildlife habitat component which acts as a natural source of woody debris, as well

N28 ↑ as, for food, shelter, and nesting habitat for a wide variety of wildlife, including bats and cavity-nesting birds. Please disclose criteria the District would use to determine the necessity to remove snags.

N29 | *Page 2-44 – Stump treatment:* Table 2-11 lists stump treatment under hand removal activities, rather than categorizing it under herbicide use. What is the District's rationale for this and how will this affect the District's quantification of herbicide use in the SMP program?

N30 | *Pages 2-46 and 3.3-161 – Instream herbicide use:* Table 2-11 shows instream herbicide use between June 15 and October 15. Please modify this work window to end August 15 in the Guadalupe and Coyote watersheds to minimize impacts to upmigrating Chinook salmon and ensure that the text on page 3.3-161 is consistent with this.

N31 | *Page 2-48 – BMP GEN-2:* BMP GEN-2 Instream Herbicide Application Work Window states that any modifications to the use of herbicides and surfactants instream will require review and approval by the National Marine Fisheries Service (NMFS). Please revise to include review and approval by DFG for modifications to the use of these materials anywhere in the SMP (instream or upland).

N32 | *Page 2-49 – BMP GEN-6:* The first bullet in BMP GEN-6 Minimize Impacts to Nesting Birds via Site Assessments and Avoidance Measures states project areas will be checked for nesting birds within two weeks prior to starting work, and if a lapse of two weeks or longer occurs, another focused survey will be initiated. Please revise to checking for nesting birds within one week prior to starting work, and if a lapse of one week or longer occurs, another focused survey will be initiated. The second bullet refers to a buffer of 25 feet for ground-nesting non-raptors. Please revise to a buffer of 50 feet for ground-nesting non-raptors.

N33 | *Pages 2-50, 3.3-197, and 3.3-198 – BMP GEN-7 and Mitigation Measure BIO-13: Implement Compensatory Mitigation for the Burrowing Owl:* BMP GEN-7 and Mitigation Measure BIO-13 refer to burrowing owl eviction, relocation, burrow destruction, and artificial burrows. Due to the historical and continual loss of habitat and the rarity of the burrowing owl in the state, particularly in Santa Clara County, DFG, as a trustee agency, will neither recommend nor approve burrowing owl eviction or relocation, passive or otherwise. These activities can lead to mortality in a significant number of owls. DFG Fish and Game Code Section 3503 says "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 says "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey), or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation made pursuant thereto."

↓ DFG cannot approve the use of artificial burrows. Historically, what applicants have done to address burrowing owl issues is to avoid, minimize, and mitigate for their impacts. This can be done by avoiding activities during the nesting period, and putting into conservation, via

N33 ↑ fee title or a conservation easement, land that contains nesting burrowing owls. Another alternative is to purchase credits from an approved burrowing owl conservation bank. DFG is available to consult with the District on a case-by-case basis for projects involving burrowing owls.

N34 | *Page 2-51 – BMP GEN-9:* The third item under BMP GEN-9 refers to special-status plant surveys being conducted at appropriate times of year to identify plants. Please revise the text to state “The District will conduct updated focused-species rare plant blooming-period surveys according to the *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (CDFG 2009).” The survey protocol can be accessed at http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf.

N35 | *Page 2-53 – BMP GEN-12:* BMP GEN-12 refers to a 25-foot buffer that will be established around any active western pond turtle nests. DFG advises the District to increase this buffer to 50 feet. Include the presence of a full-time biological monitor when maintenance activities are conducted in the vicinity of the active nest.

N36 | *Pages 2-56 and 3.3-222 – San Joaquin kit fox:* Impact BIO-40: Impacts on the San Joaquin Kit Fox describes the San Joaquin kit fox (*Vulpes macrotis mutica*) as federally endangered. Please revise to include the status of this species as state threatened. BMP GEN-5.5 Avoidance of Impacts on the San Joaquin Kit Fox states that if a natal/pupping den is discovered within the project area or within 200 feet of the project boundary, the U.S. Fish and Wildlife Service (USFWS) will be immediately notified and that destruction of any known or natal/pupping kit fox den would require take authorization from USFWS. Please revise this BMP to include the requirement of take authorization from DFG if take (defined by Fish and Game Code 86 as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill) will occur.

N37 | *Page 3.3-10 – Incidental Take of state-listed species:* The draft SEIR refers to the need for a CESA take permit or other approval for several state listed species, including but not limited to California clapper rail (*Rallus longirostris obsoletus*), California black rail (*Laterallus jamaicensis coturniculus*), California condor (*Gymnogyps californianus*), bald eagle (*Haliaeetus leucocephalus*), and salt marsh harvest mouse. These five species are fully protected species for which there is not a permitting process for their take (Fish and Game Code sections 3511 and 4700). Take, as defined by Fish and Game Code Section 86, means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. Therefore, any activities that result in take of these species, including being captured in a trap or poisoning from herbicide or rodenticide (either by direct consumption or by secondary poisoning) must be completely avoided for these species.

N38 | *Page 3.3-41 – Herbicide:* In the fourth paragraph there is a sentence that states that in general, herbicide has less impact than hand removal because hand removal is targeted to specific plants. Please clarify the intent of this statement.

N39 | *Page 3.3-42, 3.3-72, 3.3-79, 3.3-142, 3.3-162, and 3.3-163 – Quantification of impacts:* The draft SEIR discusses the District's intent to refine the quantification of impacts during implementation of project activities and tallying those impacts up at the of the end of a given year such that they would be used as the basis for determining mitigation, which would then be implemented at either that year's end or the following year. How would this method account for temporal loss of habitat? Also, DFG does not find this method appropriate for state listed species, because CESA ITPs are issued with impacts identified and quantified and the mitigation is described in the Permit.

N40 | *Pages 3.3-60-3.3-62: Pyramat and chain link fencing:* The draft SEIR identifies several materials in the Management of Animal Conflicts portion of the SMP to prevent burrowing animals from establishing new burrows. Materials proposed include surface application of erosion control blankets, pyramat, and chain link fencing. DFG does not approve the use of plastic materials, such as pyramat, in or near stream banks. Although tightly woven to minimize the likelihood of entanglement issues with reptiles and amphibians, DFG staff has observed portions of pyramat becoming unanchored within less than one-year of installation. Plastic materials such as this may be dislodged during high flows. This may lead to entanglement issues, water quality issues, and the introduction of plastic debris into the stream channel. DFG also has concern with the use of chain link fencing, as this too may become dislodged during high flows and result in washing downstream.

N41 | *Pages 3.3-64-3.3-67 – Tables 3.3-5 and 3.3-6:* Tables 3.3-5 and 3.3-6 show the projected impact acreages due to sediment removal and vegetation management by habitat type and activity (non-tidal reaches and tidal reaches, respectively). The habitat types include woodlands, herbaceous (non-wetland), sediment wetland, aquatic (wetland), herbaceous (wetland), shrub, and misc. DFG is not clear what is meant by sediment wetland, aquatic wetland, and herbaceous wetland. Please clarify. For example, DFG assumes that if sediment is in the channels, that impacts of sediment removal would result in some level of impact to aquatic wetlands. However, the tables show the column of impact to aquatic wetland to be 0 in most watersheds. Please define these terms and describe what information the tables are meant to convey.

N42 | *Pages 3.3-68, 3.3-107, 3.3-112, 3.3-159, and 3.3-183 – Work area percentage:* See General Comment 5 at the beginning of the letter.

N43 | *Page 3.3-69 – Canals and other wetlands:* The draft SEIR states that the majority of wetlands and aquatic habitats providing important ecological functions and values are jurisdictional waters of the United States by the U.S. Army Corps of Engineers (USACE), and canals subject to SMP activities are not expected to be considered waters of the United States. DFG has adopted the USFWS' one-parameter definition of a wetland, and has adopted the State's no net-loss policy on wetlands (Fish and Game Code, 2011-Wetland Resources page 578). DFG requests that the District map and assess impacts to canals and other wetlands meeting the one-parameter definition and proposed appropriate mitigation.

Page 3.3-72 – Inoperable canals: The draft SEIR states that no mitigation is necessary for impacts to non-jurisdictional “other waters,” which are limited to unvegetated areas of inoperable canals. Any canals holding water may be considered a wetland under the one-parameter definition of a wetland. See the comment for page 3.3-69 above for discussion pertaining to canals.

Page 3.3-72 – Wetland impacts: See the comment for page 2-36 above pertaining to the District choosing between mitigation in perpetuity versus pay-as-you-go mitigation.

Page 3.3-72 – In perpetuity mitigation: The draft SEIR says “For permanent impacts and, at the discretion of SCVWD, repetitive impacts to wetlands or other waters in a specific area, the District will provide mitigation in perpetuity via one or more of the following methods.” The document lists various methods of in perpetuity mitigation as well as pay-as-you-go mitigation. DFG advises the District to implement in perpetuity mitigation for permanent impacts. Please revise the text to ensure that in perpetuity mitigation is implemented for permanent impacts.

Pages 3.3-72, 3.3-73, and 3.3-79 – In perpetuity mitigation ratios: The draft SEIR presents the mitigation ratios for in perpetuity mitigation. They are in-kind restoration/creation (1.5:1), in-kind preservation and enhancement (3:1), and out-of-kind preservation of watershed lands (8:1). In-kind restoration does not provide the equivalent level of mitigation as in-kind creation, and therefore the two types of mitigation should be accounted for separately and corresponding mitigation ratios should be proposed to adequately reflect their differing mitigation values. In addition, please provide the rationale for proposing a low mitigation ratio of 1.5:1 and describe why this ratio is lower than that provided for in-kind preservation and enhancement (3:1). In-kind creation will require a longer timeline to achieve the functions and values equivalent to habitat that would be restored, preserved, and enhanced. Note that DFG does not generally approve out-of-kind mitigation. DFG is willing to review this proposal on a case-by-case basis. The 8:1 mitigation ratio for land acquisition in watershed lands out of kind is acceptable.

The last item in the list of possible in perpetuity mitigation refers to the District collaborating with owners of land that is currently managed for open space or passive recreation. DFG does not approve enhancement or management of land that is in public ownership as mitigation. The District needs to focus in perpetuity mitigation on lands not in public ownership.

Page 3.3-73 – Pay-as-you-go mitigation: Please provide the rationale for the low mitigation ratio for the pay-as-you-go mitigation of 1.2:1. How does the proposed mitigation ratio adequately compensate for impacts from sediment removal and vegetation management, in terms of the temporal loss of habitat due to the time it would take for riparian plantings to effectively match the functions and values of habitat lost during maintenance activities?

N50 | *Page 3.3-75 – Mitigation for bank stabilization impacts:* The draft SEIR states that impacts to non-tidal wetlands and aquatic habitats resulting from bank stabilization will be provided using the mitigation ratios identified in Table 2-4. See the comment to pages 2-25 and 2-26 with regard to the mitigation ratios in that table. The text on page 3.3-75 describes softscape repairs as self-mitigating because they will not result in long-term adverse effects. The ratios for softscape repairs in Table 2-4 are generally 1:1, which is not self-mitigating. A self mitigating mitigation ratio is 0:1, which would not be appropriate for these repairs. Please revise the text on page 3.3-75 to accurately describe the ratios.

N51 | *Pages 3.3-77 and 3.3-80 – Table 3.3-9:* Table 3.3-9 shows the estimated impacts to riparian woodland, forest, and scrub-shrub from projected vegetation management in each watershed. The total amount of pruning projected for all the watersheds is shown as 13.4 acres. However, the first paragraph on page 3.3-77 and the fourth paragraph on page 3.3-80 refer to 40 acres of pruning. Page 3.3-80 also discusses 12 acres of pruning, based on a mitigation factor of 0:3. It is unclear how the 13.4 acres was calculated in Table 3.3-9 and how this relates to the 40 acres and 12 acres discussed in the text. Please clarify.

N52 | *Page 3.3-77 – Repetitive riparian impacts:* The draft SEIR implies that impacts to woody riparian vegetation would mostly be considered temporary. However, the document acknowledges that impacts to riparian vegetation that are repetitive will prevent re-growth. Please clarify.

N53 | *Pages 3.3-80 and 3.3-105 – Tree replacement ratios:* The draft SEIR describes tree replacement ratios for removed trees (6 to 12 inches dbh) at either 1:1, 2:1, or 3:1, depending on the overall quality and function of the removed trees. After reviewing Attachment C (Tree Scoring for Removal of Trees and Shrubs ≤ 12 " dbh) of Appendix A (2012 SMP Manual), DFG does not consider the tree replacement ratios to adequately compensate for removal of trees up to 12 inches dbh. The methodology described in Attachment C of Appendix A does not appear to consider dbh or the fact that planting between 1 and 3 acorns or seedlings in place of a tree with a stem diameter up to 12 inches dbh will not adequately account for the temporal loss of habitat provided by that tree. Depending on the tree species, it may take several years for the newly planted trees to achieve comparable stature and habitat value to that of the lost tree. DFG advises the District to implement tree replacement ratios such that native trees are replaced at a minimum ratio of 3:1.

N54 | *Page 3.3-82 – Impacts to sensitive plant communities:* The draft SEIR describes projected acreages of impacts to various sensitive plant communities such as coast live oak and valley oak woodlands, sycamore-dominated woodland, and serpentine communities. Please provide this data in the form of a table to facilitate reference.

N55 | *Pages 3.3-82 and 3.3-89 – Repetitive serpentine impacts:* The draft SEIR states that impacts to serpentine plant communities would be considered temporary despite the repetitive nature. Impacts to serpentine plant communities that are repetitive should be considered permanent due to the fact that the ability for the serpentine plant communities to regenerate may be limited with repeated disturbance. Please clarify this point in the text.

N56 | *Pages 3.3-88, and 3.3-234 through 3.3-243 – Plant surveys:* The draft SEIR refers to plant surveys that the District conducted in 2004 and 2008. DFG considers plant surveys older than two years generally outdated. DFG requests that the District conduct updated focused-species rare plant blooming-period surveys according to the *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (CDFG 2009). The survey protocol can be accessed at http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf.

N57 | *Pages 3.3-88 through 3.3-100 – Mitigation for special-status plants:* The draft SEIR describes the impacts and proposed mitigation for special-status plants. Note that under Section 15380 of the CEQA Guidelines, DFG will require mitigation for any impacts to rare or sensitive plant species, regardless of the portion of the population size impacted. As part of the mitigation required for impacts to sensitive plant species, DFG will require the District to 1) acquire or protect through a conservation easement land containing the target sensitive plant species; 2) implement a minimum 5-year monitoring plan with adaptive management to document the success of reintroducing seed propagules to a mitigation site; and 3) ensure that seeds of any rare plant species not already in a seed conservation bank be placed into a seed conservation bank repository for long-term storage for availability of genetic research and reintroduction conservation work. Any transplanting of special-status plants shall be coordinated with the appropriate wildlife agencies.

N58 | *Page 3.3-93 – HMMP for special-status plants:* The draft SEIR describes elements that will be included in the HMMP for special-status plants. In the last bullet on the page, there is a description of numerous monitoring measures to be included in the HMMP. Please include monitoring to address necessary remediation for any exotic plants that are accidentally introduced into the mitigation site.

N59 | *Page 3.3-105 – Impact BIO-7:* Impact BIO-7 describes the loss of ordinance trees that may result from project activities. The document acknowledges that some ordinances may be size-based, while some may be species-based and that there isn't always a distinction between native and non-native species. DFG advises the District to work with the appropriate municipality to ensure that trees used to replace impacted ordinance trees are native species.

N60 | *Page 3.3-107 – Fish Relocation Guidelines:* The draft SEIR refers to the Fish Relocation Guidelines, which were developed in coordination with the NMFS and DFG as a reference for properly relocating fish during project dewatering activities. Please include a copy of these guidelines as an attachment in the Final SEIR.

Pages 3.3-123 and 3.3-124 – Mitigation Measure BIO-8: Augmentation of Spawning Gravel: The draft SEIR states that if more than 500 square feet of sediment removal is proposed along steelhead streams, a District fisheries ecologist will assess the sediment removal site for spawning and rearing habitat quality before the initiation of work. If it is determined to be of high quality, compensatory mitigation will be provided by the installation of spawning gravel along the creek at a ratio of 1:1. There is no rationale for why this assessment and mitigation would not be applied to areas where sediment removal is less than 500 square feet. DFG has concerns with this approach, given the limitations of spawning gravel in the watersheds below the reservoirs, and the relatively low numbers of spawning steelhead and Chinook salmon in District streams. The District's proposed approach would essentially disregard the value of spawning gravels that the District does not deem to be of high quality (by only applying mitigation for the loss of high quality gravel), and does not adequately compensate for the loss of spawning gravel (a limited but necessary resource for salmonids) when the impacts measure less than 500 square feet. DFG advises the District to revise this mitigation measure to eliminate the 500 square feet minimum threshold, and apply mitigation to spawning gravel that may be deemed less than high quality under the District's assessment.

Page 3.3-125 – Mitigation Measure BIO-9: Augmentation of Instream Complexity for Non-Tidal Stream Fish: The draft SEIR states that the District will provide mitigation for loss of high-quality instream complexity. The document lists criteria for determining whether features are considered high quality. Please clarify if only one or all of the listed features must be present for the District to deem features of instream complexity high quality. As described in the comment above for pages 3.3-124 and 3.3-125, the District's proposed approach appears to disregard the value of instream complexity that may be compromised and does not adequately compensate for the loss of these features, which are limited in the watersheds below the reservoirs. DFG advises the District to revise this mitigation measure to provide adequate compensation for those features of instream complexity that may be deemed less than high quality under the District's assessment.

In addition, DFG advises the District to increase the proposed mitigation ratio for instream complexity, which is currently proposed in the document as 0.5:1. The document says the ratio is proposed at less than 1:1 due to erosion, deposition, tree-falls, and debris mobilization that is expected to occur within a few years that will naturally reintroduce instream complexity. DFG does not agree with this approach, as this does not take into account the temporal loss of this habitat that may take several years to be naturally reintroduced into the stream.

Pages 3.3-130 and 3.3-245 – California tiger salamander: The DSEIR incorrectly identifies the California tiger salamander as state endangered. Please revise to show the correct status which is state threatened.

Pages 3.3-131 and 3.3-144 – Nonbreeding habitat for California tiger salamander and California red-legged frog: The draft SEIR does not adequately address the impact of loss of upland refugia habitat for the California tiger salamander and the California red-legged

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N65 frog due to the loss of burrows. The District's Dam Maintenance Program also proposes to destroy and fill rodent burrows which serve as habitat for these species. Either program by itself may have a significant impact on the loss of upland habitat for California tiger salamander and California red-legged frog. In tandem, the two programs could have devastating impacts for these species due to the inability to find upland refugia within dispersal distance of breeding habitat. Please assess the impacts of the SMP Update on the non-breeding portion of the California tiger salamander and California red-legged frog life cycles and propose a mitigation plan to adequately compensate for the loss of upland refugia habitat.

N66 *Pages 3.3-133 through 3.3-135, 3.3-147, and 3.3-148 – Color schemes on mapping:* Figures 3.3-10 and 3.3-13 show projected vegetation management activities in red and sediment removal activities in green. Please use the same color scheme in Figures 3.3-11, 3.3-12, and 3.3-14 to avoid confusion, rather than changing between red and green among the different maps.

N67 *Page 3.3-142 – Mitigation Measure BIO-10: Implement Compensatory Mitigation for the California Tiger Salamander:* Mitigation Measure BIO-10 describes the District's intent to tally impacts to California tiger salamander habitat on a yearly basis, provide mitigation at a ratio of 2:1 on an acreage basis, and choose between preservation, management, and enhancement of occupied habitat, or restoration and enhancement of currently unsuitable habitat. See the comment above for pages 3.3-42, 3.3-72, 3.3-79, and 3.3-142 regarding tallying impacts on a yearly basis and applying mitigation based on this annual assessment. DFG advises the District to focus on mitigation based on preservation, management, and enhancement of habitat occupied by California tiger salamander, rather than restoring or enhancing currently unsuitable habitat. DFG may consider this second type of mitigation (assuming the land was protected in fee title or with a conservation easement in perpetuity) on a case-by-case basis with a caveat that DFG would require the District to monitor the acquired land and be able to demonstrate occupation of the enhanced or restored habitat by California tiger salamander within 5 years. If occupation within 5 years cannot be demonstrated, DFG would require additional mitigation equal to or greater than the original requirement to account for temporal loss of habitat.

N68 *Pages 3.3-143 and 3.3-144 – California tiger salamander:* The last paragraph on page 3.3-143 states that if lands that the District currently owns, such as mitigation lands acquired for the California red-legged frog for the 2002-2012 SMP, can be enhanced in such a way as to substantially improve their value to California tiger salamander, then the District may use those lands as mitigation for the California tiger salamander. This approach would be unacceptable to DFG, as those mitigation lands are already protected in perpetuity via a conservation easement. Compensatory mitigation for California tiger salamander must be implemented on land not already under conservation.

N69 ↓ *Pages 3.3-162 and 3.3-163 – Mitigation Measure BIO-11: Implement Compensatory Mitigation for the California Red-Legged Frog:* Mitigation Measure BIO-11 describes the District's intent to tally impacts to California red-legged frog habitat on a yearly basis,

↑ provide mitigation at a ratio of 2:1 on an acreage basis, and choose between preservation, management, and enhancement of occupied habitat, or restoration and enhancement of currently unsuitable habitat. See the comment above for pages 3.3-42, 3.3-72, 3.3-79, 3.3-142, 3.3-162 and 3.3-163 regarding tallying impacts on a yearly basis and applying mitigation based on this annual assessment. DFG advises the District to focus on mitigation based on preservation, management, and enhancement of habitat occupied by California red-legged frog, rather than restoring or enhancing currently unsuitable habitat. DFG may consider this second type of mitigation (assuming the land was protected in fee title or with a conservation easement in perpetuity) on a case-by-case basis with a caveat that DFG would require the District to monitor the acquired land and be able to demonstrate occupation of the enhanced or restored habitat by California red-legged frog. If occupation cannot be demonstrated, DFG would require the District to implement mitigation elsewhere on occupied habitat.

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N70 | *Page 3.3-164 – Table 3.3-19:* The text on page 3.3-164 incorrectly states that Table 3.3-19 indicates the acreage of projected sediment removal in potential foothill yellow-legged frog habitat. Table 3.3-18 shows acreage of projected sediment removal in areas of potential foothill yellow-legged frog, whereas Table 3.3-19 shows projected vegetation management impacts in areas of potential foothill yellow-legged frog. Please revise.

N71 | *Page 3.3-191 – Mitigation Measure BIO-12: Implement Compensatory Mitigation for the Least Bell's Vireo:* BIO-12A states that vegetation management will occur no more than every three years in the reach of lower Llagas Creek from Southside Drive downstream to the confluence with the Pajaro River (with the exception of levee tops and lower maintenance roads), to allow for the re-growth of shrubs and taller forbs. In addition, the measure states that vegetation management will occur along no more than half (measured longitudinally along the creek) of the reach downstream of Southside Drive. DFG finds BIO-12A to be a minimization measure, rather than an adequate mitigation measure to compensate for the loss of habitat for least Bell's vireo. Please specify the linear feet of creek extending from Southside Drive to the confluence with the Pajaro River.

N72 | BIO-12B states that the District will create or restore conditions similar to those currently present along lower Llagas Creek by acquiring land, an easement on land, or permission from landowners along the Pajaro River, or along Carnadero Creek downstream from Highway 25, and managing a strip 50 feet wide outside of the woody riparian canopy to enable tall forbs and shrubs to grow. The 50 foot strip would be managed such that portions are disturbed every 3 to 4 years, with no more than half disturbed in a specific year. While DFG finds BIO-12B to be a more appropriate mitigation measure in as much as it includes acquisition of vireo habitat, it is inadequate since it allows disturbance to least Bell's vireo habitat.

N73 ↓ The document states that the District may choose between either BIO-12A or BIO-12B. DFG does not agree that this is appropriate for the reasons stated above, that BIO-12A is a minimization measure, and that both measures allow some level of disturbance in what is

N73 ↑ supposed to be compensatory mitigation for the loss of least Bell's vireo habitat. DFG advises the District to develop more protective compensatory mitigation that includes conservation in perpetuity either via fee title or a conservation easement.

N74 | *Page 3.3-199 – Impacts to species preying on burrowing rodents:* The draft SEIR states that small mammal control may reduce prey availability for species such as the bald eagle and golden eagle, but that such effects would be localized and because of the low numbers of eagles that forage in the project areas, activities are not expected to impact eagle populations. DFG does not agree with this assessment, and considers this impact in tandem with the District's Dam Maintenance Program, which also includes burrowing rodent control, to be significant on a local level. In addition, other predatory species that typically prey on small mammals may similarly be impacted by a reduction in small mammal prey base.

N75 | *Page 3.3-218 – San Francisco dusky-footed woodrats:* The draft SEIR refers to GEN-14 which pertains to the protection of the San Francisco dusky-footed woodrat. GEN-14 states that if woodrat nests are present and would be affected by maintenance activities, the District will develop a site-specific woodrat management plan. DFG requests that any woodrat management plans be submitted to DFG for review and approval prior to finalization.

Pages 3.3-218 and 3.3-219 – Pallid bats: The draft SEIR identifies Impact BIO-37 Impacts on the Pallid Bat due to the removal of smaller trees used as breeding or roosting sites as well as disturbance-related impacts to maternity roosts. The District identifies BMP GEN-4: Minimize the Area of Disturbance and BMP GEN-13: Protection of Bat Colonies to reduce the impacts to pallid bats. BMP GEN-13 refers to the implementation of a buffer zone to reduce or eliminate the possibility of disturbance (among measures such as avoidance, etc.). Please describe what buffer would be used in the event that maintenance activities will take place in the vicinity of a pallid bat (or any other species of bat) colony.

N76 | The District proposes Mitigation Measure BIO-15: Provide Alternative Bat Roost to be implemented in the event a tree containing a pallid bat maternity roost will be removed. Please describe what type of alternative roost structure the District proposes to implement. Note that loss of a maternity roost will likely result in fragmentation of the maternity roost, resulting in a less successful regional breeding pool. It should not be expected that installation of an alternative bat roost will result in the successful recolonization of a maternity bat roost in the near future. DFG advises the District to avoid removal of any trees that contain an active maternity roost. If avoidance is not possible for bat roosting areas, DFG advises the District to a) provide any alternative roost structure designs to DFG for review and approval, and b) locate and protect an extant colony of pallid bats of the same quality.

N77 ↓ *Page 3.3-223 – Ringtail:* The draft SEIR states that bank stabilization and vegetation management activities may affect ringtails by disturbing individuals in dens and by small-scale habitat loss or modification, but also states that due to the very low number and

- N77 ↑ limited distribution of ringtails estimated to be in the project area and the low probability of presence of the species, the effect to this species is expected to be less-than-significant and no mitigation is being proposed. Note that the ringtail is a fully protected species, for which there is not a permitting mechanism for their take (Fish and Game Code Section 4700). Therefore, additional avoidance measures must be developed and implemented.
- N78 | *Page 3.3-227 – Mitigation Measure BIO-16: Invasive Species Management Plan:* The draft SEIR states that the primary goal of the Invasive Species Management Plan (IPMP) is to preserve and improve habitat within the streams and riparian corridors by reducing the population of invasive plant species. DFG requests that the IPMP be submitted to the appropriate wildlife agencies for review and approval prior to finalization.
- N79 | *Page 3.3-230 – Significant and unavoidable impacts:* The draft SEIR states that habitat fragmentation caused by proposed SMP activities to be significant and unavoidable. Please disclose where fragmentation is anticipated to occur and how the District proposes to ameliorate impacts of fragmentation.
- Chapter 5**
- N80 | After reviewing the alternatives analysis provided in the chapter, DFG agrees that the Proposed Project is the appropriate recommended alternative, provided that the issues stated in our letter can be adequately addressed.
- Appendix A 2012 Stream Maintenance Program Manual**
- N81 | Note that many of the comments brought up in Chapters 2 and 3 also pertain to Appendix A [Stream Maintenance Program Manual (Program Manual)] and Appendix C (2012-2022 SMP Update Mitigation Approach Memorandum). Any changes that are made in Chapters 2 and 3 as a result of CEQA comments should be made accordingly in Appendices A and C.
- N82 | *Pages 3, 22, 24, 25, 41 – Mitigation chapter:* There are several references to a Mitigation chapter in the Program Manual. The Program Manual does not appear to contain a Mitigation chapter.
- N83 ↓ *Page 4 – Capital improvement projects:* The Program Manual states that future capital improvement projects will analyze and account for long-term maintenance impacts under their own environmental review documents, and that any environmental effects of new capital improvement projects will be compared to the 2002 SMP projections for that reach of creek. The Program Manual also states that mitigation for capital improvement projects will only be required if there are impacts from the capital project that were not projected in the 2002 SMP. This section is unclear why maintenance under future capital improvement projects will be compared to 2002 projections, when the maintenance will be conducted between 2012 and 2022. In addition, as is discussed under the comment for pages 2-35, 3.3-42, 3.3-43, 3.3-72, 3.3-73, 3.3-79, 3.3-87, 3.3-99, 3.3-144, and 3.3-163 regarding mitigation in perpetuity, the 2012 SMP is a new project with a new project term. Therefore,

- N83 | any impacts due to maintenance activities during the new project term should be mitigated appropriately. Revise the discussion to clearly state whether maintenance for future capital improvement projects will be addressed and mitigated under each capital improvement project CEQA document, or under the 2012 SMP.
- N84 | *Pages 5 and 9 – Maintenance Guidelines:* The Program Manual refers to the District's Maintenance Guidelines. There does not appear to be a copy of the Maintenance Guidelines in the document. Please provide as an attachment in the Final SEIR.
- N85 | *Pages 7 and 28 – Instream herbicide use:* The Program Manual states that instream herbicide use will occur between June 15 and October 15. Please modify this work window to end August 15 in the Guadalupe and Coyote watersheds to minimize impacts to upmigrating Chinook salmon.
- N86 | *Pages 7 and 29 – Upland herbicide work:* The Program Manual states that upland herbicide work may occur year-round, weather permitting. Please define what is meant by "upland" in this context.
- N87 | *Page 7 – Sediment removal work window:* The Program Manual states that sediment removal may occur during the work window of June 15 through October 15 (or until December 31 using a 24-hour forecast). See comment for page 2-40 regarding work windows.
- N88 | *Pages 8 and 41 – Bank stabilization:* The Program Manual states that bank stabilization work is allowed during the work window of June 15 through October 15, and that if it is more than 50 percent complete on October 15, it may continue until completion, December 31, or until the first 5-day forecast that includes significant rainfall. See comment for pages ES-10 and 2-26 regarding the bank stabilization work window.
- N89 | *Pages 18, 20, 24, 26, 30, 32, 37, 41, 53, and 61 – Appendix A:* The Program Manual contains numerous references to a list of BMPs in Appendix A. The Program Manual does not appear to contain Appendix A.
- N90 | *Pages 21 and 28 – Stump treatment:* The Program Manual describes stump treatment as hand removal rather than including it in herbicide use. See comment for page 2-44.
- N91 | *Pages 23 and 31 – QEMS procedure:* The Program Manual refers to the District's QEMS procedure with regard to tree removal. DFG is unfamiliar with this procedure. Please describe and include as an attachment in the Final SEIR.
- N92 | *Page 24 – Native trees on channel banks:* The Program Manual states that native trees are generally undesirable on some channel banks. Please describe what is meant by this statement.

- N93 | *Page 24 – Vegetation on levees:* The Program Manual describes vegetation maintenance on levees. Please clarify whether the 2012 SMP assumes that the District will be following the USACE's guidance on maintaining levees such that they do not contain woody vegetation and allow only herbaceous vegetation. Note that the USACE guidance has not been finalized.
- N94 | *Page 26 – Large woody debris:* The Program Manual refers to a large woody debris (LWD) Program document. DFG is unable to locate a LWD Program document or further discussion of the LWD Program anywhere in the Program Manual or the rest of the draft SEIR. Please describe and provide a copy in the Final SEIR.
- N95 | *Page 29 – Herbicide use in serpentine areas:* The Program Manual states that herbicides may be permitted in serpentine areas when approved by a qualified plant biologist and with the incorporation of measures to protect sensitive biological resources. Herbicide use should be avoided in serpentine areas to avoid inadvertent impacts that could result from drift or from use during nonblooming periods when identification of special-status plants may be difficult.
- N96 | *Pages 30 and 52 – California red-legged frog and California tiger salamander mapped areas:* The Program Manual refers to range maps for sensitive amphibians, including California red-legged frog, California tiger salamander, and foothill yellow-legged frog. Please describe how these range maps were developed. DFG advises the District to avoid the use of all pesticides, including bait stations, in the range of these species.
- N97 | *Page 30 – Indicator dye:* The Program Manual describes the use of an indicator dye to be used to help the herbicide applicator identify areas that have been treated and better monitor the overall application. Please discuss what the indicator dye is composed of and whether the use of this indicator dye in aquatic herbicides may pose a water quality issue for aquatic species.
- N98 | *Page 32 – Mowing work window:* The Program Manual describes a mowing work window of February 1 through November 30. Please describe the rationale for this work window and how it would avoid impacts to burrowing owl.
- N99 | *Page 32 – Discing work window:* The Program Manual describes a discing work window of February 1 through October 15. DFG advises the District to revise this work window to June 15 through October 15 to avoid erosion issues and the introduction of sediment into adjacent water bodies.
- N100 | *Page 35 – Equipment in stream channels:* The Program Manual describes the possibility of lowering small equipment into a stream channel from a nearby stream crossing to minimize impacts associated with sediment removal operations. Please clarify that equipment will not be operated in wetted streams.

- N101 | *Page 37 – Sediment removal work window:* The Program Manual states that sediment removal may occur between June 15 and October 15, with an extended work window through December 31 based on a 24-hour forecast. See comment for page 2-40 regarding work windows and weather forecasts.
- N102 | *Page 37 – Continuing sediment removal after significant rainfall:* The Program Manual states that additional sediment removal work may continue after significant rainfall on Berryessa Creek, Lower Silver Creek, Thompson Creek, Canoas Creek, Ross Creek, Calabazas Creek, and San Tomas Aquino Creek. Please provide a clear rationale for continuing sediment removal activities in these locations after significant rainfall and why the District feels the measures described will adequately avoid erosion issues and protect water quality. Also see the comment for page 2-40 regarding weather forecasts.
- N103 | *Pages 37 and 43 – Monitoring and Reporting:* The Program Manual refers to a Monitoring and Reporting chapter. There does not appear to be a chapter on Monitoring and Reporting in the Program Manual.
- N104 | *Page 44 – Bank stabilization methods:* Table 1 in the Program Manual lists bank stabilization methods and their proposed mitigation ratios. See the comment for pages 2-15 and 2-16 on adequate mitigation ratios and the need to eliminate some of the methods from the SMP.
- N105 | *Pages 52 and 60 – Carcass surveys:* The Program Manual states in the Management of Animal Conflicts portion of the SMP, carcass surveys will occur daily with the use of acute toxins (zinc phosphide and strychnine), and weekly with the use of anticoagulant baits (chlorophacinone and diphacinone are listed as examples). DFG does not agree that waiting one week after exposure to anticoagulant bait would be appropriate to avoid impacts of secondary poisoning to other species that may prey on poisoned target species. This approach would also not be consistent with what is proposed in the District's Dam Maintenance Program. DFG provided extensive comments on the District's Dam Maintenance Program Draft Program EIR, and DFG advises the District to ensure that methods proposed in both the Dam Maintenance Program and SMP are consistent where applicable. Please clarify when carcass surveys would begin after initial implementation of acute toxins and anticoagulant baits. In addition, please clarify whether the District anticipates using anticoagulant baits other than the two listed.
- N106 | *Page 56 – Minor maintenance:* The Program Manual states that regulatory agency staff will receive information regarding potential Minor Maintenance projects that require review and approval for minor activities that have an impact exceeding 0.05 acres per activity per site. Activities exceeding 0.05 acres do not qualify under the category of Minor Maintenance, and instead should be reported in the Notice of Proposed Work under the appropriate category of sediment removal, bank stabilization, etc.?

- N107 | *Page 57 – Footnote 1:* The first paragraph on the page has a footnote at the end of the last sentence. The explanation for the footnote is missing in the document.
- N108 | *Attachment A – Bank Stabilization Methods:* See comment for pages 2-15 and 2-16 regarding adequate mitigation ratios and DFG’s recommendation to eliminate some of the bank stabilization methods from the SMP.
- N109 | *Attachment B – Mitigation Feasibility Assessment Field Protocol:* There is a formatting issue with the first page of Attachment B, which makes it difficult to read. Please correct the formatting. DFG is unfamiliar with the proposed Mitigation Feasibility Assessment (MFA) Field Protocol. Please describe how the method of MFA ranking was developed, and how the scoring and it’s relation to success criteria was developed. Is there literature on this methodology and/or any examples of the success of its use elsewhere?
- N110 | *Attachment C – Tree Scoring for Removal of Trees and Shrubs ≤ 12” dbh:* Please describe how this method of determining mitigation ratios for trees was developed. Is there literature on this methodology and/or any examples of the use of this methodology to adequately compensate for tree loss elsewhere? It is unclear why this method does not take stem diameter (dbh) into consideration at all.
- N111 | On page 1, bullet 1 (Canopy cover), step B(c) indicates that width X length = square footage, whereas the Metric table says to assess canopy cover at the widest dripline extension point and square that value. These two statements appear to conflict with each other. Please clarify as to how the canopy cover is supposed to be measured.
- N112 | On page 2, bullet 3 (Ecosystem Benefits), there should be the ability to score the attribute called “Used by wildlife” with more than one point, depending on the different elements of wildlife use the tree would provide. Some trees provide a wide variety of wildlife uses, and those that provide either unique uses or a high number of wildlife uses should be scored higher. By only attributing one point for wildlife use, the tree may be undervalued in terms of habitat, and therefore, mitigation may be developed that does not adequately compensate for its loss.
- N113 | On page 3, bullet C (Mitigation Calculation), the highest mitigation ratio of 3:1 may not adequately compensate for the loss of certain types of trees with high habitat value. An example is a small stature oak tree. Planting one to three acorns or seedlings in its place will not adequately compensate for the loss of that tree due to the long period of time it will take for those acorns or seedlings to reach a similar stature. Please revise this section with appropriate mitigation ratios that will adequately compensate for the loss of trees resulting from the SMP. For oak trees, DFG recommends planting three acorns for each inch of stem diameter (dbh) that is removed per oak tree. For example, to compensate for the removal of an eight inch dbh oak tree, the District shall establish eight planting holes, each containing three acorns.

Ms. Sunny Williams
October 5, 2011
Page 24

DFG appreciates the opportunity to comment on the District's Stream Maintenance Program Update draft SEIR. Any questions or comments regarding this letter and any further coordination on this project should be directed to Ms. Tami Schane, Environmental Scientist, at (415) 831-4640; or Mr. Liam Davis, Senior Environmental Scientist, at (707) 944-5529.

Sincerely,



for Carl Wilcox
Regional Manager
Bay Delta Region

cc: State Clearinghouse

Ms. Cori Mustin
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

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National Marine Fisheries Service
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404

Response to Comment N-1

SCVWD has a series of Quality Environmental Management System (QEMS) documents, including Q751D02. *Control of Oversight of Pesticide Use* and WW75100—*Vegetation Control Work Instructions*, that define the process for evaluating pesticide/herbicide use and making modifications to the pesticide/herbicide program. These documents meet all state and federal regulations for pesticide use. SCVWD is unaware of the need to prepare a Pesticide/Pest Management Plan for wildlife agency review and approval, or of the authority under which DFG may require such a plan. In comparison, if SCVWD is working on modified channels, these same techniques may be used, but SCVWD also may use broadcast spray (for instance, on access roads) or foliar application techniques.

Response to Comment N-2

Please refer to the response to Comment N-1. SCVWD is unaware of the legal requirement to prepare an Herbicide Management Plan for wildlife agency review and approval, or of the authority under which DFG may require such a plan.

Response to Comment N-3

As described in the 2012–2022 SMP Manual in Appendix A and on page 2-28 of the DSEIR, SCVWD may use sheep, goats, or other appropriate species to provide weed control in limited circumstances and in limited areas. SCVWD does not need to prepare, and obtain wildlife agency review and approval of, a Grazing Management Plan. Grazing management on any conservation lands that are managed as mitigation for impacts to special-status species or sensitive communities (such as serpentine communities) would be described in a Habitat Mitigation and Management Plan for the specific mitigation site, as described for applicable mitigation measures in Section 3.3 (e.g., Mitigation Measure BIO-3, -4, -5, and others). Because grazing management may vary somewhat among mitigation sites, depending on site conditions and focal species for which management is being performed, a single grazing management plan for all mitigation lands would not be appropriate.

Response to Comment N-4

The comment describes DFG’s emphasis and need for land acquisition-based mitigation. SCVWD agrees with DFG on the important role that land acquisition-based mitigation serves to provide long-term suitable mitigation for maintenance program impacts. Land acquisition-based mitigation would continue to serve as mitigation for program impacts projected in 2002. For new work areas identified for the 2012–2022 program period that do not yet have mitigation, mitigation would be developed as described in Appendix C to the DSEIR, including both “pay as you go” annually developed mitigation, as well as longer-term acquisition-based mitigation. SCVWD understands that impacts to state-listed species must be addressed through acquisition-based mitigation, rather than “pay as you go” mitigation.

Regarding the text that the comment requests to be added to the DSEIR, SCVWD is unable to add this exact text passage because of the District’s legal and operational mandate that prevents making such endowment commitments without a clearly defined source of long-

term funding. A variety of financial mechanisms meet this objective. SCVWD instead adds the following text to the FSEIR that achieves the majority of the intent of the comment, which is to clarify the District's commitment to supporting acquired lands as well functioning mitigation, on Page 2-35, second paragraph:

As described in Appendix C to the DSEIR (Mitigation Approach Memorandum), SCVWD would provide compensatory mitigation for SMP Update activities requiring mitigation by acquiring or protecting appropriate mitigation lands (including populations of special-status species, where impacts are to such species), using conservation easements or other vehicles as appropriate, or would provide suitable ecological services-based mitigation as needed to compensate for annual impacts. SCVWD would identify funding mechanisms to support the long-term maintenance and conservation of such mitigation lands and projects.

Response to Comment N-5

Work area percentage refers to the proportion of a given reach that would be subject to a specific maintenance activity. For instance, sediment removal within a 1,000-square foot area of a 10,000-square foot reach would have a work area percentage of 10 percent. In some cases, work area percentage is calculated based on linear feet of channel, rather than area.

Response to Comment N-6

Where such plans are part of mitigation for impacts to resources under DFG's jurisdiction, the District would follow the process as outlined in DFG's permit conditions.

Response to Comment N-7

The DSEIR recognizes the distinction between temporary impacts (those that do not result in irreversible modification of habitat; when those impacts cease, habitat regenerates or can be restored) and permanent impacts (those that result in irreversible modification of habitat, precluding the regeneration of the habitat type that was previously present) to biological resources. Where appropriate, the DSEIR discusses that some temporary impacts are repetitive, resulting in longer-term effects (at least over the course of the 10-year SMP Update). References to these distinctions, such as discussion of the effects of repetitive impacts, appear in a number of locations throughout the DSEIR (e.g., on pages 3.3-39, -70, -72, -77, -80, -83, and many others). Because of the varying frequencies with which different reaches may undergo SMP Update activities, drawing a clearer distinction between multiple categories of impacts (e.g., one-time, short-term, repetitive, and permanent) as suggested by the comment is infeasible. Furthermore, drawing such a distinction is unnecessary for impacts to be mitigated to less-than-significant levels, as the mitigation program has been established to account for differences in frequency (or permanence) of impacts, by requiring more mitigation or more permanent mitigation for permanent impacts or repetitive impacts than for one-time or short-term impacts.

The comment suggests that the FSEIR should identify additional incremental mitigation for repetitive impacts. The mitigation program described in the DSEIR already takes the

additional impact resulting from repetitive impacts into account by requiring either for SCVWD to provide in perpetuity mitigation for such impacts or that mitigation be provided repeatedly if the same area was repeatedly impacted. As a result, the mitigation provided for repetitive impacts would be greater (e.g., repeated pay-as-you-go mitigation, or in perpetuity mitigation instead of pay-as-you-go) than for a one-time impact.

The various temporal categories of impacts were considered in the impact assessment for each of the species and resources evaluated in the DSEIR. SCVWD recognizes that each of the biological resources evaluated in the DSEIR could be affected by one-time, short-term, repetitive, or permanent impacts.

The comment suggests that if special-status species re-establish in impact areas between impact events, additional mitigation beyond one-time compensation should be provided. The mitigation program described in the DSEIR would be adequate to provide mitigation in the event that re-establishment occurred, for several reasons. First, mitigation for impacts to some species, such as the California tiger salamander and California red-legged frog, and for impacts to sensitive communities, would be provided in perpetuity at a 2:1 (mitigation:impact) ratio; enhancement, preservation, and management of the mitigation sites would offset SMP Update impacts, even repetitive impacts, by protecting and enhancing populations elsewhere. Second, mitigation for impacts to wetland and riparian habitats would be provided, either in perpetuity (to fully compensate for the impact) or on a repeated basis if impacts to those habitats were repetitive, thus providing the additional mitigation suggested by the comment. Although species re-occupying a maintenance area may be impacted by subsequent maintenance, that subsequent maintenance may affect only a small proportion of the originally impacted area, or may occur years after the initial maintenance. The ability of plants and animals to colonize and use such areas for several generations is expected to benefit the populations more than permanently impacting those areas, even if subsequent maintenance disturbance were to occur. Finally, for many species associated with early-successional habitats (such as the San Francisco common yellowthroat), SMP Update activities would help to maintain suitable habitat, and periodic disturbance would be a short-term impact, necessary to maintain populations of those species.

The comment's definitions of temporary, short-term, and permanent impacts are noted. However, SCVWD does not agree with all the components of these definitions. For example, DFG would include activities that would remove habitat for more than two growing seasons as a permanent impact. If conditions for regeneration of the habitat were maintained, then SCVWD would not consider this impact to be permanent. Furthermore, as described above, the mitigation program would provide adequate compensatory mitigation for such an impact.

The comment recommends that all permanently impacted habitat types be mitigated at a ratio of at least 1:1, and that additional mitigation be provided if the habitat is sensitive or supports special-status species. SCVWD does not agree that impacts to non-sensitive habitat types, such as ruderal, developed, landscaped, or other land uses and habitat types, would require mitigation, as impacts to these habitats would be less than significant. Mitigation for all sensitive and regulated habitats, and mitigation specifically targeting many special-

status species, would be required (at a ratio of at least 1:1), as described in Section 3.3 of the DSEIR.

SCVWD is working with DFG to obtain a CESA Incidental Take Permit and appreciates DFG's assistance with these biological resources issues.

Response to Comment N-8

No additional sediment reuse sites have been identified, beyond those described in the DSEIR. The District acknowledges that further CEQA compliance could be required in association with new sites.

Response to Comment N-9

The rationale for the SMP Update to increase its tree removal size limit from 6 to 12 inches is based on the extremely rapid growth rates of certain trees in SCVWD-maintained channels. This rationale has been developed using several years' experience during the original SMP period (2002–2012); if trees targeted for removal were not cut and removed while still at a 3–5-inch-diameter stage, they would quickly grow beyond 6 inches in diameter and be off-limits for removal. This situation was particularly limiting for channels with aggressive Eucalyptus stands, which grew very rapidly beyond the 6-inch size limit. Raising the vegetation size limit for removal would be necessary to prevent SMP Update channels from becoming dense forests with insufficient flow capacity. The decision-making process to remove trees would be based on several factors, including:

- Is the tree infected or diseased, and is removal necessary for the improved ecologic health of the greater area?
- Does the tree have structural defects, insect infestation, or pathogens that threaten the surrounding area?
- Is the tree a potential or likely danger because of a high probability for falling that would result in potential property damage, human risk, or increased flood threat?

Response to Comment N-10

For minor maintenance activities, the number of such grading areas would be small. Minor maintenance activities are defined as being activities that result in removing less than 0.05 acres of wetland or riparian vegetation. Annually, minor maintenance activities would not result in impacting more than 0.2 acres of wetlands/riparian vegetation per year. This specific type of minor grading typically would occur in areas above the top of bank that would not have vegetation and would require small-scale drainage or erosion improvements. Minor grading activities to improve local drainage or reduce erosion are not projected maintenance activities because of their small size and unknown locations at the time of maintenance work projecting. Although estimates are not available concerning how much of this type of maintenance activity would occur during the SMP Update program period (2012–2022), based on SCVWD's experience to date (under the SMP between 2002–

2010), it is estimated that the total area for this type of activity would be in the 1–2-acre range during the 2012–2022 period.

Response to Comment N-11

SCVWD would ensure that the canal was dry when conducting sediment removal activities. In cases where the channel was not dry during the maintenance period, SCVWD would accomplish dewatering by shutting off the appropriate upstream valves or by implementing one of the techniques outlined in BMP GEN-33 or BMP GEN-34.

Response to Comment N-12

Please refer to responses to Comments D-2, D-6, and D-8.

Response to Comment N-13

As stated in the Section 7, *Bank Stabilization* of the Mitigation Memorandum (in Appendix C of the DSEIR, replaced in entirety in Volume II of this FSEIR), SCVWD’s preference would be to first consider use of softscape approaches, and only use hardscape where absolutely necessary. Between 2002 and 2009, the District used softscape techniques over 80 percent of the time for bank stabilization activities (32,088 linear feet of softscape treatment versus 7,383 linear feet of hardscape treatment). See also responses to Comments M-7 and M-8.

Response to Comment N-14

Thank you for your comment. The footnote of Table 2-2 is revised as follows:

Notes:

1. Certain locations may have been the subject of ~~sediment-channel hand~~ removal more than once during the 2002-2009 period, but their lengths are only counted once in this column.

Response to Comment N-15

The following types of in-kind bank repairs have been conducted under existing SMP: maintenance road repair of potholes and toe damage to restore drivability; limited levee reconstruction; concrete panels (both in-channel and not); wing walls; certain gage structures; in-channel scour of concrete facilities; weirs; outfalls; tide gates; turnouts; and various channel bank revetments (both hardscape and not). On revetments, SCVWD has allowed in-kind repairs to be replaced with similar features (i.e., replacing sacked concrete with rock). However, under no circumstances does SCVWD consider the use of hardscape to replace softscape as an “in-kind” repair.

Response to Comment N-16

The Dam Maintenance Program would cover activities that affected the structures and facilities of outlet structures. The SMP Update would address instream issues. Impacts

resulting from maintenance activities would be tracked and mitigated according to the process and requirements of the appropriate program.

Response to Comment N-17

The comment references Table 2-4, which identifies the SMP Updates' 13 bank stabilization treatment methods and their mitigation ratio requirements. The comment notes that several of the bank stabilization methods had higher mitigation ratios under the 2002 SMP FEIR and regulatory approval than what is shown in Table 2-4. For example, treatments 2A (live construction with boulder toe), 3A (contour wattling with boulder toe), 4A (brush mattress with boulder toe), and 5A (surface matting with boulder toe) have mitigation ratios assigned of 1.5:1 (mitigation-to-impacted area) under the SMP Update 2012–2022, whereas in the 2002 SMP FEIR, these treatments had mitigation requirements of 3:1 (mitigation-to-impacted area). Other treatments including 7 (cellular confinement), 8 (rock blanket), 8A (boulder revetment), and 9A (articulated concrete blocks with planted trees) are treatments with a proposed mitigation ratio of 2:1, whose mitigation ratios were 3:1 under the original SMP EIR. The comment indicates that no rationale is provided for why these mitigation ratios have decreased from the original program. The comment requests that SCVWD restores these bank stabilization mitigation ratios to the higher ratios of the original SMP EIR.

The rationale for lowering bank stabilization mitigation ratios (as described above) is rooted in SCVWD's 10 years of SMP experience (2002–2011), when SCVWD has observed that the resource values and functions of streambank sites requiring repair and stabilization typically is very low. Bank stabilization sites typically exhibit conditions of unstable earthen erosion, with no vegetation or vegetation of low value (such as early seral invasive vegetation colonizing the destabilized site). SCVWD biologists and geomorphologists have observed that historically, bank stabilization sites have poor baseline conditions. Based on several years' observations of typically poor quality existing conditions at bank stabilization sites, SCVWD is proposing to use mitigation ratios that would more accurately represent the mitigation requirement for the loss of ecologic functions/values resulting from maintenance activities. SCVWD's primary concern is that the relative baseline of functions/values provided at eroded bank sites may be lower than justified by the 3:1 mitigation ratios currently in use for certain bank treatments. The proposed revised mitigation ratios, including ratios of 1:5 and 2:1, would be more appropriate for the specific baseline conditions.

The comment also suggests that SCVWD should eliminate certain hardscape bank stabilization methods including 9 (articulated concrete blocks), 9A (articulated concrete blocks with planted areas), 10 (concrete crib walls), and 12 (gunite slope protection) because SCVWD has little or no need to use these techniques and superior methods to these could achieve stabilization objectives and also provide habitat. SCVWD acknowledges that these techniques have had little or zero application in the existing SMP. However, SCVWD staff engineers prefer to retain such techniques in the event that specific hydraulic conditions at a bank stabilization site may require such hardscape approaches. Any use of such techniques would be subject to agency review as part of the Notice of Proposed Work. As evidenced by SCVWD's past record of prioritizing softscape or hybrid approaches over full hardscape bank approaches (see Table 2-3 of the DSEIR), having such hardscape

techniques available for the SMP Update would not necessarily lead SCVWD to their use and application. As Table 2-3 suggests, softscape or hybrid solutions were used by SCVWD about 77 percent of the time during the 2002–2010 period.

Response to Comment N-18

SCVWD appreciates DFG’s provision of information regarding the need to notify DFG within 14 days after beginning emergency repair work.

Response to Comment N-19

The comment references text in the last paragraph on page 2-27 of the DSEIR that describes hard structures providing examples of concrete, sacked concrete, and gabions. The comment notes that as gabions are not included as an SMP bank stabilization technique as listed in Table 2-4, they should not be referenced in this text on page 2-27. SCVWD agrees with this comment. The reference to gabions is removed from the text on page 2-27 of the DSEIR as follows:

As summarized in Table 2-4, the SMP Update would include several bank stabilization approaches, ranging from “soft structures” (e.g., willow brush mattresses, log crib walls, and pole plantings), to “hard structures” (e.g., concrete, ~~and sacked concrete, and gabions~~), or a combination of hard and soft structures.

Response to Comment N-20

The following definition of hybrid bank stabilization is added as a second paragraph under *Bank Stabilization* on page 2-28 of the DSEIR as follows:

Hybrid bank stabilization refers to a combination approach whereby softscape bank stabilization approaches like live construction, contour wattling, brush mattresses, or surface erosion matting are combined with a limited amount of rock toe protection at the base of the bank stabilization site. Additional boulders at the toe of the bank treatment is only applied if necessary, if there are hydraulic shear forces affecting the bank site, or geologic slumping or mass wasting forces affecting the site (because of the site’s position or slope) that require the additional presence of mass/rock at the base of the slope.

The use of hybrid bank stabilization techniques would be consistent with SCVWD’s commitment that no more than half of in-kind bank repair projects would consist of impervious hardscape each year. This would be true for the following reasons. Boulder toe applications would not occur on all soft-scape treatments. When used, boulder toe applications typically would occupy less than 20 percent of the overall bank stabilization site, focusing on the lower “toe” of the slope. Very often, boulder toe applications are constructed with a soil matrix between rocks, which is then vegetated. When this occurred, the boulder toe application would not be an impermeable surface, and soil development and additional biological functioning would occur. Yes, the “no more than half” commitment would include localized hardscape, such as boulders/rocks placed at the toe of the slope. Because the “no more than half” commitment would be tracked based on the aerial extent of

the bank repairs, a hybrid approach would be accounted for by measuring the area of the bank repair that consisted of hardscape versus softscape.

Response to Comment N-21

The comment questions the DSEIR’s description of the ongoing SMP mitigation program. More specifically, the comment references Margaret Paul, who participated in the EIR review and 1601 permit development for DFG during the 2001–2002 SMP FEIR approval process. The comment suggests Ms. Paul believed that the original mitigation program provided mitigation for repeated maintenance programs only within the term of the first 10-year period of the SMP, 2002–2012. The comment further suggests that the terms and conditions of the 2002 SMP FEIR and permit approvals only apply to the original permit period (2002–2012). The comment states that “mitigation in perpetuity” was not intended to last beyond the 10-year term of the original permits.

This recollection that “mitigation in perpetuity” was intended to apply only for the first 10 years of the SMP is not supported on the basis of the record. The District disagrees with DFG’s interpretation of the original mitigation program for the following reasons:

- The SMP is a continuous program. It is true that project planning and environmental compliance processes typically occur for some specific action or interval. However, from its inception, the SMP was organized and described as a long-term, continuous maintenance program, not as an individual, short-term project. The State CEQA Guidelines confirm that the “project” is the underlying activity being approved and does not refer to each governmental approval for the underlying activity (State CEQA Guidelines, Section 15378[a] and [c]), and because the SMP is a continuous program, it is not a new project for purposes of CEQA.
- The original mitigation program that was developed for the SMP (2001–2002) was anchored on the concept of providing mitigation in perpetuity, meaning mitigation that would address repeated impacts in the same locations for the duration of the program, not just for the initial permit term.
- Because the original mitigation program was providing mitigation in perpetuity, it used land acquisition and restoration activities as the central components to provide mitigation. The land acquisition and restoration mitigation commitments included in the original SMP EIR were expansive and very costly to SCVWD. SCVWD agreed to pursue such expansive mitigation because it would serve the program in perpetuity.

The District’s understanding of the 2001–2002 permit negotiations is supported by text contained in the Joint Aquatic Resource Permit Application (JARPA) dated February 14, 2001; *DFG SAA Notification R3-2001-0119*; RWQCB Order R2-2002-0028; U.S. Army Corps of Engineers Permit, File Number 22525S, August 7, 2002 (Corps permit); and the 2002 SMP FEIR. Excerpts from these documents are included in this response as follows:

- The Joint Aquatic Resource Permit Application (JARPA), submitted in 2001 with the original SMP permit applications to the San Francisco RWQCB, DFG, USACE, USEPA,

USFWS, and NMFS, includes a specific reference and a description of the original SMP mitigation program as serving mitigation in perpetuity. The JARPA is provided as Appendix D to Volume I of this FSEIR). The first paragraph on page 12 of the JARPA (Box 9) describes this issue specifically and succinctly, stating, “For the Program, permanent mitigation (see Box 13) is proposed for temporary, repetitive impacts.”

- Several of the individual permit authorizations from the original SMP approval process (2001–2002) specifically describe the permanent aspect of the original SMP mitigation program, that mitigation was intended to last and have a net beneficial effect beyond the initial permit term. That the District intended and demonstrated the project to be continuous is a determining factor to whether this project would be considered as new or not under CEQA. Key permit terms include:
 - DFG SAA Notification R3-2001-0119, pages 1-2 – *“Project impacts will be counted on a one-time basis. Repetitive or overlapping stream maintenance activities in the same section or areas of creek are not progressively added to the total area of impact.”*
 - USACE: as stated under Special Condition 4 in the USACE Permit No. 22525S, (Long-Term Stream Maintenance Program, Santa Clara Valley Water District), *“...impacts in locations at which repeated maintenance activities occur do not have to be compensated for more than once for the duration of the permit. Unless new information comes to light, such as a new species listing, for example, this arrangement is expected to continue for the duration of any subsequent permits covering the same program.”* [emphasis added]
 - Regional Board: as stated under Finding 13 in the RWQCB Order R2-2002-0028 (Multi-Year Stream Maintenance Program), *“The permanent mitigation installed as part of the SMP in the first 10 years is intended to provide mitigation for temporary but repetitive impacts caused by similar maintenance activities in subsequent years, provided that the work is consistent with the environmental effects evaluated in the Final EIR.”* [emphasis added]
 - NMFS: as stated in the Biological Opinion of July 3, 2002, Effects of the Proposed Actions, Section E Mitigation, *“The proposed compensatory mitigation measures include a substantial investment towards the protection and enhancement of the watersheds and streams of Santa Clara County. Enhancement and restoration of 999 to 1349 acres of wetlands and riparian areas will be a beneficial effect of the proposed SMP.”*
- In addition, the 2002 SMP FEIR states the following:
 - 2002 SMP FEIR Page II-5 – *“The maintenance activities described in this program EIR are ongoing and will remain effective for an indefinite period of time as long as the nature of the work or environmental conditions do not substantially change. Because permits from other agencies will need to be renewed in 10 years, the*

District will reexamine the applicability of the Program EIR at that time and make revisions as needed.”

- 2002 SMP FEIR Pages II-29 and II-30 – *“The SMP is intended to establish an indefinite, ongoing District program. The SMP and the Program EIR use a 20-year planning time frame to evaluate cumulative impacts. Permits from the Corps and other agencies are expected to last for a period of 10 years, after which time the District would apply for renewal. The program will be reviewed in 10 years and the EIR amended if necessary.”*
- 2002 SMP FEIR Page IV-B-62 – *“A one-time accounting method for potentially significant impacts was developed for the program because impacts to stream vegetation from routine sediment removal and vegetation management are temporary but repetitive. The approach of this impact analysis is to count future impacts to any one section of creek one time only. Repetitive or overlapping stream maintenance activities in the same section of creek are not progressively added to the total impact acres. The one-time accounting assessment method is relevant to assessing the impacts of the program because work is spread out over many years, routine maintenance takes place in only a portion of the total program work area in any given year, and stream vegetation regrows between cyclical maintenance events. This approach determines that a one-time assessment of impacts from routine maintenance activities adequately represents significant impacts of all future maintenance work in that same area, and the compensatory mitigation program is designed accordingly. For the program, permanent mitigation is proposed for these temporary, repetitive impacts.”*
- To help facilitate review and approval of the SMP Update, a multi-agency, Inter-Agency Working Group (IAWG) was formed with representatives from SCVWD’s SMP team, SCVWD consultants, and representatives from the USACE, USEPA, USFWS, NMFS, DFG, San Francisco RWQCB, and Central Coast RWQCB. The IAWG has met three times to review and discuss key program updates (as discussed below). The IAWG members have received several program status reports, meeting notes, and other program documents via e-mail distribution.
 - At the first IAWG meeting (held on August 26, 2010), the topic of program mitigation was discussed with all participating agency representatives. This discussion included a review of the fundamental components of the original SMP mitigation program that was developed in 2002. The IAWG discussion also described and confirmed that the original (and ongoing) mitigation program provides mitigation for repeated and ongoing maintenance work in the locations that were projected in 2002. This discussion verified that continued maintenance work in the streams and work areas included in the original 2002 SMP projections would not need to be mitigated beyond the original commitments. As discussed at this meeting, maintenance work in new program areas that were not included in the original projections would require additional mitigation. IAWG members, in particular those who participated in the original SMP development process (such as Luisa Valiela of USEPA), confirmed that the original intention of the program’s mitigation approach was to provide

mitigation in perpetuity for the channels/creeks included in the original projections. SCVWD's consultant, Ken Schwarz of Horizon Water and Environment specifically raised this point for clarification, comment, and approval by IAWG members. Ken asked the entire IAWG assembly if there was consensus that the original SMP mitigation provided mitigation in perpetuity. The IAWG jointly agreed that the original SMP provided mitigation in perpetuity. For reference, please see topic #5 in the attached IAWG meeting notes this meeting (provided in Appendix E, Volume I of this FSEIR).

- At the second IAWG meeting (held on October 20, 2010), agenda item #5 was a discussion of the SMP Update's mitigation program. This discussion included a brief review of the mitigation status to date for the original 2002 SMP mitigation requirements. The discussion also reviewed the original mitigation assumptions, as summarized at the first IAWG meeting. SCVWD Consultant Ken Schwarz stated that SCVWD would be developing a mitigation package for the 2012–2022 SMP Update, to provide mitigation for impacts associated with newly projected maintenance work. Ken confirmed that the original SMP mitigation program would continue to provide ongoing mitigation for the work areas projected and identified by the original SMP EIR, and that for the SMP Update, mitigation would need to be developed to address new work areas not projected in the original SMP EIR (2002). Consensus was reached by the IAWG members that this was the necessary approach; SCVWD would need to provide mitigation for new work areas. (Refer to the meeting notes from the second IAWG meeting, provided in Appendix E, Volume I of this FSEIR).
- At the third IAWG meeting (held on July 21, 2011), the entire agenda focused on a review and discussion of the SMP Update's mitigation approach, as provided in Appendix C of the DSEIR. Consistent with the first and second IAWG meetings, the discussion at this meeting included review of the fundamental assumption that the original SMP mitigation program (2002) provides ongoing mitigation in perpetuity for maintenance activities projected during the original program development. The discussion confirmed that the additional mitigation required for the 2012–2022 SMP Update would be to provide mitigation for newly identified work areas. The majority of the third IAWG meeting focused on SCVWD's proposed approach to provide mitigation for new work areas. (Refer to the meeting notes from the third IAWG meeting, provided in Appendix E, Volume I of this FSEIR).

At no time during the SMP Update planning process or interactions with the IAWG (before receipt of this comment from DFG on the DSEIR) was this issue raised that the original SMP's mitigation program was not somehow providing mitigation in perpetuity. SCVWD developed Appendix C to the DSEIR as a suitable and appropriate mitigation approach for newly projected work areas associated with the SMP Update, based on the assumption that the existing and ongoing SMP mitigation program will continue to provide mitigation in perpetuity for the originally projected work areas.

Response to Comment N-22

The comment requests clarification on what is meant by “new programmatic mitigation” and how instream complexity and gravel augmentation mitigation programs differ from the other proposed ecological service-type mitigation. SCVWD agrees that as written in Chapter 2, *Project Description*, and Appendix C of the DSEIR, the distinction between “ecologic services” type mitigation and “new programmatic mitigation” is confusing. Appendix C of the DSEIR is revised to remove the category of “new programmatic mitigation” (see revised Appendix C in Volume II of the FSEIR). Text on page 2-36 in Chapter 2 of the DSEIR is deleted as follows:

~~3. **New Programmatic Mitigation.** In addition to the mitigation approaches described above, the District would provide additional programmatic habitat mitigation through the instream complexity and gravel augmentation mitigation programs.~~

In addition, instream complexity and gravel augmentation mitigation are included within the ecological-services type mitigation category, although in the case of gravel augmentation, it would be focused on sediment removal activities in steelhead creeks.

Response to Comment N-23

SCVWD has applied for an Incidental Take Permit from DFG, for anticipated take of the longfin smelt and California tiger salamander resulting from SMP Update activities, a separate process from the CEQA review process. For both species, SCVWD would provide in-perpetuity mitigation, consistent with DFG’s requirements as described in this comment. For the longfin smelt, such mitigation would occur via restoration of tidal habitat at the Island Ponds, whereas for the California tiger salamander, appropriate mitigation lands would be identified. SCVWD does not anticipate that take of any other state-listed species would occur.

Response to Comment N-24

The comment requests clarification and an explanation for the mitigation ratios provided in Table 2-9. Table 2-9 summarizes the mitigation approaches that are described more completely in Appendix C of the DSEIR (Mitigation Approach Memorandum). The mitigation approaches listed in Table 2-9 apply to temporary but repetitive impacts to riparian and aquatic habitats, caused by sediment removal and vegetation management activities. The comment includes a specific reference to the 0.5:1 ratio for instream habitat complexity features. Based on further review, SCVWD has revised the mitigation ratio for instream complexity mitigation to 1:1 (mitigation-to-impacts) (see revised Appendix C in Volume II of the FSEIR).

Explanations for the various mitigation ratios are provided as follows:

- **Land acquisition (in-kind preservation/enhancement)** would have a 3:1 ratio, meaning that 3 acres of land would be acquired, preserved, and/or enhanced for every 1 acre of impacted habitats resulting from SMP maintenance activities. Ecological enhancement activities would recognize a site’s existing physical and biological processes and would seek to enhance or improve those processes that may be currently

functioning at a less than optimal performance. Enhancement activities also may include improving the site's functions and values, either for the ecosystem as a whole or targeting a particular species or group of species. For this class of land acquisition, a 3:1 mitigation-to-impact ratio was based on professional practice and experience, consistent with other regional land conservation and acquisition programs, including habitat conservation plans and natural community conservation plans.

- **Land acquisition (in-kind restoration)** would have a 1.5:1 ratio. In this case, the acquired lands would be selected because they would have good potential to provide similar ecologic functions and values to habitat areas impacted by SMP maintenance activities. However, restorative actions would be necessary to lift the quality, functions, and values of the lands, to provide a net improvement/benefit and, therefore, to serve as mitigation for SMP Update-impacted habitats. Because additional restoration activities would be necessary to lift the quality of such acquired lands, to provide functions/values that would serve as appropriate mitigation, the mitigation ratio would be lower, to reflect that the purchase and acquisition of the land was not the sole mitigation effort of SCVWD, but that additional and possibly robust restorative actions would be necessary and provided by SCVWD. Ecological restoration activities would evaluate a site's existing physical and biological processes and compare those conditions to either past on-site processes (or conditions at a suitable reference site) and seek to restore (or reintroduce) such processes and forms on-site that would have been previously lost or degraded. Although restoration activities could look to a site's past or to a suitable reference site, an effective restoration project would operate within the context of the existing system and what processes that system would support sustainably. Similar to enhancement activities, restoration activities also may include restoring the site's functions and values, either for the ecosystem as a whole or targeting a particular species or group of species.

Furthermore, the mitigation ratio for this type of mitigation would be lower than for land acquisition and management because restoration-type mitigation would create new areas of higher quality habitat in the county, rather than simply preserving existing habitat areas, and hence would provide more incremental benefit per unit.

In summary, for this class of land acquisition, the 1.5:1 mitigation-to-impact ratio was based on professional practice and experience, consistent with other land acquisition programs where subsequent restoration analysis, design, implementation, monitoring, and permitting all occurred to lift the habitat functions and values of the parcel to provide suitable mitigation.

- **Land acquisition (watershed lands out of kind)** would have an 8:1 ratio. These would be acquired lands that would provide more general conservation, open space, and habitat values, but the acquired lands would not be specifically tied or matched in-kind to wetland or riparian habitats impacted by SMP maintenance activities. Acquired watershed lands may include broader habitat communities, such as woodland and grassland. Ecologic enhancement activities may be applied to provide further lift in functions and values. Owing to the broader open space nature of these general watershed lands, a higher mitigation ratio was set. For this class of land acquisition, the 8:1 mitigation-to-impact ratio was based on professional practice and experience,

consistent with other general land acquisition programs where implemented. These other programs would include the initial (and ongoing) SMP mitigation program, which had higher ratios set for the acquisition of general watershed-type lands.

- **Invasive Plant Management Program** would have a 1.2:1 ratio. The primary goal of this program would be to preserve and improve habitat in County streams and riparian corridors, by reducing the population of ecologically impacting invasive plant species. This program would address impacts by improving riparian habitat quality. Controlling the spread of invasive plant species is a critical element in improving the ecological health of streams and watersheds. Invasive plants thrive and spread aggressively, negatively altering resource allocation regimes, wildlife patterns, soil stability, and water quality, and thus degrading habitat quality and the overall ecological value of a site. In addition, invasive plants can exacerbate flooding and fire danger, undermine structural assets, and impact access to roads, levees, and trails. The program would provide compensatory mitigation for SMP vegetation impacts to upland, riparian, freshwater, and tidal wetlands, by eliminating or significantly reducing the population of invasive plant species from these affected habitats. A key determinant of setting the ratio at 1.2 acres mitigated to every 1 acre of maintenance impacts was to recognize that the loss of instream wetland vegetation and habitat resulting from SMP maintenance activities would be temporary. SCVWD studies indicate that instream wetland vegetation and habitats impacted by sediment removal and vegetation management activities recover on average within 1–2 years following maintenance activities.¹ Because the impacts would be temporary and self-recovering, a mitigation ratio of 1:1 may be appropriate. However, because a temporal loss or gap would occur between the time when the habitat was impacted and when the mitigation was applied, an additional 20 percent mitigation requirement would be applied, resulting in a 1.2:1 mitigation ratio. This additional 20 percent is believed to be adequate to address the temporal gap. The mitigation ratio is not higher than 1.2:1, to account for the temporary nature of impacts to which it would be applied (e.g., if the impacts stopped, the wetland or riparian habitat in the impact area would be re-established). The 1.2:1 ratio is based on SCVWD's experience with other flood protection channel maintenance programs, such as in Sonoma County where similar routine vegetation management and sediment removal activities are mitigated at a 1.1:1 ratio. The Sonoma County Stream Maintenance Program was approved by DFG and the other regulatory agencies authorizing the County SMP.
- **Riparian Restoration and Planting Program** would have a 1.2:1 ratio. The primary goal of the riparian planting component of the SMP Update mitigation package is to compensate for the loss of quality and quantity of native-dominated riparian habitat caused by sediment removal and vegetation management. Riparian planting would enhance habitat for birds, amphibians, and other wildlife, using terrestrial riparian areas while providing shading, sources of organic matter, coarse woody debris, and water quality benefits to aquatic species. Restoration would be accomplished primarily via the revegetation of creek banks, benches, and floodplains within the Project Area where the existing physical conditions (i.e., topography, hydrology, and soils) were suitable for the establishment of native-dominated riparian habitat. This program

¹ Santa Clara Valley Water District. 2002 (July). Op. cit.

would address maintenance impacts by improving riparian habitat quality. The 1.2:1 ratio was set for the same rationale as described above for the invasive plant management program, notably that the maintenance activities would be temporary and self-recovering but additional mitigation would be necessary to accommodate for the temporal gap until the mitigation work was implemented. Similar to the invasive plant management program, the 1.2:1 ratio for riparian restoration also would be consistent with other permitted stream maintenance programs, such as at Sonoma County, where a 1.1:1 ratio has been approved by DFG and other regulatory agencies.

- **Tree Plantings for Removal of Trees Less Than or Equal to 12 inches dbh.** Removing trees sized 6-12 inches dbh would be mitigated through the individual planting of replacement trees. Appendix C of the DSEIR (the appendix regarding *Tree Scoring for Removal of Trees and Shrubs 6 - 12"DBH - April, 2011*) provides a specific tree appraisal and evaluation protocol to determine how replacement planting would occur. The protocol in Appendix C would involve carefully assessing targeted tree removals for their existing conditions and functions, including their canopy cover, local area value, ecosystem benefits, and ecosystem detriments. Using a cumulative ranking method, tree replacement mitigation ratios for removed trees (6-12 inches dbh) would occur at either 1:1, 2:1, or 3:1 (replacement tree to removed tree), depending on the overall quality and function of the removed tree. These tree replacement ratios are consistent with other tree replacement ratios, approved by regulatory agencies for the Sonoma County Stream Maintenance Program (whereby removed native vegetation is replaced at 2:1 ratio, removed non-native vegetation that provides some benefits is replaced at a 1.5:1 ratio, and removed problematic non-native vegetation does not require replacement mitigation). Chapter 2 of the SMP Update Manual (Appendix A, Volume II of the FSEIR) describes SCVWD's vegetation management and tree removal activities in detail.
- **Instream Habitat Complexity Features (1:1).** SCVWD would develop, enhance, or provide in-kind installation of instream habitat complexity features, to mitigate for the loss of instream complexity caused by annual sediment removal and vegetation management activities, including large woody debris removal. Examples of potential instream complexity activities includes: enlarging an existing large woody debris feature; geomorphically shaping an instream bar or bed feature for improved habitat; and enhancing a pool feature threatened by sedimentation. These mitigating activities would occur at a 1:1 ratio to where such features would be removed because of SMP maintenance activities.
- **Gravel Augmentation in Steelhead Creeks (1:1).** The ratio for gravel augmentation mitigation activities were developed, reviewed, and approved in close coordination with representatives from NMFS. The 1:1 ratio represents a target mitigation objective. Also important, the actual process for identifying high quality and appropriate sediment for use in gravel augmentation projects was reviewed and approved through NMFS coordination, and this would include the following process:

 1. An SCVWD biologist would visit sediment removal sites (where more than 100 square feet of sediment were to be removed), to assess the extent and quality of the sediment proposed for removal. Once the extent of sediment removal was

understood, the biologist then would assess if high quality sediment would be impacted.

2. If the biologist determined that as much as 100 square feet of spawning quality gravel may be present throughout the sediment removal area as a whole, then sediment would be evaluated for its suitability for gravel augmentation-type activities.
3. Sediment suitability evaluation would focus on median sediment size (D₅₀ texture), as well as on percent fines, and would be performed only for the sediment removal areas that were thought to provide potential spawning gravel. Areas obviously not suitable for providing spawning quality sediment would not be included in the suitability evaluation.
4. If the evaluated sediment qualified as “high quality” and suitable for augmentation-type activities, then augmentation activities would follow the description as stated in the Mitigation Memo (Appendix C as revised in Volume II of the FSEIR).
5. If less than 100 square feet of gravel qualified as high quality, no mitigation would be necessary.

Response to Comment N-25

SCVWD appreciates having this information. Because of the language in Table 2-10, listing the extension dates on permit R3-2001-0119 is unnecessary. Table 2-10 is revised as follows, adding permit number 1600-2009-0361-R3 and the accompanying issue date and expiration, as requested:

Table 2-10. Agency Approvals

Agency	Applicable Law/Regulations Guiding Jurisdiction	Current or Prior Permits or Approvals for Maintenance		
		Description	Original Date of Issuance	Date of Expiration
California Department of Fish and Game (DFG)	Fish and Game Code Section 1602	Lake and Streambed Alteration Agreement, Notification No. R3-2001-0119	July 8, 2002	Dec 31, 2014 <u>10</u>
		<u>Lake and Streambed Alteration Agreement, Notification No. 1600-2009-0361-R3</u>	<u>Jan 21, 2011</u>	<u>Dec 31, 2014</u>
	Fish and Game Code Section 2081 (California Endangered Species Act)	N/A	N/A	N/A

Response to Comment N-26

The work windows and rain forecasts for the various SMP Update activities are as indicated in Table 2-12 of the DSEIR. Similarly, as indicated in Table 2-12, a 72-hour weather forecast for substantial rain events would be applicable for most activities unless otherwise specified. SCVWD has determined that a 72-hour forecast window would be an appropriate amount of time to avoid or adequately prepare sites for rainfall. As suggested, Table 2-11 on page 40 of the DSEIR is revised as follows, with the changes to the work windows and rain forecasts for bank stabilization:

Table 2-11. Comparison of Key Differences between 2002 SMP and 2012 SMP Update

Description of Activity	2002 SMP	2012 SMP Update
Bank Stabilization		
Work Window	Generally between July 1 and October 15, 50 percent completed project may extend to October 30.	<p>July 1 June 15 to October 15. <u>Projects may continue until the approved date stated below 50 percent completed projects by October 15</u> may continue until completion, or until the first 5-day <u>72-hour</u> forecast that includes significant rainfall (greater than 0.5 inch/24 hours).</p> <ul style="list-style-type: none"> • <u>In Creeks Supporting Anadromous Fish</u> <ul style="list-style-type: none"> ○ <u>An extended work window may occur until October 31st for bank stabilization projects that will be 50% complete by October 15th.</u> • <u>In Creeks Not Supporting Anadromous Fish</u> <ul style="list-style-type: none"> ○ <u>An extended work window may occur until November 30th for projects that will be 50% complete by October 15th or until significant rainfall.</u> <p><u>An extended work window may occur until November 30th for new bank stabilization projects that will be completed in five (5) days or less, or until significant rainfall.</u></p>

Description of Activity	2002 SMP	2012 SMP Update
Sediment Removal		

<p>Work Window</p>	<p>Instream work limited to June 15–October 30 or first significant rainfall after October 15 (greater than 0.5 inch/24 hours), whichever occurs first.</p>	<p>June 15–October 15, with extended work window under the following conditions:</p> <ul style="list-style-type: none"> • <u>Creeks Supporting Anadromous Fish:</u> <u>An extended work window may occur from October 15 through October 31, or until local rainfall of 0.5 inches or greater falls within the subject watershed within a 24-hour period, whichever occurs first.</u> • <u>Creeks Not Supporting Anadromous Fish:</u> <u>An extended work window may occur from October 15 through November 30th, or until local rainfall of 0.5 inches or greater falls within the subject watershed within a 24-hour period, whichever occurs first.</u> • <u>In lower quality areas, work may occur after a significant rainfall event but no later than stops at first significant rainfall (0.5 inches of rain in a 24-hr period) or December 31, per watershed</u> <ul style="list-style-type: none"> ○ Additional conditions needed for work on Berryessa Creek (0+88+80; 232+70-236+00; 284+30-288+00), Lower Silver Creek (Reach 3 between Stations 37+40 and 381+19), Thompson Creek (0+00-10+00), Canoas Creek (0+00-390+00), Ross Creek (0+00-86+30), Calabazas Creek (35+00-105+00), and San Tomas Aquino Creek (80+00-100+00), after a rainfall event (0.5 inch/24 hours) <p>Sites maintained in a winterized state during extended work window</p>
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The text on pages 14 and 63, respectively, of the 2012–2022 SMP Manual (Appendix A of the DSEIR) also is revised as follows:

3. Bank Stabilization

Bank stabilization work is allowed during the work window of June 15 – October 15. If ~~a work extension is granted~~~~project is more than 50% complete on October 15,~~ it may continue until the approved date stated below completion, December 31, or until the first ~~72-hour~~~~5-day~~ forecast that includes significant rainfall. Significant rainfall is local rainfall 0.5 inches or greater that falls within a 24-hour period in the subject watershed.

1. In Creeks Supporting Anadramous Fish
An extended work window may occur until October 31st for bank stabilization projects that will be 50% complete by October 15th.
2. In Creeks Not Supporting Anadramous Fish

- a. An extended work window may occur until November 30th for projects that will be 50% complete by October 15th or until significant rainfall.
- b. An extended work window may occur until November 30th for new bank stabilization projects that will be completed in five (5) days or less, or until significant rainfall.

and

D. Work Window

Bank stabilization work is allowed during the work window of June 15 – October 15. If a ~~work extension is granted~~ ~~project is more than 50% complete on October 15,~~ it may continue until ~~the approved date stated below completion, December 31,~~ or until the first ~~72-hour~~ ~~5-day~~ forecast that includes significant rainfall. Significant rainfall is local rainfall 0.5 inches or greater that falls within a 24-hour period in the subject watershed.

3. In Creeks Supporting Anadromous Fish

An extended work window may occur until October 31st for bank stabilization projects that will be 50% complete by October 15th.

4. In Creeks Not Supporting Anadromous Fish

- c. An extended work window may occur until November 30th for projects that will be 50% complete by October 15th or until significant rainfall.
- d. An extended work window may occur until November 30th for new bank stabilization projects that will be completed in five (5) days or less, or until significant rainfall.

Response to Comment N-27

The statement in Table 2-11 that “No rodenticide or fumigant application within the current mapped potential range of sensitive amphibians” would occur is incorrect. SCVWD proposes to use ingestible rodenticides, though not fumigants, within the range of special-status amphibians. Table 2-11 is revised to reflect this intent, consistent with BMP ANI-4, which states that no fumigants would be used within the habitat areas of special-status amphibians. Table 2-11 (on page 2-41 of the DSEIR) also is revised as follows to include the measure described in BMP ANI-3 that would implement a 656-yard buffer around known burrowing owl locations where no rodenticides or fumigants would be used:

- ~~No rodenticides or fumigant application within the current mapped potential range of sensitive amphibians.~~
- ~~Specifically designed bait stations to prevent entry of California Tiger Salamander, California Red-Legged Frog, or Foothill Yellow-Legged Frog species. or Salt Marsh Harvest Mouse~~
- Live traps will be designed to allow salt marsh harvest mouse to enter and exit easily.
- ~~Minimization of secondary poisoning impacts including cleanup and disposal of spilled bait.~~
- A 656-yard buffer will be established around known burrowing owl locations where no rodenticides or fumigants (including smoke bombs)

will be used. A 0.5-mile buffer will be established around known bald eagle and golden eagle nesting locations where no rodenticides will be used.

Per BMP ANI-4, any bait stations used within potential habitat areas of special-status amphibians would be designed to prevent entry by special-status amphibians. Per BMP ANI-2, no bait stations (i.e., containing rodenticides) would be used in salt marsh harvest mouse habitat. Rather, any rodent control within salt marsh harvest mouse habitat would be limited to live trapping, using traps designed for larger rodents, such as ground squirrels. Such traps would allow any animal as small as a salt marsh harvest mouse that entered the trap to easily exit.

Response to Comment N-28

SCVWD agrees with the comment that snags can be important wildlife habitat components. Row 2 of Table 2-11 (on page 2-45 of the DSEIR) is revised as follows to remove the reference to snag removal from the “Ecological Health/Stewardship” justification category.

Greater description of activity includes:

- Hand-removal of woody vegetation occurs for the following reasons:
 - Maintenance (retain conveyance capacity)
 - Bank Stabilization
 - Ecological Health/Stewardship (includes habitat improvement; ~~snag removal~~)
- Stump treatment is included as hand removal (not considered Herbicide work).
- Tree/shrub removal 6–12 inches dbh. Tree removal is subject to removal assessment process and criteria.
- Timing same as described for Pruning Activities
- “Pay as you go” mitigation
- Additional requirements include supervision by qualified specialist for certain pruning types, and

Response to Comment N-29

Stump treatment is included under the work activity of hand removal to fully account for the needs of the work. To meet the objectives for removing the vegetation, stump treatment would be required to prevent regrowth. The two activities would occur together to meet the work objective. Defining these as paired work activities also ensures that the appropriate biological pre-construction surveys would occur for both work activities.

Response to Comment N-30

As discussed on page 3.3-134 of the DSEIR, fall-run Chinook salmon in the Project Area have been tested genetically and have been demonstrated to be derived from hatchery stock, and thus, this species is not considered native to the Project Area. Further, studies have found conditions for successful spawning are marginal and as a result, the Project Area is not important to this species’ populations, and any SMP Update impacts to this species would be

considered less than significant. Therefore, mitigation measures to restrict the instream herbicide window to the extent suggested by this comment are not required by CEQA. Restricting instream herbicide use throughout the extensive Guadalupe River and Coyote Creek watersheds to only a 2-month period, as this comment suggests, would be infeasible for SCVWD, and it would be unnecessary because of the less-than-significant nature that the impact would have on fall-run Chinook salmon.

The comment also refers to text on page 3.3-128; no text on that page discusses the Chinook salmon or what the work window for herbicide application is, and thus the comment's reference is unclear.

Response to Comment N-31

BMP GEN-2 in Table 2-12 of the DSEIR is revised as follows, to include DFG review and approval:

Instream herbicide applications will take place between June 15 and October 31 for streams with steelhead, with an extension through and June 15 to December 31 for non-steelhead streams or until the first occurrence of any of the following conditions; whichever happens first:

- local rainfall greater than 0.5 inches is forecasted within a 24-hour period from planned application events; or
- when steelhead begin upmigrating and spawning in the 14 steelhead creeks, as determined by a qualified biologist (typically in November/December),
 - A qualified biologist will determine presence/absence of sensitive resources in designated herbicide use areas and develop site-specific control methods (including the use of approved herbicide and surfactants). Proposed herbicide use would be limited to the aquatic formulation of glyphosate (Rodeo or equal). Surfactant would be limited to non-ionic products such as Agri-dex, Competitor, or another brand name using the same ingredients. Any modifications to these materials would require review and approval by NMFS and DFG.
 - A qualified fisheries biologist will review proposed herbicide application methods and stream reaches. The fisheries biologist would conduct a pre-construction survey (and any other appropriate data research) to determine whether the proposed herbicide application is consistent with SMP approvals concerning biological resources and determine which BMPs would be instituted for work to proceed.

Response to Comment N-32

SCVWD disagrees that nesting-bird surveys need to be conducted within one week prior to starting work or conducted again if a lapse of only one week occurs. The BMPs designed to protect nesting birds that SCVWD has been implementing for the SMP during the period 2002–2012 have used a 2-week survey period, and SCVWD has found this period to be adequate to minimize impacts to nesting birds. Maintenance crews are well trained in the implementation and intent of the BMPs, and they look for nesting birds while maintenance

work is being performed. Only on relatively few occasions have nests become established within the period between the initial pre-activity survey and the commencement of work, and on those occasions, maintenance staff have contacted SCVWD biologists and established the appropriate buffer around the nests. Reducing the pre-activity survey window from 2 weeks to 1 week would not result in a substantial reduction in impacts to nesting birds, yet it would severely impinge on the feasibility of SMP activities because of the additional survey effort and reduced flexibility that would result from requiring a survey within 1 week before the start of SMP Update activities.

Also, SCVWD disagrees that the buffer around the nests of ground-nesting birds should be increased from 25 feet to 50 feet. Based on SCVWD's experience performing maintenance activities around the nests of birds such as killdeer (the main ground-nesting species for which nests are detected in and around SMP work areas), a 25-foot buffer has been adequate to avoid causing nest abandonment or other impacts resulting in take of these birds.

Response to Comment N-33

SCVWD understands that DFG does not recommend or approve burrowing owl eviction or relocation. SCVWD proposes to only evict owls from their burrows during the non-breeding season, if necessary to avoid injury or mortality of individual owls because of the necessity to perform SMP Update activities that could physically harm owls (e.g., within burrows) if eviction did not take place. SCVWD also understands that DFG does not formally approve the use of artificial burrows. However, H. T. Harvey & Associates^{1,2} and others have found that owls will use artificial burrows if they are properly constructed and maintained. As a result, SCVWD would retain the option of providing artificial burrows to serve as alternative roosting or nesting sites for evicted owls, as appropriate. However, eviction of owls and construction of artificial burrows does not constitute the full mitigation for impacts to burrowing owls; such mitigation is described in detail in the DSEIR under Mitigation Measure BIO-13, and is consistent with the process of impact avoidance, minimization, and compensation, described in Comment N-33.

BMP GEN-7 will continue to include the statement that SCVWD will consult with DFG and USFWS before evicting owls and/or establishing alternative burrows, so that SCVWD may consider any input these agencies may have on the relocation process and on any recommendations for the establishment of alternative burrows for evicted owls. Any mitigation measures implemented in consultation with these agencies would be at least as protective as those outlined in BMP GEN-7.

Response to Comment N-34

¹ California Department of Fish and Game. 1999. 3COM Burrowing Owl Relocation and Management Plan. Prepared by H. T. Harvey & Associates.

² H.T. Harvey developed a mitigation plan for borrowing owls on a parcel of land owned by the 3COM Corporation of San Jose, California, that was scheduled for construction during the 1997 breeding season. H. T. Harvey successfully relocated the birds in early spring 1997, before the onset of the breeding season; monitoring and mitigation continued until October 2000. See H. T. Harvey Endangered and Special-Status Species Studies & Consultations online at www.harveyecology.com.

SCVWD disagrees that focused-species, rare plant surveys necessarily must be performed during the blooming period, as some special-status plants are readily identifiable when in fruit or even in a vegetative condition. In this respect, BMP GEN-9 is consistent with DFG's survey protocol (cited in the comment), as the protocol states that field surveys should be conducted "... at the time of year when species are both evident and identifiable. Usually this is during flowering and fruiting." Nevertheless, for the purpose of clarification, BMP GEN-9 (on page 2-53 of the DSEIR) is revised as follows, to indicate that surveys would be conducted during the appropriate time of year to adequately identify special-status plants that potentially could occur on the site in question:

3. Surveys will be conducted during the appropriate time of the year to adequately identify special-status plants that could potentially occur on the site of proposed maintenance activities.

SCVWD botanists perform special-status plant surveys in general accordance with DFG's survey protocol. However, deviations from this protocol are appropriate in certain instances. For example, the protocol suggests that "multiple visits to the same site (e.g. in early, mid, and late-season for flowering plants) to capture the floristic diversity at a level necessary to determine if special status plants are present" may be necessary and recommends the use of reference sites to determine whether a species is identifiable. Because of the experience of SCVWD botanists in the Project Area, a single, appropriately-timed visit to look for a particular species or group of species often would be adequate to determine that a species was absent from a particular area. As a result, SCVWD respectfully declines to follow only the DFG protocol to conduct surveys but rather prefers to use a combination of the DFG protocol and the *CNPS Botanical Survey Guidelines*.¹ The guidelines are more applicable to the region. Therefore, the introductory text to BMP GEN-9 is revised as follows:

A qualified botanist will identify special status plant species and sensitive natural vegetation communities and clearly map or delineate them as needed in order to avoid and/or minimize disturbance, using the DFG protocols and the *CNPS Botanical Survey Guidelines* to formulate the following protocols:

Response to Comment N-35

Per the comment, BMP GEN-12 is revised as follows to indicate that the buffer established around any active western pond turtle nest would be 50 feet.

- C. If an active western pond turtle nest is detected within the activity area, a ~~25~~50-foot buffer zone around the nest will be established and maintained during the breeding and nesting season (April 1 – August 31). The buffer zone will remain in place until the young have left the nest, as determined by a qualified biologist.

¹ California Native Plant Society. 1983 (December 9). *CNPS Botanical Survey Guidelines*. Available: http://www.cnps.org/cnps/rareplants/pdf/cnps_survey_guidelines.pdf. Revised June 2, 2001.

However, with implementation of this buffer, SCVWD believes that no monitoring would be needed around such a nest because no work would occur within the buffer as long as the nest was active.

Response to Comment N-36

Per the comment, the first paragraph under Impact BIO-40 is revised as follows, to indicate the status of the San Joaquin kit fox as state-threatened:

In the Project Area, the San Joaquin kit fox (federally listed as endangered and state listed as threatened) is expected to occur only as an occasional dispersant in the vicinity of Pacheco Creek and the uppermost reaches of the Pajaro River, upstream from the Llagas Creek confluence. Even in those areas, kit fox occurrence is expected to be extremely infrequent, and at most, very low numbers of individuals would move through those areas during dispersal, between areas of known breeding activity well outside the Project Area. No SMP Update activities are projected in the portion of the county where kit foxes could occur, and SCVWD has easements in only two limited areas in this part of the county. Thus, this species would not be impacted by projected SMP Update activities, and very low potential would exist for even unprojected activities to impact this species.

Also, BMP GEN-15.5 (on page 2-58 of the DSEIR) is revised as follows, to indicate that take authorization from DFG would be necessary if take (as defined by the CESA) occurred:

3. If take of the San Joaquin kit fox will occur, take authorization from the USFWS and CDFG will be necessary.

Response to Comment N-37

The discussion of state-listed species on page 3.3-10 of the DSEIR does not explicitly state that a CESA incidental take permit would be needed for the fully protected species noted in this comment (i.e., California clapper rail, California black rail, California condor, bald eagle, or salt marsh harvest mouse). Rather, it states that these and others are “state-listed species potentially occurring in the Project Area.” Nevertheless, the CESA section is revised as follows, per this comment, to clarify that these five species would be fully protected and that SCVWD would avoid all take of these species:

Project Applicability. ~~Maintenance activities may result in the take of a number of state-listed species. A CESA take permit or other form of authorization may be required for State-listed wildlife species occurring (or potentially occurring) in the Project Area.~~ State-listed species potentially occurring in the Project Area include the Tiburon paintbrush, longfin smelt (*Spirinchus thaleichthys*), California tiger salamander, bank swallow (*Riparia riparia*), California condor, bald eagle (*Haliaeetus leucocephalus*), Swainson’s hawk (*Buteo swainsoni*), California clapper rail, California black rail (*Laterallus jamaicensis coturniculus*), California least tern, least Bell’s vireo, salt marsh harvest mouse, and San Joaquin kit fox. ~~The only state-listed plant species known to occur in the Project Area is the state-threatened Tiburon paintbrush.~~ Of these, the California clapper rail, California black rail,

California condor, bald eagle, and salt marsh harvest mouse are also listed as fully protected species; take of such species must be avoided. Maintenance activities may result in the take of other state-listed species, including the California tiger salamander and longfin smelt; a CESA Incidental Take Permit would be required for take of these species.

Response to Comment N-38

The sentence referred to in this comment (in the last paragraph on page 3.3-39 of the DSEIR) contains a typo and is revised as follows, both to correct the typo and to provide further clarification:

Finally, there are some areas where work activities were projected in 2001 for the period 2002–2012, and where activities are also projected for the period 2012–2022, but where the type and extent of activities may differ somewhat. For example, a reach subjected to manual vegetation management during the period 2002–2012 may undergo herbicide treatment during the period 2012–2022. In general, herbicide has less impact on vegetation than ~~hand removal~~ herbicide application is targeted to specific individual plants. However, careful application of herbicide also is targeted and can reduce the effects on surrounding vegetation. Furthermore, hand removal makes it possible to remove larger diameter vegetation that fills a somewhat different ecological niche than herbicide application. To compound the difficulty of estimating the relative increase or decrease in the magnitude of the impacts resulting from these SMP Update activities, the projections in 2002 were based on linear extents and approximate widths while the 2012 projections were based on actually located polygons. Thus, a detailed comparison of the relative effects of these activities is infeasible.

Response to Comment N-39

The method of quantifying mitigation needs and providing mitigation at the end of a year's maintenance activities would result in some temporal loss of habitat functions and values. This temporal loss is one of the reasons why mitigation ratios for impacts to wetland and riparian habitat are greater than 1:1 (e.g., 1.2:1 for riparian restoration and planting or invasive plant management, 1.5:1 for in-kind restoration and creation).

SCVWD acknowledges that DFG requires mitigation for impacts to state-listed species be provided in advance of the impact. SCVWD would work with DFG during the CESA consultation process to identify the timing of the mitigation that would need to be provided for CESA compliance purposes. However, the DSEIR finds that the mitigation approach described in Appendix C would be adequate to reduce impacts to less-than-significant levels as required by CEQA. Please see response to Comment N-24 for a complete discussion of the rationale for mitigation ratios, specifically for impacts to wetland vegetation and riparian habitat.

Response to Comment N-40

SCVWD is aware of the potential for Pyramat®, and even heavier materials such as chain-link fencing, to become dislodged during high flows. However, it relies on these materials in some areas for erosion control and to prevent burrowing animals from establishing new burrows, and it has had success with these materials with proper anchoring. Because SCVWD is aware of the potential for these materials to become dislodged, it anchors the materials as well as possible and monitors areas where these materials are used during and after high flows to address any problems posed by loosened materials. SCVWD would train all staff on proper installation and use of Pyramat® and chain link fencing. In addition, SCVWD would continue to monitor sites where these materials have been installed and make any repairs immediately.

Response to Comment N-41

In Tables 3.3-5 and 3.3-6 of the DSEIR, “sediment wetland” refers to wetland and aquatic habitats (combined), projected to be impacted by sediment removal, based on calculations performed by SCVWD that took into account the length of reaches where sediment removal is projected and the approximate widths of the wetland/aquatic habitat within those reaches. SCVWD then identified additional areas (i.e., outside the “sediment wetland” polygons) where the various SMP Update activities are projected in areas mapped by AIS as aquatic habitats (which are summarized in those tables as “aquatic (wetland)” impacts) and vegetation types that are considered herbaceous wetlands (summarized in those tables as “herbaceous (wetland)” impacts). The impacts to “aquatic (wetland)” habitats are projected as zeros for most watersheds, simply because all of the habitat mapped by AIS as aquatic already is included in the “sediment wetland” impact area or because AIS’s mapping captures relatively little area as aquatic because of the prevalence of overhanging riparian vegetation.

Both Tables 3.3-5 and 3.3-6 of the DSEIR are revised as follow, with the addition of a footnote beneath the four existing footnotes to clarify these distinctions:

5. “Sediment wetland” refers to wetland and aquatic habitats (combined) projected to be impacted by sediment removal, based on calculations performed by SCVWD, taking into account the length of reaches where sediment removal is projected and the approximate widths of the wetland/aquatic habitat within those reaches. SCVWD then identified additional areas (i.e., outside the “sediment wetland” polygons) where the various SMP Update activities were projected in areas mapped by AIS as aquatic habitats (summarized in those tables as “aquatic [wetland]” impacts) and vegetation types that are considered herbaceous wetlands (summarized in those tables as “herbaceous [wetland]” impacts).

Response to Comment N-42

See response to Comment N-5.

Response to Comment N-43

Although the discussion on page 3.3-68 of the DSEIR states that the canals subject to SMP Update activities are not expected to be considered waters of the U.S., it also states that this determination would have to be made by the USACE.

Within native creeks and flood protection channels such as those in the Project Area, SCVWD expects that areas that are considered jurisdictional wetlands and other waters of the U.S. by the USACE would show virtually complete overlap with any areas that may be considered “wetlands” using a one-parameter definition. As a result, the only potential discrepancy between the areas identified as sensitive habitats (e.g., waters of the U.S. plus vegetated wetlands within canals) and areas that may be identified as wetlands using a one-parameter definition would be unvegetated sections of canals that would hold water long enough to meet the criterion for wetland hydrology.

Many sections of these canals do not possess any wetland characteristics; these sections may convey stormwater runoff from upslope areas for brief periods following rain events, but such runoff conveyance does not meet any criteria for wetland hydrology, and these sections do not support hydrophytic vegetation (instead having upland-dominant vegetation) or hydric soils. Also, SCVWD believes that the unvegetated portions of canals that pond water long enough to meet the criterion for wetland hydrology provide little in the way of ecological functions and values, and maintenance activities such as sediment removal have little effect on the biological importance of such areas. Furthermore, the one-parameter approach to identifying “wetlands” followed by the USFWS, as referenced in this comment, is based on Cowardin et al.¹ Cowardin et al. classified wetlands as including areas with hydrophytes (which were considered wetlands, and thus sensitive habitats, by the DSEIR), areas with hydric soils (which have certainly not truly developed in these canals), and “wetlands without soil and without hydrophytes, such as gravel beaches or rocky shores without vegetation.” SCVWD believes that unvegetated sections of inoperable canals do not possess ecological functions and values that even approach the gravel beaches or rocky shores envisioned by Cowardin. Furthermore, because Cowardin’s definition of wetlands does not include objective criteria for determining when unvegetated features such as canals should be considered wetlands, nothing in Cowardin’s definition of wetlands, on which the USFWS’s (and evidently the DFG’s) one-parameter wetland definition is based, suggests that unvegetated segments of SCVWD canals meet Cowardin’s definition of a wetland.

Response to Comment N-44

The DSEIR indicates that any impacts to vegetated wetlands within canals would be considered a substantial impact because of the functions and values provided by those wetlands, whether or not they are considered jurisdictional waters of the U.S. However, unvegetated sections of inoperable canals would provide minimal ecological functions and values, and instead would serve merely to convey stormwater runoff that was captured from upslope areas. Thus, impacts to such areas (e.g., from removal of sediment) would not

¹ Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 131pp.

have a substantial ecological impact, and mitigation would not be necessary for such an impact.

Please also refer to the response to Comment N-43 regarding the one-parameter definition of a wetland. Considering an unvegetated reach of an inoperable canal that conveys stormwater runoff for brief periods a “wetland” because it occasionally holds water would be no different from considering a concrete-lined roadside ditch or a puddle as a “wetland,” yet neither of those types of features provides important ecological functions and values that would necessitate mitigation because of maintenance activities.

Response to Comment N-45

Please refer to the response to Comment N-23 pertaining to the use of in-perpetuity mitigation to compensate for impacts to state-listed species.

Response to Comment N-46

According to the comment, DFG advises SCVWD to implement in-perpetuity mitigation for permanent impacts. As stated on page 3.3-71 of the DSEIR, SCVWD would provide in-perpetuity mitigation for permanent impacts. However, repetitive impacts are not considered permanent impacts for the reasons discussed in the response to Comment N-7. Because habitat in repetitively impacted areas would have the potential to become restored (even without intentional restoration efforts), SCVWD would not consider impacts to such areas to be permanent. As a result, for repetitively impacted areas, SCVWD would retain the options of either providing one-time, in perpetuity mitigation for impacts or providing pay-as-you-go mitigation each time that area was impacted.

Response to Comment N-47

Please see the response to Comment N-24 that addresses all of the mitigation ratios proposed for vegetation management and sediment removal activities, including a description of the rationale for the land acquisition ratios.

Response to Comment N-48

SCVWD is proposing to collaborate with land owners whose land is managed for open space or passive recreation, and to provide them with additional habitat enhancement, restoration, acquisition services, or funding. In this situation, SCVWD would not acquire the mitigation lands but would enter into an agreement with the landowners to provide management and financial support toward preserving or improving lands for beneficial outcomes, including improved habitats. In such case, this mitigation would result in these lands providing functions and values that they currently do not provide, resulting in an incremental improvement for which mitigation credit could be taken.

A detailed management plan for the species or habitat to be protected/improved would be the responsibility of SCVWD and would not necessarily be managed by the landowner. The mitigation accounting for such “partnership projects,” and how much mitigation would be provided to account for SMP activities, would be reviewed and developed with regulatory

staff on a case-by-case basis. This approach is seen as a unique method to address special opportunities that may arise. This method would not be the focus of SCVWD's acquisition mitigation effort, but could provide additional flexibility in achieving good mitigation results. This type of mitigation partnership with other watershed landowners/stakeholders has proven to be effective in Sonoma County in reducing erosion source areas, and thereby reducing the need for downstream sediment removal in flood protection channels.

Response to Comment N-49

Please see the response to Comment N-24 that discusses the rationale for these mitigation ratios and their relationship to addressing temporal impacts.

Response to Comment N-50

As per the comment, first paragraph beneath the bullets on page 3.3-74 of the DSEIR is revised as follows:

Mitigation for Bank Stabilization Impacts. Impacts to non-tidal wetlands and aquatic habitats resulting from bank stabilization will be provided via the methods described in Appendix C and using the mitigation ratios identified in Table 2-4. ~~Softscape repairs will be self-mitigating because they will not result in long-term adverse effects.~~ Mitigation may occur through a combination of replacement of "hard" stabilization measures with soft, biotechnical measures (either on the stabilization site or off-site) or out-of-kind via riparian revegetation as determined by a Mitigation Feasibility Assessment, as described in Appendix C. These measures will reduce impacts to wetlands and aquatic habitats resulting from bank stabilization by increasing the functions and values of existing wetland and aquatic habitats.

Response to Comment N-51

The pruning projections in Table 3.3-9 of the DSEIR, totaling 13.4 acres, were derived from SCVWD's database of reach-by-reach projected SMP Update activities. However, additional pruning is expected to be necessary in areas that are not yet completely defined, to restore conveyance capacity of a creek reach, to provide visual inspection of SCVWD facilities, and to provide access clearance on roadways, for bank stabilization projects and ecological/stewardship purposes. As a result, SCVWD has allowed for the possibility that pruning may affect considerably more acreage than has been indicated in Table 3.3-9 and has set a cap of 40 acres of pruning for the entire 10-year 2012–2022 program. Impact BIO-2 is revised as follows to clarify the reason for this apparent discrepancy, both in the text (the last paragraph on page 3.3-77 of the DSEIR) and as a footnote to Table 3.3-9:

~~Hand pruning has been projected in 40 acres of new work areas. Pruning will occur on woody vegetation in order to restore conveyance capacity of a creek reach, provide visual inspection of District facilities, and to provide access clearance on roadways (not projected in 2002) and for bank stabilization projects. Hand pruning may also be performed for ecological/stewardship purposes. The pruning projections in Table 3.3-9, totaling 13.4 acres, were derived from SCVWD's database~~

of reach-by-reach projected activities. In addition, additional pruning are expected to be necessary in areas that are not yet completely defined, to restore conveyance capacity of a creek reach, provide visual inspection of SCVWD facilities, and provide access clearance on roadways, for bank stabilization projects and for ecological/stewardship purposes. As a result, SCVWD has allowed for the possibility that pruning may affect considerably more acreage than has been indicated in Table 3.3-9 and has set a cap of 40 acres of pruning for the entire 10-year 2012–2022 program.

and

Note:

Some of the activities in this table overlap within a specific area. Also, SCVWD may perform additional pruning that could affect up to 40 acres during the period 2012–2022.

Source: Data compiled by Horizon Water and Environment in 2011 based on information from SCVWD

The reference to 12 acres on page 3.3-80 of the DSEIR pertains to the mitigation for 40 acres of pruning impacts, based on the methodology described on that page.

Response to Comment N-52

Repetitive impacts to riparian habitat would prevent regrowth for as long as the impacts continued. For the sake of the 10-year SMP Update, repetitive mowing or herbicide application, for example, would prevent riparian habitat from regrowing. However, following the cessation of such vegetation management, riparian vegetation is expected to naturally regenerate or recolonize the affected area. As a result, the impact would not be considered permanent (which would imply that the maintenance activity had irreversibly altered habitat conditions), but instead was repetitive. Please also refer to the response to Comment N-7.

Response to Comment N-53

Tree Scoring for Removal of Trees and Shrubs ≤12" dbh (in Appendix A of the DSEIR) was developed with a collaborative team of professional revegetation specialists and International Society of Arboriculture-certified arborists. Common forestry practices and ecological assessments look at the ecological value provided by individual species. The Tree Scoring protocol does this by defining ecological attributes and assigning scores to those values. A literature review resulted in a wide variety of assessment tools. These protocols were specifically designed to account for the ecological values that can occur within urbanized creek systems.

Stem dbh is taken into consideration under “Ecosystem Benefits,” whereby trees and shrubs 6-12” dbh are assigned an additional score to account for the enhanced ecological benefits larger trees can provide.

SCVWD based its proposed mitigation ratios not only on the tree scoring protocol, but also on the success of its riparian mitigation plantings. As a subsequent and continuing program from the 2002–2012 SMP, mitigation ratios of 3:1, 2:1, and 1:1 were determined to continue to be adequate ranges to appropriately mitigate for the loss of vegetation within urbanized stream systems. SMP Update revegetation projects would replant with saplings and not with acorns or seedlings, as the comment indicates.

Response to Comment N-54

Per the comment’s request, Impact BIO-3 is revised as follows, to include a tabulated summary (the new Table 3.3-10) of projected impacts to sensitive communities by community type:

Table 3.3-10. Estimated Impacts to Northern Coastal Salt Marsh, Sycamore Alluvial Woodland, and Serpentine Communities from Projected SMP Update Activities, 2012–2022

<u>Community</u>	<u>Projected Impact (acres)</u>
<u>Northern Coastal Salt Marsh</u>	<u>8.3</u>
<u>Sycamore Alluvial Woodland</u>	<u>17.6</u>
<u>Coast Live Oak</u>	<u>27.3</u>
<u>Valley Oak</u>	<u>7.2</u>
<u>Serpentine</u>	<u>24.4</u>

Note:

Source: Data compiled by Horizon Water and Environment in 2011 based on information from SCVWD and AIS.

The first paragraph under Impact BIO-3 (on page 3.3-81 of the DSEIR) is revised as follows, to incorporate this table:

Sensitive plant communities (see *Regulated and Sensitive Natural Communities* above) often are of limited distribution within a region and frequently support special-status species or high numbers of common species. Thus, the conservation of these natural communities is integral to maintaining biological diversity. However, as described above under *Determination of Impacts on Aquatic and Wetland Communities* and *Determination of Impacts on Non-instream Sensitive Plant Communities*, Proposed Project activities may affect sensitive plant communities through direct disturbance of vegetation and disturbance, modification, or destruction of habitat. Impacts to wetlands and aquatic habitats in general, which are considered sensitive communities, are described under Impact BIO-1, and impacts to riparian habitats (also sensitive communities) are described under Impact BIO-2. Impact BIO-3 focuses on specific sensitive communities, such as northern coastal salt marsh, sycamore alluvial woodland, oak woodland, and serpentine communities. Table 3.3-10 summarizes estimated impacts of projected SMP Update activities on these latter communities, based on mapping by AIS and SCVWD projections for maintenance activities during the period 2012–2022.

As a result of inserting this new Table 3.3-10, the table numbering (and table references thereto) for all subsequent tables in Chapter 3.3 of the DSEIR are revised in the FSEIR.

Response to Comment N-55

SCVWD is unaware of any evidence that the ability of serpentine communities to regenerate may be limited with repeated disturbance. The discussion on page 3.3-83 of the DSEIR states that the repetitive nature of impacts in some areas would result in longer-term effects over the 10-year duration of the SMP Update. However, if such disturbances were to cease, the plant communities in these areas would be expected to return to conditions similar to baseline conditions.

Nevertheless, Mitigation Measure BIO-3 requires in-perpetuity mitigation, via preservation, enhancement, and management, of off-site serpentine communities, to compensate for any impacts to high-quality serpentine communities, whether permanent or temporary.

Response to Comment N-56

BMP GEN-9 describes pre-activity surveys for special-status plants that would be conducted by SCVWD before any maintenance activities in areas that could support special-status plants. These surveys would be conducted within 1 year before the initiation of maintenance activities in those areas, which would be within the 2-year period within which DFG considers surveys to be valid. Please also refer to the response to Comment N-34 regarding the protocol to be used for special-status plant surveys.

Response to Comment N-57

Neither the DSEIR nor the comment identifies significant impacts to species qualifying as “rare” under State CEQA Guidelines, Section 15380. Thus, the suggested mitigation is unnecessary.

No state-listed plants would be impacted by the Proposed Project, as described under Impacts BIO-4 and BIO-5 of the DSEIR. Thus, the “required” mitigation elements listed in this comment are noted, but SCVWD intends to implement the mitigation that is described in Mitigation Measure BIO-4 and Mitigation Measure BIO-5. These measures would include permanent preservation and monitoring of the mitigation lands, as recommended by the comment. The comment suggests that any transplantation of special-status plants should be coordinated with the appropriate wildlife agencies. With the exception of state and federally listed species, as noted above, SCVWD is unaware of any regulatory requirement for consultation with wildlife agencies regarding the transplantation of special-status plants (e.g., those appearing only on CNPS rare plant lists).

Response to Comment N-58

Per the comment, the contents of the HMMP for Mitigation Measure BIO-4 and Mitigation Measure BIO-5 are revised, to include monitoring to address necessary remediation for any non-native plants that are accidentally introduced onto the mitigation site. Specifically, the

first bullet on page 3.3-90 of the DSEIR, and the sixth bullet at the bottom of page 3.3-93 are revised identically as follows (changes were also made in Volume II, Appendix L):

- A description of species monitoring measures on the mitigation site, including specific, objective goals and objectives (including enhancement of populations of focal special-status species on the mitigation site), performance indicators and success criteria (including increasing the abundance of the focal species by at least as many individuals as were impacted), monitoring methods (including sampling for the focal species), data analysis, reporting requirements, and monitoring schedule. Determining other specific performance/success criteria requires information regarding the specific mitigation site, its conditions, the biological resources present on the site, the specific plant species for which mitigation is being provided, and the specific enhancement and management measures tailored to the mitigation site and its conditions. As a result, ~~those additional~~ specific criteria will be defined in the HMMP rather than in this SEIR. Nevertheless, the performance/success criteria described in the HMMP will guide mitigation to manage and protect high-quality serpentine habitat for, and populations of, the impacted species. The HMMP will include monitoring for non-native plant species and remediation measures in the event that such species are detected on the site.

Response to Comment N-59

All trees planted by SCVWD as mitigation for impacts resulting from SMP Update activities would be native trees.

Response to Comment N-60

The Fish Relocation Guidelines are included in the FSEIR as Appendix M.

Response to Comment N-61

Please refer to response to Comment M-6.

Mitigation Measure BIO-8 has defined “high-quality” spawning gravel to include gravel with characteristics that typically are used by spawning steelhead. As a result, SCVWD fisheries ecologists believe that the criteria for “high-quality” spawning gravel represent the conditions where steelhead typically spawn in the Project Area, and these biologists do not believe that extensive areas that actually are used for spawning by steelhead would be excluded from evaluation and from the mitigation requirement. SCVWD has reduced the minimum threshold to removal of 100 square feet of high-quality gravel (from 500 square feet, as referenced in the last paragraph of Mitigation Measure BIO-8 on page 3.3-107 of the DSEIR).

Response to Comment N-62

Per the comment, Mitigation Measure BIO-9 (on page 3.3-107 of the DSEIR) is revised as follows, to indicate that instream habitat complexity features would be considered of “high

quality,” based on one or more of the criteria listed (rather than requiring the presence of all criteria):

SCVWD will provide mitigation for loss of instream complexity, which provides habitat heterogeneity, cover, and refugia during high flows, by in-kind installation of structures that provide such complexity. Before sediment removal, bank stabilization, or large woody debris removal activities, the affected area will be surveyed by an SCVWD fisheries ecologist to identify any features that provide high-quality instream complexity for fish. The ecologist will determine that such features are of “high quality” based on ~~a combination~~ the presence of one or more of the following criteria:

SCVWD disagrees that providing mitigation only for impacts to high-quality instream complexity features would inadequately mitigate this impact, as the availability of lower quality features in SMP Update streams would be much greater than that of high-quality features, and thus SMP Update activities are not expected to substantially reduce the regional availability of lower quality features.

Response to Comment N-63

Please see response to Comment D-23.

Response to Comment N-64

The first paragraph under BIO-11 on page 3.3-113 of the DSEIR is revised as follows, to indicate that the California tiger salamander is state-listed as threatened rather than endangered.

The California tiger salamander (federally and state listed as threatened ~~and state listed as endangered~~) has been largely extirpated from the valley floor, and extant populations in the Project Area are now limited primarily to areas with seasonal pools and stock ponds around the periphery of the Project Area, particularly in the less heavily developed areas and areas that have not been heavily cultivated. Because of its distribution in the Project Area, potential impacts to California tiger salamanders would be relatively limited. However, they may pass through work sites during seasonal movements to and from breeding ponds and may use upland burrows within work sites as refugia (e.g., to prevent dehydration during the dry summer and autumn months). In addition, some potential would exist for California tiger salamanders to breed in portions of canals, particularly inoperable canals such as the Coyote and Coyote Extension Canals.

Response to Comment N-65

SCVWD disagrees that the DSEIR does not adequately address the impact of the loss of upland refugia on the California tiger salamander and California red-legged frog because of the loss of burrows. This impact on the California tiger salamander is discussed throughout the paragraph from the end of page 3.3-113 and beginning of page 3.3-114 of the DSEIR, and on the California red-legged frog throughout the paragraph spanning the end of page

3.3-121 and beginning of page 3.3-122. These paragraphs discuss the impact on individuals during burrow removal and the impact of the reduced availability of burrows on these species. The DSEIR analysis considers that the loss of habitat, including upland habitat and burrows, would be significant impacts for both species.

SCVWD disagrees that the SMP Update and SCVWD's Dam Maintenance Program collectively would have "devastating" impacts on these species because of the loss of upland refugia. As discussed for the California tiger salamander under Impact BIO-11 and the California red-legged frog under Impact BIO-12, the vast majority of SMP Update activities would occur in areas where these species are not known or expected to occur, and the DSEIR takes a conservative approach in discussing the areas where these species could occur, including a number of areas quite distant from known occurrences. As a result, the extent of impacts to these species, including impacts to upland refugial habitat, as projected in the DSEIR, likely overestimates what would be the actual impacts to occupied habitat. Furthermore, SCVWD surveyed all burrows on all of its dams in winter 2009–2010, and again in 2010–2011 for special-status species using a combination of fiber-optic scoping and burrow excavation; no California tiger salamanders or California red-legged frogs were found on any dams, indicating that these species occur on SCVWD infrequently and/or in low numbers, at best. Because of the low magnitude of impacts of these two projects on these species, coupled with the extremely small proportion of the species' regional (e.g., County) ranges in which activities from either of these projects would occur, these projects would not be expected to have "devastating" impacts on either habitat availability or populations of these species.

Nevertheless, mitigation for impacts to both of these species is provided in the DSEIR, in Mitigation Measure BIO-10 and Mitigation Measure BIO-11. Such mitigation would include upland refugial habitat. These two mitigation measures are revised as follows, to emphasize the need for upland refugia within the mitigation habitat to be provided for impacts to these two species.

Specifically, the second paragraph on page 3.3-120 of the DSEIR is revised as follows:

Because most, if not all, impacts to California tiger salamander habitat will consist of modification of upland refugial/dispersal habitat (rather than aquatic breeding habitat), mitigation lands will also consist of upland habitat for this species. All mitigation lands for this species must be located within Santa Clara County and within the area where the species is thought to be extant as shown in Figure 3.3-10 (or as otherwise modified over the course of 2012–2022, based on any new information that may modify the understanding of the species' potential range in the Project Area). SCVWD will develop an HMMP describing the measures that will be taken to manage the property and to monitor the effects of management on the California tiger salamander. That plan will include, at a minimum, the following:

Similarly, the second paragraph on page 3.3-132 of the DSEIR is revised as follows:

Because much of the impact to California red-legged frog habitat will consist of modification of upland refugial/dispersal habitat (rather than aquatic breeding or foraging habitat), the mitigation lands will include upland habitat for this species. All

mitigation lands for this species must be located within Santa Clara County and within the area where the species is thought to be extant as shown in Figure 3.3-13 (or as otherwise modified over the course of 2012–2022, based on any new information that may modify the understanding of the species’ potential range in the Project Area). SCVWD will develop an HMMP describing the measures that will be taken to manage the property and to monitor the effects of management on the California red-legged frog; the HMMP will include components similar to those described for California tiger salamanders. Determining specific performance/success criteria for this mitigation requires information regarding the specific mitigation site, its conditions, and the specific enhancement and management measures tailored to the mitigation site and its conditions. For example, performance criteria for a mitigation site providing only upland habitat for California red-legged frogs would include the maintenance of grassland habitat of a suitable height and density for use by dispersing frogs, whereas a mitigation site providing red-legged frog breeding habitat would also include criteria related to adequate depth and hydroperiod of breeding habitat and suitable vegetative cover. As a result, those specific criteria will be defined in the HMMP rather than in this SEIR. Nevertheless, the performance/success criteria described in the HMMP will guide the mitigation to manage and protect high-quality habitat for the California red-legged frog, adequate to compensate for impacts.

Response to Comment N-66

SCVWD agrees that maintaining consistency in the color schemes among figures would be ideal, but different color schemes are necessary on these figures to allow the information to be readily apparent at the scale of these figures. On the maps for California, tiger salamander and California red-legged frog that show both sediment removal and vegetation management (Figures 3.3-10 and 3.3-13 in the DSEIR), the color scheme is the same, with red for vegetation management and green for sediment removal. On Figures 3.3-12 and 3.3-14, which depict different categories of the same type of activity, the use of both red and green is necessary to differentiate between the different categories. The color scheme for Figure 3.3-11 is revised as per the inserted new figure in the FSEIR, to indicate sediment removal as green instead of red for consistency with the way sediment removal is shown in Figures 3.3-10 and 3.3-13.

Response to Comment N-67

Regarding the comment about how impacts and mitigation requirements would be tallied and mitigation would be provided, please refer to the response to comment N-39. SCVWD understands DFG’s emphasis on mitigating impacts to California tiger salamanders via preservation, management, and enhancement of currently occupied habitat and, via the CESA Incidental Take Permit, SCVWD would obtain DFG’s approval of any mitigation lands for this listed species.

Response to Comment N-68

SCVWD understands that DFG objects to mitigation of impacts to the California tiger salamander on lands that are already under conservation. However, SCVWD would retain

the option to provide mitigation for impacts to this species, via enhancement of already conserved lands, if the enhancement would be substantial enough to provide important benefits to the species' populations. For example, if connectivity between two California tiger salamander populations on existing conservation lands could be linked by management of non-native vegetation, changes in grazing management to benefit burrowing mammals, or construction of breeding ponds, the benefits to the species' persistence and recovery could outweigh the benefits of preservation and management of currently occupied land elsewhere. SCVWD would like to continue to discuss such mitigation options with DFG, through the CESA Incidental Take Permit process, but meanwhile is retaining this mitigation option in the FSEIR as an adequate precaution to reduce impacts to the species to less-than-significant levels.

Response to Comment N-69

Regarding the comment about how impacts and mitigation requirements would be tallied and mitigation would be provided, please refer to the response to Comment N-39. SCVWD understands DFG's emphasis on mitigating impacts to California red-legged frogs via preservation, management, and enhancement of currently occupied habitat. However, restoring or enhancing currently unsuitable or unoccupied habitat, followed by demonstration of colonization of that habitat, also could provide substantial benefits to the species, and SCVWD is retaining this mitigation option in the FSEIR as an adequate precaution to reduce impacts to the species to less-than-significant levels. SCVWD would work closely with DFG to determine what monitoring and mitigation would be required for this species.

Response to Comment N-70

Per the comment, Impact BIO-13 (the last paragraph on page 3.3-131 of the DSEIR) is revised as follows, to indicate that Table 3.3-19 in the DSEIR (changed to Table 3.3-20 in the FSEIR) summarizes the acreage of projected vegetation management activities:

Table 3.3-~~18~~19 indicates the linear miles of creek in which sediment removal activities are projected in potential foothill yellow-legged frog habitat, and Table 3.3-~~19~~20 indicates the acreage of projected ~~sediment removal~~vegetation management in potential foothill yellow-legged frog habitat. As shown in these tables, impacts to areas where this species may occur would be very limited. Since 2004, SCVWD has conducted annual surveys for the presence or absence of amphibians in numerous locations before the application of instream herbicides (see Table 3.3-3); yellow-legged frogs have never been found at any of the locations listed in Table 3.3-3, suggesting that the distribution of these species in and near the Project Area is so limited that impacts would be very low.

Response to Comment N-71

SCVWD disagrees that Mitigation Measure BIO-12A is only a minimization measure for impacts to the least Bell's vireo rather than a mitigation measure to compensate for alteration of the species' habitats. The least Bell's vireo typically is associated with early-successional habitat, generally nesting in dense, often "weedy" vegetation associated with

such habitat. As a result, mature, undisturbed riparian woodland is not this species' typical habitat, and some level of disturbance, such as is described in Mitigation Measure BIO-12A, would be necessary to maintain conditions that may be suitable for use by nesting least Bell's vireos.

Llagas Creek is approximately 2.4 miles in length, extending from Southside Drive to the confluence with the Pajaro River.

Response to Comment N-72

SCVWD disagrees that disturbance (in the form of limited vegetation management) of any riparian habitat areas managed for the least Bell's vireo would make it unsuitable for the species. Rather, as described in the response to comment N-71, periodic disturbance would be necessary to maintain the "weedy" edges and relatively early-successional conditions with which this species typically is associated. Thus, the disturbance described in Mitigation Measure BIO-12B would be intended to maintain suitable conditions for the species.

Response to Comment N-73

Please refer to the responses to Comments N-71 and N-72 regarding why both of these mitigation options are adequate to reduce impacts to least Bell's vireo habitat to less-than-significant levels and why some level of disturbance would be desirable in the mitigation area.

Response to Comment N-74

SCVWD disagrees that impacts of animal conflicts management on the bald eagle, golden eagle, and other raptors would be significant because of a reduction in prey availability, either on a project-specific basis or in combination with activities of SCVWD's Dam Maintenance Program. On the County landscape, the footprint of the areas in which management of burrowing mammals would occur would be limited to streams in the Project Area, and thus no population-level impacts on predatory species would result from management of burrowing mammals. Because of the extensive home ranges of large raptors, such as eagles in particular, as well as the very low number of eagle nests located near areas where SMP Update activities are projected, controlling mammals on SCVWD-maintained levees is not expected to affect the reproductive success or survivorship of any eagles.

Response to Comment N-75

SCVWD would consult with DFG regarding appropriate measures to include in woodrat management plans to minimize impacts to woodrats, in the event a woodrat nest must be relocated. Woodrat nests often are encountered in the same types of situations repeatedly, so that the same types of management actions would be repeatedly implemented by SCVWD. A buffer distance between work activities that may disturb woodrats would be set by a qualified SCVWD biologist for each individual project.

Response to Comment N-76

The dimensions of the buffer zone around a bat maternity colony may vary, depending on the presence or absence of screening vegetation or structures between the roost and the SMP Update activity, the type of SMP Update activity, and the level of existing disturbance (including noise and vibration) to which bats already would be habituated in the vicinity of the roost. As a result, the buffer dimensions would be determined by a qualified biologist on a case-by-case basis, and BMP GEN-13 (bullet 3b on page 2-57 of the DSEIR) is revised as follows, to include this site-specific determination:

- b. There is a need for a buffer zone to prevent disturbance to the bat colony, and implementation of the buffer zone (determined on a case-by-case basis by a qualified biologist) will reduce or eliminate the disturbance to an acceptable level.

A typical buffer for a bat roost may range from 50 feet (e.g., for low-intensity activities performed on the ground near a high roost in an area that already has a lot of human activity) to 250 feet or more for a large pallid bat maternity roost in a relatively exposed area that lacks intensive ambient human activity.

Response to Comment N-77

Very few reliable records exist for ringtail in the Project Area, indicating both that its distribution in the vicinity is very limited and that it occurs in very low numbers here. Existing records are from the margins of the Project Area, where SMP Update activities would be limited. As a result, SMP Update activities would affect few, if any, ringtails, and thus the SMP Update would not substantially affect the species' regional populations, and impacts would be less than significant. Therefore, no mitigation measures would be necessary for CEQA purposes. The comment suggests that because a species is fully protected, mitigation is necessary. However, just because the Fish and Game Code contains a requirement does not mean that a low probability impact becomes a significant impact under CEQA that would require mitigation. In addition, SCVWD does not believe that the Proposed Project would result in take, as defined in the Fish and Game Code, of ringtail.

Response to Comment N-78

SCVWD agrees that the Invasive Plant Management Program (IPMP) is an integral component of the mitigation for impacts to resources, such as riparian habitats that are regulated by DFG. An attachment has been added to the Program Manual to further explain the IPMP.

Response to Comment N-79

Habitat fragmentation would occur as a result of SMP Update activities whenever substantial habitat removal (e.g., removal of riparian or wetland vegetation) would occur along a reach of creek where habitat restoration or creation was not feasible (e.g., because of the need for flood protection) and where the surrounding landscape did not provide adequate connectivity for movement of animals or plants among habitat patches. In many areas, habitat mitigation could be implemented within the impacted reach, thus helping to offset the effects of habitat fragmentation. In other areas, vegetation in surrounding areas outside of the channel may provide connectivity. However, in some flood protection

channels, particularly in urban areas where the need for flood protection is paramount, habitat mitigation would not be feasible within the reaches where extensive sediment removal and/or vegetation removal would occur, and the surrounding land uses may not provide adequate habitat connectivity, thus resulting in significant and unavoidable impacts. Examples of areas where habitat fragmentation may occur include the lowermost reaches of Stevens, Calabazas, San Tomas Aquino, Berryessa, Lower Penitencia, and Thompson creeks. Such fragmentation may be temporary in some areas, as regeneration of vegetation would provide connectivity over time. However, repeated sediment removal and vegetation management in some of these reaches would contribute to this habitat fragmentation. SCVWD would ameliorate impacts of fragmentation, when feasible, by providing mitigation within or near impacted reaches where habitat fragmentation was of particular concern. However, because of the need for adequate flood protection, such measures are not expected to be able to reduce fragmentation impacts to less-than-significant levels.

Response to Comment N-80

SCVWD appreciates the positive feedback given in this comment and agrees that the Proposed Project is the appropriate recommended alternative.

Response to Comment N-81

All revisions resulting from the comments received on the DSEIR will be incorporated into the appropriate sections of the 2012–2022 SMP Manual (Appendix A) and 2012–2022 SMP Update Mitigation Approach Memorandum (Appendix C of the DSEIR, replaced in entirety in this FSEIR). A revised version of the Draft SEIR (including appendices) is provided as Volume II of this FSEIR.

Response to Comment N-82

On further consideration, SCVWD has determined that the Mitigation chapter will be most appropriately written after SCVWD has been issued all relevant regulatory permits, so that the chapter is consistent with the requirements contained in those permits. The chapter will be a part of the Implementation Plan, rather than the SMP Manual. In the interim, please refer to Appendix C, which describes current mitigation approaches.

Response to Comment N-83

The impacts from the construction of capital projects would be addressed through separate CEQA and permitting processes from the SMP Update. However, any necessary mitigation may follow the processes and requirements of the SMP Update because these mitigation approaches will have been previously vetted through the CEQA process and reviewed/approved by the regulatory agencies. To the extent that future maintenance work requirements are not covered by the Permanent Mitigation Areas in the 2002 SMP FEIR and incorporated projects, the long-term incremental maintenance needs, including the scale and frequency of work needed, must be analyzed and accounted for under a capital improvement program (CIP)/other new project. The mitigation required for those impacts would need to be included in the CIP environmental document and would need to provide

up front permanent mitigation for repeated maintenance impacts in perpetuity. Only then would those incremental future maintenance activities be added to the SMP Permanent Mitigation Area projections.

Please also refer to the discussion in response to Comment N-21.

Response to Comment N-84

SCVWD's Maintenance Guidelines are numerous and lengthy, and it is not feasible to attach them to the FSEIR. Examples of those applicable to specific creeks/reaches can be provided to DFG on request.

Response to Comment N-85

Please refer to the response to Comment N-30.

Response to Comment N-86

“Upland” in this context refers to locations outside of the active water body.

Response to Comment N-87

See response to Comment N-26.

Response to Comment N-88

See response to Comment N-12.

Response to Comment N-89

Please refer to the BMPs presented in Table 2-12 of the DSEIR.

Response to Comment N-90

Please refer to the response to Comment N-29.

Response to Comment N-91

The QEMS procedure referenced in the comment was included as Attachment C, *Tree Scoring for Removal of Trees and Shrubs ≤ 12 “ dbh* of Appendix A in the DSEIR.

Response to Comment N-92

The following statement on page 40 of the 2012–2022 SMP Manual (Appendix A of the DSEIR) is revised as follows:

Native trees are given a higher level of consideration for preservation than non-native trees. Native tree species are ~~generally more~~ desirable and their presence is

encouraged over non-native species. ~~They continue, however, to be generally undesirable on creek bottoms and some channel banks and levees.~~ Non-native species and invasive non-natives especially are less desirable. (Please see the Invasive Plant Removal section for a description of a program designed to comprehensively address these species.) Trees, native or non-native, located within a creek channel, channel bank, or levee may require removal if flow conveyance capacity is reduced, the structural integrity is compromised, and where needed for visual inspection of levees.

Response to Comment N-93

SCVWD recognizes that USACE's Vegetation Guidelines have not been finalized. However, USACE is using the draft guidelines to conduct annual inspections of USACE levees. The District anticipates that some vegetation work would be performed to meet USACE guidelines.

Response to Comment N-94

The Large Woody Debris (LWD) program document will be written after SCVWD is issued the final permits, and will be included as part of the SMP Implementation Plan.

Response to Comment N-95

With implementation of the appropriate measures, SCVWD believes that herbicide could be used in serpentine areas appropriately and in a way that would avoid or minimize impacts to sensitive species. Herbicide use only would be implemented in such areas if special-status plant surveys had been performed to identify the locations of plants to be avoided, thus minimizing the potential for inadvertent impacts. Furthermore, compensatory mitigation would be provided for any impacts to high-quality serpentine communities, including impacts of herbicide use.

Some invasive plants, such as barbed goatgrass, have become particularly noxious weeds in some serpentine communities in the Project Area. Thus, some herbicide use by SCVWD may be directed at the management of this and other invasives.

Response to Comment N-96

The range maps for the California tiger salamander, California red-legged frog, and foothill yellow-legged frog that are used in the DSEIR were based on similar maps prepared for SCVWD by H. T. Harvey & Associates in the late 1990s. Those maps were prepared by experienced herpetologists, based on: the locations of all known occurrences of those species (e.g., from the California Natural Diversity Database, museum accession records, SCVWD data, and other sources); consideration of any data regarding whether populations associated with those occurrences were still extant or whether they had been extirpated; consideration of habitat suitability in areas that lacked recent records; and consideration of land use, dispersal barriers, and other factors that would contribute to a determination of whether these species were likely extant in or extirpated from a given area. The

approximate ranges of these three species were then mapped conservatively (i.e., erring on the side of considering the species to be present in areas where uncertainty existed).

For the SMP Update, H. T. Harvey & Associates herpetologists overlaid all new records from these sources (mentioned above that had accumulated since the late 1990s) on the previously mapped range. They then considered new information that has come to light since the late 1990s on the dispersal capabilities of these species, and considered changes in land use that occurred over the previous decade, to determine where changes to the extant/extirpated boundary needed to be made. For all three species, this boundary was shifted in many areas to be even more conservative (i.e., including much more area where these species were considered likely extant) than in the original maps. Thus, these maps truly represent a conservative view of the likely range of these species in the County.

SCVWD cannot commit to avoiding the use of all pesticides, including bait stations, within the ranges of these species. As discussed in the DSEIR, only a small percentage of SMP Update activities would occur within the ranges of these species, and thus the effect of SMP Update activities would be very low in the context of the entire county, or these species' entire ranges. However, SCVWD may need to use pesticides, including bait stations, in areas where these species may occur, and as a result, the DSEIR requires compensatory mitigation for such impacts in the form of habitat preservation and management. In addition, SCVWD would implement BMPs such as GEN-8 and ANI-4 to minimize impacts to these special-status amphibians.

Response to Comment N-97

Applications would be performed consistent with the USEPA bulletin, *Protecting Endangered Species: Measures for Use of Pesticides in Santa Clara County*.

More specifically, the indicator dyes are a colorant, the specific composition is listed as proprietary. Dyes are not listed as hazardous material by USEPA, do not have a registered USEPA number, and are not requested by the Agricultural Commissioner. Therefore, SCVWD does not believe that they pose a risk to aquatic species. They would be used to specifically identify treatment areas, which would minimize over-treatment or treatment in undesired areas.

Response to Comment N-98

Mowing is proposed within the work window of February 1 through November 30, to include the season in which vegetation would grow to a height that it would hinder maintenance and inspection of SCVWD facilities. This period also would include the burrowing owl nesting season, extending approximately from February 1 through August 31. However, per BMP GEN-7, no work would be done near occupied burrowing owl burrows during the nesting season, to avoid impacts to nesting owls, except for mowing. H. T. Harvey & Associates has observed that mowing (e.g., at the Santa Clara Valley Transportation Authority's Cerone facility) is beneficial to burrowing owls; by maintaining short vegetation, the visibility that owls require around their nests during the breeding season is provided. H. T. Harvey has observed owls on other sites that have abandoned burrows during the breeding season, when vegetation became very tall and dense because

of a lack of vegetation management, such as mowing. As a result, SCVWD would mow around burrowing owl burrows during the breeding season, taking precautions not to cause excessive breeding-season disturbance or to collapse burrows. For example, in accordance with BMP GEN-7, burrows would be marked immediately before mowing, and within the 250-foot buffer zone around a nest, mowing may be done to within 10 feet of an active burrow, provided no burrowing owls are active on the surface. An on-site monitor would observe the area in front of the mower from a safe vantage point while it was in operation. In areas within 10 feet of active burrows, the vegetation may be removed by hand (e.g., with weed whackers). All mowing and hand-removal of vegetation within 250 feet of a burrow would be done as quickly as possible, to minimize disturbance of burrowing owls.

Response to Comment N-99

Discing activities typically are performed to meet the directives of the County Fire Marshall for fire protection purposes. Discing is performed on flat land where erosion and sedimentation concerns are minimal. Delaying the work to June 15 would limit staff and equipment resources from performing other necessary work that required resource protection measures, delaying a work activity (discing) that would not be posing a threat to water quality.

Response to Comment N-100

Such equipment would not be operated within wetted streams.

Response to Comment N-101

See response to Comment N-26.

Response to Comment N-102

Berryessa, Lower Silver, Thompson, Canoas, Ross, Calabazas, and San Tomas Aquino creeks are identified because these areas require frequent maintenance for flood protection and they do not support habitat for sensitive aquatic species.

Work only would be allowed to continue at these sites after a significant rainfall if the following criteria were met:

- clearance was provided after a preconstruction biological survey;
- site conditions were dry;
- work-related vehicles would not impact roadways;
- no water diversions were to be used;
- work would be stopped in the event of any immediate rainfall forecast within 3 days (72 hours); and
- e-mail notification was provided to regulatory agencies 2 days before start of work.

In addition, relevant work sites would be maintained in a “winterizable” state, with measures described in BMP GEN-20 in place to the extent feasible to allow the work to proceed. Because of the necessary measures described above, the fact that erosion controls

would be established on-site, and that work would stop within 72 hours before the onset of a significant rainfall, SCVWD is confident that water quality and habitat would be adequately protected within the specific reaches of the seven creeks listed in BMP GEN-1.

Please see responses to Comments D-2, D-6, D-8, and N-26 regarding weather forecasts.

Response to Comment N-103

As also stated in the response to Comment N-82, SCVWD has been determined that the Mitigation chapter will be most appropriately written after SCVWD has been issued all relevant regulatory permits, so that the chapter is consistent with the requirements contained in those permits. The chapter will be a part of the Implementation Plan, rather than the SMP Manual. In the interim, please refer to Appendix C, which describes current mitigation approaches.

Response to Comment N-104

Please see the response to Comment N-17 that addresses this topic.

Response to Comment N-105

With respect to the frequency of carcass surveys, please see the revisions to BMP ANI-1 described in response to Comment M-9, which are expected to provide adequate protection against secondary poisoning. Although this approach is largely consistent with the Dam Maintenance Program, because of the different nature of the two programs, SCVWD does not believe that complete consistency between the two programs is necessary or appropriate.

With respect to which anti-coagulants may be used, chlorophacinone and diphacinone are the two anti-coagulants currently permitted in California and in use by SCVWD. Appendix J in the DSEIR has assessed the impact, from the effects of first-generation anti-coagulant usage in general and not solely from the two identified types. Therefore, the DSEIR analysis would be applicable to other first-generation anti-coagulants that act in the same manner as chlorophacinone and diphacinone. The DSEIR analysis would be similarly applicable to other first-generation anti-coagulants that may be produced and permitted for use on California ground squirrels in the future in California.

Response to Comment N-106

The FSEIR and 2012-2022 SMP Manual (included as Appendix A of the FSEIR) are revised to state that a Minor Maintenance activity is defined as work that results in the removal of less than 0.05 acres (2,178 square feet) of wetland or riparian vegetation.

In Appendix A of the DSEIR (the 2012-2022 SMP Manual), page 85, below H. Annual Notification and Reporting is deleted, as follows:

~~Regulatory agency staff will receive information regarding potential Minor Maintenance projects that require their review and approval for minor activities that have an impact exceeding 0.05 acre per activity per site.~~

Response to Comment N-107

The Footnote 1 notation is unnecessary and reference to it is deleted on page 87 of the 2012-2022 SMP Manual (Appendix A of the DSEIR), and the last sentence in the first paragraph on page 55 is deleted as follows:

~~During the first nine (9) years of the SMP, 2002-2010, the average length of a sediment job was 1643 feet; removing an average of 661 cubic yards of sediment annually.[†]~~

Response to Comment N-108

Please see the response to Comment N-17 that addresses this topic.

Response to Comment N-109

The Mitigation Feasibility Assessment (MFA) protocol formatting has been corrected. The MFA was developed after a lengthy literature search, interagency inquiries, and collaboration among SCVWD staff (i.e., biologists, arborists, and vegetation specialists). The goal of the MFA is to increase the efficacy and sustainability of District mitigation and revegetation plantings. The experience of implementing the 2002 SMP bank protection mitigation requirements resulted in revegetating in low-quality habitat conditions. Low habitat quality planting areas reduce the ability for plants to meet the required success criteria, minimize the ecological effectiveness of the mitigation, and increase District time and resources to manage the site to try to meet the success criteria. Thus, the District's resources have been inefficiently used and expended.

Therefore, a more prudent ecological approach has been created. The attributes included in the MFA are standard ecological assessment parameters, enhanced by District specific considerations of bank repair characteristics, facility maintenance, and potential damage caused by wildlife/rodents. The scoring assigned to the attribute rankings apply years of professional experiences, observations, and applied ecological assessment methodology.

The success criterion builds on the current mitigation requirements and expands the efficacy of the success criteria to consider each site individually. The success criteria vary, depending on the value of the site condition. The objective is for each revegetation site to be ecologically appropriate and valuable. Where site conditions are favorable, success criteria can be higher and more easily achieved. Poor site conditions may still be revegetated, in an effort to create some ecological value. However, because of the difficulty to establish plants in poor site conditions, the success criteria would be appropriately reduced. The MFA would provide the mechanism to assess an individual site and provides a success criterion appropriate to the site's condition.

Response to Comment N-110

Tree Scoring for Removal of Trees and Shrubs ≤12” dbh (included in Attachment C of Appendix A in the DSEIR) was developed with a collaborative team of professional revegetation specialists and International Society of Arboriculture-certified arborists. In this document, common forestry practices and ecological assessments look at the ecological value provided by individual species. The Tree Scoring protocol does this by defining ecological attributes and assigning scores to those values. A literature review resulted in a wide variety of assessment tools. These protocols were specifically designed to account for the ecological values that can occur within urbanized creek systems.

Stem dbh is taken into consideration under “Ecosystem Benefits,” whereby trees and shrubs 6–12” dbh are assigned an additional score to account for the enhanced ecological benefits that larger trees can provide.

Response to Comment N-111

The calculation for canopy cover is clarified in the *Tree Scoring for Removal of Trees and Shrubs ≤12” dbh* protocols (included in Attachment C of Appendix A in the FSEIR). Specifically, Appendix A of the FSEIR (the Program Manual), page 1, is revised as follows:

DSEIR Attachment C pg 1

B. Ranking

1. Canopy cover

- a) Square footage of canopy is measured at the widest dripline extension of the subject tree.

Metric: Choose 1. Assess at widest dripline extension point ~~and square that value.~~

Attribute	Score
0-100 Square Feet of Canopy (< 10’ diameter)	0 points
101-400 Square Feet of Canopy (10 - 20’ diameter)	+ 1 points
>401 Square Feet (> 20’ diameter)	+ 2 points

0-2 points

Response to Comment N-112

The “Used by Wildlife” attribute in *Tree Scoring for Removal of Trees and Shrubs ≤12” dbh* (included in Attachment C of Appendix A in the FSEIR) encompasses broad ecological attributes. Each tree/shrub can provide a wide range of food, habitat, perching, roosting, and ground cover litter. Without lengthy monitoring of each individual tree/shrub species over a period of time, it would be difficult to ascertain the breadth of benefits potentially provided or actually provided by that individual tree species. Because the goal of the assessment is to determine the ecological value of an individual, the scoring either increases or decreases that value, and the determination of actual versus potential usage would be onerous. The result of increasing the overall scoring was determined to meet the objective of increasing the value because of “use by wildlife.”

The other three attributes of “3. Ecosystem Benefits” also account for use of wildlife. SRA (shaded riverine aquatic habitat), cover/structure, and larger tree dbh incorporate the various and different uses that trees/shrubs provide for wildlife.

Response to Comment N-113

The mitigation calculation for *Tree Scoring for Removal of Trees and Shrubs ≤12” dbh* (included in Attachment C of Appendix A in the FSEIR) applies an ecological assessment for determining appropriate mitigation ratios by assessing four attributes: canopy cover, local area value, ecosystem benefits, and ecosystem detriments. As a subsequent and continuing action from the 2002 Stream Maintenance Program, mitigation ratios of 3:1, 2:1, and 1:1 were determined to continue to be adequate ranges to appropriately mitigate for the loss of vegetation within urbanized stream systems.

In addition, ongoing SMP revegetation projects replant with saplings and not acorns. A mitigation ratio of 3:1 would equate to three saplings being planted per one tree removed.

3.4 Other Revisions to the DSEIR

Other modifications are noted as follows.

The DSEIR is revised in the following locations, to reflect that the “plant” portion of Mitigation Measure BIO-16 is included (i.e., Invasive Plant Management Program [IPMP]):

Table ES-1, for Mitigation Measures to BIO-44
 Section 3.3, Mitigation Measure BIO-16 heading
 Section 3.3, Mitigation Measure BIO-16, first line in fourth paragraph under Invasive Plant Management Mitigation Requirement
 Chapter 4, under Cumulative Impact BIO-1, under Mitigation Measures (under Conclusion)
 Appendix L, MMRP Table, row describing Mitigation Measure BIO-16
 Appendix L, page L-24, Mitigation Measure BIO-16 heading
 Appendix L, Page L-25, first line in fourth paragraph under Invasive Plant Management Mitigation Requirement

Executive Summary

The Proposed Project Overview paragraph on page ES-1 of the DSEIR is revised as follows:

The SMP Update has been prepared to provide guiding policies, specific direction on approach, and regulatory authorization for routine stream and canal maintenance activities. The Proposed Project would update the 2002 SMP, as necessary, to meet new conditions or maintenance needs of SCVWD. The SMP Update (including the 2012 SMP Manual [Appendix A] and this CEQA document) is an ongoing and continuous program with an indefinite time horizon; intended to cover the a 10-year planning period beginning in 2012 and ending in 2022 has been used for the purposes of the regulatory permitting. These SMP Update documents are intended to fully replace the original documents that guided the SMP from its inception through 2012. The 2012 SMP Manual (included as Appendix A in this DSEIR) and the contents of the DSEIR are meant to be read as companion volumes. The DSEIR references or summarizes information (including figures and tables) presented in the 2012 SMP Manual frequently to avoid repeating information. The reader is encouraged to review the 2012 SMP Manual while reviewing the DSEIR.

The heading on page ES-9 of the DSEIR is revised as follows:

Activities Not ~~Covered~~ in the SMP Update

Table of Contents

The Table of Contents contains a variety of miscellaneous changes, such as correcting references to page numbers, which are not shown here.

An appendix is amended to those listed in the DSEIR, as follows:

Appendix M Fish Relocation Guidelines

The following acronym is revised in the Acronyms list:

NPW ~~Notification~~ Notice of Proposed Work

SCVWD requested revisions to the DSEIR Glossary are noted as follows:

~~**Modified Natural Channel**—A watercourse that has had improvements, such as bank protection (e.g., gabions, rip rap, other revetments), and selected areas of historical channelization (e.g., widening, straightening) and/or other capacity or passage improvements.~~

~~**Natural Channel**—A watercourse without any significant improvements or modifications and very little evidence of historical alterations.~~

The following definition has been added to the Glossary:

Upland Terrestrial, referring to habitats that are not wetland or aquatic habitats.

The definition of Winterization on page xxxiii is revised as follows:

Winterization Winterization is the process to maintain project sites with the appropriate BMPs to prevent erosion, sediment transport, and protect water quality. Winterization occurs upon completion of bank repairs or on incomplete projects after October 15 and prior to the forecast of significant rainfall, 0.5 inches or greater of rainfall within 24 hours in the subject watershed. Winterization shall be completed prior to the occurrence of such actual significant rainfall. Winterization materials will be available and on-site when rain falls after October 15.

Executive Summary

Additional wording has been added under Maintenance Timing on ES-10 to clarify work windows.

Work windows for sediment removal, in-stream vegetation and herbicide application, and bank stabilization generally would be conducted between June 15 and October 15. However, if the fall season remained dry, work could continue until the first significant rainfall event occurred. Sediment removal may occur after a significant rainfall under special circumstances but only in low quality areas. A significant rainfall event is defined as local rainfall of 0.5 inches or greater within the watershed over a 24-hour period. Even if no significant rainfall occurred, no instream work (excluding hand pruning and hand removal in non-steelhead streams) would continue later than December 31.

Chapter 1, Introduction

An additional library, the Alviso Library, was available for the Proposed Project public review documents. Thus, page 1-6 of the DSEIR is revised as follows:

All documents mentioned herein or related to the Proposed Project can be reviewed on any SCVWD business day between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday at SCVWD headquarters, located at the address shown above, or on the SCVWD Web site at www.valleywater.org under Quick Links, Public Review docs. The documents also will be available at the libraries listed below during their normal operating hours.

Dr. Martin Luther King, Jr. Library
150 E. San Fernando Street
San Jose, CA 95112

Morgan Hill Public Library
660 W. Main Avenue
Morgan Hill, CA 95037

Palo Alto Public Library
1213 Newell Road
Palo Alto, CA 94303

Cupertino Public Library
10800 Torre Avenue
Cupertino, CA 95014-3207

Milpitas Public Library
160 N. Main Street
Milpitas, CA 95035

Alviso Library
5050 N. 1st St.
San Jose, CA 95134

Headings of subsections 1.4.2 and 1.4.3 are revised as follows:

1.4.2 ~~Draft EIR~~DSEIR Comment Period

1.4.3 Preparation of ~~Final EIR~~FSEIR and Public Hearing

Chapter 1, Introduction

The first paragraph on page 1-2 of the DSEIR is revised as follows:

Although the SMP is an ongoing program, the initial 2002 SMP Manual and Final Environmental Impact Report used a 20-year planning horizon to forecast SMP

activities ~~and consider potential environmental effects~~. In 2009, SCVWD initiated an SMP Update process to renew necessary SMP permits as well as to review and update the SMP Manual and environmental compliance documentation. For the purposes of regulatory permitting, The SMP Update (including the 2012 SMP manual and this CEQA document) is intended to cover the 10-year planning period beginning in 2012 and ending in 2022. These SMP Update documents are intended to fully replace the original documents that guided the SMP from its inception through 2011. In general, the SMP Update is a continuation of past routine creek and canal maintenance activities in most of the same areas, using many of the same techniques. The SMP Update includes some new work areas and new work activities. More details regarding the SMP Update are provided in Chapter 2, *Project Description*.

The last line of Section 1.5 of the DSEIR is revised as follows:

Appendix M Fish Relocation Guidelines

Chapter 2, Project Description

The second paragraph in Section 2.1 of the DSEIR is revised as follows:

Although the SMP is an ongoing, continuous program (with an indefinite time horizon), the 2002 SMP Manual and Final Environmental Impact Report used a 20-year planning horizon to forecast SMP activities ~~and consider potential environmental effects~~. The proposed SMP Update (including the revised SMP manual and this document) is intended to address ~~cover~~ the 10-year planning period from 2012–2022 for the purposes of regulatory permitting. The updated SMP documents are intended to fully replace the original documents that have guided the SMP from its inception in 2002 through the present.

The ***Applicable Ends Policies of the Board of Directors*** on page 2-2 has been revised, based on the July 2011 update:

Applicable Ends Policies of the Board of Directors (as of ~~June 2010~~ July 2011)

E-1 Mission and General Principles

The mission of SCVWD is to provide for a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally-sensitive manner for current and future generations.

E-2 Water Supply: There is a reliable, clean water supply for current and future generations.

Goal 2.1 Current and future water supply for municipalities, industries, agriculture and the environment is reliable.

Objective 2.1.1 Aggressively protect groundwater ~~basins~~ from the threat of contamination and maintain and develop the groundwater

~~basin~~ to optimize reliability and to minimize land subsidence and salt water intrusion.

Objective 2.1.2 Protect, maintain and develop local surface water.

E-3 Natural Flood Protection: There is a healthy and safe environment for residents, businesses and visitors, as well as for future generations.

Goal 3.1 Natural flood protection for residents, businesses and visitors

Objective 3.1.1 Balance environmental quality and protection from flooding. ~~in a cost effective manner~~

Objective 3.1.2 Preserve flood conveyance capacity.

E-4 Water Resources Stewardship: There is water resources stewardship to protect and enhance watersheds and natural resources and to improve the quality of life in Santa Clara County.

Goal 4.1 Healthy creek, ~~and~~ bay and other aquatic ecosystems

Objective 4.1.1 Balance water supply, flood protection and environmental stewardship functions.

Objective 4.1.2 Protect and improve watersheds, streams, and natural resources.

Objective 4.1.3 Promote ~~awareness~~ the protection of aquatic creek and bay ecosystem functions.

Goal 4.2 Clean, safe water in creeks and bay

Objective 4.2.1 Preserve or improve surface and ground water quality for beneficial uses.

Objective 4.2.2 Promote ~~awareness~~ the protection of water quality and stream stewardship.

ID No 13 and the footnote in Table 2-4 of the DSEIR are revised as follows:

13	Earth with Rock Toe on Grass Lined Channels ¹	2:1 ² None if rock is below bankfull depth, and includes some element of instream complexity. For areas above bankfull depth, use mitigation ratios as specified in ID Nos. 1 thru 12 above.	Soft/Hybrid	No
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1 Grass lined channels are those where grass is the predominant or sole vegetation, and that contain no significant riparian structure. The NPW submittal will include photographs and descriptions to justify use of this line item.

2 None if rock is below bankfull depth and includes some element of instream complexity.

Source: Data compiled by Horizon Water and Environment in 2011

The text on pages 2-26 and 2-27 of the DSEIR is revised as follows:

- Bank Stabilization:

- ~~Projects that were more than 50 percent complete on October 15~~ may continue until the approved date stated below completion or until the first 3-day forecast that includes significant rainfall.
- In Creeks Supporting Anadromous Fish
 - An extended work window may occur until October 31st for bank stabilization projects that will be 50% complete by October 15th.
- In Creeks Not Supporting Anadromous Fish
 - An extended work window may occur until November 30th for projects that will be 50% complete by October 15th or until significant rainfall.
 - An extended work window may occur until November 30th for new bank stabilization projects that will be completed in five (5) days or less, or until significant rainfall.
- After October 15, all incomplete bank repair projects would be winterized¹ before the date when the forecast included significant rainfall.

- Sediment Removal:

- Work may occur until December 31.

¹ Winterization is the process to prepare and maintain work sites with the appropriate BMPs to prevent erosion, sediment transport, and protect water quality during the rainy season. Winterization occurs on completion of bank repairs or on incomplete projects after October 15 and before the forecast of significant rainfall, 0.5 inches or greater of local watershed rainfall within 24 hours. Winterization would be completed before the occurrence of such actual significant rainfall.

- Additional sediment removal work may occur ~~after the first significant rainfall event only~~ within Berryessa Creek (0+88+80; 232+70-236+00; 284+30-288+00), Lower Silver Creek (Reach 3 between Stations 37+40 and 381+19), Thompson Creek (0+00-10+00), Canoas Creek (0+00-390+00), Ross Creek (0+00-86+30), Calabazas Creek (35+00-105+00), and San Tomas Aquino Creek (80+00-100+00), if clearance was provided through a preconstruction biological survey; site conditions were dry; vehicles would not impact roadways; no water diversions were used; and work would stop in the event of any rainfall forecast 3 days in the future; and e-mail notification of work would be provided to regulatory agencies 2 days before start of work.
- Sites would be maintained in a winterized state during extended work windows.
- Work may occur after a significant rainfall event but no later than December 31.
- Vegetation Management:
 - As a non-ground disturbing activity, instream hand pruning may occur year-round except where equipment would need to access the site by crossing a creek or otherwise affect water quality, or in steelhead creeks ~~where the general work window would apply to Dec 31 or significant rainfall.~~ As described above, mechanized equipment would not cross an active (wet) creek.

The heading for Section 2.2.7 on page 2-24 of the DSEIR is revised as follows:

2.2.7 Activities Not ~~Included~~ in the SMP Update

The second sentence in the first paragraph of Section 2.3.1 of the DSEIR is revised as follows:

Annual administration of the SMP Update would occur in three phases (as shown in Figure 2-41). In the winter and early spring, maintenance needs would be assessed and prioritized, the annual maintenance work plan would be developed, and the regulatory agencies would be notified through the Notification Notice of Proposed Work (NPW) document.

The fourth and fifth bullets under Maintenance Timing on page 2-26 are revised as follows:

- Coyote Watershed (Penitencia Water Treatment Plant, station located at Anderson Dam.)
- Pajaro Watershed (Church Ave percolation ponds, station located in Morgan Hill)

The first and third paragraphs of Section 2.4.3 of the DSEIR are revised as follows:

SMP mitigation measures were developed in 2002 to compensate for anticipated impacts caused by SMP activities. Mitigation for sediment removal and vegetation management was based on a comprehensive accounting in 2002 of the potential impacts from maintenance activities on instream wetlands, tidal wetlands, riparian vegetation, and other sensitive habitats in the program area. Table 2-8 summarizes

the existing mitigation requirements for ongoing SMP activities. The SMP mitigation program includes land acquisition, habitat protection, and wetland restoration/creation, ~~and invasive species control~~ activities to mitigate for maintenance activities.

An important aspect to the original mitigation approach was that the “programmatic” or “up front” mitigation was calculated based on the maximum work projections. The programmatic mitigation included coverage for repeat maintenance work at sites in perpetuity. Impacts from other non-projected maintenance activities such as bank stabilization projects are mitigated on an “as-needed” basis using defined mitigation ratios as maintenance projects occur.

As shown in Table 2-8, to date not all of the SMP’s mitigation requirements have been met. The District is committed to completing all remaining mitigation requirements. Appendix A of the Mitigation Approach Memorandum (which is included in the DSEIR as Appendix C) includes a letter from the District to San Francisco Bay RWQCB that describes the current status of the SMP mitigation program and presents a plan to meet all of the District’s SMP mitigation requirements identified in the 2002 SMP and the associated permits for the 2002-2012 program period. The District Board has recently approved the purchase of a property (known as the “Castle & Cooke property”). The District continues to pursue land acquisition opportunities for Stream and Watershed Protection. In addition, a proposed project to restore wetlands at Laguna Seca is currently under technical review. If feasible, this project could provide some or all of the remaining needed wetland mitigation credit.

The footnote in Table 2-8 of the DSEIR is revised as follows:

* With the purchase of the Castle & Cooke property, some of the mitigation requirements not yet complete as shown above would be completed. Also, this status summary does not include achievement of final success criteria through at completion of the monitoring period.

The first paragraph beneath **2012 Update to the 2002 SMP Mitigation Program** on page 2-35 of the DSEIR is revised as follows:

The proposed SMP Update process includes reviewing and revising the existing compensatory mitigation package that was established in 2002. The 2002 SMP Mitigation Program that covers the original projected activities (sediment removal and vegetation management) would remain in place to provide compensatory mitigation in perpetuity for the channels identified in the 2002 work projections. The channel reaches shown in red in the maps at the end of this chapter (Figures 2-14 through 2-38) have all had their mitigation provided for through the original mitigation program. Because the original programmatic mitigation was developed to address compensatory mitigation for the 2002 SMP identified channels based on full work projections, the mitigation provided for these reaches (shown in red and gold colors in the maps) continues in perpetuity. No new significant environmental

effects or a substantial increase in the severity of previously identified significant effects are anticipated under the SMP Update in these locations.

The first paragraph, bullets, and second paragraph on page 2-36 of the DSEIR are revised as follows:

As a result of this revised approach, ~~three~~two key changes are being made to the existing programmatic mitigation program (for sediment removal and vegetation management) for the 2012 SMP Update:

1. **Ecologic Services.** In addition to land acquisition-based mitigation projects that provide mitigation in perpetuity (i.e., mitigate for repeat impacts in the same work location), programmatic mitigation for sediment removal and vegetation management also would include ecologic services-based mitigation projects for individual maintenance projects. These approaches would provide mitigation on a “pay as you go” or incremental basis. Ecologic services-type mitigation projects would only mitigate for an individual work activity. Service-based “pay as you go” mitigation would be identified annually based on the annual maintenance work plan, provided in the annual NPW, and verified in the end of year annual PCR.
2. **Project Specific Accounting.** Rather than identifying all the necessary mitigation areas (acreages) for sediment removal and vegetation management activities “up front” in 2012 for the new work sites where maintenance would occur between 2012 and 2022, mitigation criteria and metrics would be identified by standard unit measures (typically acreages). The specific extent of mitigation required for any given year’s work will be defined annually when the work areas are precisely identified. This annual mitigation analysis will clearly distinguish mitigation requirements for new work areas from mitigation already accomplished for work in areas projected in 2002.~~The actual mitigation requirement would be calculated annually when the work sites were more precisely defined.~~
3. ~~**New Programmatic Mitigation.** In addition to the mitigation approaches described above, the District would provide additional programmatic habitat mitigation through the instream complexity and gravel augmentation mitigation programs.~~

These ~~two~~three adjustments to the programmatic mitigation program are further described in Appendix C (2012–2022 SMP Update Mitigation Approach Memorandum). The District would be able to use “pay as you go” mitigation projects/services to provide incremental mitigation annually on an as-needed basis. The District also could continue to purchase lands to provide longer-term mitigation needs. In this way, the District would have more flexibility to pursue suitable mitigation opportunities through either long-term land acquisition or annual mitigation project approaches. Mitigation credits from the 2002 SMP mitigation program (Stream and Watershed Protection) may potentially be applied to new work areas in need of mitigation support. The District would work with the

appropriate regulatory staff to identify, review, and approve the potential application of existing mitigation credit toward new work areas.

The paragraph starting at the bottom of page 2-37 of the DSEIR is revised as follows:

In addition to the programmatic mitigation described in Table 2-9 for sediment removal and vegetation management, mitigation would be provided to compensate for impacts to individual special-status species resulting from SMP Update activities. The species for which compensatory mitigation would be provided, and the form that this mitigation would take, is identified in Section 3.3, *Biological Resources* and will be further described in pending Biological Opinions (BOs) for the 2012 SMP Update to be issued by the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS), as well as the Incidental Take Permit that will be issued by the California Department of Fish and Game (DFG). The impact analysis in this document is intended to provide CEQA coverage for all mitigation activities under the Proposed Project, to the extent that the mitigation projects would not result in any new or more significant impacts than those disclosed in this DSEIR.

The heading for Section G on Table 2-12, on page 2-73 of the DSEIR is revised as follows:

SECTION G – Management of Animal Damage Conflict BMPs

The list of creeks as well as information regarding work windows in BMP GEN-1: In-Channel Work Window, in Table 2-12 has been updated for consistency with the SMP Manual.

All ground-disturbing maintenance activities (i.e., sediment removal, bank stabilization, tree removal, and mechanized vegetation management) occurring in the channel (below bankfull) will take place between June 15 and October 15. Requests for work window extensions must be submitted to the regulatory agencies by October 1st, listing the creek names and reaches where a work extension will occur. Work extensions vary per work activity. The agencies will provide a single response within one week. Significant rainfall applies after October 15. An extension through December 31 may apply if the following requirements are met and regulatory agency approval is received:

For ground-disturbing activities:

- Work may continue if no significant rainfall, defined as greater than 0.5 inches per 24 hours within a local watershed, is either forecasted¹ or observed. Following October 15th, maintenance work shall cease for the season if such a rain event is forecasted or observed.

Sediment removal

- Extended Work Window:

1. Creeks Supporting Anadromous Fish:

An extended work window may occur from October 15 through October 31, or until local rainfall of 0.5 inches or greater falls within the subject watershed within a 24-hour period, whichever occurs first.

2. Creeks Not Supporting Anadromous Fish:

An extended work window may occur from October 15 through November 30th, or until local rainfall of 0.5 inches or greater falls within the subject watershed within a 24-hour period, whichever occurs first.

¹ Weather Forecasts. No phase of the project may be started if that phase and its associated erosion control measures cannot be completed prior to the onset of a storm event if that construction phase may cause the introduction of sediments into the stream. Seventy-two-hour weather forecasts from the National Weather Service or other localized and more detailed weather forecast service will be consulted prior to start up of any phase of the project that may result in sediment runoff to a stream.

- Extended Work Window in Lower Quality Areas:
 1. ~~After a significant rainfall event (0.5 in/24 hrs),~~ Sediment removal work may occur until December 31.
 2. Work will only occur on Berryessa Creek (0-88+80; 232+70-236+00; 284+30-288+00), Lower Silver Creek (Reach 3 between Stations 37+40 and 381+19), Thompson Creek (0+00-10+00), Canoas Creek (0+00-390+00), and Ross Creek (0+00-86+30), Calabazas Creek (35+00-105+00), and San Tomas Aquino Creek (80+00-100+00) can continue with the following conditions:
 - site conditions are dry and access for all construction equipment and vehicles will not impact waterways; and
 - all work will stop if any rainfall is forecast for the next 72 hour period, ~~and~~
 - ~~email notification of work status will be provided to regulatory agencies two days in advance of scheduled work.~~
 3. Work may occur after a significant rainfall event but no later than December 31.
 4. Sites must be maintained in a rapidly winterizable¹ state (implement control measures BMP GEN-20).

Bank stabilization projects ~~that are 50% complete by October 15~~ may continue until the approved date stated below completion or until 0.5 inches of rain is predicted in the next 24-hr period. Prior to a forecasted significant rainfall event (0.5 in/24 hrs), all incomplete bank stabilization projects must be winterized.

1. In Creeks Supporting Anadromous Fish
 - An extended work window may occur until October 31st for bank stabilization projects that will be 50% complete by October 15th.
 2. In Creeks Not Supporting Anadromous Fish
 - An extended work window may occur until November 30th for projects that will be 50% complete by October 15th or until significant rainfall.
 - An extended work window may occur until November 30th for new bank stabilization projects that will be completed in five (5) days or less, or until significant rainfall.
- Instream hand pruning and hand removal of vegetation will occur year round, except when:
 - Wheeled or tracked equipment needs to access the site by crossing a creek, ponded area, or secondary channel; or
 - Work occurs in streams that support steelhead. In these streams instream vegetation maintenance will cease on December 31 or when local rainfall greater than 0.5 inches is predicted within a 24-hour period of planned activities, whichever happens first.

Modification and removal of instream large woody debris will occur at any time of the year, and as further described in the NMFS Biological Opinion. ~~if imminent danger of a flood threat precludes leaving the wood in place.~~

Additional language has been added to Table 2-12 under BMP GEN-2 and BMP GEN-8 for clarification of the types of proposed herbicides as well as herbicide application requirements.

BMP GEN-2: Instream Herbicide Application Work Window

Instream herbicide applications will take place between June 15 and October 15³⁴, with an extension through December 31 or until the first occurrence of any of the following conditions; whichever happens first:

- local rainfall greater than 0.5 inches is forecasted within a 24-hour period from planned application events; or
- when steelhead begin upmigrating and spawning in the 14 steelhead creeks, as determined by a qualified biologist (typically in November/December),

¹ Winterization is the process to maintain work sites with the appropriate BMP's to prevent erosion, sediment transport, and protect water quality. Winterization occurs upon completion of bank repairs or on incomplete projects after October 15 and prior to the forecast of significant rainfall, 0.5 inches or greater of local watershed rainfall within 24 hours. Winterization shall be completed prior to the occurrence of such actual significant rainfall.

- A qualified biologist will determine presence/absence of sensitive resources in designated herbicide use areas and develop site-specific control methods (including the use of approved herbicide and surfactants). Proposed herbicide use would be limited to the aquatic formulation of glyphosate (Rodeo or equal). Surfactant use would be limited to non-ionic products, such as Agri-dex, Competitor, or another brand name using the same ingredients. Any modifications to these materials would require review and approval by NMFS and CDFG.
- A qualified fisheries biologist will review proposed herbicide application methods and stream reaches. The fisheries biologist would conduct a pre-construction survey (and any other appropriate data research) to determine whether the proposed herbicide application is consistent with SMP approvals concerning biological resources and determine which BMPs would be instituted for work to proceed.

In addition, herbicide application requirements are as follows:

- no direct application into water;
- herbicide application shall not occur when wind conditions may result in drift;
- herbicide shall only be applied after the surfactant has a “wet” appearance on the target plants in order to avoid run off; and
- where permitted, surfactants shall be added to the spray solution prior to application.

A new best management practice, BMP GEN-6.5: Protection of Nesting Least Bell’s Vireos has been added to Table 2-12:

<p><u>GEN-6.5</u></p>	<p><u>Protection of Nesting Least Bell’s Vireos</u></p>	<ol style="list-style-type: none"> 1. <u>To the extent feasible, SMP activities within woody riparian habitat along portions of lower Llagas Creek downstream from Highway 152, the Pajaro River from Llagas Creek downstream, and lower Uvas/Carnadeo Creek downstream from Hecker Pass Road shall be scheduled to occur outside of the least Bell’s vireo nesting season (March 15 – July 31).</u> 2. <u>For activities within woody riparian habitat along the aforementioned creek reaches that will occur between March 15 and July 31, any work will be preceded by a focused survey for least Bell’s vireos. Pre-activity surveys will consist of two site visits, conducted on separate days within 14 days before the initiation of maintenance activities in the given area, with at least one of these surveys occurring within 7 days before the initiation of such activities. Surveys will be conducted between dawn and 11:00 a.m., during mild weather conditions (i.e., not during excessive cold, heat, wind, or rain), within all riparian habitat in and within 250 feet of any proposed maintenance location along these reaches. The surveys will be conducted by a qualified biologist who is familiar with the visual and auditory identification of this species.</u> 3. <u>To minimize impacts to nesting least Bell’s vireos and other birds, the biologist will not initially be looking for Bell’s vireo nests during these surveys. Rather, the biologist will look and listen for individual vireos. If a least Bell’s vireo is detected, it will be observed to determine whether it is actively nesting. The biologist will note the nest location, or if finding the actual nest could result in excessive disturbance or risk damaging the nest, the biologist will determine the approximate location, based on observation of birds carrying nesting material, carrying food, or repeatedly visiting a certain area.</u> 4. <u>If an active nest is found, a minimum 250-foot no-activity buffer will be established around the nest. If a territorial male is found but no nest can be detected, then the approximate centroid of the bird’s area of activity will be the point from which the buffer will be applied. The required buffer may be reduced in areas where dense riparian forest occurs between the construction activities and the active nest or where sufficient barriers or topographic relief exists to protect the nest from excessive noise or other disturbance. The biologist will coordinate with the USFWS and CDFG to evaluate exceptions to the minimum no-activity buffer distance on a case-by-case basis.</u> 5. <u>No work will occur within the buffer without verification by a biologist that the nest is inactive and until any fledged young are no longer dependent on adults for food.</u>
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BMP GEN-7: Protection of Burrowing Owls, in Table 2-12 is revised as follows:

1. ~~If burrowing owls are present, then w~~Work within 250 feet of an occupied burrow will be delayed until after the nesting season.
2. If suitable burrowing owl habitat is identified where mowing is proposed, or active burrows are found, they will be marked in such a way that the mower can identify the locations of such burrows. Mowing can then occur anywhere beyond the 250 foot buffer zone. Within the 250 foot buffer zone mowing may be done to within 10 feet of an active burrow provided there ~~are~~is no burrowing owls active on the surface. An on-site monitor will observe the area in front of the mower from a safe vantage point while it is in operation. In areas within 10 ft of active burrows the vegetation may be removed by hand (e.g., weed-whackers). All mowing and hand-removal of vegetation within 250 ft of a burrow will be done as quickly as possible to minimize disturbance of burrowing owls.

BMP GEN-8: Protection of Sensitive Fauna Species from Herbicide Use

- A qualified biologist will determine presence/absence of sensitive resources in designated herbicide use areas and develop site-specific control methods (including the use of approved herbicide and surfactants). Proposed herbicide use would be limited to the aquatic formulation of glyphosate (Rodeo or equal). Surfactant use would be limited to non-ionic products, such as Agri-dex, Competitor, or another brand name using the same ingredients. Any modifications to these materials would require review and approval by NMFS and CDFG.

BMP GEN-9 in Table 2-12 of the DSEIR is revised as follows:

4. The qualified botanist will ensure avoidance and/or minimize impacts by implementing one or more of the following, as appropriate per the botanist's recommendation:
7. All impacts to sensitive natural communities and special status plants identified by the qualified botanist will be avoided and/or minimized.

BMP GEN-10 of the DSEIR is revised as follows:

1. Areas supporting Bay checkerspot larval host plants will be identified by a qualified botanist and protected from disturbance to the extent feasible, by establishing buffer zones around individual plants or populations. The size of the buffer will be determined by a qualified botanist; the actual distance will depend on the plant species potentially affected and the type of disturbance. No herbicide will be applied to the buffer area, and to the extent feasible, maintenance personnel and equipment will not operate within such areas.

BMP GEN-11 of the DSEIR is revised as follows:

4. Specific habitat areas are vegetated areas of cordgrass (*Spartina* spp), marsh gumplant (*Grindelia* spp.), pickleweed (*Sarcocornia pacifica*), alkali heath, (*Frankenia* sp.), and other high marsh vegetation, brackish marsh reaches of creek with heavy accumulations of bulrush thatch (old stands), and high water refugia habitat that may include annual grasses, and shrubs immediately adjacent to channels.

BMP GEN-13 of the DSEIR is revised as follows:

- F. If an active western pond turtle nest is detected within the activity area, a ~~250~~550 ft-buffer zone around the nest will be established and maintained during the breeding and nesting season (April 1 – August 31). The buffer zone will remain in place until the young have left the nest, as determined by a qualified biologist.

BMP GEN-13 of the DSEIR is revised as follows:

- b. There is a need for a buffer zone to prevent disturbance to the bat colony, and implementation of the buffer zone (determined on a case-by-case basis by a qualified biologist) will reduce or eliminate the disturbance to an acceptable level.

BMP GEN-15.5 of the DSEIR is revised as follows:

- 3. If take of the San Joaquin kit fox will occur, take authorization from the USFWS and CDFG will be necessary.

Number 4 and number 5 have been switched and updated in BMP GEN-33 of the DSEIR is revised as follows:

- 4. ~~5.~~Instream cofferdams will ~~only~~ be built from materials such as sandbags, earth fill, clean gravel, or rubber bladders which will cause little or no siltation or turbidity.
- 5. ~~4.~~Plastic sheeting will be placed over k-rails, timbers, and earth fill to minimize water seepage into and out of the maintenance areas. The plastic sheets will be firmly anchored, using sandbags, to the streambed to minimize water seepage.

BMP VEG-2 of the DSEIR is revised as follows:

Invasive species (e.g. cape ivy [*Delairea odorata*/*Senecio mikanoides*], arundo [*Arundo donax*]) will be disposed of in a manner that will not contribute to the further spread of the species. Cape ivy removed during a project shall be bagged and disposed of in a landfill. Arundo canes will be prevented from floating downstream or otherwise entering the creek or waterway.

BMP HM-4 of the DSEIR is revised as follows:

- 5. A District staff contact phone number will be posted on the sign, including a ~~page~~cellular phone number.

The introductory paragraph for SECTION C- Sediment Removal BMPs has been updated as follows:

This group of BMPs is intended to be implemented specifically during sediment removal activities. ~~To avoid potential impacts on biological resources, none of these measures will be implemented until authorization from the SMP Implementation Project Manager is received.~~

The introductory paragraph for SECTION E- Bank Stabilization BMPs has been updated as follows:

These BMPs provide additional guidance during implementation of bank stabilization projects. ~~To avoid impacts on biological and cultural resources, none of these measures will be implemented until authorization from the SMP Implementation Project Manager is received.~~

Chapter 3, Environmental Setting and Impact Analysis

Section 3.0, Introduction

The second sentence in the first paragraph on page 3.0-2 of the DSEIR is revised as follows:

Therefore, the project description for the SMP Update is comprehensive, and includes activities under both the existing SMP and the proposed changes to the SMP. This SEIR uses existing conditions at the time of the Notice of Preparation as

the environmental setting and baseline, and analyzes the ~~2012–2020~~ impacts of the comprehensive SMP Update against this baseline. This conservative approach to the Subsequent EIR baseline and impact analysis scope represents an exception to established District CEQA practice due to the unique nature of the proposed SMP changes. It will not necessarily be employed in future District Subsequent EIRs for other projects in the absence of similar unique circumstances.

Section 3.3, Biological Resources

Language has been added to the bottom of pages 3.3-65 in order to provide examples for Habitat Mitigation and Monitoring Plans as follows:

- A description of community monitoring measures on the mitigation site, including specific, objective goals and objectives (such as maintaining or increasing abundance of sensitive species), performance indicators (such as presence of suitable habitat structure), success criteria (such as residual dry matter levels or abundance of target sensitive species), monitoring methods (such as residual dry matter monitoring or sampling for target sensitive species), data analysis, reporting requirements, and monitoring schedule

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

Language has been added to the bottom of page 3.3-120 in order to provide examples for Habitat Mitigation and Monitoring Plans as follows:

- a description of species monitoring measures on the mitigation site, including specific, objective goals and objectives (including maintaining or improving habitat suitability for California tiger salamanders), performance indicators and success criteria (including maintaining or increasing the abundance of upland refugia for California tiger salamanders), monitoring methods (such as sampling of the abundance of upland refugia), data analysis, reporting requirements, and monitoring schedule. Determining other specific performance/success criteria requires information regarding the specific mitigation site, its conditions, and the specific enhancement and management measures tailored to the mitigation site and its conditions. For example, performance criteria for a mitigation site providing only upland habitat for California tiger salamanders would include the maintenance of grassland habitat of a suitable height and density for burrowing mammals, and maintenance of suitable burrowing mammal populations, whereas a mitigation site providing salamander breeding habitat would also include criteria related to adequate depth and hydroperiod of breeding habitat. As a result, ~~those additional~~ specific criteria will be defined in the HMMP rather than in this SEIR. Nevertheless, the performance/success criteria described in the HMMP will guide the mitigation to manage and protect high-quality habitat for the California tiger salamander, adequate to compensate for impacts.

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

Language has been added to the second to last paragraph on page 3.3-153 in order to provide examples for Habitat Mitigation and Monitoring Plans as follows:

- a description of species monitoring measures on the mitigation site, including specific, objective goals and objectives (including maintaining or restoring suitable habitat for the least Bell's vireo), performance indicators and success criteria (including maintenance or improvement of habitat structure suitable for use by least Bell's vireos), monitoring methods (including least Bell's vireo surveys), data analysis, reporting requirements, and monitoring schedule. Determining other specific performance/success criteria requires information regarding the specific mitigation site, its conditions, and the specific enhancement and management measures tailored to the mitigation site and its conditions. As a result, additional ~~those~~ specific criteria will be defined in the HMMP rather than in this SEIR. Nevertheless, the performance/success criteria described in the HMMP will guide the mitigation to manage and protect habitat at least as suitable for use by the least Bell's vireo as the habitat that is impacted.

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

Language has been added to the last paragraph on page 3.3-157 in order to provide examples for Habitat Mitigation and Monitoring Plans as follows:

This mitigation may be provided via the management of suitable habitat on SCVWD lands (either existing lands or lands that are acquired), purchase of credits in a mitigation bank (if one is available), or contribution of funds toward the management of the required amount of suitable habitat owned by another entity. If SCVWD provides habitat mitigation on its own lands, either on existing SCVWD lands or on lands that are acquired for mitigation purposes, an HMMP will be prepared detailing the areas to be preserved for owls; the methods for managing on-site habitat for owls and their prey (including vegetation management to maintain low-statured herbaceous vegetation); methods for enhancing burrow availability within the mitigation site (potentially including the provision of artificial burrows, although long-term management for ground squirrels will be important as well); measures to minimize adverse effects of development on owls on-site; and a monitoring program and adaptive management program. The monitoring program will include performance indicators and success criteria, including maintenance of short vegetation supporting California ground squirrels and maintenance of increase in burrowing owl numbers on the mitigation site. Determining other specific performance/success criteria requires information regarding the specific mitigation site, its conditions, and the specific enhancement and management measures tailored to the mitigation site and its conditions. For example, performance criteria for a site where burrowing owls are known to occur (including maintaining or increasing burrowing owl abundance) may differ from those for an unoccupied site adjacent to occupied burrowing owl habitat (including attracting owls to use the mitigation site). As a result, those specific criteria will be defined in the HMMP rather than in this SEIR. Nevertheless, the performance/success criteria

described in the HMMP will guide the mitigation to manage and protect high-quality habitat for burrowing owls, adequate to compensate for impacts.

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

The discussion of mitigation for impacts to tidal wetlands and other waters under Mitigation Measure BIO-1 (on pages 3.3-71 of the DSEIR) is revised as follows:

The compensatory mitigation package, which is detailed in Appendix C, 2012–2022 SMP Update Mitigation Approach Memorandum, shall be implemented to compensate for new impacts (i.e., work areas not included in the 2002–2012 work projections) on wetlands (both jurisdictional and non-jurisdictional) and on jurisdictional “other waters”; no mitigation is necessary for impacts to non-jurisdictional “other waters”, which are limited to unvegetated areas of inoperable canals. For work areas included in the 2002–2012 work projections, previously provided mitigation would continue to serve as mitigation in perpetuity, as no new significant environmental effects or a substantial increase in the severity of previously identified significant effects are anticipated under the SMP Update.

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

The discussion of mitigation for impacts to tidal wetlands and other waters under Mitigation Measure BIO-1 (on pages 3.3-74 and 3.3-75 of the DSEIR) is revised as follows:

Mitigation for Impacts to Tidal Wetlands and Other Waters. SCVWD will continue to implement mitigation measures adopted to reduce impacts for the SMP. Although the 2012 project description has changed, this FSEIR has examined the Proposed Project changes and determined that the existing tidal marsh restoration mitigation measures will continue to reduce the Proposed Project impacts to less than significant. The 2012 SMP Update will be a continuation from the 2002 SMP, with some program modifications; although the work activities are updated, the original mitigation remains, along with the resulting benefits.

As mitigation for impacts to tidal habitats and tidal marsh species predicted to result from the 2002–2012 SMP work activities, SCVWD restored the “Island Ponds” (Ponds A19, A20, and A21), located between Coyote Slough and Mud Slough near Alviso, to tidal action. Restoring these ponds provided 30 acres of tidal habitat that is used by a variety of tidal marsh species. Monitoring has documented achievement of all performance criteria appropriate for the development of both vegetated tidal salt/brackish marsh and tidal aquatic habitat, including with the formation of nascent tidal marsh habitat, including extensive channel networks, within these ponds.

The 2002 SMP work projections provided the basis for determining the SMP’s initial, upfront compensatory mitigation. As a result of those projections, impacts to tidal habitats for the 2002-2012 SMP Update were calculated with a mitigation

requirement of 30 acres of tidal restoration. SCVWD already has met this obligation by restoring 30 acres of tidal habitat with the “Island Ponds.” Thirty acres of tidal restoration within the Island Ponds was intended to serve as mitigation for impacts to tidal habitats for the 2002–2012 SMP. However, not all of the 2002 projected work has actually been performed. Thus, the 2002 mitigation of 30 acres of restored tidal habitat paid for more work than was conducted. Based on the actual impacts from activities conducted between 2002–2012 Proposed Project activities, only 9 acres of tidal mitigation will be needed to compensate for those impacts.

The 2002–2012 SMP created an upfront compensatory mitigation package to account for SMP impacts in perpetuity. The 2012–2022 SMP Update has modified the project description to refine maintenance work activity needs. The updated project description in this FSEIR is a continuation, with modifications, of the 2002–2012 SMP.

SCVWD will remove the 2002 work activity projections that would have resulted in the need for 21 tidal habitat mitigation acres. The removal of these projections, therefore, will equate to having 21 acres of tidal habitat mitigation that is not attributed to ongoing SMP impacts. Therefore, SCVWD created 21 acres of excess tidal habitats. SCVWD will use the 21 acres of excess tidal marsh habitat restoration as available mitigation for impacts to tidal wetlands and aquatic habitats, as well as tidal marsh species, that may occur under the 2012–2022 SMP Update. Physical breaching of the Island Pond levees and other physical work required for this tidal restoration has already occurred, and no further activities (other than continued monitoring of marsh development per the 2002–2012 SMP monitoring requirements) are proposed by SCVWD.

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

The third paragraph under Mitigation Measure BIO-3 on page 3.3-85 of the DSEIR is revised as follows:

Compensation for unavoidable effects to high-quality serpentine communities will be provided via the protection, enhancement, and management of serpentine communities outside SMP work sites at a 2:1 (~~mitigation:impact:mitigation~~) ratio, on an acreage basis. SCVWD will acquire land supporting serpentine communities via fee title or purchase of a conservation easement. Compensatory mitigation may be carried out through one or both of the following methods, in order of preference:

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

The last bullet on page 3.3-85 of the DSEIR is revised as follows:

- A description of community monitoring measures on the mitigation site, including specific, objective goals and objectives (including maintaining or increasing native plant species diversity), performance indicators and success

criteria (including maintaining or increasing the relative abundance of native vs. non-native species), monitoring methods (including vegetation sampling for plant species composition), data analysis, reporting requirements, and monitoring schedule

(Determining other specific performance/success criteria requires information regarding the specific mitigation site, its conditions, the biological resources present on the site, and the specific enhancement and management measures tailored to that site and its conditions. As a result, ~~additional~~ those specific criteria will be defined in the HMMP rather than in this SEIR. Nevertheless, the performance/success criteria described in the HMMP will guide the mitigation for management and protection of high-quality serpentine communities to adequately compensate for the functions and values of the impacted communities.)

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

The first sentence in the second paragraph of the conclusion under Impact BIO-10 on pages 3.3-112–113 is revised as follows:

As discussed under Impact BIO-1, Mitigation Measure BIO-1 includes mitigation for impacts to tidal wetlands and other waters, which would be the habitats in which the longfin smelt and green sturgeon could potentially occur. SCVWD would use the 21 acres of ~~excess~~ tidal marsh restoration that it has accomplished at the Island Ponds as available mitigation for impacts to tidal wetlands and aquatic habitats, as well as tidal species such as the longfin smelt and green sturgeon.

The second paragraph under Mitigation Measure BIO-10 on page 3.3-119 has been revised as follows:

Compensation for these effects will be provided via the protection, enhancement, and management of habitat that currently supports, or can support, this species at a 2:1 (~~mitigation:impact:mitigation~~) ratio, on an acreage basis. Compensatory mitigation may be carried out through one or both of the following methods, in order of preference:

The second paragraph under Mitigation Measure BIO-11 on page 3.3-130 of the DSEIR is revised as follows:

Compensation for these effects will be provided via the protection, enhancement, and management of habitat that currently supports, or could support, this species at a 2:1 (~~mitigation:impact:mitigation~~) ratio, on an acreage basis. Compensatory mitigation may be carried out through one or both of the following methods, in order of preference:

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

The conclusion under Impact BIO-20, in the last paragraph on page 3.3-145 of the DSEIR, is revised as follows:

Mitigation Measure BIO-1 includes mitigation for impacts to tidal habitats and tidal marsh species. As mitigation for impacts to tidal habitats and tidal marsh species was predicted to result from the 2002–2012 SMP, SCVWD restored the “Island Ponds” (Ponds A19, A20, and A21), located between Coyote Slough and Mud Slough near Alviso, to tidal action. Monitoring has documented the formation of nascent tidal marsh habitat, including extensive channel networks, within these ponds. Thirty acres of tidal restoration within the Island Ponds was intended to serve as mitigation for impacts to tidal habitats for the 2002–2012 SMP. However, based on the actual impacts from 2002–2012 SMP activities, only 9 acres of tidal mitigation was needed to compensate for those impacts. ~~Furthermore~~As a result, SCVWD created 21 acres of ~~excess~~ tidal habitats beyond what was needed to mitigate for the actual impacts from 2002–2012 SMP activities. SCVWD would use the 21 acres of ~~excess~~ tidal marsh restoration as available mitigation for impacts to tidal wetlands and aquatic habitats, as well as tidal marsh species, under the 2012–2022 SMP Update.

The applicable best management practices under Impact BIO-23 on page 3.3-152 of the DSEIR are revised as follows:

Applicable Best Management Practices

~~BMP GEN-4: Minimize the Area of Disturbance~~

~~BMP GEN-6: Minimize Impacts to Nesting Birds via Site Assessments and Avoidance Measures~~

BMP GEN-6.5: Protection of Nesting Least Bell’s Vireos

The last paragraph under Mitigation Measure BIO-13 on page 3.3-157 of the DSEIR is revised as follows:

~~The HMMP will be submitted to the CDFG for review.~~ If a mitigation bank providing credits for burrowing owls is established within the aforementioned mitigation area (i.e., in Santa Clara County, or in areas of San Mateo or Alameda counties adjacent to San Francisco Bay), then mitigation may take the form of the purchase of credits equivalent to the number of acres of mitigation required.

This revision is also reflected in the full mitigation text in Volume II, Appendix L of the DSEIR.

The conclusion under Impact BIO-35, on the last paragraph on page 3.3-173 of the DSEIR, is revised as follows:

As described under Impact BIO-3, management of the invasive perennial pepperweed in the Coyote Creek Bypass area would benefit the northern coastal salt marsh community, and salt marsh harvest mouse habitat, and thus would not require mitigation. Otherwise, as mitigation for impacts to tidal habitats and tidal marsh species predicted to result from the 2002–2012 SMP, SCVWD would

implement Mitigation Measure BIO-1 that (as described) restored the “Island Ponds” (Ponds A19, A20, and A21), located between Coyote Slough and Mud Slough near Alviso, to tidal action. Monitoring has documented the formation of nascent tidal marsh habitat, including extensive channel networks, within these ponds. Thirty acres of tidal restoration within the Island Ponds was intended to serve as mitigation for impacts to tidal habitats for the 2002–2012 SMP. However, based on the actual impacts from 2002–~~2012~~ SMP activities, only 9 acres of tidal mitigation were needed to compensate for those impacts. ~~In addition~~ As a result, SCVWD created 21 acres of ~~excess~~ additional tidal habitats compared to what was needed to mitigate for the actual impacts from 2002–2012 SMP activities. SCVWD would use the 21 acres of ~~excess~~ tidal marsh restoration as available mitigation for impacts to tidal wetlands and aquatic habitats, as well as tidal marsh species, under the 2012–2022 SMP Update.

The heading for Mitigation Measure BIO-16 on page 3.3-183 and in Appendix L of the DSEIR has been revised as follows:

Mitigation Measure BIO-16: Invasive Plant Species Management Program

Chapter 4: Other Statutory Considerations

The list of applicable best management practices under Cumulative Impact BIO-1 on page 4-20 is revised as follows:

- GEN-4: Minimize the Area of Disturbance
- GEN-5: Mitten Crab Control Measure
- GEN-6: Minimize Impacts to Nesting Birds via Site Assessments and Avoidance Measures
- GEN-6.5: Protection of Nesting Least bell’s vireo
- GEN-7: Protection of Burrowing Owls
- GEN-8: Protection of Sensitive Fauna Species from Herbicide Use
- GEN-9: Avoid Impacts to Special-Status Plant Species and Sensitive Natural Vegetation Communities
- GEN-10: Avoid Impacts to Bay Checkerspot Butterfly and Associated Critical Habitat
- GEN-11: Protection of Salt Marsh Harvest Mouse and California Clapper Rail
- GEN-12: Protection of Special-Status Amphibian and Reptile Species
- GEN-13: Protection of Bat Colonies
- GEN-14: Protection of San Francisco Dusky-Footed Woodrat
- GEN-15: Salvage Native Aquatic Vertebrates from Dewatered Channels
- GEN-15.5: Avoidance of Impacts on the San Joaquin Kit Fox

Appendix A, 2012 Stream Maintenance Program Manual

The draft 2012 SMP Manual has been replaced with a final version.

Appendix C, 2012–2022 SMP Update Mitigation Approach Memorandum

The draft 2012–2022 SMP Update Mitigation Approach Memorandum has been replaced with a final version.

Appendix L, Mitigation and Monitoring Report Program

The reference to the DSEIR is revised as follows:

[Under Introduction, in the first sentence of the second paragraph:]

The purpose of discussing the MMRP in the ~~DSEIR (DSEIR)~~ FSEIR is to appropriately assign the mitigation responsibilities for implementing the Proposed Project. The mitigation measures listed in the MMRP are required by law or regulation and will be adopted by SCVWD as a condition of the primary SMP Update approval.

[Under Introduction, in the first sentence of the second paragraph:]

Mitigation measures provided in this MMRP were initially identified in Chapter 3, *Environmental Setting and Impact Analysis* of the ~~DSEIR~~ Draft Subsequent Environmental Impact Report (DSEIR), as feasible and effective in mitigating Proposed Project-related environmental impacts. As a result of comments received during public review of the DSEIR, these mitigation measures ~~will be~~ have been revised as necessary.

Figures

The following text has been added to all maps showing work projections (as indicated in the Table of Contents) in the FSEIR:

Project area maps provide a general description of work type and area for the 2012–2022 SMP and are not intended to represent the exact locations of future work.

In addition, the contents of Figures 3.3-11, 3.3-19, 3.3-10, and 3.3-22 have been updated.

Volume I, Appendix A

**NOTICE OF COMPLETION AND ENVIRONMENTAL DOCUMENT
TRANSMITTAL FOR THE DSEIR**

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #2000102055

Project Title: Stream Maintenance Program Update 2012-2022

Lead Agency: Santa Clara Valley Water District Contact Person: Sunny Williams
 Mailing Address: 5750 Almaden Expressway Phone: (408) 265-2600
 City: San Jose Zip: 95118 County: Santa Clara

Project Location: County: Santa Clara City/Nearest Community: San Jose, etc (see Figure 2-1)
 Cross Streets: Multiple (see Program Area Map, Figure 2-1) Zip Code: 95118
 Longitude/Latitude (degrees, minutes and seconds): 37 ° 20 ' 27 " N / 121 ° 53 ' 43 " W Total Acres: _____
 Assessor's Parcel No.: Multiple Section: _____ Twp.: 7S Range: 1E Base: Mt. Diablo
 Within 2 Miles: State Hwy #: 101, 880, 237, 17, 152, 9 Waterways: Guadalupe/Pajaro Rivers, and more (Figure 2-1)
 Airports: San Jose Int'l, Moffett Field Railways: Amtrak Schools: Multiple

Document Type:

CEQA: NOP Draft EIR NEPA: NOI Other: Joint Document
 Early Cons Supplement/Subsequent EIR EA Final Document
 Neg Dec (Prior SCH No.) _____ Draft EIS Other: _____
 Mit Neg Dec Other: _____ FONSI _____

Local Action Type:

General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (Subdivision, etc.) Other: Maint. Program

Development Type:

Residential: Units _____ Acres _____ Transportation: Type _____
 Office: Sq.ft. _____ Acres _____ Employees _____ Mining: Mineral _____
 Commercial: Sq.ft. _____ Acres _____ Employees _____ Power: Type _____ MW _____
 Industrial: Sq.ft. _____ Acres _____ Employees _____ Waste Treatment: Type _____ MGD _____
 Educational: _____ Hazardous Waste: Type _____
 Recreational: _____ Other: _____
 Water Facilities: Type _____ MGD _____

Project Issues Discussed in Document:

Aesthetic/Visual Fiscal Recreation/Parks Vegetation
 Agricultural Land Flood Plain/Flooding Schools/Universities Water Quality
 Air Quality Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
 Archeological/Historical Geologic/Seismic Sewer Capacity Wetland/Riparian
 Biological Resources Minerals Soil Erosion/Compaction/Grading Growth Inducement
 Coastal Zone Noise Solid Waste Land Use
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Cumulative Effects
 Economic/Jobs Public Services/Facilities Traffic/Circulation Other: _____

Present Land Use/Zoning/General Plan Designation:

Varies

Project Description: (please use a separate page if necessary)

See attached Chapter 2 "Project Description", in accompanying Draft Subsequent EIR

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

- | | |
|---|---|
| <input checked="" type="checkbox"/> Air Resources Board | <input checked="" type="checkbox"/> Office of Emergency Services |
| <input type="checkbox"/> Boating & Waterways, Department of | <input checked="" type="checkbox"/> Office of Historic Preservation |
| <input checked="" type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Office of Public School Construction |
| <input checked="" type="checkbox"/> Caltrans District # <u>4</u> | <input type="checkbox"/> Parks & Recreation, Department of |
| <input type="checkbox"/> Caltrans Division of Aeronautics | <input checked="" type="checkbox"/> Pesticide Regulation, Department of |
| <input checked="" type="checkbox"/> Caltrans Planning | <input type="checkbox"/> Public Utilities Commission |
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| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy |
| <input type="checkbox"/> Conservation, Department of | <input type="checkbox"/> San Joaquin River Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> Santa Monica Mtns. Conservancy |
| <input type="checkbox"/> Delta Protection Commission | <input checked="" type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Education, Department of | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Energy Commission | <input checked="" type="checkbox"/> SWRCB: Water Quality |
| <input checked="" type="checkbox"/> Fish & Game Region # <u>3</u> | <input type="checkbox"/> SWRCB: Water Rights |
| <input type="checkbox"/> Food & Agriculture, Department of | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input checked="" type="checkbox"/> Forestry and Fire Protection, Department of | <input checked="" type="checkbox"/> Toxic Substances Control, Department of |
| <input checked="" type="checkbox"/> General Services, Department of | <input checked="" type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> Health Services, Department of | Other: _____ |
| <input type="checkbox"/> Housing & Community Development | Other: _____ |
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| <input checked="" type="checkbox"/> Native American Heritage Commission | |

Local Public Review Period (to be filled in by lead agency)

Starting Date August 8, 2011 Ending Date September 21, 2011

Lead Agency (Complete if applicable):

Consulting Firm: <u>Horizon Water and Environment</u>	Applicant: <u>Santa Clara Valley Water District</u>
Address: <u>1330 Broadway, Ste 424</u>	Address: <u>5750 Almaden Expressway</u>
City/State/Zip: <u>Oakland, CA 94612</u>	City/State/Zip: <u>San Jose, CA 95118</u>
Contact: <u>Michael Stevenson</u>	Phone: <u>(408) 265-2600</u>
Phone: <u>(510) 986-1850</u>	

Signature of Lead Agency Representative:  Date: 8-9-11

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Volume I, Appendix B
DSEIR DISTRIBUTION LIST

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Vincent Griego U.S. Fish and Wildlife Service Coast- Bay Branch 2800 Cottage Way, Room W-2605 Sacramento, CA 95825 (916) 414-6493	1 HC 1CD 1 NOA
Gary Stern NOAA National Marine Fisheries Service North Central Coast Office 777 Sonoma Avenue, Rm. 325 Santa Rosa, CA 95404 (707) 575-3152	1 HC 1CD 1 NOA
Margarete Beth San Francisco Bay Regional Water Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612 510-622-2338	1 HC 1CD 1 NOA
Ian Liffman Regulatory Division USACE, South Branch 1455 Market Street, 16th Floor San Francisco, CA 94103-1398 (415) 503-6769	1 HC 1CD 1 NOA

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SCVWD Watershed Advisory Committee

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City, State, Zip	Name
San Jose, CA 95110	Jody Hall Esser, Director
San Jose, CA 95113-1905	Joseph Horwedel , Director
Gilroy, CA 95020	David Bischoff, Planning Manager
Morgan Hill, CA 95037	Planning Director
Santa Clara, CA 95050	Kevin L. Riley, Director
Sunnyvale, CA 94086	Shaunn Mendrin
Sunnyvale, CA 94086	Lorrie Gervin
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Los Gatos, CA 95030	Wendie Rooney, Director
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Los Altos, CA 94022	Director
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Campbell, California 95008	Kirk E. Heinrichs, Community Development Director
Milpitas, CA 95035	James Lindsay, Director
Monte Sereno, CA 95030	Planning Director
Mountain View, CA 94039	Planning Director

Individuals

Name	Organization	Address	City, State, Zip
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Libby Lucas		174 Yerba Santa Drive	Los Altos, CA 94022

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Volume I, Appendix C
AUGUST 22, 2011 SCVWD WATERSHED
STEWARDSHIP DIVISION LETTER
TO THE SAN FRANCISCO REGIONAL WATER QUALITY
CONTROL BOARD

August 22, 2011

Shin-Roei Lee
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Stream Maintenance Program 2002 Compensatory Mitigation Status and Commitment

Dear Ms. Lee:

This letter provides a current status of the Santa Clara Valley Water District's (District) 2002 Stream Maintenance Program (SMP) compensatory mitigation elements, and a plan for meeting the District's mitigation obligations as described in the *Final Environmental Impact Report and Stream Maintenance Program Report for the Multi-Year Stream Maintenance Program* (August 2001) and the following regulatory permits:

- San Francisco Bay Regional Water Quality Control Board (SF RWQCB): Waste Discharge Order No. R2-2002-0028 (March 5, 2002)
- Central Coast Regional Water Quality Control Board (CC RWQCB): Waste Discharge Order No. R3-2002-008 (March 22, 2002)
- California Department of Fish and Game (CDFG): 1601 Agreement No. R3-2001-0119 (July 8, 2002)
- U.S Army Corps of Engineers (USACE): Permit No 22525S (August 7, 2002)
- U.S. Fish and Wildlife Service (USFWS): Formal Endangered Species Consultation Biological Opinion: PN 22525S (July 5, 2002)

Summary

The Stream Maintenance Program (SMP) was developed in 2001 to provide multi-year regulatory agency permits for conducting annual routine stream and canal maintenance activities for District property and easement areas. Activities include sediment removal, vegetation management, bank stabilization, management of animal conflicts, and minor maintenance. The District is in the process of updating its California Environmental Quality Act (CEQA) document and renewing regulatory permits, which will expire prior to the 2012 work season.

The existing SMP programmatic mitigation program was developed in 2002 to include defined "up front" programmatic mitigation for sediment removal and vegetation management activities. This original programmatic mitigation continues to serve the SMP in perpetuity for maintenance activities and work areas identified in the 2002 program work projections. Impacts from other



non-projected maintenance activities such as bank stabilization projects are mitigated on an "as-needed" basis using defined mitigation ratios as maintenance projects occur.

The District's compensatory mitigation program for the SMP provides mitigation in perpetuity for impacts to tidal wetland, freshwater wetland, and riparian habitats; and California red-legged frog. A summary of the mitigation types, requirements, and current status is presented as Attachment 1 to this letter. To date, the tidal wetland mitigation, tidal wetland restoration, and invasive smooth cordgrass control have been completed, except for long-term monitoring which is progressing as required. The giant reed control program was 93% complete at the end of the 2010 work season. The freshwater wetland creation and restoration program, and the Stream and Watershed Protection program are partially complete. A summary of each of the mitigation programs, their status, and plan and commitment for completion is provided.

Status of Stream Maintenance Program mitigation programs

1. Tidal wetland restoration

Purpose: Provides mitigation for impacts to tidal wetlands.

Status: 100% Complete. In March 2006 the District in conjunction with the USFWS Don Edwards National Wildlife Refuge breached 3 former salt ponds known as the Island Ponds (Ponds A19- A21) to restore tidal action to the 475 acre complex. Year 5 (of the 15 year requirement) of the collaborative mitigation monitoring program was completed by the District and USFWS, in 2010. The restoration is progressing as anticipated with sedimentation rates higher than predicted and tidal wetland vegetation starting to take hold in all three ponds.

Plan/commitment for completion: The District will continue to collaborate with USFWS to continue annual monitoring until year 15, or until the success criteria have been met.

2. Freshwater wetland creation and restoration

Purpose: Provides mitigation for impacts to non-tidal freshwater wetlands by converting areas to seasonal or perennial wetlands.

Status: 100% Complete for Pajaro Basin. 70% complete for Santa Clara Basin.

The Pajaro Basin Freshwater Wetland was constructed in 2007 providing 4.65 acre credits of compensatory mitigation for the Pajaro Basin requirement of 4 acres. The third year of mitigation monitoring was completed in 2010.

The Coyote Parkway Freshwater Wetland was constructed in 2006-2007 providing 7 acre credits of compensatory mitigation for the Santa Clara Basin requirement of 10 acres. The fourth year of mitigation monitoring was completed in 2010.

Plan/commitment for completion:

The plan for fulfilling this requirement is found in Stream and Watershed Protection Section of this letter.

3. Stream and Watershed Protection (S&WP)

Purpose: Provides compensatory mitigation for impacts to non-tidal freshwater wetlands and California red-legged frog (CRLF) through land preservation and protection. Mitigates for impacts to 92 acres of wetlands and 26 acres of CRLF habitat.

Status: For wetlands: 100% complete for Pajaro Basin; 12% complete for Santa Clara Basin.

The Program has met 100% of its wetland mitigation requirements in the Pajaro Basin, and all remaining needed credits are for the Santa Clara Basin. Of the total program requirement, projects completed thus far have obtained 21 of the 92 required wetland mitigation credits for 23 percent of the total obligation.

For CRLF: 52% complete.

52% (56 of the required 108 acres) of CRLF mitigation has been obtained. An additional 52 acres within Santa Clara County are needed.

Completion of SMP mitigation for CRLF was required by July 5, 2007. The USFWS has granted one-year extensions annually since 2007 to continue working on meeting the CRLF mitigation commitment. In August 2011 the District submitted a request for a 6-month extension beyond September 1, 2011 to USFWS.

Additional status information is provided in the Ninth Annual Mitigation Monitoring Report (2010), included as Attachment 2 to this letter. Annual reports are required to be submitted to the relevant agencies for 10 years or until all required mitigation credit is obtained.

Plan/commitment for completion:

The District is actively pursuing both wetland restoration alternatives and land preservation opportunities in order to meet the remaining 74 acres of wetland mitigation credit in Santa Clara Basin. The following are options the District is actively pursuing.

Wetland restoration options:

The Laguna Seca Freshwater Wetland project commenced planning in 2007 and was expected to begin construction in 2010. Until early 2009, this project was expected to provide all or a large portion of the remaining acres of wetland mitigation for the SMP in lieu of all or a portion of S&WP Program land acquisition. However, prior to moving forward with

design, information indicating potential uncertainty in future groundwater conditions was obtained. Further data collection and modeling commenced, the purpose being to ensure viable long-term success. Project feasibility is currently under review and pending further information; the project may be revised or abandoned. The groundwater evaluation to re-consider long-term feasibility and adjust project design is expected to be completed in late summer 2011, followed by a reassessment of the project in fall 2011.

Following the delay of Laguna Seca in 2009 the District proposed an option to more quickly provide some of the needed wetland mitigation acreage by restoring wetlands at an alternative site on the Carnadero Preserve, the site of the successful Pajaro Basin Freshwater Wetlands project for the SMP. If this proposal had quick acceptance, the initial construction was projected to begin as early as summer 2010. The proposal was not accepted by the San Francisco Regional Water Quality Control Board due to the site being located in a different basin (Pajaro) than the impacts (Santa Clara). In the most recent communication on this topic, SF RWQCB staff indicated that this option may be revisited pending information about past and projected SMP impacts as part of the SMP renewal review. This project could restore approximately 25-37 acres of historic wetland and riparian habitat. The District would like to re-open consideration of this option.

Land Preservation options:

Work on two properties, described below, is currently in progress.

The large Castle and Cooke (C&C) property east of the valley floor in the Mt. Hamilton Range was first identified in 2010 and reviewed by the District and regulatory agencies in early 2011. This property has approximately 457 acres of S&WP lands and would provide approximately 37 credits and the remaining required 52 acres of CRLF habitat. The District was in close and frequent communication with the owner's representative during several months of studies and real estate work on the property leading up to the submission of a formal purchase offer in June 2011. However, contrary to our communications over those several months, it is currently not clear whether or not C&C wishes to sell to the District. We remain in contact with the C&C representative, trying to work this out with them as quickly as possible.

The Hendry Creek Property located in the Lexington Reservoir vicinity is currently under review. The property would provide approximately 100 acres of S&WP land, over 8 wetland credits and the remaining required 52 acres of CRLF habitat. An agency site visit is scheduled for late August 2011. This is a partnership project with Midpeninsula Regional Open Space District (MROSD) and Peninsula Open Space Trust (POST). The property would quickly be purchased by POST in phases, from October 2011 through January 2012. MROSD and the District would then acquire the property from POST soon thereafter.

Although the mitigation requirements for freshwater wetlands (in the Santa Clara Basin), and California red-legged frog will not be achieved by the end of 2011, the District is committed to completing this mitigation and is working diligently on acquiring acceptable properties.

The District continues to actively work to identify and evaluate suitable Stream and Watershed Protection mitigation acquisition opportunities.

4. Giant reed (*Arundo donax*) control

Purpose: Provides mitigation for impacts to riparian vegetation.

Status: On target for 100% completion in 2011. As of 2010, 116 acres (93% of 125 acres) have received initial treatment.

Plan/commitment for completion: The remaining 9 acres will be completed in 2011 to meet the requirement of 125 acres of treatment. Retreatment of re-growth areas will continue for an additional three years through December 2015.

5. Invasive smooth cordgrass (*Spartina alterniflora*) control

Purpose: Provides mitigation for the time lag associated with implementation of the tidal wetland restoration component discussed in number 1.

Status: 100% Complete. In 2007 the District completed its 5 year monitoring commitment for the smooth cordgrass mitigation element. From 2008- 2010 the District completed 3 additional years of re-treatment work in the program area. In total, 10 acres of invasive smooth cordgrass was treated throughout the program area from 2004 - 2010.

Plan/commitment for completion: While the 2002 SMP mitigation obligation to monitor and treat 10 acres of smooth cordgrass has been achieved, the District applied for and received a \$75,000 grant in June 2011 to continue assisting the regional Invasive Spartina Program (funded by the CA Coastal Conservancy) in control of invasive smooth cordgrass in South Bay marshes and creeks for 5 additional years.

SMP work completed to date

It is important to note that as of year 9 of the first 10 years of implementation, the District has not conducted all of the work that was projected in 2002 and therefore, has not incurred all of the impacts anticipated. As of the end of the 2010 work season (including years 2002-2009), the District had provided an excess of mitigation in both the Santa Clara and Pajaro Basins. These numbers, presented in the table below, were calculated by comparing the actual work completed to the mitigation obligation.

Excess SF Bay Mitigation:	Freshwater wetland	9.41 acres
	Tidal wetland	21.35 acres
Excess Pajaro Mitigation:	Freshwater wetland	6.20 acres

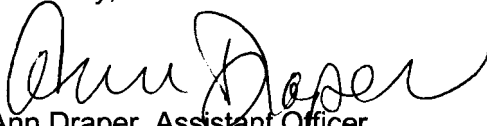
Ms. Shin-Roei Lee
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Next steps

The District is committed to continue monitoring those mitigation program elements that have already been constructed. The District is also committed to completing its obligations for both the freshwater wetland creation and restoration, and the Stream and Watershed Protection programs, and will continue to work with the agencies as opportunities for land acquisition become available.

If you have any questions, or require additional information please contact me at 408-265-2607, extension 2665.

Sincerely,



Ann Draper, Assistant Officer
Watershed Stewardship Division

Attachments:

1. Summary table of SMP Mitigation Programs
2. Stream and Watershed Protection Ninth Annual Mitigation Monitoring Report (2010)

cc: Bruce Wolfe, Bill Hurley, Maggie Beth (SFB RWQCB)
Jon Rohrbough (CC RWQCB)
Liam Davis, Tami Schane (CDFG)
Cameron Johnson, Paula Gill, Ian Liffman (US Army Corps of Engineers)
Gary Stern, Darren Howe (NMFS)
Ryan Olah, Vincent Griego (USFWS)
Luisa Valiela (USEPA, Region IX)

B. Goldie, L. Lee, C. Elias, S. Dharasker, K. O'Kane, N. Nguyen, G. Rankin, M. Wander, J. Castillo (SCVWD)

Attachment 1: Summary table of SMP Mitigation Program

	Mitigation Purpose	Mitigation Potential	Actual Credits to Date	Percent of Requirement Completed	
1	Tidal Wetland Restoration	Restore Bay salt ponds to tidal marsh conditions. Provides mitigation for tidal wetland impacts.	30 acres	30 acres	100%
2	Freshwater Wetland Creation/ Restoration	Convert or restore areas to seasonal or perennial wetlands. Provides mitigation for non-tidal wetland impacts.	10 ac Santa Clara Basin 4 ac Pajaro Basin	7ac Santa Clara Basin 4ac Pajaro Basin**	70% Santa Clara Basin 100% Pajaro Basin
3	Stream and Watershed Protection	Preserve, protect, and improve streams and associated watersheds. Provides mitigation for non-tidal wetland and CRLF impacts	Freshwater wetland habitat: 820-1080 ac acquired (81 ac credit) for Santa Clara Basin 11 ac credit for Pajaro Basin CRLF Habitat - 108 ac credit District wide	Freshwater wetland habitat: 10 ac credit (125 ac total) for Santa Clara Basin 11 ac credit (138 ac total) for Pajaro Basin** CRLF Habitat – 56 ac credit	12% Santa Clara Basin 100% Pajaro Basin 52% CRLF Habitat
4	Giant reed (<i>Arundo donax</i>) Control	Control giant reed outbreaks; map, revegetate, educate, and coordinate reed control efforts in County. Provides mitigation for riparian impacts.	125 ac District wide	116 ac District wide	93%
5	Invasive smooth cordgrass Control (<i>Spartina alterniflora</i>)	Control invasive cordgrass along tidal shorelines. Provides mitigation for time lag until tidal wetland mitigation is established.	Up to 10 acres in tidal areas	10 acres	100%

*Does not include monitoring period and achievement of final success criteria.

** Rough acreages - slightly more wetland acreage and less S&WP acreage were credited in order meet the required 15 credit total in Pajaro Basin

**STREAM AND WATERSHED PROTECTION PROGRAM
COMPENSATORY MITIGATION FOR THE
SANTA CLARA VALLEY WATER DISTRICT'S
MULTI-YEAR STREAM MAINTENANCE PROGRAM
NINTH ANNUAL MITIGATION MONITORING REPORT
CALENDAR YEAR 9 (2010)**

Prepared by

Gale Rankin
Environmental Services Unit
Watershed Stewardship Division
Santa Clara Valley Water District

**Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95210**

May 2011

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EXECUTIVE SUMMARY

The Stream and Watershed Protection (S&WP) Program (Program) provides compensatory mitigation for impacts to 92 acres of freshwater wetlands, and also the California red-legged frog (CRLF), under the Santa Clara Valley Water District's (District) Stream Maintenance Program (SMP). This report constitutes the ninth annual report for the S&WP Program. Under the S&WP MMP, annual reports are required to be submitted to the relevant agencies for 10 years or until all required mitigation credit is obtained. This report covers calendar year 2009 (approximately 8½ years of the Program).

The first acquisition project for the S&WP Program, the Carnadero Preserve, was initiated in 2002 and acquired in 2004. This project supplied almost all required Pajaro Basin S&WP wetland credit (10.7 of 11 credits) within the 138-acre S&WP stream buffer areas. Implementation of the required Carnadero Preserve management plan began in winter-spring of 2007-08. Construction of the Pajaro Basin Freshwater wetland mitigation project on the Carnadero Preserve was completed in early 2008 and provides the additional 0.3 acres of mitigation credit needed for the S&WP Program in South County, thus all S&WP Program credits for the Pajaro Basin have been fulfilled. The District retains fee-title of the property.

The second property, Stevens Canyon Ranch, was acquired in 2006. The property provides 5.4 Santa Clara Basin wetland mitigation credits within the 69-acre S&WP stream buffer areas. The property is now owned by the Midpeninsula Regional Open Space Authority with a riparian conservation easement on the mitigation area held by the District.

The third acquisition, the "Moore Property" along Upper Penitencia Creek, was completed in 2009. The property provides 4.5 Santa Clara Basin wetland mitigation credits within the 56-acre S&WP stream buffer areas. The property also provides 56 acres of California red-legged frog (CRLF) mitigation credit. The property is now owned by the Santa Clara County Open Space Authority with a riparian conservation easement on the mitigation area held by the District.

The Laguna Seca Freshwater Wetland project commenced planning in 2007 and was expected to begin construction in 2010. Until early 2009, this project was expected to provide all or a large portion of the remaining acres of wetland mitigation for the SMP in lieu of all or a portion of S&WP Program land acquisition. However, project feasibility is currently under review and pending further information the project may be revised or abandoned. The groundwater evaluation required to re-evaluate feasibility and adjust project design is expected to be completed in 2011. A 2009 District proposal to, in the meantime, more quickly provide some of the needed wetland mitigation acreage by restoring wetlands at an alternative site was not accepted by the San Francisco Regional Water Quality Control Board due to the site being located in a different basin (Pajaro) than the impacts (Santa Clara), but may be revisited pending information about past and projected SMP impacts as part of the SMP renewal review.

A large property east of the valley floor in the Mt. Hamilton Range was first identified in 2010 and reviewed by the District and regulatory agencies in early 2011. This approximately 670 acre property has approximately 457 acres of S&WP lands and would provide approximately 37 S&WP credits and the remaining required 52 acres of CRLF habitat. The District plans to begin negotiations with owner for acquisition of the property.

Projects completed thus far have obtained of 21 of the 92 required wetland mitigation credits for 23 percent of the total obligation. The Program has met its wetland mitigation requirements in the Pajaro Basin, and all remaining needed credits are for the Santa Clara Basin.

Just over 50% (56 of the required 108 acres) of CRLF mitigation have been obtained. An additional 52 acres within Santa Clara County are needed. Completion of SMP mitigation for CRLF was required by July 5, 2007. One-year extensions were granted by USFWS in 2007, 2008, and 2009 to continue working on meeting the CRLF mitigation commitment. In 2009 the USFWS directed the District to continue to pursue CRLF property acquisition, and rejected a District proposal for an alternative approach to meeting the mitigation requirement by managing an existing CRLF population on public lands. In 2010 the USFWS granted a 1-year extension, with a requirement to obtain the remaining mitigation property by September 1st, 2011 or have a 20 acre increase in required acquisition.

The District continues to actively work to identify and evaluate suitable S&WP mitigation acquisition opportunities.

1.0 INTRODUCTION

1.1 Program Overview

The Stream and Watershed Protection (S&WP) Program (Program) provides compensatory mitigation for impacts to 92 acres of freshwater wetlands under the Santa Clara Valley Water District's (District) Stream Maintenance Program (SMP). The remaining 14 acres of the total 106 acres of SMP freshwater wetland impacts are to be mitigated by other projects (e.g., Coyote Parkway Freshwater Wetland and Pajaro Basin Freshwater Wetland). In addition to wetland mitigation, the S&WP Program will also provide mitigation for SMP impacts to red-legged frog. The S&WP Program Mitigation and Monitoring Plan (MMP) is Attachment A of Appendix J of the SMP Final EIR (SCVWD 2001b), and SMP wetland impacts are detailed in the SMP Draft EIR (SCVWD 2001a). The S&WP Program is required under SMP permits from:

- U.S Army Corps of Engineers (USACE): Permit No 22525S (August 7, 2002)
- San Francisco Bay Regional Water Quality Control Board (SF RWQCB): Waste Discharge Order No. R2-2002-0028 (March 5, 2002)
- Central Coast Regional Water Quality Control Board (CC RWQCB): Waste Discharge Order No. R3-2002-008 (March 22, 2002)
- California Department of Fish and Game (CDFG): 1601 Agreement No. R3-2001-0119 (July 8, 2002)
- U.S. Fish and Wildlife Service (USFWS): Formal Endangered Species Consultation Biological Opinion: PN 22525S (July 5, 2002)

This report constitutes the ninth annual report for the S&WP Program. Under the MMP, annual reports are required to be submitted to the relevant agencies for 10 years or until all required mitigation credit is obtained under the S&WP Program. This report covers calendar year 2010 (approximately 8.5 Program years). Some updated information through April 2011 is also included, as appropriate.

The S&WP Program supports the overall SMP compensatory mitigation program goal to "balance opportunity, feasibility, and cost to provide the maximum benefit to the natural function of the watersheds and streams of Santa Clara County". The S&WP Program will provide long-term protection and improvement of unique and valuable local stream resources together with their watersheds, in a largely self-sustaining setting. The primary focus is on streams that are in a fairly undisturbed state and generally good ecological condition. Streams that are currently degraded, but that can be returned to good ecological condition, can also be included in the Program.

The S&WP Program consists primarily of land acquisition, but also provides for some restoration, rehabilitation and/or management projects (restoration projects). Properties containing streams and their immediate watersheds will be acquired. Restoration projects that would benefit stream resources would be conducted on selected acquisition projects or other qualifying lands, as described in the MMP.

1.2 Acreage Requirements

Of the 92 acres of mitigation to be provided by S&WP, acquisition is projected to provide 82 acres of credit, and restoration projects are projected to provide 10 acres of credit. The

relative contributions of these sub-components may be adjusted based on opportunity and resource needs identified as the mitigation program progresses. The 92 acres of mitigation must be located within the basins in which the impacts occur; thus 81 acres of credit are required for the Santa Clara Basin, and 11 acres are required for the Pajaro Basin.

Based on credit ratios of 15 to 1 and 10 to 1, approximately 820 to 1,080 acres are to be acquired to meet the 82 acres of required mitigation with an estimated 720-950 acres in the Santa Clara Basin, and 100-130 acres in the Pajaro Basin. Of these, 108 acres are required to also provide mitigation for California red-legged frog (CRLF) and western pond turtle. These acres must be located within Santa Clara County with at least one site in the Santa Cruz and one site in the Hamilton mountain ranges.

2.0 SUMMARY OF ACTIONS IN CALENDAR YEAR 9 (2010)

2.1 Properties Considered in 2010

Properties 1-4 were carried forward from prior years. Status updates are provided and more detailed descriptions are available in prior year's annual reports.

1. Laguna Seca Wetland Project. The Laguna Seca wetland project is proposed to provide mitigation for SMP freshwater wetland impacts in-lieu of all or part of the remaining S&WP Program needs and in-lieu of the 3-acre Los Capitancillos Freshwater Wetland Project (74 acres of mitigation credit total).

Planning of this project began in July 2007. In 2006, regulatory agency staff encouraged District staff to pursue the Laguna Seca Wetland Project. Construction was estimated to begin in June 2010. However, recent information and regional groundwater modeling in the Coyote Valley indicated that groundwater conditions might change substantially in the near future, making the proposed design infeasible. In early 2009, the District proposed, with the agreement of the regulatory agencies, that further studies be conducted prior to proceeding with either the proposed project or a modified project suited to altered future conditions. The plan was to conduct three years of site-specific studies to calibrate the predictive regional Coyote Valley groundwater model and determine its sensitivity to conditions at the project site. Based upon these results, project feasibility would be re-evaluated and possible modifications to the site design would be made.

Site-specific groundwater monitoring began in June 2008; three years of data collection would conclude in June 2011. However, the property owner declined to extend permission for SCVWD to collect groundwater information beyond December 2010. The preliminary results from the regional groundwater modeling effort indicate that the model corresponds well with the observed site conditions. With the current water supply and increased groundwater extraction in the Coyote Sub-basin, the model predicts that groundwater at the site could drop more than 15 feet within five years after onset of a severe drought. Levels would recover after cessation of the drought, but only to about 2 feet below the pre-drought elevation. It is worth noting that as yet, groundwater levels have dropped only slightly within the proposed project area, and currently remain within workable elevations for wetland restoration. The District is currently evaluating the projected effects to groundwater at the site due to possible changes in management of Coyote Creek from FAHCE requirements or from re-operation of the Coyote Canal. It is anticipated that this additional evaluation will be completed in September 2011 and a recommendation will be made on the feasibility of the proposed wetland.

An alternative proposal to provide additional wetlands at the District's Carnadero Preserve was made in 2009. Staff from SF RWQCB indicated that although the other reviewing agencies would consider this proposal, the SF RWQCB would likely not approve mitigation in the Pajaro Basin for Santa Clara Basin impacts. However, the SF RWQCB staff has stated that pending reporting by the SMP renewal project on actual impacts incurred to date by the SMP, the proposal may be revisited.

2. Guadalupe Watershed Parcel. The Mid-Peninsula Regional Open Space District (MROSD) continued to discuss purchase of this 153-acre property with a confluence of two perennial streams with the private owner. The MROSD first proposed a joint acquisition and rehabilitation project with the District in 2004. This property is described in Rankin 2005. This property cannot be purchased by the MROSD without assistance of a partner due to high costs of site rehabilitation.

A meeting and field review of this property with regulatory agency staff in 2005 concluded that the site may be considered for the S&WP Program or as alternative mitigation for S&WP pending an evaluation of the costs versus benefits of purchase and restoration.

A review of this property in 2008 indicated that the high cost of removing multiple old stream-side cabins and bridges and re-vegetating the site could make this project infeasible. However, because the only viable alternative for achieving conservation ownership and rehabilitation of this resource-valuable property appears to be this public agency partnership, the District planned to re-examine the costs and benefits of this potential project in 2010.

There is no confirmed CRLF on site, but 2010 surveys determined that the property has good habitat features including a nearby pond on MROSD property, good in-stream features suitable for CRLF and a documented 1996 CRLF sighting 1.14 miles downstream in 1996. However, 2010 review of work needed on the property reaffirmed the high cost of rehabilitation. In addition, in summer 2010 USFWS (Cay Goode, by phone conference) commented that the property appeared to have high complexity for use as CRLF mitigation and suggested consideration of other properties instead. The District doesn't plan to pursue this project further.

3. San Jose Water Company property. Talks with SJWC representatives resumed last year with tentative and uncertain interest expressed in exploring a potential easement. Subsequently, SJWC informed the District that it does not intend to place any easements on the property.

4. Coyote Watershed Property #1. In years past there were indications that the owner might consider selling a portion of this property that would be of interest primarily for CRLF. The owner has not recently indicated any interest in selling; this property is currently inactive.

5. Hamilton Range Property - southeast Santa Clara County. This property was investigated for provision of CRLF mitigation only. A CRLF breeding pond was confirmed on this large ranch property. The District proposed to the owner and USFWS the placement of a conservation easement on the pond and its watershed. However, the value of the property, based on an appraisal report obtained for the purposes of this project, was not unacceptable to the owner, and the easement could not be purchased.

6. Coyote Watershed Property #2. A large property east of the valley floor in the Mt. Hamilton Range was first identified in 2010 and reviewed by the District and regulatory agencies in early 2011. This approximately 670 acre property has approximately 457 acres of S&WP lands and would provide approximately 37 S&WP credits and the remaining required 52 acres of CRLF habitat. The District plans to begin negotiations with the owner for acquisition of the property.

7. Other properties considered. Several other parcels were considered at a preliminary level for provision of CRLF mitigation. Most of these were in south county or had little stream footage and were therefore of possible interest for CRLF rather than wetland mitigation. A Pacheco Creek watershed parcel appeared to have good potential for CRLF, and although on the market, the owner did not wish to entertain proposals from the District. An Isabel Creek watershed property in the eastern part of the county had potentially suitable CRLF habitat, but no confirmed presence of CRLF or CRLF breeding within dispersal distance. A southwest county parcel has reported CRLF habitat. The owner claimed to have an interest in a conservation easement, then ceased contact.

2.2 Properties Acquired in 2010

No properties were acquired in 2010

3.0 SUMMARY OF S&WP PROGRAM MILESTONES, CREDITS, AND SUCCESS CRITERIA

The S&WP Program will be implemented over 10 years. Acquisition will be completed, and restoration project will be identified in order to meet the interim milestones. Per the MMP, the milestones are:

- ¼ of the mitigation credit obtained (23 credits) by completed acquisition of property and/or identification of approved restoration projects by year 3
- ½ of credit (46 credits) obtained by year 6
- all of credit (92 credits) obtained by year 10

A summary of the wetland credits obtained and in progress by end of 2010 is shown in Table 3. There is no change since 2009. Property and credits pending and under consideration in 2011 are not included in the table. Projects in Table 3 are at 91 percent of the year 3, 46 percent of the year 6 and 23 percent of the final year 10 milestone. The remainder of all required wetland credits for the Program is for the Santa Clara Basin.

Fifty-six of the required 108 acres of CRLF mitigation were covered by the Moore Property and 52 more acres are needed. CRLF mitigation was required for completion by Year 5 of the SMP Program. One-year extensions were granted by USFWS in 2007, 2008, and 2009 to continue working on meeting the CRLF mitigation commitment. USFWS granted a 1-year extension in 2010, with the stipulation that if acquisition of mitigation land was not completed by September 1, 2011 an additional 20 acres of land would be required.

The Laguna Seca wetland project was expected until spring 2009 to provide all or a large portion of the remaining acres of wetland mitigation for the SMP, in lieu of all or a portion of the S&WP Program and the Los Capitancillos wetland project (see Section 2.1). Project feasibility is currently under review and pending further information, expected in fall 2011, the project may be revised or abandoned. A 2009 District proposal to provide alternative wetland mitigation for Santa Clara Basin impacts in the Pajaro Basin was not originally acceptable to the SF RWQCB, but may be reconsidered pending evaluations of SMP impacts to date.

The District plans to begin negotiating acquisition of Coyote Watershed Property #2. If the property is acquired it will satisfy the remaining 52 acres of required CRLF mitigation and provide approximately 37 S&WP program credits, leaving a remainder of 34 credits to be achieved.

The District continues to work with its acquisition partners and search for other S&WP acquisition opportunities. Suitable acquisition opportunities in the Santa Clara Basin have been limited since the inception of the Program. Opportunities in the Pajaro Basin continue to be more abundant.

The MMP final success criteria are:

- 1) Completed acquisition of fee title or easements on land selected in accordance with the Requisite Criteria and the Priority Evaluation Considerations in the amount required to fulfill total mitigation obligations (MMP Section 3.4), and
- 2) All projects required to meet the S&WP Restoration, Rehabilitation and Management element have met their individual success criteria (MMP Section 4.4).

**Table 3
Summary of S&WP Program Credits (2010)**

Basin	Total Credits Required	Acquisition Credits			Percent of 3 year milestone	Percent of 6 year milestone	Percent of final
		In Progress ¹	Completed	Total Credits			
Pajaro	11	0	11.0	11 ²	NA	NA	100
Santa Clara	81	0	10.0	10.0	49	25	12
Total	92	0	21.0	21.0	91	46	23

¹ Acres under consideration beginning 2011 not included

² 0.3 acres of 11 acres of credit in the Pajaro basin are provided by the Pajaro Basin Wetland Project for a total of 100% of final mitigation

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Santa Clara Valley Water District 2001b. Final Environmental Impact Report for the Multi-Year Stream Maintenance Program. San Jose, CA.

Volume I, Appendix D
JOINT AQUATIC RESOURCE PERMIT APPLICATION

CK # 700 a w
\$1390.50

MOU 11
SAN FRANCISCO BAY AREA

RS 2001-017
REC'D. 2/16/01

JARPA SANTA CLARA
VALLEY WATER DISTRICT

JOINT AQUATIC RESOURCE PERMIT APPLICATION
Multi-Year Stream Maintenance Program
Santa Clara Valley Water District
San Jose, CA

NORES
FOX ROOPER
GINGRAS

PLEASE TYPE OR PRINT IN BLUE OR BLACK INK

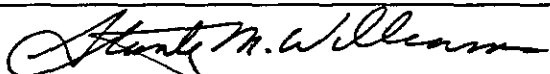
Agency Information	Contact Name	Phone #	Application # (if known)
<p><input type="checkbox"/> I have applied to my local agency (i.e. City or County Planning Department), and special local district (i.e. flood control) if applicable, for CEQA compliance to meet local permitting requirements. Based on the instructions, I am sending copies of this application to the following federal, state, and regional agencies</p> <p><input type="checkbox"/> San Francisco Bay Conservation and Development Commission (BCDC) for</p> <ul style="list-style-type: none"> <input type="checkbox"/> A "Notice of Intent to Proceed:" with routine maintenance under BCDC regionwide or abbreviated regionwide permit # _____ <input type="checkbox"/> An administrative permit application for minor repair or improvement <input type="checkbox"/> A federal consistency determination or certification (federal agencies only) <input type="checkbox"/> A major permit application for a new project <input type="checkbox"/> An application for a material amendment to BCDC permit# _____ <p><input checked="" type="checkbox"/> San Francisco Bay Regional Water Quality Control Board for Section 401 or Waste Discharge Requirements</p> <p><input checked="" type="checkbox"/> California Department of Fish and Game for 1601 <input checked="" type="checkbox"/> 1603 _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> Timber Harvest Plan # _____ <input type="checkbox"/> Gravel Extraction # _____ <input type="checkbox"/> Water App # _____ <p><input type="checkbox"/> California State Lands Commission*</p> <p><input type="checkbox"/> California Coastal Commission</p> <p><input checked="" type="checkbox"/> US Army Corps of Engineers for Section 404 or Section 10 Individual or Nationwide Permits</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> US EPA for 404 Individual Permits* <input checked="" type="checkbox"/> US Fish and Wildlife Service for 404 Individual Permits* <input checked="" type="checkbox"/> National Marine Fisheries Service <p><input type="checkbox"/> US Coast Guard for Section 9 Bridge Permit</p> <p><input type="checkbox"/> Federal Funding Agency _____</p>	<p>Applicant is lead agency under California Environmental Quality Act (CEQA)</p> <hr/> <p>Bob Batha</p> <hr/> <p>Loretta K. Barsamian</p> <hr/> <p>Lee Miles</p> <hr/> <p>Carl Wilcox</p> <hr/> <p>Margaret Roper</p> <hr/> <p>Molly Martindale</p> <hr/> <p>Becky Tuden</p> <hr/> <p>Sheila Larson</p> <hr/> <p>Maura Eagan</p> <hr/>	<p>(415) 352-3600</p> <p>(510) 622-2300</p> <p>(510) 622-2429</p> <p>(707) 944-5525</p> <p>(408) 842-8917</p> <p>(415) 972-8462</p> <p>(415) 744-1991</p> <p>(916) 414-6600</p> <p>(707) 575-6092</p>	<p>Permit No. M77-113 was amended on July 21, 2000 and is effective through June 1, 2005.</p> <p>Revision of MOU's 1408-90 and 331-89</p>

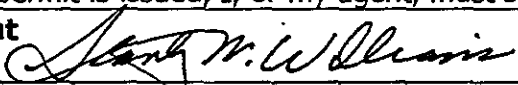
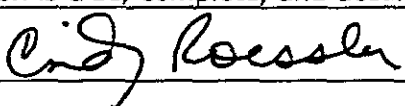
* See Instructions

AGENCY CONTACT INFO INSTRUCTIONS

SECTION ONE – TO BE COMPLETED BY ALL APPLICANTS

Attach additional sheets, if needed

Box 1 Applicant Name Santa Clara Valley Water District			
Mailing Address 5750 Almaden Expressway, San Jose, CA 95118-3686			
Work Phone (408) 265-2600	Home Phone -----	Fax #	E-mail Address
Relationship of applicant to property: <input type="checkbox"/> Owner <input type="checkbox"/> Purchaser <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Other <u>Chief Executive Officer</u>			
Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work <u>only</u> after all necessary permits have been received.			
Signature of applicant Stanley M. Williams, Chief Executive Officer 			Date 2-14-01

Box 2 Authorized Agent Name and Signature (If an agent is acting for the applicant during the permit process) Cindy Roessler, Project Manager, Santa Clara Valley Water District			
Mailing Address 5750 Almaden Expressway, San Jose, CA 95118-3686			
Work Phone (408) 265-2607, ext. 2765	Home Phone -----	Fax # (408) 265-0682	E-mail Address Cindroes@scvwd.dst.ca.us
I hereby designate the above named authorized agent to act as my agent in matters related to this application for permit(s). I understand that I am bound by the actions of my agent and I understand that if a federal or state permit is issued, I, or my agent, must sign the permit.			
Signature of applicant 			Date 2-14-01
I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate.			
Signature of authorized agent 			Date 2-14-01

Box 3 Name of property owner(s), if other than applicant. n/a			
Mailing Address			
Work Phone	Home Phone		
I understand I am bound by actions of authorized agent and/or the applicant.			
Signature of property owner (except public entity landowners)			Date

This page must be signed by the applicant, property owner and agent to be considered complete.

Box 4 Location, including street address, city, county, zip code where proposed activity will occur:

The location of work is the streams, water delivery canals, and any adjacent property in Santa Clara County (County), California that the Santa Clara Valley Water District (District) owns or holds an easement for access and maintenance. The Multi-Year Stream Maintenance Program (Program) area, as shown in Figure 1, consists of 191 streams for approximately 828 miles and 9 canals for approximately 41 miles. The District's jurisdiction on a stream begins at that point where 320 acres of watershed drain to the stream; stream reaches and tributaries above that point are not included in the Program area. The property the District owns adjacent to streams and canals typically consists of an approximately 20-foot wide strip of land on the outside edge of both tops of bank. Creeks with constructed levees and flood bypass channels may include a wider access area outside of the top of bank.

The Program area is divided into two major hydrologic basins: the Santa Clara Basin draining the northern portion of the County to San Francisco Bay, and the Pajaro River Basin draining the southern portion of the County to Monterey Bay. Streams in the northeast portion of the County are not in the jurisdiction of the District, and are not in the Program area.

Although the Program area covers all streams, canals, and adjacent right-of-way within the District's jurisdiction, projections of routine maintenance work are for a smaller area, consisting of approximately 240 miles of 75 streams and 29 miles of 9 canals. The areas in which work is projected are shown in Figure 1.

Not all of these locations are within the jurisdiction of regulatory agencies. Refer to Table 1 for a summary of agency jurisdiction by work type and location. The District requests the agencies review this table and advise us to any changes that are relevant to permitted activities.

Waterbody (if known):

The 58 streams where work is projected in the Santa Clara Basin, the 17 streams where work is projected in the Pajaro River Basin, and the 9 canals where work is projected are shown in Table 2. See Box 7 below for additional information on the projected work area.

Tributary of:

Latitude & longitude if known:
From approximately 36° 55' to 37° 30' latitude and
122° 20' to 121° 15' longitude. See Figure 2

Zoning Designation:

Assessors parcel number:

Section, Township, Range, USGS Quadrangle Map:
See Figure 2 for index

Box 5 Existing site conditions: Describe the existing condition of the site, including wetlands, channels, streams, ponds, seeps and ditches, and other jurisdictional features. Include information on elevations, vegetation, property use, and structures. Use additional pages if necessary. If any portion of the proposed activity has already been initiated or completed on this property, indicate type of activity and month and year of completion, if applicable: n/a Month / n/a Year

Streams in the Program area have been modified by historical land uses for many decades, including encroachment of development upon the stream corridors, and construction of flood control projects. Many of the streams in the urbanized portions of the flat valley floor have been straightened and confined to narrow channels with homes and businesses built up to the edge of the stream bank. Some of the streams modified for flood control purposes have concrete channel bottoms, and may have either concrete or earthen channel banks. Some streams, primarily at the upstream end of the Program area, are in a more natural condition with any flood control modifications made within the floodplain, but the stream channel and banks remaining in an earthen condition with no modifications for flood control. Another category of streams is of a mixed condition where the channel bottom is earthen, but the banks have been modified for flood and erosion control purposes, and consist of a variety of conditions including excavated earth, earth levees, rock, gabions, sack concrete or concrete flood walls. Stream channel types are estimated in Table 3.

Routine stream maintenance activities will affect saltmarsh, brackish marsh, freshwater marsh, seasonal wetlands, riparian forest, ruderal/nonnative grassland, and open water habitat types. These habitat types, as they occur within the projected work area, are briefly described below. Additional description will be provided in the Draft Environmental Impact Report (DEIR) to be submitted to agencies in March 2001.

Salt marsh occurs in the intertidal zone of creeks near San Francisco Bay. Typically, salt marsh in the work area consists of stands of pickleweed (*Salicornia virginica*), associated with other halophytes such as spearscale (*Atriplex triangularis*), alkali heath (*Frankenia grandifolia*), salt grass (*Distichlis spicata*), and brass buttons (*Cotula coronopifolia*). Occasionally, the work area contains California cordgrass (*Spartina foliosa*).

Brackish marshes occur where freshwater inflow reduces the salinity of tidal water. In the County, tidal influence generally does not extend upstream of Highway 101 or Highway 237. Alkali bulrush (*Scirpus robustus*) and California bulrush (*Scirpus californicus*) dominate the more saline brackish marshes, often occupying a narrow strip adjacent to the low flow channel. California bulrush and cattails (*Typha* spp.) dominate lower salinity marshes. Perennial pepperweed (*Lepidium latifolium*), an invasive, nonnative plant, is commonly found in brackish marshes of the projected work area in the upper zone of the marsh and along levee slopes.

Upstream of the influence of tides, freshwater marshes are common on perennial streams, or in more localized areas where culverts or other drainage features create inundation of the channel or saturation of its sediments. Typical species include cattails and bulrushes (*Scirpus* spp.). Seasonal wetlands occur in areas that are inundated in the rainy season but are dry for some part of the growing season. As a result of these fluctuating conditions, annuals and perennials, some which are wetland species and some which are weedy nonnatives, variously dominate seasonal wetlands.

During surveys of the projected work area, 3 categories of freshwater and seasonal marshes were recognized, primarily defined by the dominant vegetation type: cattail-bulrush dominated wetlands consisting of tall, erect, monotypic stands with other species relegated to the edges; creeping, emergent, native dominated wetlands with primrose (*Ludwigia* sp.) and water cress (*Rorippa* sp.), usually in areas with summer water; and nonnative dominated wetlands with Italian ryegrass (*Lolium multiflorum*), dallis grass (*Paspalum dilatatum*), cocklebur (*Xanthium* sp.) and water smartweed (*Polygonum amphibium*), in slightly drier areas especially in the summer, or sometimes on sediment bars.

Riparian forests along Program area streams tend to be long and narrow strips along the edges of the channel and on the stream banks. Typical riparian tree species along these streams are: Fremont cottonwood (*Populus fremontii*), arroyo, red, and narrow-leaved willows (*Salix laevigata*, *S. lasiolepis*, *S. exigua*), box elder (*Acer negundo californicum*), western sycamore (*Platanus racemosa*), and blue elderberry (*Sambucus caerulea*). Further upstream or further up the bank, coast live oak and valley oak (*Quercus agrifolia* and *Q. lobata*), big-leaf maple (*Acer macrophyllum*) and California bay (*Umbellularia californica*) occur. It is common in the project area for riparian forests to intergrade with ornamental landscaping from adjacent land uses. Because the Program areas have been routinely maintained for flood control purposes for decades, the actual projected work areas do not contain any mature riparian trees, although sapling riparian trees are often present, and mature riparian trees may be present immediately adjacent to the maintenance work areas.

Channel banks, levee slopes, and upland areas adjacent to streams and canals are often vegetated with ruderal/nonnative grasslands. Common annual grasses are wild oats (*Avena fatua*), riggut brome (*Bromus diandrus*), Italian ryegrass, and smilo grass (*Piptatherum miliaceum*) with annual ruderal species such as black mustard (*Brassica nigra*), wild radish (*Raphanus sativus*), yellow star thistle (*Centaurea solstitialis*) and sweet fennel (*Foeniculum vulgare*). Site conditions and repeated maintenance activities tend to keep these areas in a ruderal/annual grassland condition. For example, flood control levees are highly compacted in order to provide structural stability, and they are maintained with low vegetative cover to allow inspection of their surfaces for cracks or other structural problems. Adjacent upland areas need to be maintained with low vegetation cover to allow access of maintenance equipment and inspection vehicles, and to control the potential for fires.

Canals can support freshwater marshes, seasonal wetlands, or open water.

Box 6 Proposed starting date: July 2001 Estimated duration of activity: 10-years

Will the project be constructed in stages? Yes No Maintenance work is repeated in years

Box 7 Description of the proposed project: Use as many pages as necessary to describe the project as completely as possible. Describe the area within the project site that will be used each for development features and open space. Include construction plans pertaining to the project. For additional guidance on what to include, refer to the instructions.

The three major types of routine stream maintenance activities are sediment removal, vegetation management, and bank protection. Minor maintenance activities include trash removal at trash racks and more generalized locations; repair and installation of fences and gates; grading and other repairs to restore the original contour of access roads and levees; grading small areas without vegetation above stream banks to improve drainage and reduce erosion; repair of structures with in-kind materials within the same footprint (such as replacement of concrete lings, culverts, pipes, valves or similar structures); cleaning and minor sediment removal at stream gages, outfalls, culverts, flap gates, tide gates, inlets, grade control structures, fish ladders, fishnets and screens; graffiti removal; tree pruning along maintenance roads and fence lines to provide access and to remove hazards; irrigation, weeding, replanting and other types of ongoing maintenance at mitigation sites; removal of obstructions to flow in the immediate vicinity (not to exceed 100 feet) of bridges, streamflow measuring stations, box culverts, storm drain outfalls and drop structures to maintain functions of such structures; removal of trees or branches that are in imminent danger of falling, fallen trees, and associated debris to maintain channel design capacity; and ground squirrel and rodent control with traps, smoke bombs, and pesticides.

Not all of these activities are within the jurisdiction of regulatory agencies. Refer to Table 1 for a summary of agency jurisdiction by work type and location.

Table 4 provides information on the amount of work projected for different lengths of time by work type and by basin.

The District implements Best Management Practices (BMPs) to ensure that routine stream maintenance work has the least impact possible. The District's equipment and work methods are updated as new equipment or better methods become available. Sediment removal projects and vegetation management are also revised as new designs are implemented through Capital Improvement Projects. Table 5 lists the BMPs currently implemented for routine stream maintenance activities.

SEDIMENT REMOVAL

Sediment removal is the act of mechanically removing sediment deposited within a stream or canal. Typically, sediment is removed when it: (1) reduces capacity; (2) prevents facilities or appurtenant structures from functioning as intended; or (3) impedes fish passage and access to fish ladders. Sediment is usually removed from channels modified for flood control. Sediment is removed from some natural creeks to provide proper functioning of outfalls, culverts, bridge crossings and stream gauging stations. Occasionally, sediment is removed from canals to maintain their function as water conveyance facilities.

The method of sediment removal is dependent on channel configuration and geometry, equipment reach and rate of production, channel type (tidal or non-tidal, concrete or earth bottom), moisture content of the silt, ramp location and access road width. Sediment is removed by a dragline or an excavator positioned on the top of the creek bank on wide access roads for tidal reaches with a channel bottom of wet bay muds that will not support equipment require silt removal. Concrete-lined channels may be cleaned by pushing sediment into a pile with a bulldozer and using a loader to place the material in trucks for removal to an approved disposal site. The trucks are located at strategic points either in the channel bottom or at the top-of-bank depending on the method of routing the trucks. Another example is cleaning or creating a low flow channel with excavation

Description of Proposed Project:

equipment working in the channel bottom, loading trucks either in the channel bottom or moving the sediment to trucks at the top-of-bank.

Although work is usually conducted during the summer dry season (July 1 to October 15), streamflow, when present in the proposed work area, is usually bypassed around the work area to protect water quality.

Saturated sediments may be temporarily placed adjacent to the work site to dry out before being removed to a landfill or to other suitable disposal or reuse sites. Figures A-1, A-2, A-3, and A-4 are typical plan views and cross-sectional views of sediment removal work in tidal and freshwater areas.

Typical equipment used for sediment removal includes excavators, draglines, loaders, and 10- or 20-cubic-yard dump trucks. Water pumps and piping, and cofferdams of earth, gravel, sandbags, hay bales, rubber or other appropriate material may be used for bypassing water around the work area. In some cases, a bypass channel or detention basin is appropriate to isolate a site.

The District estimates that it removes an average of 80,000 cubic yards of sediment on about 16 miles of channel per year in the County (14 miles and 73,000 cubic yards in the Santa Clara Basin; 2 miles and 7,000 cubic yards in the Pajaro River Basin). This average includes both concrete-lined and earth-lined channels. This is an average annual quantity and will vary from year-to-year depending, in part, on rainfall conditions of the past season. Sediment is removed from streams on an estimated frequency of two to ten years, depending on the channel design and site conditions. Sediment is removed from canals on an infrequent basis, usually consisting of less than 1,000 cubic yards per year.

When removing sediment in the past, the District has conducted sediment testing and monitored for water quality. The District's sediment testing program allows the District to (1) effectively plan for disposal of the sediments, (2) assist with determining the BMPs for implementation, and (3) efficiently monitor the water quality impacts from the sediment removal operation. It is anticipated that the large amount of data generated under the sediment testing program in previous years (1997 to 1999) will provide valuable information regarding the general nature of sediments in Santa Clara County and will reduce the quantity of sampling and analysis which is required for future sediment removal projects. Exhibits A and B contain an example Sediment Characterization Plan and an example Self-Monitoring Program Water Quality Sampling Plan.

VEGETATION MANAGEMENT

Vegetation management occurs in creeks, canals, and adjacent uplands (Figures B-1, B-2, B-3, and B-4). It consists of controlling vegetation for the purpose of maintaining flood control capacity of and access to streams, and maintaining water conveyance capacity of and access to canals. Vegetation management is also conducted to maintain revegetation sites, control invasive plants, and for public safety purposes.

Dense vegetation can adversely affect the ability of a stream, modified as a flood control channel, to contain the volume and velocity of floodwaters for which it was designed. Therefore, most flood control facilities require some type of periodic vegetation removal. Depending on the original design and the characteristics of the channel, the frequency of vegetation management varies from annually to every few years, and may occur across the entire channel bottom, or just a portion of it. Channel vegetation management often occurs in the same location as channel sediment removal, but in intervening years.

The District plants and maintains revegetation or mitigation projects, often along creeks. Because it is important to control weeds at revegetation sites in the first few years as the planted native trees and shrubs are establishing, the District includes revegetation sites in its Vegetation Management Program. Currently, the District also removes invasive, nonnative plants from streams and canals and their adjacent upland areas on an occasional basis where they may cause a flooding problem and from revegetation sites.

The District manages vegetation for other purposes including the protection of levees, and concrete linings from plant roots; meeting local fire codes requiring the control of combustible weeds and grasses; providing

Description of Proposed Project:

visual clearance to inspect the condition of a facility; and providing access along maintenance roads.

The three basic methods of vegetation management utilized by the District are: hand removal (chain saws, weed-eaters, etc.), mechanical (mowing and discing), and chemical control through the use of herbicides. A method or combination of methods is chosen for each site depending on the maintenance requirements of the facility. Efficiency, economics, and the protection of public health and environmental resources are all considered in the selection of methods.

Herbicides often are more effective at controlling vegetation than mechanical or hand removal methods. This is because of the ability of the herbicide chemicals to spread into and damage the roots of the target plants, thus preventing resprouting. When treated with mechanical or hand methods, some woody plants, such as willows, will resprout with multiple stems. The multiple sprouts result in a greater flood control problem and require annual control. With herbicides, annual retreatment is often necessary; however, the treatment area is greatly reduced, as only a small percentage of regrowth will occur. As a result, this Program includes herbicides as the primary method by which vegetation is controlled in channels and on stream banks. Herbicides are currently not used for vegetation management in the Pajaro River Basin, but in the Program are proposed for use in both basins.

Herbicides are not broadcast sprayed across the channel, but are selectively sprayed at the plants targeted for removal by the design parameters of each particular stream reach. The phrase "treated area" is used to refer to the smaller area within the larger work area in which herbicides are actually sprayed. In some streams, only woody saplings are removed in the target area, while other streams require removal of both herbaceous and woody vegetation. The woody saplings which are treated with herbicides are no greater than 2" in diameter at breast height.

The District only uses herbicides according to the label directions and for uses approved by the U.S. Environmental Protection Agency (USEPA) and the California Department of Pesticide Regulation. Currently, the primary herbicides which the District uses in channels and on the inside of levee slopes are Roundup® Pro and Rodeo®. These herbicides are formulations of the chemical glyphosate, which is a non-selective broad spectrum herbicide. Rodeo® is approved for use in aquatic areas, whereas Roundup® Pro is not approved for application directly in water or to areas where surface water is present.

Other herbicides which are used by the District for routine maintenance in channel and upland areas are shown in the Table 6.

Hand removal of vegetation is undertaken in a few locations where it is not possible to access the area with spray equipment, or where cutting woody saplings (no greater than 6" in diameter at breast height) is more effective than herbicide spraying. In some cases, the vegetation is sprayed with herbicides, and then approximately 6 months later, the dead material is removed by hand removal methods. This latter category of work is referred to as follow-up hand removal. Follow-up hand removal of vegetation is only necessary when herbicide spraying is new to an area and there is a large volume of vegetation created in the first year or two. In subsequent years, the amount of vegetative regrowth is reduced and follow-up hand removal is necessary much less frequently.

The five types of vegetation management in upland areas are: discing, mowing, herbicide application, hand removal, and removal of overhanging growth.

Upland discing occurs on upland parcels outside of the streambanks and is conducted to create firebreaks. Upland mowing consists of operating a flail mower to eliminate or reduce grasses that would cause a fire hazard during the summer. Mowing can occur from one to three times annually at each location, usually between May and October. Mowing is conducted on the inside slope of some levees or streambanks.

Upland herbicide spraying is used on levees, unpaved maintenance roads, and along some property lines. On levees, herbicides are used primarily to keep woody vegetation and broadleaf weeds from becoming established where they will interfere with flood control capacity, damage the levees, or hinder their inspection.

Description of Proposed Project:

Weeds and grasses are sprayed on maintenance roads to clearly define and keep open the access route. Herbicide spraying along property lines assists in establishing a firebreak. Pre- and post-emergent herbicides are sprayed from a truck-mounted rig or by a controlled drop applicator.

Hand removal of vegetation is conducted in upland areas where mowers cannot access, and herbicides are either not practical due to steep terrain or not allowed. Hand removal of vegetation is generally used in upland areas along property lines to establish fire breaks. Removal of overhanging growth consists of pruning tree branches that impede access roads or hang over fence lines.

The frequency of vegetation management activities varies from semi-annually to once every several years, depending on the method used. Generally, channel herbicide and channel hand removal of vegetation are conducted once every year near the end of the growing season.

On average, vegetation management work is annually performed on roughly 4,000 acres. Within this larger work area, the targeted treatment area consists of approximately 2,000 acres. These totals include the following approximate levels of activity:

- 923 acres on which vegetation management work is conducted in 222 miles of stream channels with 132 acres of the total actually receiving treatment (585 work acres or 75 acres of treated area on 166 miles in the Santa Clara Basin, and 338 acres or 57 acres of treated area and 56 miles in the Pajaro River Basin)
- 23 acres on which vegetation management work is conducted on 27 miles of canals with 6 acres of the total actually receiving treatment
- 3021 acres of uplands on which vegetation management work is performed, with 1885 acres actually receiving treatment. Upland vegetation management is outside of the area of inundation, and generally has a buffer of grass or vegetation on the slopes between the right-of-way and the stream

BANK PROTECTION

Bank protection involves an action by the District to repair stream banks that are eroding or are in need of preventative erosion protection. The District implements bank protection when the problem (1) causes or could cause significant damage to a property or adjacent property, (2) is a public safety concern, (3) negatively affects transportation or recreational use, (4) negatively affects water quality, or (5) negatively affects riparian habitat. Repairs may take several forms from installing "hard" structures (e.g., rock, concrete, sack concrete, gabions) to "soft" structures (e.g., willow brush mattresses, log crib walls, pole plantings).

Stream bank erosion is a natural process, which mostly happens during major storm events. Erosion can occur because of hydraulic forces and geotechnical instabilities, and can be accelerated by human intervention and land uses. Accelerated erosion is typically a result of particular land uses that affect the stream corridor, including grazing, agriculture, and road and utility construction. In a constrained urban setting, erosion of banks can result in increased sediment deposition, which can lead to decreased flood flow capacities and potential flood hazards. Erosion on banks may also cause vegetation and soil loss, damage to private or public property, transportation impacts, safety hazards, and turbidity injurious to fish and aquatic life. Levee erosion may lead to failure of the structure and flooding.

Bank protection work may either occur as repair of an existing bank protection project which is failing, or as new work along a bank which is eroding. The new work is considered routine maintenance because it is either restoring the flood control function of a modified channel or it is repairing a natural bank to its approximate condition prior to becoming an erosion problem.

Repair of existing bank protection structures occurs when these structures fail and are replaced with in-kind, in-place materials. New bank protection projects are those that repair or protect the watercourse from further degradation or erosion using the softest method appropriate. This type of protection is considered maintenance if the maintenance does not significantly alter the flood conveyance capacity of the streams.

Description of Proposed Project:

Equipment used for bank protection may include excavators, dozers, cranes, loaders and 10- and 20-cubic-yard dump trucks, concrete trucks, and pumps and water trucks. If water must be bypassed around the site during repair work, water pumps and piping, and cofferdams of earth, gravel, sandbag, hay bales or rubber or other suitable material may be used. In some cases, a bypass channel or detention basin is appropriate to isolate a site. Most often, bank protection projects are implemented in the dry season.

Design of a particular bank protection project is based on the characteristics of the site, including bank slope, shear stress, location (such as the inside or outside of a curve), soil type, flow velocity, characteristics of the channel adjacent to the site and the available right-of-way. The site is evaluated for the "softest" repair method consistent with the characteristics of the site. Revegetation potential is also evaluated for each bank protection project. This potential is not only dependent upon the method of bank protection used, but also the physical properties of the stream where the repair is taking place.

In natural stream conditions, where there are no flow capacity requirements, vegetation components for stream bank repair are selected. In modified creek channels where the flow requirements must be retained (such as for the 100-year flood), this will often necessitate a roughness maximum which, depending on the channel design, may limit the vegetation component of the design.

A range of methods is used for bank protection, as can be exemplified by several District bank protection projects. Many of the following examples demonstrate how soft methods can be combined with harder methods when site conditions cannot maintain a purely natural solution.

For all bank protection projects, the District makes an inspection of the stream upstream and downstream of a project site to determine if there is an identifiable cause of the erosion. In some cases, the cause of erosion is obvious, such as a blockage (e.g., downed tree), or weak stream banks of silt or gravel stratas. In other cases, a further inspection is conducted to determine if flows are being directed toward the bank from a source upstream, whether the channel invert is down cutting, or if illegal drainage is causing the problem. These factors can affect the bank protection approach implemented by the District.

The District estimates that an average of 5,000 linear feet of banks may be repaired annually based on historical records, District experience, and current levels of funding. This is an average annual quantity and will vary from year-to-year. Facilities are inspected after the winter storms for damage and maintenance needs. Bank protection work is then prioritized - work conducted in any given year consists of the highest priority work balanced with annual budget constraints.

Unlike sediment removal and vegetation management, the historical location of bank protection activities is not a good predictor of where future bank protection will be required. The quantity and location of bank protection activities varies greatly from year-to-year, based upon watershed conditions, degree of safety hazard, work load, budget, and quantity of other priority work to be done in a given year.

Attach figures, maps, and directions to the project site. See instructions for completing the drawings. One set of original or good quality reproducible drawings must be attached to each agency. Applicants are encouraged to submit photographs of the project site, but these do not substitute for drawings. BCDC, the Corps Of Engineers and Coast Guard require at least one set of drawings on 8-1/2 x 11 inch sheets. Larger drawings may also be required. Fish and Game requires a USGS map. For a complete list of required drawings, refer to the instructions.

Reason (s) for the proposed work:

The District routinely removes sediment from streams and associated facilities to restore their capacity to carry floodwaters, and from canals to restore their water delivery function. Vegetation is routinely removed from in and around streams and canals for the same reasons, and to provide access and fire prevention. The District conducts bank protection activities to restore eroded flood control facilities and to protect property.

The District is proposing that these activities be managed together as the Program in order to meet the District's flood protection and water supply mandates in a feasible, cost-effective, and environmentally sensitive manner. Other advantages of the Program and associated multi-year permits and DEIR are that they allow a more thorough analysis of cumulative impacts, a comprehensive and coordinated mitigation package, and the standardization of design, maintenance techniques, and BMPs.

Box 8 Placement of Structures And/Or Fill Material

- ◆ Will fill be placed below the ordinary high water line for fresh waters? Yes No
- ◆ Will rock, fill, bulkhead, pilings, structures or other material be placed waterward of the mean high water line for tidal waters? Yes No
- ◆ Will fill be placed below the high tideline in tidal waters? Yes No

If applicable, number of linear feet of impact - Average annual of 5,000 feet from bank protection

Amount of **total** fill - 20,000 average annual cubic yards

Amount of fill **below the ordinary high water mark or high tide line** 15,000 annual average cubic yards

Type of fill - Earth, rock, logs, and other miscellaneous concrete forms or plant materials, depending on design

Material source - Earthen material may be regraded from the channel bank or imported. The source of all other materials is imported from off-site locations

The only type of routine maintenance which will result in fill will be the bank protection activities. An estimated average of 5000 linear feet of banks will be repaired annually, although this amount can vary substantially from year to year, primarily as a result of winter storm conditions. Repair sites are small and their future location and the type of design at each future location is not predictable. Fill amounts and materials can vary according to design and site conditions. See description of bank protection activities in Box 7 above, and refer to Figures C-1 through C-14.

Box 9 Impacts on Wetlands

Will the proposed project have temporary or permanent impacts to wetlands, including seasonal wetlands, managed wetlands or on tide or submerged lands (i.e. fill, flooding, draining)? Yes No If yes, please describe the wetlands, using additional pages as necessary. Provide one or more photographs of the existing conditions.

IMPACT AMOUNTS

The Program will have temporary but repetitive impacts to 109 acres of freshwater wetlands, 30 acres of tidal wetlands, and 77 acres of riparian vegetation from sediment removal and vegetation management in stream channels. Concrete-lined channels are included in these projections as well as earthen channels. An additional 7 acres of freshwater wetlands will be impacted in water delivery canals. Refer to Table 4 for a breakdown of wetland impacts by work activity type. Figure 3 shows the location of projected impacts to stream vegetation.

These are residual impacts after BMPs and other measures have been taken to avoid impacts. Although these impacts may be considered insignificant when reviewed on an individual project basis, when evaluated on a program basis, there is the potential for significant, cumulative impacts. No direct effects to stream vegetation are assessed for bank protection activities. For most bank protection sites, the erosion problem has already removed any stream vegetation.

Not all work activities or locations, and therefore, not all impacts to stream vegetation are within each agency's jurisdiction. Refer to Table 1 for a summary of agency jurisdiction by work type and location. For example, the U.S. Army Corps of Engineers (Corps) regulates sediment removal in tidal areas and navigable waters, therefore impacts to tidal wetlands are within their jurisdiction. The Corps does not regulate sediment removal in freshwater areas; therefore the impacts to freshwater wetlands and riparian vegetation are not within their jurisdiction. *Of the total impacts to stream vegetation, sediment removal will have temporary repetitive*

impacts to 29 acres of tidal wetlands as shown in Figure 4. Channel Vegetation Management will impact an additional acre of tidal wetlands.

TYPES OF IMPACT

As sediment is removed, so is any vegetation that is growing on it. The type of vegetation removed can vary from entirely herbaceous wetland species, to a mix of wetland and upland species, or almost entirely upland species depending on the location of the stream channel (e.g., tidal versus freshwater), spatial relationship of the low-flow channel to sediment benches, presence or absence of year-round water, and the duration between and overlap of different types of maintenance activities. The amount of vegetation present can also vary based on these conditions. At some locations in some years, sediment levels are high enough or the ephemeral condition of a stream may result in no stream vegetation being present on the channel bottom at the time of sediment removal.

Channel Vegetation Management involves the application of herbicide to targeted vegetation or the hand removal of such vegetation. Target vegetation primarily consists of either tall emergent herbaceous wetland vegetation, such as cattails and bulrush, or woody vegetation consisting of native riparian species such as willows and box elder and nonnative species such as eucalyptus. The woody riparian vegetation removed is comprised of seedlings and saplings no greater than 6" in diameter at breast height. Neither sediment removal or vegetation management results in the removal of large stature, mature riparian vegetation.

The projected impacts to stream vegetation are based on field surveys, calculations, and a special method for evaluating impacts from temporary but repetitive activities which was developed for this Program. These factors are described below. Field surveys were conducted in 1997 and 2000 to determine wetland extent in projected sediment removal areas (District 1999a; District 1999b; District 1999c). Freshwater wetland impacts were estimated through a randomly selected 10% sample of environmentally homogeneous reaches of proposed work areas. The extent of wetlands in each sample area was directly measured or estimated in the field. Results from the sample were extrapolated to provide an estimate of total sediment removal impacts to freshwater wetlands. Most freshwater wetland surveys were conducted in 1997; however, a few additional areas were surveyed in 2000. This same method was used to estimate freshwater wetlands in canals in 2000.

Impacts to tidal wetlands were estimated in projected sediment removal work areas in 1997 using a different method. All proposed sediment removal work areas were surveyed in tidal areas rather than a representative sub-sample, as the total work areas in tidal reaches are much smaller than freshwater reaches. In each projected work location, the extent of wetland vegetation was measured directly or estimated in the field.

Areas of impact to stream vegetation from the Vegetation Management Program were not measured in the field, but were based primarily on records of the existing Vegetation Management Program which identify areas and type of target vegetation by stream reach (District 1999c). Because herbicide spraying in the stream channel specifically targets either wetland or riparian vegetation (rather than broadcast spraying the entire channel bottom), the projected treated area is a good estimate of future wetland and riparian impacts. Therefore, no field surveys were necessary to estimate the amount of wetland and riparian vegetation potentially impacted by the Vegetation Management Program.

Projected vegetation management areas were refined to include the Pajaro River Basin areas where herbicides are not currently used, but are proposed for herbicide treatment as part of the Program. For those areas, future herbicide use was projected based upon the area of existing hand removal and mowing operations and known target vegetation.

ONE-TIME ACCOUNTING METHOD

A one-time accounting method of impacts was developed for the Program because impacts to stream vegetation from routine maintenance are temporary but repetitive. The approach of this impact analysis is to count future impacts to any one section of creek one time only. Repetitive or overlapping stream maintenance activities in the same section of creek are not progressively added to the total impact acres.

Impact on Wetlands:

The one-time accounting assessment method is relevant to assessing the impacts of the Program because permanent mitigation is provided, current conditions are probably an overestimate of the typical amount of stream vegetation, work is spread out over many years, and stream vegetation regrows between maintenance events. Basically, this approach determines that a one-time assessment of impacts from routine maintenance activities adequately represents significant impacts of all future maintenance work in that same area, and a mitigation program is designed accordingly. For the Program, permanent mitigation (see Box 13) is proposed for temporary, repetitive impacts. Current conditions in the stream channels are not typical and may represent a greater amount of stream vegetation since routine level of maintenance has not been undertaken over the past five or more years during development of the Program. Furthermore, routine maintenance work takes place in only a portion of the total Program work area in any given year, allowing vegetation re-establishment in other areas.

District studies have found that wetland vegetation often quickly re-establishes following sediment removal. Rankin and Hillman (District 2000) found 98% average regrowth within two years after sediment removal at eight freshwater study sites, and 29% regrowth at five tidal study sites. Vegetation dominance and quality (as represented by vegetation type, total percent cover of vegetation, and relative percent cover of native and invasive species) were similar between reference sites on which routine maintenance activities had not recently been conducted and the regrowth study sites. At most sites, one of these neutral or positive vegetation shifts occurred: full or partial transition from one native-dominated vegetation type to another, disappearance of a nonnative vegetation type, or increased total percent cover. The study found that potentially negative changes occurred less frequently: increased invasive species cover, appearance or increase in amount of a nonnative vegetation type, and decrease in total percent cover. The regrowth study primarily measured the results of sediment removal only, and did not assess the combined affect of sediment removal and subsequent vegetation management.

In many creek sections, both sediment removal and aquatic herbicide application are undertaken, but in different years within the facility's particular maintenance cycle. For example, sediment removal may be conducted in year one. The following year, herbaceous wetland vegetation may begin to establish where the sediment was removed. In year three, vegetation may be sufficiently established to pose a potential flood hazard, so herbicide is applied to kill the targeted vegetation. Herbicide applications may continue in subsequent years. In the meantime, sediment accumulates until it eventually reaches a point where flood capacity is significantly reduced and sediment removal is again required.

In those sections of creek where both sediment removal and vegetation management activities are undertaken, sediment removal was designated as the primary effect and therefore used to project the future impacts. This is because sediment removal tends to affect all or most of the channel bottom whereas herbicide treatment is more selective and affects a smaller area of the channel bottom. Likewise, only the first time that either sediment removal or a herbicide treatment is conducted on a section of creek is counted as an impact, and repeat treatments at that same location in subsequent years are not counted as additional impacts. The impact projections from vegetation management provided in Table 4 represent sections of creek where only channel vegetation management work is undertaken. Vegetation management impacts to stream vegetation appear relatively small compared to sediment removal because sediment removal numbers include the areas of overlap.

Unlike sediment removal and vegetation management, locations for future bank protection work cannot be predicted. Routine bank protection can be done anywhere it is needed within District jurisdiction. Routine bank protection activities may alter the biological resource values the stream environment by changing the conditions in the stream itself or by changing the vegetation surrounding the stream. Impacts from bank protection to biological species and stream functions vary depending on locations of each work site; values and function of riparian vegetation before and after project construction; quality of stream environment (i.e., fisheries) before and after project construction; and types of bank protection techniques used. Exhibit C describes the programmatic impact assessment and mitigation for routine bank protection activities.

IMPACTS AND MITIGATION COMMITMENTS FROM PRIOR YEARS

During preparation of the Program, the District has assessed impacts to stream vegetation on an annual basis since 1996, and committed to several mitigation projects. These commitments are identified in Table 10. The District and regulatory agencies have agreed that the mitigation commitments made under these recent annual projects can be incorporated into the mitigation package for the Program.

- ◆ If a wetlands delineation has been completed, please submit it with application - attached Yes No
- ◆ If a geology or soils report has been prepared, please submit with application - attached Yes No

Box 10 Waterway Impacts

Will the project or activity involve work in the bed, bank or channel of a river, stream (including seasonal streams), or lake? Yes No If yes, describe existing and proposed conditions. Number of linear feet along the waterway that are involved - 214 miles. See descriptions under Boxes 5, 7, 9, 11, 12, 13, and Table 4

Box 11 Potential for Impacts to Threatened and Endangered Species

List any state and/or federally listed species and/or associated habitat that occurs or may occur on the project site. If a federal or state listed species is being impacted, please provide a description and a biological assessment - attached Yes No Have surveys, using US Fish and Wildlife Service protocols, for possible listed species been conducted? Yes, attached No

The District has evaluated the potential for the Program to affect 64 special-status species. BMPs would reduce impacts to the large majority of special-status species to less-than-significant levels. Significant residual impacts could occur to California Red-legged Frog (*Rana aurora draytonii*), Western Pond Turtle (*Clemmys marmorata*), California Black Rail (*Rallus jamaicensis coturniculus*), and California Clapper Rail (*Rallus longirostris obsoletus*). More detailed analysis regarding all the special-status species reviewed and potential impacts will be provided in the DEIR and during upcoming consultations with the U.S. Fish and Wildlife Service (USF&WS) and the National Marine Fisheries Service (NFMS). Appropriate mitigation for impacts to these species may consist of restoring tidal marsh and purchasing stream and watershed lands that enhance and protect habitat occupied by these species. These measures would be coordinated with the proposed mitigation package for impacts to stream vegetation as described in Box 13 below. Additional surveys for these species in streams within the District's jurisdiction could provide information to assist the District in avoiding impacts to special-status species.

Box 12 Excavation And/Or Dredging

For Projects OUTSIDE of the San Francisco Bay, San Pablo and Suisun Bay. [Dredging Projects in San Francisco Bay, San Pablo Bay, and Suisun Bay, should be completed through the Dredged Material Management Office (DMMO)].

Will excavation or dredging be required in water or wetlands? Yes No If dredging or excavation:

- ◆ Volume: 80,000 average annual (cubic yards)/area: 63 average annual (acres)/16 average annual miles
- ◆ Composition of material to be removed: sediment
- ◆ Disposal location for excavated material: various landfills, upland areas, or approved lowland sites
- ◆ Method of dredging: see description for sediment removal under Box 7
- ◆ Purpose of the dredging: restore capacity to provide flood protection
- ◆ Estimated future maintenance dredging required annually: 80,000 cubic yards
- ◆ Additional information to be provided in an attachment: none

Box 13 Mitigation

Identify proposed actions to avoid, minimize, and mitigate detrimental impacts, and provide proper protection of aquatic life. Describe the size, type, location and functions of the mitigation and a time line for implementation. Define buffer areas as appropriate. Include the monitoring component, if applicable.

If an Alternatives Analysis has been prepared, please attach it- attached Yes No

Additional analysis regarding alternatives will be provided in CEQA document in March 2001.

MITIGATION

The District proposes a mitigation package for the Program to compensate for the significant residual impacts that cannot be avoided. For impacts to stream vegetation per Box 9, the mitigation package provides the following components: (1) tidal wetland restoration; (2) freshwater wetland creation; (3) stream and watershed protection; and (4) control of giant reed. The 4 components of the stream vegetation mitigation package are summarized in Table 7, and proposed sites are shown in Figure 5.

The mitigation package for stream vegetation compensates for the same or similar functions as those impacted, provides mitigation within the watershed basin in which stream impacts occur, and is based on 11 guiding principles (Table 8). This mitigation package and the guiding principles were developed with input from external stakeholders and as a result of meetings with regulatory agencies. Between May 1999 and August 2000, the District met four times with over 20 external stakeholders from regulatory agencies, municipalities, and environmental and business groups to develop the Program, a method for evaluating impacts to stream vegetation, and a mitigation package. Between June and September 2000, the District additionally met 4 times with agency representatives from the California Department of Fish and Game, San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB), Corps, U.S. Fish and Wildlife Service, and U.S. Environmental Protection Agency to discuss the Program and potential mitigation. Table 9 lists preliminary agreements made between the District and the participating agencies, with many of the agreements assisting in the development of a mitigation package for stream vegetation.

Additional information about each component in the stream vegetation mitigation package is presented below. Final designs for each mitigation component will be developed and submitted to the regulatory agencies for their review and approval. Detailed design is underway for several of these components, and some have received preliminary review by the regulatory agencies. Maintenance work is spread out over many years, and likewise, mitigation design and implementation will be spread out over a period of approximately 10 years.

This section ends with a proposal for annual reporting and a discussion of alternatives.

TIDAL WETLAND RESTORATION

The tidal wetland restoration component is proposed to compensate for impacts to 30 acres of tidal wetlands in the Santa Clara Basin (29 acres of impacts from sediment removal and 1 acre of impact from Channel Vegetation Management).

The District plans to create self-sustaining tidal wetlands by restoring a diked salt evaporation pond, Cargill Pond A-4, to historical tidal marsh conditions. The restored tidal marsh is expected to support wetland habitat similar to or of higher quality than the habitat impacted by repetitive maintenance activities.

The pond is located in the Cities of San Jose and Sunnyvale along South San Francisco Bay in the Santa Clara Basin. It is bordered by Sunnyvale West Channel to the west, Guadalupe Slough to the northeast, and Sunnyvale East Channel along the southeastern corner. The pond is under ownership of the District, and is currently leased to Cargill Salt Division to continue their salt production operations until 2002.

The salt evaporation pond was originally created in the early 1900's when earthen levees were constructed to isolate the site from tidal and freshwater exchange. The pond has been used for salt production since that time and for duck hunting.

Mitigation:

Currently, Pond A-4 is a low salinity pond (0 to 60 parts per thousand) with shallow and stable water levels. The perimeter of the pond is bordered by narrow bands of mudflat and pickleweed. The levees surrounding the pond support broad, relatively large areas of upland ruderal vegetation. The sloughs adjacent to the pond levees are densely vegetated with California and alkali bulrush.

Weekly surveys by District biologists between March 1999 and February 2000 recorded 82 species of birds utilizing the open water and levees of Pond A-4 for roosting, foraging and nesting. The majority of observed birds were waterfowl (70%) with the highest use recorded in November and early March. Shorebirds accounted for less than 8% of the birds observed. Resident bird species included Black-necked Stilts (*Himantopus mexicanus*), American Avocets (*Recurvirostra americana*), Northern Shovelers (*Anas clypeata*), Ruddy Ducks (*Oxyura jamaicensis*), California Gulls (*Larus californicus*), and Caspian Terns (*Sterna caspia*). Two species of mammals were observed, California Ground Squirrel (*Spermophilus beecheyi*) and Black-tailed Jackrabbit (*Lepus californicus*).

The pond was sampled in August 2001 to determine what fish species were present. Two species were recovered during the 3-day sample period: Fish likely to occur in the pond included Yellowfin Goby (*Acanthogobius flarimanus*) and Longjaw Mudsucker (*Gillichthys mirabilis*). Associated invertebrates likely to occur in the pond include Brine Shrimp (*Artemia franciscana*) and various copepods, annelids and others.

The restoration concept consists of lowering the outboard levees or breaching them in several strategic locations to provide full tidal action to the site. It is anticipated that a mosaic of mud flat, tidal wetland and upland habitats will be created. A combination of natural sedimentation processes and placement of dredge fill is proposed to accelerate restoration of wetland function to the site and create beneficial re-use of clean sediment excavated from tidal streams. Modification of Sunnyvale East Channel may be included in the design to improve its hydraulic performance and eliminate the need for future sediment removal and vegetation management for flood control purposes.

Planning and design of the Pond A-4 tidal restoration are currently underway, and construction is expected to begin in 2006. The first phase of restoration will consist of 40 or more acres. A mitigation banking instrument and funding strategy will be developed, as well as a monitoring program.

The design process will address several potential issues. Few large-scale tidal marsh restoration projects have been undertaken, and essentially no long-term studies exist to guide design and implementation of new sites. The Pond A-4 project will need to be coordinated with other large-scale tidal marsh restoration projects proposed for South San Francisco Bay. Because of ground subsidence, re-use of clean fill material may be necessary to supplement natural sedimentation in order for higher elevation features (high marsh) to develop in the short term. Control of perennial peppergrass, an invasive species that has infested brackish and freshwater marshes in the South San Francisco Bay, may be problematic.

A Hazardous Substances Assessment indicates the presence of low concentrations of arsenic in the levee, and arsenic and copper in the soils on the pond perimeter. The concentrations of these metals preclude the use of some soils for wetland cover material but not as noncover material according to the Sediment Screening Criteria for Wetland Creation and Upland Beneficial Re-use developed by the San Francisco Bay RWQCB (Resolution 92-145).

FRESHWATER WETLAND CREATION

The Freshwater Wetland Creation component and the Stream and Watershed Protection component (described in next section) are proposed to compensate for impacts to 116 acres of freshwater wetlands (109 acres of impacts from work in freshwater stream channels and 7 acres of impacts from work in canals). The Freshwater Wetland Creation component is proposed for compensation of 14 acres of freshwater wetland impacts in stream channels.

The District would create 14 acres of freshwater wetlands (also known as non-tidal wetlands) at locations near streams in the Santa Clara (10 acres) and Pajaro River (4 acres) Basins. Although the freshwater wetland creation sites will not be instream as the impacted freshwater wetlands, they have an advantage of not being subject to routine disturbance from flood control maintenance as the impacted sites are. These created wetlands will provide

Mitigation:

habitat for common local wildlife and wetland-related plants in a streamside setting. Because of their offstream location, they will rely on water supplied from off-site sources, and will require management of water levels.

Proposed locations for freshwater wetland creation are:

- Los Capitancillos Site — (3 acres) along Guadalupe Creek in the Santa Clara Basin
- Coyote Lakes Park Site 10A — (7 acres) along Coyote Creek in the Santa Clara Basin
- Church Pond Number 2 — (4 acres) along Llagas Creek in the Pajaro River Basin

The District will continue searching for additional sites for freshwater wetland creation. An extensive search initially conducted in 1997 will be reviewed. If additional freshwater wetland sites are located, then the Stream and Watershed Protection component of the mitigation package would be reduced. The sites currently identified for freshwater wetland creation are described further below.

Los Capitancillos Site

The Los Capitancillos freshwater wetland creation site will consist of approximately 3 acres of off-stream freshwater seasonal or perennial wetlands adjacent to Guadalupe Creek in the Santa Clara Basin. The site, located near Coleman Road and Redmond Avenue in the City of San Jose, is currently an upland field of annual grasses and is owned by the District. The Los Capitancillos site is currently under design, and is expected to be installed in the year 2002.

To create suitable conditions for development of a wetland, the site will be excavated. Water will be provided from the Almaden Valley pipeline and water control structures will be constructed to allow for adjustments of water depth and duration of inundation. Native hydrophytic species will be planted.

This site will be developed in coordination with an adjacent project, the restoration of a meander configuration and shaded riparian aquatic habitat on Guadalupe Creek for fisheries values. The Guadalupe Creek project is not part of the Program.

Preliminary investigations indicate that mercury levels are elevated in surface and shallow-depth soils on the Los Capitancillos site. The elevated levels are well below hazardous materials levels, but exceed wetland creation cover material levels recommended by the Regional Water Quality Control Board. This situation is being investigated further; however, the likely solution is that soils not suitable for wetland surfaces will be removed from the site and replaced with clean soils.

Coyote Lakes Park Site 10A

Coyote Lakes Park Site 10A is located in the City of San Jose in the Santa Clara Basin. The land is owned by the County and under the management of County Parks and Recreation Department. The District has discussed potential use of this site for mitigation of the District's Program with staff of the County Parks Department. County Parks staff has preliminarily indicated that development of the site would be consistent with their park and recreation goals, and they are considering the site for this use.

The Coyote Lakes Park site is situated on the northeast bank of Coyote Creek, just upstream of the interchange of Highways 101 and 85. The site is bounded to the northeast by Highway 101, an abandoned gravel pond to the west, and Coyote Creek and a District percolation pond to the south.

The site currently consists of nonnative annual grassland habitat. The adjacent gravel pond, percolation pond, and Coyote Creek contain open water, emergent wetland, and mixed riparian forest. Soils on the potential site appear to be heavily disturbed by former highway and levee construction activities, however, their low permeability is suited for wetland creation.

Depending on the final design, the site could be developed as 7 to 17 acres of perennial freshwater wetland. The

Mitigation:

wetland habitat would be dominated by tall emergent marsh species such as California bulrush, common tule (*Scirpus acutus*), and narrow-leaved and broad-leaved cattail (*Typha augustifolia*, *T. latifolia*). The design could also provide shallow, ponded areas dominated by short emergent obligate wetland species such as creeping spikerush (*Eleocharis macrostachya*) and rushes. Riparian species on the fringe could be arroyo, red and narrow-leaved willows, western sycamore, and coast live and valley oak.

Under the excavation option, the site's existing ground surface would be lowered 10 to 15 feet below the bottom of the adjacent gravel pond. Connections would be made between the restoration site and the gravel pond to enable water to passively flow onto the site and create approximately 7 acres of either perennial or nearly perennial ponded wetland habitat with a fringe of riparian vegetation. If approved by regulatory agencies, the excavated soil could be used to partially fill some of the open water areas of the gravel pond and convert them to approximately 10 acres of additional wetland habitat.

Alternatively, the site would receive minimal grading, and water would be delivered to the site from the adjacent percolation pond. Water is supplied to the percolation pond from releases made from Anderson Reservoir and delivered via the Coyote Creek Channel. Preliminary calculations indicate that sufficient water exists in this system to supply the proposed wetland. Inlet and outlet control structures would regulate the inflow and control the water level on the site. Outflow from the site could be either to the gravel pond or Coyote Creek. This option would create similar wetland habitat as described for the first option above.

Currently, there are breaches in the perimeter of the berm separating the gravel pond and Coyote Creek. As streamflow diverts into the gravel pond it may result in higher water temperatures and stranding of fish. The Site 10A freshwater creation design could include or coordinate with repair of these breaches.

Additional studies would be necessary to assess the relationship between groundwater levels in the gravel pond, Coyote Creek, and the proposed mitigation site. Archeological studies may also be necessary. Although no archeological resources are known to occur at the site, Native American burials were found during deep excavation of a site nearby on Coyote Creek.

Church Pond Number 2

The Church Pond freshwater wetland creation site will consist of converting open water at the Church Avenue groundwater recharge ponds into approximately 4 acres of freshwater wetland. Currently, three ponds provide approximately 42 acres of surface area dedicated to groundwater recharge at the intersection of Llagas and Church Avenues in the community of San Martin in the Pajaro River Basin. The property is under the ownership of the District.

The preliminary concept calls for a 4-acre earthen bench to be installed in one pond (Number 2) in a location known to be underlain by relatively impermeable soils. Shallow groundwater investigations of the Church Avenue Ponds indicate the low-permeability substrates in Pond Number 2 are likely to have relatively low infiltration rates, and not contribute substantially to overall recharge performance. Therefore, converting the primary purpose and management of this pond from groundwater recharge to wetland mitigation is not expected to result in substantial loss of groundwater recharge capability. The remainder of the pond's 15-acre surface area will remain open water used for percolation. Currently, the pond is often left dry.

The project will take advantage of the existing infrastructure, pond configuration, and water management to operate the Church pond system for dual percolation and wetland mitigation purposes. For purposes of creating the wetland area, water will be supplied to the ponds from Llagas Creek and is not expected to require a substantial alteration of recent District reservoir water releases or operations. Under current operation, stored water from upstream reservoirs flows downstream as far as Church Ponds during the dry season. The preliminary concept calls for water to be routed to the pond system via an existing intake pipe between Pond 1 and Llagas Creek. It will be necessary to construct a flashboard dam in the creek in order to divert the water. The flashboard dam will be installed and the diversion operated during the summer dry season. The flashboard dam will be designed and operated so as to not obstruct fish passage and not cause bank erosion. A fish ladder over

the flashboard will be provided if necessary to allow fish passage, and the intake pipe will be screened to prevent diversion of fish into the ponds. Alternative water delivery methods, such as an infiltration gallery, will be explored during the planning phase. The design will create water levels on the bench of an adequate depth for wetland vegetation and will reliably control surface water elevation.

Construction of the Church Pond wetland creation project is expected to begin in 2003.

STREAM AND WATERSHED PROTECTION

The Stream and Watershed Protection component and the Freshwater Wetland Creation component (described above) are proposed to compensate for impacts to 116 acres of freshwater wetlands (109 acres of impacts from work in stream channels and 7 acres of impacts from work in canals). If the 3 freshwater wetland creation sites are implemented as described above, then actions under the Stream and Watershed Protection component would compensate for impacts to 74 acres of impacts in the Santa Clara Basin and 21 acres of impacts in the Pajaro River Basin. The Stream and Watershed Protection component would compensate in either basin for an additional 7 acres of impacts to canals.

The District will continue searching for additional sites for freshwater wetland creation. If additional freshwater wetland sites are located, then the Stream and Watershed Protection component of the mitigation package would be reduced by approximately 10 acres for every additional 1 acre of freshwater wetland creation.

Under this component, the District would purchase approximately 920 to 1,210 acres of land and conservation easements to preserve, protect, and improve streams and their associated watersheds in the County.

The mitigation component will focus on preservation and improvement of streams that are generally in a fairly undisturbed state and in good ecological condition.

This effort consists primarily of land acquisition, but also provides for some restoration and/or management of acquired lands. Acquisition will provide 92 acres of mitigation credits and restoration and management on selected parcels will provide 10 acres of credit. The relative contribution of these sub-components could be adjusted based on opportunity and resource needs identified as the mitigation component progresses.

Stream and watershed protection provides a logical link to stream maintenance impacts:

- Impacts occur to habitat within streams. Stream and watershed protection provides for preservation, restoration, and management of streams and their related habitats.
- Stream and watershed protection represents a "trade up" in stream habitat quality: the type of stream habitat protected is different, but has a higher quality, than that impacted.
- The impacted in-stream freshwater wetlands of modified channels are considered to be of lower quality than the structurally and functionally more complex native riverine and riparian habitats of less-altered streams. In-stream freshwater wetlands of the extent and type impacted occur primarily in modified earthen and concrete channels in which stream structure and function has been impaired.
- Temporary impacts to existing local stream reaches are mitigated by permanently protecting other local stream reaches.
- The impacts consist of repeated but temporary disturbance to existing in-stream wetland. There is no reduction in the overall amount of stream habitat present, and the wetland vegetation regrows between disturbances. The mitigation program protects other existing stream habitat from effects of human disturbance, and, where needed, will improve the stream's environmental condition.

The acquisition element will be mostly accomplished by donating funds to park and open space agencies, land

Mitigation:

trusts and other land conservation organizations that will ultimately own title or easements and manage the property. The District's contribution will typically provide partial funding of a larger acquisition, however, in some cases the district may choose to purchase and retain sole ownership or easement. Examples of suitable land include ranch land, farm land, and other undeveloped or sparsely developed land.

Potential partners include land management agencies and private land conservation organizations that are active in the County. Examples of potential partners include, but are not limited to, the County Parks and Recreation Department, Santa Clara County Open Space Authority, Mid-Peninsula Regional Open Space District, California State Parks, Land Trust for Santa Clara County, The Nature Conservancy, and Peninsula Open Space Trust.

The District will evaluate each proposed acquisition under a standard set of criteria established to ensure that the mitigation goals are met and mitigation credit is obtained. To qualify for consideration under this Program, the land must meet a standard set of core criteria (e.g. the land must include a stream, must be located in a watershed related to District streams, would not otherwise be purchased by the District, and is available from a willing seller). Additional criteria will be used to determine the relative priority for acquisition of available parcels. Consideration will be given to site specific features (e.g. type and condition of stream resources, presence of endangered species or their habitat), transaction-related features (e.g., level of protection gained, time-frame for purchase completion, relative cost), and regional considerations (e.g. links with adjacent protected lands, achieves multiple agency and community benefits, supports Maintenance Program mitigation goal of maximizing benefit to local streams and watersheds by focusing on areas that provide the highest natural resource values).

Each acquired property will be further evaluated to determine if the stream resources would benefit from restoration or management actions. Examples of the many types of restoration or management actions that could be undertaken to improve stream health include: removal of nonnative riparian plant species and revegetation with native species, repair and rehabilitation of denuded or otherwise degraded stream segments, replacement of ranch road stream crossings with more environmentally sensitive crossings, installation of erosion control measures on roads adjacent to streams (dirt or paved roads run parallel to most sizeable streams in the county), and installation of fencing to exclude cattle from the riparian area.

An annual report will be prepared and submitted to the relevant agencies until all required mitigation credit is obtained. The report will include a description of each parcel acquired in the past year, detailing the location, size, stream and watershed amount present, summary of the core criteria and priority evaluation criteria analyses, mitigation credit earned, the entity that will own the fee title or conservation easement, planned land use (e.g. public park or open space, private ranch land, farm land), and planned restoration or management projects. The report will summarize all Stream and Watershed Protection Program actions and credits obtained to date.

Individual monitoring reports will be prepared for restoration and management projects appropriate for the particular action taken (e.g. A re-vegetation project would require a standard mitigation and monitoring plan including the project description, performance and success criteria measures, schedule, etc). Once land has been acquired, the district will conduct periodic surveys to ensure that land use and management is consistent with the terms and agreements of the district contribution. Ongoing periodic summary status reports will be prepared.

Credit for acquisition will be given at a 10:1 or 15:1 ratio (acquisition acreage : impact acreage) for acquisition of lands that both contain and are directly adjacent to stream resources as described below. The crediting method ensures that a substantial amount of stream and associated riparian corridor will be acquired, that immediately adjacent uplands which directly affect stream condition will also be acquired, and that the district's financial contribution will be large enough to enable purchase of appropriate parcels.

- 10:1 ratio: Up to 50 feet from the centerline of 1st order streams and 150 feet from the centerline of 2nd order and greater streams, and
- 15:1 ratio: For an additional area from 150 up to 500 feet from the centerline of 2nd order and greater streams.

Credit for restoration and management will be generated on a dollar value basis as follows: one acre of mitigation

Mitigation:

credit obtained for each \$150,000 of projects funded. The \$150,000 figure is based on the approximate per acre cost of District riparian mitigation projects recently implemented in the lower watershed. Many of the restoration or management actions that can provide substantial improvement of the stream environment cannot be quantified in the same way as traditional acre-for-acre riparian revegetation mitigation projects. This lump sum crediting approach provides the flexibility needed to implement a variety of beneficial actions, as dictated by the needs and condition of each property.

The projected total Program cost is based on an average estimated land value of \$15,000 per acre. Most land is expected to cost less than this amount. Land cost under this Program is not-to-exceed \$25,000 per acre.

CONTROL OF GIANT REED

The Giant Reed Control component is proposed to compensate for impacts from vegetation management in streams to 77 acres of riparian vegetation (32 impacts in the Santa Clara Basin and 45 acres in the Pajaro River Basin). Overall, this component includes removing giant reed (*Arundo donax*) from 125 acres along with several other associated efforts as described above. Of the total acres from which giant reed is removed, 80 acres would be credited towards the 77 acres of impacts to riparian vegetation. An additional 45 acres of giant reed control is proposed to compensate for any lag time between maintenance impacts to stream vegetation and implementation of the other 3 mitigation components.

Giant reed is an invasive nonnative plant. Large stands of giant reed degrade wildlife habitat, cause localized flooding, and increase the risk of wildland fires. Since giant reed displaces open water and native riparian and wetland plant communities of freshwater streams, its control is appropriate compensation for impacts to sapling riparian vegetation caused by channel vegetation management.

In the County, substantial infestations of giant reed are known in Coyote, Calabazas, Llagas, and Uvas Creeks, and along the Guadalupe River. Currently, the District removes stands of giant reed on an occasional basis where they may cause a flooding problem and from revegetation sites. However, neither the District nor any other entity has taken a coordinated effort to remove giant reed from the county's streams.

Under this mitigation component, the District would remove giant reed from 125 acres in the County over a period of 10 years.

This component includes the following associated elements that are necessary to ensure successful control of giant reed on a long-term basis.

- Mapping - Outbreaks of giant reed throughout the county will be mapped. The goal of mapping is to assist in assessing the extent of the problem, prioritizing control efforts, and tracking and reporting annual progress. The District has already started collecting existing information and conducting field surveys. Additional surveys will be conducted in areas for which information is not currently available. Where conditions are favorable, remote sensing and aerial photography will be used. A protocol will be developed for locating and quantifying the size of existing stands to ensure consistent data collection. Most data will be collected using Global Positioning System (GPS) technology. All data collected in the mapping effort will be incorporated into a Geographic Information System (GIS) for generating maps and data analysis. The GIS information will be made available to non-District persons who are participating in control of giant reed or otherwise conducting research.
- Prioritization and Pilot Site – Subsequent to completion of the initial mapping effort in the first year, areas will be identified by a priority system for control. Priority will be given to those locations where sustained control efforts will provide the most habitat value, access can be gained to giant reed outbreaks at the top of the watershed and for continuous reaches, and multiple benefits can be gained in combination with the other mitigation components.

A pilot control site or sites will be selected in the first few years to experiment with different control methods

Mitigation:

Construction, and Readiness Division, Directorate of Civil Works, October 10, 1997, Interim Guidance Regarding Mitigation and Other Implementation Requirements for Flood Control Maintenance Activities Authorized Under Nationwide Permit 31, Memorandum for Commander, South Pacific, Division.]

The District therefore interprets this NWP as allowing routine maintenance work in tidal areas to be permitted under NWP 31 and to not require mitigation as long as the maintenance work has been conducted on a regular basis, and the original construction of the project was after 1970. The District assumes that all District flood control projects constructed after 1970 have been reviewed under CEQA and either mitigation was offered for the original construction, or the impacts were evaluated at that time as not significant. Therefore, no additional mitigation would be required under NWP 31. Almost all of the tidal portions of the District's flood control facilities have been constructed or modified after 1970. This standard would only apply to maintenance work in tidal areas because, currently, the Corps only regulates sediment removal in tidal areas.

Under this alternative, it is also assumed that three other categories of maintenance work will qualify for a Regional General Permit currently being proposed by the Corps and San Francisco Bay RWQCB. This proposed regulation, referred to as the Minimal Threat Flood Control Channel Maintenance Activities permit, would apply to major flood control districts in the San Francisco Bay area, and is expected to be enacted sometime in the Year 2001. This permit would allow sediment and debris removal in concrete lined channels and in-channel siltation basins, vegetation management, maintenance of structures, and bank protection. Prohibitions under the proposed regulation include a condition that there should be no permanent loss or significant temporal loss of wetland or riparian habitat in terms of acreage, function or value; however, these conditions have not been defined yet. A condition for bank protection activities is that the structure be no longer than 500 feet in length.

According to this proposed Regional General Permit, with implementation of the appropriate BMPs, these activities typically would not require mitigation. The District therefore interprets this Regional General Permit as allowing these types of activities to occur without mitigation. Therefore, the No Project - Maintenance Baseline Alternative does not provide mitigation for sediment and debris removal in concrete lined channels and in-channel siltation basins, vegetation management, maintenance of structures, and bank protection.

2. *No Work Alternative*

This alternative consists of conducting no routine maintenance work in streams and canals within the District's jurisdiction. Over time, these facilities would fill with more sediment and vegetation, which would affect their functions. No impacts would occur to stream vegetation from routine stream maintenance work.

3. *No Herbicides Alternative*

The No Herbicide Alternative will be the same as the Multi-Year Program Alternative except there will be no use of herbicides in routine stream or canal maintenance. Instead, vegetation will be managed by mechanical and hand methods in those areas in which herbicides are currently used in the Santa Clara Basin. The use of herbicides will continue to be excluded on streams in the Pajaro River Basin.

4. *Modified Pajaro River Basin Alternative*

This alternative is similar to the Program except that it will not include the use of herbicides in stream channels of the Pajaro River Basin unless they are for the control of nonnative, invasive plants. Instead, hand and mechanical methods will be used to control vegetation in stream channels of the Pajaro River Basin. Herbicides will continue to be used in adjacent upland areas in the Pajaro River Basin, and in channels, canals and associated upland areas in the Santa Clara basin. All activities will otherwise occur at the same level as the multi-year program alternative, with design, BMPs and annual reporting implemented in a programmatic manner, and mitigation provided at the same level.

Mitigation:

5. Reduced Herbicides Alternative

Under the Reduced Herbicides Alternative, sediment removal and vegetation management will occur in primarily the same locations as for the Program. Herbicides would be used for vegetation management in and adjacent to streams and canals throughout the District's jurisdiction; however, the overall amount of herbicides used will be reduced compared to the Preferred Alternative.

Under this alternative, the following standards will be implemented to reduce the use of herbicides. The use of herbicides will be reduced 25% in streams and substituted with hand removal methods. In upland areas, non-selective herbicides will be used only along fence lines and immediately adjacent to structures. In the remaining upland herbicide areas, herbicides selective to broadleaf plants will be used, and mowing and hand removal methods will be used to control grasses.

REFERENCES

District 1999a. Long-term Maintenance Program: 1997 Non-tidal Instream Wetland Extent Survey. Santa Clara Valley Water District Memorandum. G. Rankin. October 4, 1999.

District 1999b. Long-term Stream Maintenance Program: 1997 Tidal Wetland Extent in Program Area and in Santa Clara County. Santa Clara Valley Water District Memorandum. L. Squires. September 29, 1999.

District 1999c. Long-term Maintenance Program: Estimated Tidal Limits Used for Environmental Analysis. Santa Clara Valley Water District Memorandum. G. Rankin. October 4, 1999.

District 1999d. Riparian and wetland impacts of the Stream Maintenance Program. Santa Clara Valley Water District Memorandum. C. Roessler. October 20, 1999.

District 2000. Instream Wetland Vegetation Regrowth Study, Second Annual Report: Results for 1999. Gale Ranking and Janell Hillman. September 2000.

Box 14 Environmental Impact Documentation

National Environmental Protection Act (NEPA) or California Environmental Quality Act (CEQA) compliance document provided: Yes No

Is documentation being prepared? Yes No DEIR will be sent in March 2001

The following is attached: EIS EIR Negative Declaration Mitigated Negative Declaration
 Categorical Exemption Statutory Exemption Notice of Exemption Notice of Determination

Box 15 Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein? Yes No If yes, explain:

Box 16 Names, addresses and telephone numbers of adjoining property owners, lessees, etc.

(Local governments may require additional notice – consult your local government.)

Name	Address	Phone number
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Numerous adjacent property owners. Project has been advertised throughout county and will continue to be advertised through CEQA process to solicit public comment.

End of Section One

Construction, and Readiness Division, Directorate of Civil Works, October 10, 1997, Interim Guidance Regarding Mitigation and Other Implementation Requirements for Flood Control Maintenance Activities Authorized Under Nationwide Permit 31, Memorandum for Commander, South Pacific, Division.]

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Box 14 Environmental Impact Documentation

National Environmental Protection Act (NEPA) or California Environmental Quality Act (CEQA) compliance document provided: Yes No

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Name	Address	Phone number
Numerous adjacent property owners. Project has been advertised throughout county and will continue to be advertised through CEQA process to solicit public comment.		

End of Section One

Section Two – Agency Specific Requirements for Project Permitting

Box 17 Department of Fish and Game - Projects Adjacent to, or Involving a River, Stream, or Lake

This project does not involve this agency (no additional questions completed)

Project Name Multi-Year Stream Maintenance Program Project cost \$ 8.6 million/year Proposed start date July 2001
Proposed completion date September 2010 Number of Stream Encroachments _____

Project Operator Contractor, Contact, if different from applicant, agent, and property owner
on page 2 Name, address, phone and fax for each

Attach copies of completed applicable local, state, or federal permits, agreements or authorizations:

Local (describe):

State (describe): San Francisco Bay Conservation and Development Commission

Federal (describe):

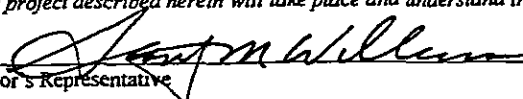
Project Questionnaire:		Yes	Maybe/ Uncertain	No	Please explain if you responded "yes" or "maybe/uncertain"
1.	Will the project or activity involve work on the bank of a river, stream, or lake?	✓			Maintenance work occurs in streams throughout Santa Clara County.
2.	If you answered "yes" to #1, will the project or activity involve any of the following:				
	a. Removal of any vegetation?	✓			For vegetation management activities.
	b. Excavation of the bank?	✓			For bank protection activities.
	c. Placement of piers?			✓	
	d. Placement of bank protection or stabilization structures or materials (e.g., gabions, rip-rap, concrete slurry/sacks)?	✓			For bank protection activities.
3.	Will the project or activity take place in, adjacent to, or near a river that has been designated as "wild and scenic" under state or federal law?			✓	
4.	Will the project or activity involve work in the bed or channel of a river, stream, or lake?	✓			For all channel activities.
5.	Will the project or activity involve the placement of any permanent or temporary structure in a river, stream, or lake?	✓			Permanent structures for bank protection. Temporary coffer dams to divert flow around work site for some sediment removal and bank protection.
6.	Will the project involve the use of material from a streambed?			✓	
7.	Will the project or activity result in the disposal or deposition of debris, waste, or other material in a river, stream, or lake?			✓	
	a. If you answered "yes" to #7, describe the material that will be disposed of or deposited in the river stream, or lake:				
8.	Will any type of equipment be used in a river, stream, or lake?	✓			
	a. If you answered "yes" to #8, describe the type of equipment that will be used:	Loaders, dozers, trucks, cranes, and mowers.			
9.	Does the project or activity area flood or periodically become inundated with water?	✓			
10.	Will water need to be diverted from a river, stream, or lake for the project or activity?	✓			Water is diverted for some sediment removal and bank protection activities.
11.	If you answered "yes" to #10, please answer the following:				
	a. Will this be a temporary diversion?	✓			Stream flow will be diverted around work areas.

	b. Will water quality be affected by the deposition of silt, an increase in water temperature, a change in the pH level, or in some other way?	✓		Best Management Practices are included to protect water quality.
	c. Will the water be diverted by means of a dam, reservoir, or other water impoundment structure?	✓		Temporary coffer dams will be used to bypass flows.
12.	Will the project or activity be done pursuant to a water right application or permit?		✓	Some sediment will be removed from diversion structures.
13.	Has a wildlife assessment or study been completed for the area where or near where the project or activity will take place? (If "yes", attach or enclose a copy of the assessment or study.)	✓		Wildlife assessment will be included in Draft Environmental Impact Report to be submitted in March 2001. BMPs are included to protect plant and wildlife species.
14.	Will the project or activity affect fish, amphibians, insects, or other aquatic resources?		✓	See 13 above.
15.	Will the project or activity affect terrestrial wildlife?		✓	See 13 above.
16.	Are any endangered or rare plant species thought or known to occur in the area where the proposed project or activity will take place?		✓	See 13 above.
17.	Are any endangered or threatened fish, bird, or animal species thought or known to occur in the area where the proposed project or activity will take place?		✓	See 13 above.
18.	Have you contacted any other local, State, or federal agency regarding the project or activity?	✓		
	a. If you answered "yes" to #18, please list the names of the agencies you have contacted:	SF Bay Conservation and Development Commission, SF Bay and Central Coast Regional Water Quality Control Boards, CA Department of Fish and Game, and U.S. Army Corps of Engineers, U.S. EPA, U.S. Fish and Wildlife Service		
19.	Have you applied for or obtained any permit, agreement, or other authorization for your project or activity from any government agency?	✓		
	If you answered "yes" to #19, please list the names or describe the permit, agreement, or authorization you have applied for or obtained:	San Francisco Bay Conservation and Development Commission as noted on page 1.		
20.	Have any environmental documents pertaining to your project or activity been prepared?		✓	Draft Environmental Impact Report to be submitted March 2001.
	a. If you answered "yes" to #20, please list the environmental documents that have been prepared:			

I hereby certify that all information contained in this notification is true and correct and that I am authorized to sign this document. I understand that in the event this information is found to be untrue or incorrect, I may be subject to civil or criminal prosecution and the Department may consider this notification to be incomplete and/or cancel any Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand that this notification is valid only for the project described herein and that I may be subject to civil or criminal prosecution for undertaking a project that differs from the one described herein, unless I have notified the Department of that project in accordance with section 1601 or 1603 of the Fish and Game Code.

I understand that a Department representative may need to inspect the property where the project described herein will take place before issuing a Lake or Streambed Alteration Agreement pursuant to this notification. In the event the Department determines that a site inspection is necessary, I hereby authorize the Department to enter the property where the project described herein will take place to inspect the property at any reasonable time and certify that I am authorized to grant the Department permission to access the property.

I request the Department to first contact me at (insert telephone number) _____ to schedule a date and time to enter the property where the project described herein will take place and understand that this may delay the Department's evaluation of the project described herein.


Operator or Operator's Representative

2-14-01
Date

Box 18 California Coastal Commission – Projects in the Coastal Zone

This project does not involve this agency (no additional questions completed)

Length of coast line on the project site, in feet:

Length of coast line of any adjacent property owned by the owner of the project site, in feet:

Area reserved for non-public access uses, in square feet:

Area reserved for public access, in square feet:

Document proof of applicant' interest in the property by including stamped envelopes and letters.

Types of activities to be undertaken or materials to be placed within coastal zone:

- Will the project be located within a water-oriented priority use area that is designated in the Coastal Access Plan? Yes (If yes, please attach an explanation of how the project can be approved despite this inconsistency.)
- No

Total area within the coastal zone _____ square feet.

Public Access Information

- Does public access or ocean views exist on the project site or on a contiguous property? Yes No
If "yes" please attach a description of the public access; if "no" explain what is preventing public access to the coastline.

- Area within coastal zone to be reserved for non-public access uses: _____ square feet

- Area within zone to be reserved for public access: _____ square feet

- Will the project block public views or adversely impact present or future public access? Yes No
If yes, please describe why the project will or will not affect public views or public access. For most large projects, identify: (1) the existing number of people or employees using the site; and (2) the existing number of cars, bicycles, and pedestrians visiting the site and the level of service of all nearby roads leading to the site. Please describe how the project will change these factors. Please describe the impact the project is expected to have on the existing use of the site and on existing public views or physical public access at the site. Please describe the impact the project is expected to have on the public's use of existing nearby parks, public access, public parking and other recreational areas on the shoreline and the roads leading to the site.

- Do public safety considerations or significant use conflicts make it infeasible to provide new public access to the shoreline on the project site? Yes No If "yes", please attach a description of the public safety considerations or significant use conflicts which make it infeasible to provide public access at the project site and either (1) identify an offsite area where public access to the coast is to be provided as part of the project and describe the proposed public access at a specified offsite location, or (2) provide an explanation as to why no offsite public access is proposed as part of the project.

- Summarize the public access to be provided as part of the total project:

- Total amount of public access _____ square feet
- Length of waterfront public access area _____ feet
- Number of parking spaces for public access area _____
- Area and width reserved for view corridor(s) _____ square feet

- ◆ Will the proposed development convert land currently or previously used for agriculture to another use?
 Yes No
- ◆ Will the development occur in or near
 - ◆ Sensitive habitat area? Yes No
 - ◆ Areas of state or federally listed rare, threatened, or endangered species? Yes No
 - ◆ 100-year floodplain? Yes No
 - ◆ Park or recreation area? Yes No
 - ◆ Harbor area? Yes No
- ◆ Does the site contain any
 - ◆ Historic resources? Yes No
 - ◆ Archeological resources? Yes No
 - ◆ Paleontological resources? Yes No
- ◆ If a stream is to be diverted, please provide the following estimated streamflow or spring yield _____ (gpm)
- ◆ If a well is to be used, existing yield _____ (gpm)
- ◆ If a water source is on adjacent property, a Division of Water Rights Approval is needed based upon structural information on Coastal Zone projects.

Existing Structures

- Description Of Existing Structures

- Is existing development multi-family residential? Yes No
 If so, describe number of units and number of bedrooms per unit and type of ownerships of units

- Will existing structures be demolished? Yes No
- Will existing structures be removed Yes No
 If yes to either question, describe the type of development to be demolished or removed including the relocation site, if applicable

- Is the proposed development to be governed by any development agreements? Yes No

Proposed Structures

- Is the proposed development multi-family residential? Yes No
 If so, describe number of units and number of bedrooms per unit and type of ownership of units

- Project height:
- Maximum height of structure above existing (natural) grade? _____
- Maximum height above finished grade _____
- Maximum height as measured from centerline of frontage road _____
- Total number of floors in structure (including subterranean, lofts and mezzanines) _____
- Gross floor area excluding parking _____
- Gross floor area including covered parking and accessory buildings _____
- Number of parking spaces, and change in number from existing situation _____
- Will utility extensions be added. If so, which ones?
 - Water Yes No
 - Gas Yes No
 - Sewer Yes No
 - Electric Yes No Will it be above or below ground? _____
 - Telephone Yes No Will it be above or below ground? _____

Total Cost of Project.

This means the fair market value of the project, including materials, labor, machine rentals, etc. \$ _____

**Box 19 Bay Conservation and Development Commission –
Projects on the Shore of the San Francisco Bay or Other BCDC Areas of Jurisdiction**

This project does not involve this agency (no additional questions completed)

Does the project involve development within the primary management area of the Suisun Marsh? <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes", provide any relevant Duck Club number(s):	Does the project involve development within the 100-foot shoreline band around San Francisco Bay? <input type="checkbox"/> Yes <input type="checkbox"/> No San Francisco Bay Plan Shoreline Designation
Length of shoreline on the project site, in feet:	Length of shoreline of any adjacent property owned by the owner of the project site, in feet:
Area reserved for non-public access uses, in square feet:	Area reserved for public access, in square feet:
Total size of underwater and tidal areas of the project site, in square feet:	ID Number(s) of previous BCDC permit(s) issued for work on this site:

Total cost of project. This means the fair market value of the project, including materials, labor, machine rentals, etc. \$ _____ Processing Fee _____

Bay Fill Information - Fill means earth or any other substance or material, including pilings or structures placed on pilings, and structures floating at some or all times and moored for extended periods such as houseboats and floating docks.

- Total Volume of solid fill to be placed in water or marsh areas: _____ cubic
- Area to be covered with solid fill: _____ square feet
- Area to be covered with floating fill: _____ sq feet
- Area to be covered with pile-supported fill: _____ sq feet
- Area to be covered with cantilevered fill: _____ sq feet
- Salt pond area to be filled: _____ sq feet
- Managed wetland area in the primary management
- Area of the Suisun Marsh to be filled: _____ sq feet
- Area on new fill to be reserved for private, commercial, or other uses: _____ sq feet
- Area on new fill to be reserved for public access: _____ sq feet
- What is the basic purpose of the new fill in the Bay, salt pond, managed wetland, or certain waterway?

Information on Fill to be provided in an attachment

- Please specify the area of fill, in square feet, proposed to be covered in structures; used for roads; used for parking; used for pathways and sidewalks; covered with landscaping; used for piers, docks, and other maritime related purposes; placed for shoreline protection; and used for other purposes (specify uses).
- Please provide dimensions of portions of all structures to be built on new fill, including length, width, area, height and number of stories.
- Please provide one or more photographs of existing shoreline conditions.

Provide the following information to justify the proposed fill in an attachment:

BCDC can approve new fill for only five purposes: (1) accommodating a water-oriented use; (2) improving shoreline appearance; (3) providing new public access to the Bay; (4) accommodating a project that is necessary to the health, safety, or welfare of the public in the entire Bay Area; and (5) accommodating a project that is consistent with either: (1) the Suisun Marsh Preservation Act and the Suisun Marsh Protection Plan; or (2) the Suisun Marsh Local Protection Program. Please explain how the project is consistent with one or more of these purposes.

- If the fill is to be used for improving shoreline appearance or providing new public access to the Bay, please explain why it is physically impossible or economically infeasible to accomplish these goals without filling the Bay.
- Please explain how the fill will result in a stable and permanent shoreline.
- Please explain the steps that will be taken to assure that the project will provide reasonable protection to persons and property against hazards of unstable geologic or soil conditions or of flood or storm waters.
- Please provide the names, addresses, and telephone numbers of any licensed geologists, engineers, or architects involved in the project design who can provide technical information and certify to the safety of the project.

- Please explain:
 1. What possible effects the proposed fill would have on the Bay Area, such as (1) any impact on the volume of Bay waters, on Bay surface area, or on the circulation of Bay water; (2) any impact on water quality; (3) any impact on the fertility of marshes or fish and wildlife resources; and (4) any impact on other physical conditions that exist within the area which would be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance; and
 2. How the nature, location, and extent of the proposed fill would minimize any possible harmful conditions or effects.
- Please explain how the public benefits of the project would exceed the public detriment from the loss of water or marshlands.
- For marina projects, please indicate how many berths, if any, are to be made available for live-aboard boats and explain how these live-aboard boats will contribute to public trust purposes.
- Please identify any other specific policies of the McAteer-Petris Act (California Government Code Title 7.2, especially Section 66605), the Suisun Marsh Preservation Act (California Public Resources Code Sections 29000-29612), the San Francisco Bay Plan and the Suisun Marsh Preservation Plan, and BCDC's regulations regarding minor fill for improving public access and shoreline appearance, that are relevant to and offer support for the project and explain how the project is consistent with these policies.

Shoreline Band Information - Shoreline band means the land area lying between the bay shoreline and a line drawn parallel to and 100 feet from the bay shoreline. The bay shoreline is the mean high water line, or five feet above mean sea level in marshlands.

- Types of activities to be undertaken or materials to be placed within the shoreline band
- Will the project be located within a water-oriented priority use area that is designated in the San Francisco Bay Plan? Yes No If "yes", please attach an explanation of how the project can be approved despite this inconsistency. If no, complete the questions below:
 - Total shoreline band area within project site: _____ sq feet
 - Area within shoreline band to be reserved for non-public uses: _____ sq feet
 - Area within shoreline band to be reserved for public access: _____ sq feet
- Information about the shoreline work to be provided in an attachment:
 - Please describe the area, in square feet, to be covered by structures; used for roads; used for parking; used for pathways and sidewalks; covered with landscaping; used for shoreline protection; and used for other purposes (specify uses).
 - Please identify the total number of parking spaces in the project and within the shoreline band.
 - Please provide dimensions of portions of all structures to be built within the shoreline band, including length, width, area, height, and number of stories.

Environmental Impact Documentation

- Is the project statutorily exempt from the need for environmental documentation? Yes No If "yes", please attach a statement supporting this exemption.
- Is the project categorically exempt from the need for environmental documentation? Yes No If "yes", please attach a statement supporting this exemption.
- Has a government agency other than the lead agency certified a "negative declaration" on the project? Yes No If "yes", please attach a copy of the certified negative declaration. If "no", please provide sufficient information to allow agencies to make the necessary findings regarding all applicable policies.
- Has a government agency other than the lead agency, certified an environmental impact document on the project? Yes No If "yes", please attach copies of the certification and the document. also, please provide a summary of the document if it is longer than 10 pages. If "no", please provide sufficient information to allow agencies to make the necessary findings regarding all applicable policies. the certified document must be submitted prior to action on the permit.

Public Access Information

- Does public access to the shoreline or views to the bay presently exist on the site of a property contiguous to the project? Yes No

If "yes", please attach a description of the public access. If "no", explain what is preventing public access to the shoreline.

- Will the project block public views of the bay or adversely impact present or future public access to the shoreline? Yes No

Please describe why the project will or will not affect public views or public access to the shoreline. For most large projects, identify: (1) the existing number of people or employees using the site; and (2) the existing number of cars, bicycles, and pedestrians visiting the site and the level of service of all nearby roads leading to the site. Please describe how the project will change these factors. Please describe the impact the project is expected to have on the existing use of the site and on existing public views or physical public access at the site. Please describe the impact the project is expected to have on the public's use of existing nearby parks, public access, public parking and other recreational areas on the shoreline and the roads leading to the site.

- Do public safety considerations or significant use conflicts make it infeasible to provide new public access to the shoreline on the project site? Yes No

If "yes", please attach a description of the public safety considerations or significant use conflicts which make it infeasible to provide public access at the project site and either (1) identify an offsite area where public access to the shoreline is to be provided as part of the project and describe the proposed public access at a specified offsite location, or (2) provide an explanation as to why no offsite public access is proposed as part of the project.

- Summarize the public access to be provided as part of the total project:
 - Total amount of public access _____ sq feet
 - Length of waterfront public access area _____ feet
 - Number of parking spaces for public access area _____
 - Area and width reserved for view corridor (s) _____ sq feet

Detailed information about public access to be provided in an attachment: Please describe, in square feet, length and width, when appropriate, the existing and proposed public access areas and improvements, including areas used for decks, piers, pathways, sidewalks, landscaping, parking, and other public features. Please describe how the public access area facilities would be accessible to handicapped persons. Please describe the connections to existing public streets or offsite public pathways. Specify how the public access will be permanently guaranteed (e.g. dedication, deed restriction, etc.).

Disclosure Of Campaign Contributions

The following contributions of \$250 or more were made by the applicant or applicant's agent to a BCDC commissioner or commissioner's alternate in the preceding twelve months to support the commissioner's or alternate's campaign for election to a local, state or federal office:

Contribution made to: _____ Contribution made by: _____
Date of contribution: _____

No such contributions have been made

END OF FORM

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Volume I, Appendix E

INTER-AGENCY WORKING GROUP MEETING NOTES
(AUGUST 26, 2010; OCTOBER 20, 2010; AND JULY 21, 2011)

Stream Maintenance Program

Inter Agency Working Group (IAWG)



Meeting 1: Thursday, August 26, 2010
Summary Meeting Notes

Attachments:

- PowerPoint presentation from Aug. 26 IAWG meeting
- Current 2010 SMP BMP document

1. Introductions

- Mike Higgins, CCRWQCB
- Tami Schane, DFG
- Bill Smith, SCVWD
- Maggie Beth, SFRWQCB
- Luisa Valiela, EPA
- Paula Gill, USACE
- Vincent Griego, USFWS
- Shree Dharasker, SCVWD
- Kristen O'Kane, SCVWD
- Doug Padley, SCVWD
- Sunny Williams, SCVWD
- Devin Mody, SCVWD
- Ken Schwarz, Horizon
- Michael Stevenson, Horizon
- Cameron Johnson, USACE
- Darren Howe, NMFS (phone)

2. Role of IAWG

- Ken: Introduced the role of the IAWG as shown in Slide 4 as a forum to discuss/guide the permitting process for the program renewal.
- Luisa:
 - Why no BCDC at meeting?
 - Time frame is different, 5-yr permit extension was just conducted, their permit expires in 2015
 - Which agency people did you work with for Sonoma project?
 - USACE: Jane Hicks, Pete Straub, Jim Mazza
 - SF-RWQCB: Bill Hurley, Abigail Smith, Maggie Beth, Shin-Roei Lee
 - North Coast RWQCB: Stephen Bargsten, Mark Nealy, John Short, Luis Rivera
 - DFG: Richard Fitzgerald
 - USFWS: Kim Squires, Ben Solvesky, Ryan Olah
 - NMFS: Gary Stern, Josh Fuller
 - During original SMP development (1999-2001), the agencies met multiple times, including many times without SCVWD there, is that going to be the vision here?

Stream Maintenance Program

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- This is up to the agencies, and certainly possible if agency staff wish to meet additionally. Outcomes of such regulator-only meetings should be communicated back to the District.
 - The vision, as this is a program renewal and not an entirely new program, is that fewer agency meetings will be necessary
- Paula:
- We need one point of contact from the District, please decide who that is and let Paula know.
 - The single point of contact will be Kristen O’Kane as the District’s project manager. However, the agencies are also welcome to contact the consultants at Horizon or other District staff for data requests, questions, etc. Though for any formal communications things should be addressed to Kristen.

3. Overview of Existing Program

- Ken provided an overview of the existing program, including the program area and watersheds (Slides 6-11), the project setting and typical/routine expected maintenance activities (Slides 12-17), sediment removal activities to date (Slides 18-21), vegetation management activities to date (Slides 22-23), bank repair and stabilization activities (Slides 24-26), and the annual work sequence (Slide 27). Key questions are summarized below.
- Mike Higgins – what is post-maintenance condition? This was discussed as illustrated in Slides 16 and 17
- Vincent – what are the water velocity/behavior differences between pre- and post-maintenance condition?
 - Ken: channel conditions are so site specific that we don’t have a specific answer as to how velocities change with maintenance. The key question is to understand how much roughness (in the form of vegetation) and how much deposited sediment can the channel accommodate, before its flood conveyance capacity is diminished? The original engineering designs for these channels most likely assumed no vegetation (or limited vegetation) and very little sediment accumulation, that the channels would be maintained per the as-built design condition.
 - Ken: Also on velocity, the key variable for velocity will be channel slope, and this ranges throughout the program area. The District has conducted some hydraulic studies for channels to describe velocities, water surface elevations, etc.

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- Higgins: In CEQA analysis, will you be looking at impacts as a system? For example, more vegetation provides more shade, moderate temperature provides habitat value, promotes biodiversity. Do you consider the relationships between these various factors when choosing a design roughness?
 - o Ken: Yes, while CEQA documents are typically divided according to disciplines, this program does relate to the flood channels and streams as an integrated system. We will try to maintain a systems approach in the EIR document. In addition to the systematic approach, it is also important to consider the varying scales and timeframes involved in the program. For example, for water quality, there might be some small-scale local impacts related to the maintenance activities. However, the lack of maintenance would increase the flood risk, and a bank overtopping flood would have severe water quality impacts to the channel/creek system.

- Mike: Can we use newer technologies and analysis tools that can refine our approach to the analysis?

- Luisa: On the issue of “new work” vs. “repeated work” as shown on Slide 20. Luisa provided some context from the original program development. That the regulators wanted to track repeat maintenance so that they could determine the frequency of maintenance in particular locations. Locations with high frequency of repeat maintenance might be good candidates for source control options to help reduce the need for frequently repeated maintenance.
 - o Ken related this idea of source control opportunities to mitigation options – that seeking projects/sites that would help reduce sediment loading in downstream channels may be a very effective and appropriate mitigation approach.

- Ken discussed the herbicide application during 2002-2009
 - o Question: was the 2002 Herbicide application number really that large?
 - Bill Smith: probably so, but note that not the entire area of every linear foot was subject to application, so all of these numbers may be overstatements. Only a percentage of the work area is sprayed.
 - o Mike Higgins: there are no herbicides shown applied in the Pajaro watershed – was that a permit condition?
 - Yes, also arose from CEQA analysis

- Bank stabilization
 - o Bill Smith: Appendix A (Bank Protection) includes designs with velocities and other design considerations – to help choose which treatments are appropriate in given circumstances.

 - o “Bank protection mitigation only” category is for projects which are solely conducted to provide mitigation for other bank stabilization projects; included

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Summary Meeting Notes

on table for accounting purposes. This really isn't bank stabilization per se, and is more of a mitigation topic.

- Locations of repeat failures may be indications of inappropriate design choices for the repair, or it could simply be illuminating a design issue with the channel (sharp bend in channel, step drop, or other conditions which may make the given location more erosive, etc.).

4. Program BMPs

- Ken reviewed the original intention of the BMPs, to provide a flexible framework that could be updated/revised with program improvements. The challenge came when the BMPs were codified into the permits of 2002, and these permit terms/conditions became hard to adjust.
- Ken provided an overview of the 2002 BMP document.
- Attached is the current 2010 BMP table.
- On the topic of how to maintain flexibility into the BMPs
 - Mike Higgins: for RWQCB, monitoring programs (MRPs) can be updated and approved by Executive Officer more easily, without need for permit amendment. Perhaps BMPs can be part of that?
 - USACE and USFWS perspective – write the ability to modify the BMPs right into the permit, and thereby maintain the flexibility
 - DFG – interim permit (the DFG/District are currently working on) will accept the current BMP list that comes out of annual review process. Issues have arisen in the past where BMPs were tied into a variety of conditions in the permit which cannot all be changed, so they got hardwired in that manner.
- Bill Smith: Regarding the 2002 BMP list, some BMPs were actually project description or mitigation topics and therefore not appropriate for the BMP document. We want to now clean this up and have BMPs be operationally focused, with other non-operational or program items not being located here, but in a more appropriate location in the program manual or elsewhere.
- For example, BMPs 0.2 (minor maintenance work) and 3.19 (biodiversity monitoring program) from 2002 – really don't belong in the BMP document. On BMP 0.2 – Smith – described that the District wants to move away from acres because for such small areas, it is not very clear, and this has become a confusing work impediment. Luisa: why is it not clear? Smith: because sometimes the project area is bigger than the area of impact, and where just the project area is used, it overestimates the area of impact, etc. Also some things were not truly minor activities. In the current renewal process, some things will move to other parts of the program (that don't belong in minor maintenance).

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Summary Meeting Notes

- Paula – how do we account for the jurisdiction of different agencies? E.g., 0.05 acres may be a different amount for USACE, RWQCB, DFG – who have different jurisdictions and mandates?
- Ken to send the group the 2010 BMP document for their review. Requesting comments from IAWG on the BMPs back over next few weeks (Due September 30th).

5. Program Mitigation

- Ken provided an overview of the Mitigation Program to date, reviewing Slides 30-33.
- On the Laguna Seca project – issue with project is the ability of ground water (GW) to support the wetlands in light of GW extraction in the area. District is continuing to monitor GW levels to determine feasibility – GW levels are looking very encouraging, only 1 foot drop as opposed to the 10-15 feet which were predicted in the GW model.
- Smith: What do the agencies think about the Stream and Watershed Protection Program? It has been very difficult to implement. Should we continue with this program element? If so, could there be different acceptance criteria for potential properties, because many properties do not meet the current criteria? Also, most of the available land is in south county, but bulk of the maintenance work is in north county, so not easy to mitigate in the north. Also landowners are holding out because they see the HCP coming and think they can get higher prices.
 - o Maggie: about revising the criteria. Is that something that can be changed now, or wait for the renewal?
 - o Paula: please put the Districts thoughts/proposal regarding potential mitigation program revisions together in a comprehensive way and present it to the agencies for their review/comment. It is difficult to answer in a blanket way, the IAWG is willing to look at these things but not without a specific proposal. Ken described that such a “mitigation proposal” would come to the IAWG in the coming months, and we will discuss it at upcoming meetings.
 - o Bill/Ken described that an alternative approach to acquisition would be more “service based” whereby mitigation is provided through providing services/activities, etc. but not necessarily through land acquisition.
 - o Overall consensus was to tie up the old program mitigation and look fresh at the new work and work areas.
- Ken described the original/fundamental assumption to the mitigation program in 2002, that the programmatic mitigation provided through the existing program, provides mitigation for the work projected in the original program. Continued maintenance work in the streams and work areas included in the original projections need not be mitigated beyond the original commitments. However, for “new program areas” that were not included in the original projections, these lands will require additional mitigation. The

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Summary Meeting Notes

question now becomes what will be the best way to provide that mitigation? The IAWG confirmed the original intention of the program's mitigation approach so as to provide mitigation in perpetuity for the channels/creeks included in the original projections.

- Maggie: Does the District have a plan to satisfy the prior mitigation requirements that have not been met?
 - o Smith: It is a complicated question. HCP is on its way, a lot of things up in the air.
 - o Maggie: I would like to see something about this.
 - o Luisa: Does the District plan to advance a proposal that the mitigation completed to date adequately addresses the work performed to date?
 - Ken: that was me speaking, not the District, and was more of an observation than a proposal, that it appears that the mitigation provided to date does exceed the relative mitigation requirement based on how much maintenance work was conducted. We can revisit this issue within the framework of the mitigation proposal for the new work areas.
 - o Cameron: on the topic of no net loss of functions and values to wetlands. There is no agreement or standard approach within Corps on how to quantify/measure the replacement mitigation for losses to wetlands. There are ways to do it. It may be easier for fluvial systems than wetlands, although fluvial system mitigation is more difficult to find. So, not to discourage the District from pursuing this approach, but there would need to be agreement on the methodology beforehand.
 - Higgins: District/consultants should develop a robust methodology and propose it for RWQCB approval. You're the experts, not us.
 - Ken: We could use CRAM or some other functional assessment tool.
 - Ken: But, there may be excellent mitigation opportunities through funding of local projects (RCDs, etc.) that provide land stewardship, environmental enhancement/restoration. Such "watershed partnerships" were successfully used in Sonoma County to provide off-site mitigation.
 - Paula: before you spend a lot of time investing in that kind of watershed partnerships type mitigation, let's be sure that the regulatory agencies can buy off on it at the end of the day. That you don't go too far down that path without a clear path for approval.
 - Cameron: From the Corps' perspective, taking an approach that has an objective measurement that no one can argue about would be best.

Stream Maintenance Program

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Best to avoid subjective interpretations of data. Not to discourage the District from doing good things, but measuring/crediting it is important.

- Tami: As an agency, DFG prefers an acquisition approach, so may be difficult for DFG to go down alternative paths. Ken – ok, but DFG did approve Sonoma County’s mitigation approach which was not acquisition oriented, and used a combination of on-site, and funding of watershed projects to achieve mitigation for maintenance projects.

6. Overview of 2010 Program Revisions

- Ken: reviewed the anticipated program revisions (Slides 34-35).
- Mike Higgins: the proposed changes to the Program from 2002 should be justified in detail.
- Luisa: Regarding Corps levees, since timeframe for these issues might exceed the permit renewal process, how do we handle that?
 - o Smith: defer this to a subsequent/supplemental CEQA analysis
 - o Stevenson: CEQA document cannot entirely defer analysis, but needs to make a good-faith effort at disclosing what we do know, while also acknowledging the uncertainties.
- Luisa: why no stream gages or arundo identified as program changes?
 - o Smith: stream gages are wrapped into other aspects of program (sediment removal, vegetation management). Didn’t want to include as minor maintenance since the actual activities fall into other categories. To have it in minor maintenance raises problems because as minor maintenance, there is not clear guidance (e.g., how veg mgmt is to be performed). In other words, the District wants to be more upfront about the specific type of activity and categorize it as such.
 - o Williams: no arundo because we’re wanting to move in the direction of a more comprehensive invasive management program. Arundo removal will fall under the mitigation umbrella, not a change to program activities.

7. Program Timeline

- Ken: Reviewed project timeline graph shown in Slide 36
- Vincent: Corps needs to reinstate USFWS/NMFS consultations. Green sturgeon, EFH, CTS are now under consideration. We need the permit package and BAs to move forward.
 - o Perhaps have a more focused meeting on species issues.
 - o Tami: include DFG in CTS discussions.
 - o Vincent: does CRLF critical habitat designation affect SMP? Padley: no.

Stream Maintenance Program

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Meeting 1: Thursday, August 26, 2010
Summary Meeting Notes

8. Wrap Up

- Scheduling future meetings: Higgins only available T, W, Th. Should we bounce back and forth between San Jose and Oakland? IAWG members expressed interest in an Oakland meeting location. This isn't a problem, we can use Horizon's conference room.
- Teleconference, web conference as options. USFWS is in Sacramento.
- Email will get circulated to schedule the next meeting. October/November timeframe for next meeting. Meeting #3 in Feb/March timeframe.
 - o Luisa: at least two meetings on each of the topics that Ken has identified would be better. A little concerned about spacing things out too much, keep the conversation fresh. Schedule 2 meetings at a time so we're doing well to look ahead.
 - o Bring your calendars to future meetings for scheduling purposes.
- PowerPoint presentation will be provided as part of meeting notes.

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Inter Agency Working Group (IAWG)



Meeting 2: Wednesday, October 20, 2010
1330 Broadway, Oakland - 4th Floor Conference Room
Summary Meeting Notes

Handouts:

- PowerPoint presentations from Oct. 20 IAWG meeting (attached)
- Current 2012 SMP BMP document (distributed at meeting)
- Current 2012 SMP Project Description (distributed at meeting)

Attendees:

- Michael Stevenson, Horizon
- Maggie Beth, SFB RWQCB
- John Rohrbough, CC RWQCB
- Sunny Williams, SCVWD
- Kristen O’Kane, SCVWD
- Bill Smith, SCVWD
- Luisa Valiela, USEPA
- Doug Padley, SCVWD
- Ginger Bolen, H.T. Harvey
- Steve Rottenborn, H.T. Harvey
- Paula Gill, USACE
- Tami Schane, CDFG
- Ken Schwarz, Horizon
- Sandy Devoto, Horizon
- Devin Mody, SCVWD (conference call)

1. Review Agenda and Introductions

2. SMP Program Renewal

- Ken provided an overview of the existing program, including the program area, the project setting and typical/routine expected maintenance activities (Slides 3-5), and activities to date (Slides 6-9), examples of work activities (10-13), and work projections for 2012-2022 (Slide 14-15).
- Question regarding the intensity of sediment removal work in repeated areas.
 - o Bill: In general, where repeat maintenance has occurred, it typically has happened 2-3 times at the repeated site, but it can vary greatly. Some sites have been visited up to 5 times, though this is rare.
- Ken reviewed a sequence of maps that summarized the 2002 work projections, 2002-2009 actual work conducted, and 2012 work projections for sediment removal and vegetation management. Map sequence included: 1) a description of where work was

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Meeting 2: Wednesday, October 20, 2010
1330 Broadway, Oakland - 4th Floor Conference Room
Summary Meeting Notes

projected in 2002 and conducted; 2) where work was projected in 2002 and not conducted; and 3) where work was conducted in 2002 but not projected. The maps reviewed were draft and are currently under internal District review.

3. Revised Program BMP Document

- Ken provided a walk-through of the revised BMP document (copies distributed at meeting).
- Luisa: is agency approval needed to extend work window?
 - o No. For the five watersheds, as currently written there is a notification requirement (but not an approval).
 - o Paula is concerned about the existing notification process, because they get buried in e-mails, and it is hard to keep all the messages straight. Paula asked if some sort of consolidated request was possible?
 - o Team to revisit whether advance notification and/or approval is something that is important to notify in regard to the extended work window, or whether they can be notified after the fact in the PCR. Luisa mentioned that it is probably a topic that the IAWG will need to discuss independently.
- Luisa: on BMP VEG-8, will it be generic or plant-specific?
 - o Bill/Ken: The non-native species plant removal issue will be integrated into a broader Invasive Species Management Program, and will not be a BMP.
- District will provide further guidance on how/when to comment on the BMPs.

4. Species Discussion

- Steve Rottenborn provided an overview of special-status species in the Program Area (see second Powerpoint).
- Maps will be created to show where areas of projected work overlap with habitat areas.
- Team mentioned Vincent Griego's absence and lack of participation in this meeting.
- Paula pointed out that we will not get much attention from USFWS until a formal consultation begins.
- Tami: least bell's vireo had been sighted in Santa Clara County.
 - o Steve confirmed that there had been one individual heard during one survey approximately 4 years ago, and had not been identified since.
- Essential Fish Habitat will be included.
- Process for consultation will be (1) submittal of draft BAs to Services on an informal basis, (2) update BAs based on their comments, and then (3) these revised versions will be used to initiate formal consultation.

Stream Maintenance Program

Inter Agency Working Group (IAWG)



Meeting 2: Wednesday, October 20, 2010
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Summary Meeting Notes

- On schedule for the BAs, the sooner the better, although it is contingent on several factors such as BMP development, what the compensatory mitigation program will look like, etc. The EIR analysis, which is currently underway, will support preparation of the BA.

5. Mitigation Program Status and Look Ahead

- Ken: reviewed the status of the current mitigation program (Slides 20-21).
- Tami: Stream and Watershed Protection mitigation – important to note that the acreage represents credits at a ratio of 10:1 or 15:1, so the actual acreage needed is much greater.
- Tami: erosion control as mitigation – would this address District sources of erosion, or other sources?
 - o Ken: both
 - o Tami: that has been identified as a goal for the HCP, but the District has strongly opposed addressing erosion sources outside of District’s control.
 - o Bill: as a clarification, District would not do work on other people’s lands, rather provide funds for other entities to do this.
 - o Kristen: the SMP program and District supervisor in charge of the SMP support this type of approach.
 - o Sunny: District staff appreciate the comment and will be cognizant of this in other District meetings.
- Bill will be quantifying actual impacts of program to date to compare against mitigation requirements and mitigation completed to date. Will be ready within the next few months.
- Ken described that the District is developing a mitigation package for the 2012-2022 program renewal process that seeks to provide mitigation for impacts associated with newly projected maintenance work. The mitigation program under development will likely have several components (a “basket of goods”) that can provide different kinds of ecological and watershed functions.

6. Next Steps

- Email will get circulated to schedule the next meeting. Feb/March timeframe for next meeting.
- Topics to be covered at next meeting:

Stream Maintenance Program
Inter Agency Working Group (IAWG)



Meeting 2: Wednesday, October 20, 2010
1330 Broadway, Oakland - 4th Floor Conference Room
Summary Meeting Notes

- Invasive Species Management approach (includes *Arundo donax* control program. Presented by Bill Smith)
 - Mitigation Accounting for 2002 SMP; and
 - Mitigation Proposal for 2012 SMP.
- PowerPoint presentation will be provided as part of meeting notes.

Santa Clara Valley Water District Stream Maintenance Program Renewal



IAWG Meeting #3

Meeting Agenda

Thursday, July 21, 2011, 1:00pm– 3:30pm

1330 Broadway, Oakland

4th Floor Conference Room

1. Review Agenda and Introductions
 - Attendees:
 - ✓ Luisa Valiela, EPA
 - ✓ Paula Gill and Ian Liffman, Corps
 - ✓ Maggie Beth and Shin-Roei Lee, SFRWQCB
 - ✓ Jon Rohrbough, CC RWQCB (on phone)
 - ✓ Greg Martinelli, DFG (on phone)
 - ✓ Gary Stern, NMFS (on phone)
 - ✓ Vincent Griego, USFWS (on phone)
 - ✓ Kristen O’Kane, Sunny Williams, Bill Smith, Melissa Moore (on phone), SCVWD
 - ✓ Ginger Bolen, HT Harvey
 - ✓ Ken Schwarz, Michael Stevenson, Jill Sunahara, Horizon

2. Overview of Project Status and Schedule
 - SMP Manual Update 2012-2022 – printed copies were distributed in meeting. The Manual will be included as an appendix to the EIR.
 - Draft EIR – Will be out for public review in August, copies will be sent to all IAWG partners.
 - Public oral comments on the Draft EIR will be received at the District Board Hearing on September 13th at 9am.

3. Review and Discuss the Updated Mitigation Approach
 - Memo Review Process - Responses to IAWG submitted comments received will be provided. Responses will be provided for each direct comment received, and a revised version of the Mitigation Approach memo will be developed and distributed.
 - Foundational issue – the SMP is an on-going program with an existing mitigation in place and operational.
 - i. The remaining 2002-2012 mitigation requirements and District’s commitment to complete them will be addressed in a forthcoming letter from the District.

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- ii. The District can provide additional data on the status of mitigation projects conducted to date. This information has been included in the annual SMP Post Construction Reports (PCRs) that are sent to regulatory partners.
- Comment from Paula: the proposal to apply tidal mitigation credits to offset future 2012-2022 impacts must be evaluated on a case by case basis.
- Paula: The Corps will need a supplemental or sub-document that addresses only mitigation activities within Corps' jurisdiction to regulate.
- Luisa: Projected areas, how were these created? How were reaches identified for mitigation and maintenance work, how specific are the projections?
 - i. Michael/Bill/Sunny/Ginger – projections are just a tool to refine mitigation numbers (CRLF habitat for example), but program covers the whole county (below 1,000 ft) and work can occur anywhere.
- Paula: We need a clearer procedure for reporting/approval of maintenance locations. What happens if work were to occur outside of projected areas? How would agencies be notified of that? District needs to develop a procedure for reporting, review/approval, and monitoring for any work areas outside of the projected maintenance reaches.
 - i. Ken/MMS – work tracking will be covered during the annual notification process. Example tracking table showing projected, work to date, proposed, and total work. If something were to come up outside of the projected area it would be included in the notice of proposed work. The CEQA and environmental analysis for the BA development included a far range of environments within the program area, and would most likely cover any project that would occur in a “non projected” area. That said, if such an area were to arise whereby the base environmental documentation (EIR, BAs, etc.) were not adequate, than additional environmental assessment would be necessary to ensure that the maintenance reach is consistent with the potential impacts as described in the program documents.
 - ii. Paula – make sure all activities projected and not projected are tracked to ensure consistency with Programmatic coverage. Please

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develop an accounting system and procedure for tracking work areas within and outside of projected work areas. We'll need annual and cumulative accounting.

- iii. Luisa - Projected areas vs. projected impacts – what is the difference?
- iv. Paula – concerned about species protection in areas not projected or covered by BOs, which are based on projections.
 - 1. Hope to establish within BOs and DFG “take” approvals
 - 2. Ken: walked through a tracking example of how work in a new work area (not projected) would be tracked.
 - 3. Paula: We would need to know what resources/species are in the new proposed area? Ken/Michael – similar to above, team would evaluate new work area (non-projected) to ensure it is consistent with information provided in BA, some sort of consistent assessment/evaluation of potential effects. Basic habitat description. If there are issues, or it is inconsistent with existing environmental documentation – then the permit coverage would not apply, until it is shown that the work site is consistent with the program. If work site is consistent with the program, then coverage can be approved under the RGP. Recognize that Corps will need extra time for review of non-projected work. If we get a standard procedure in place, it will expedite review process if and when it happens. There should be agency-wide approval of standard procedure for considering such work sites (NMFS/FWS/RB/DFG).
 - 4. Shin-Roei: Sonoma Permit example. Regional Board established a process to evaluate individual projects one by one if necessary.
- Shin-Roei: Yellow projected areas. What about frequency of maintenance projected within existing areas? If maintenance may occur more often in existing areas, there will be more impact.
 - i. Bill presented a table with the work frequency information summarized by reach.

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- ii. Shin-Roei: most work areas are maintained less than originally projected. But what is occurring within the areas that are most frequently maintained? Are there recurring issues that could be addressed through other means?
 - iii. Kristen – Asset Management Program will answer those questions.
 - iv. Ken – Regional Board applications include discussion of Maintenance Guidelines, Asset Management, Geomorph Programs. Addresses frequency and causes of maintenance.
 - v. **Maintenance Guidelines Memo will be distributed to IAWG members for their reference.**
- Section 5
 - i. Luisa – what is the mitigation prioritization process? Is there a hierarchy in selecting which components of the mitigation program are implemented? How do each of the components compare to benefits?
 - ii. Luisa – Is riparian planting a mitigation component? Isn't this a standard component of maintenance work?
 - iii. Ken – Riparian planting is a mitigation component, and not a standard requirement of maintenance work. Of the various mitigation options, first priority would to applying on-site mitigation directly where maintenance occurred. Ideally, mitigation activities (per the memo) would be applied in-kind toward the maintenance work sites. If there is not an opportunity to provide such mitigation on-site, then off-site opportunities would be evaluated.
 - iv. Melissa – described an example of an urban site. Complex and lots of variables to consider.
 - v. Greg – need to define a process for selection and application of mitigation
 - vi. Luisa – can a procedure be written up for urban/degraded and higher quality streams?

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1. Melissa – no, it’s difficult because there are critters even in degraded areas. Maybe we can define for “improved” and “natural” channels.
- vii. Luisa - **Each component in the basket are apples and oranges, so application protocols should be defined for each with a decision tree. Plus cumulative tracking.**
- 5 year mitigation coverage for repeat maintenance
 - i. Herbicides, mitigation required every 5th time
 - ii. Sediment, mitigation required every year
 - iii. Veg maintenance, ok to return to site to fine tune within 5 yrs w/o having to re-mitigate. Mainly for veg maintenance activities.
 - iv. Luisa- why does the District need this?
 - v. Shin-Roei – why not permanent?
 1. Bill, if frequent enough, then District will mitigate under the perpetuity program
 - vi. Land acquisition to provide permanent mitigation
 1. Shin-Roei: acquisition must provide some environmental lift, not just set aside land. Present a package to restore/enhance the parcel too. Address the state’s “no net loss” policy
 2. Ken – described in Section 5.1
 3. Ginger – acquisition is only applicable for permanent impacts (hardscape for bank stabilization projects). Most other maintenance results in temporary impacts.
 - vii. Greg - Definition of “perpetuity”
 1. Same as for the existing program, meaning for the life of the maintenance program.
 2. Not conservation easements, except on case by case basis
- Section 6 Species-Specific Mitigation
 - i. Gravel Augmentation (described by Melissa)

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1. Luisa: Projects will be coordinated county-wide/watershed wide
 2. Gary: Objective of the program is that the d50 sediment size should become coarser. Location, depth, velocity aren't necessary criteria. Focus on the removal of fine sediment to benefit spawning gravel quality. District conduct d50 analysis, and count credit for sed removal of fines. Keep it simple.
- Bank Stabilization
 - i. Shin-Roei: No need to set a maximum on program-wide hardscape at 50%. Just use site by site approach and always prioritize soft-scape.
 - ii. Ken/Bill: **Will delete hardscape cap.**
 - iii. Paula: Yes, but we need to continue to track and report what type of bank stabilization projects occur.
 - Mitigation Reporting
 - i. Annual accounting of impacts
 - ii. Annual accounting of mitigation
 - iii. Shin-Roei: additional requirement for completion of Wetland Tracker Form, one submittal per year. Document total losses and gains over course of program
 - Mitigation Credit for Capital Projects in SMP sites, language described in SMP Manual is misleading
 - i. Lower Berryessa and other projects
 - ii. Paula: problematic for Corps. Mitigation for different activities (stream maintenance vs. CIP)
 - iii. Bill/Ken: Not the intent. Will clarify language in Manual. Separate and add discussion in Mit Memo too. Mitigation is to cover maintenance work, not construction activities (Page 4)
4. Review and Discuss Next Steps for Program Permit Renewals

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- Public Draft EIR will include today's version of the Mitigation Memo.
- We will revise and respond to the agency comments, and provide the revised Mitigation Memo separately, after the Draft EIR (perhaps with the final EIR?)
- Summary of Key recommendations from today's meeting
 - i. Develop protocol for the identification, agency review and application of maintenance activities that occur outside of projected work areas.
 - ii. Develop protocol to describe the prioritization and selection of mitigation activities (for annual pay as you go type mitigation projects)
 - iii. Need to carefully track mitigation annually and cumulatively, and keep regulators updated through annual reporting process.
 - iv. District needs to provide IAWG with a letter or memo describing the commitment to comply with original program mitigation requirements, and also (if possible) describe what planned mitigation activities may be implemented to achieve any outstanding requirements.
 - v. Clarify language in maintenance manual that mitigation is applied for maintenance activities, not CIPs who will need their own mitigation.
- IAWG members to provide any additional comments by next Friday (7/29)
- Next Steps
 - i. Individual agency discussions
 - 1. Corps, separate mitigation memo to address Corps-specific issues
 - 2. Regional Board, use of the District Maintenance Guidelines
 - 3. NMFS/FWS, review of Biological Assessments
 - 4. DFG – will have follow up mtg with Tami in person to review mitigation topic and also DFG permitting
 - ii. Potential to have another collective meeting (if considered necessary) to review/discuss mitigation activities further

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