Item 6 - Appendix D

Comment Letters Received by January 21, 2019

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Comment Letters Received

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Looker, Richard@Waterboards

From: Chris Malan <cmalan1earth@gmail.com>
Sent: Monday, January 21, 2019 4:55 PM
To: Looker, Richard@Waterboards
Subject: Public Comment on the Proposed TMDL 303d listing

Hi Richard,

As you know Living Rivers Council/LRC opposed the de-listing of the Napa River above the tidal segment. Here are the reasons:

- Our members regularly kayak the Napa River and see algae blooms as early as April starting in Calistoga all the way through to the tidal segments
- Many tributaries are clogged with vegetation such that the natural riparian area is over run with aggressive non-native plants fed by nutrient loading i.e., Himalayan Blackberry, vinca, duck weed of which these will choke out the stream
- Ponds and lakes become filled with algae such that you can not see the water creating a huge nuisance
- Cyan-bacteria blooms threatened public health and safety
- The cities such as Calistoga, St. Helena and Napa use bleach to knock down the bio-mass creating Trihalomethane/THMs exceeding limits and violating the Safe Drinking Water Act-they have had enforcement by the SFRWQCB.

I would refer you to the letter Biologist Patrick Higgins wrote on behalf of LRC prior stating that taking just two samples of the River and then moving to delist the fresh water segments of the Napa River is counter to the TMDL de-listing policy and is not enough evidence to delist the fresh water segments of the Napa River.

Living Rivers Council wants the Nutrient TMDL for the fresh water to remain in place to protect the public's right to fish, swim and recreate.

Gravels in Yountville are full of algae and overridden with plants. 2015-see attached pictures.

Thank You,
Chris Malan
LRC
Manager

Santa Clara County Creeks Coalition

Advocates for living streams

January 8, 2019

Mr. Richard Looker
TMDL Unit
San Francisco Bay Regional Water Quality Control Board
By email

Dear Mr. Looker,

I am writing to express strong support for the listing of Los Gatos Creek as impaired for temperature.

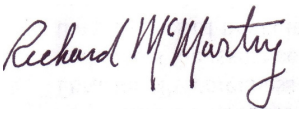
I am also requesting that, as part of the TMDL process, the Regional Board consider the instream flow needs of the creek as it impacts temperature conditions in the creek.

Action by the Regional Board is needed on this creek for two reasons:

1. As shown by the attached "Fisheries and Aquatic Habitat Collaborative Effort Settlement Agreement" of 2003, there are no temperature requirements or flow requirements specified in the settlement agreement for the Los Gatos Creek.
2. As shown in the attached memo of Water District staff Garth Hall in early 2017, the Water District, in response to requests by the Creeks Coalition and other environmental groups to the Board of Directors Capital Improvement Committee, did not support the request to include a feasibility study in the CIP to evaluate the impacts on temperature of District facilities. Instead they basically said that, since the project isn't the top priority, they can put off considering it to an indefinite date in the Adaptive Management process of FAHCE.

Clearly, without Regional Board action, there will be no timely resolution of these issues on Los Gatos Creek. Though the FAHCE agreement could address these issues, the District's actions show that it has no intention of doing so in a timely way.

Sincerely,



Richard McMurtry

Attachments:

1. FAHCE Settlement Agreement of 2003
2. Memo from Garth Hall, SCVWD staff, Feb 27, 2017

Santa Clara Valley Water District

Committee:	CIP Ad Hoc
Meeting Date:	02/27/17
Item No.:	4.3
Unc Mgr:	G. Hall
Email:	ghall@valleywater.org

COMMITTEE AGENDA MEMO

SUBJECT: Response to Letter from Mr. Richard McMurtry, dated January 28, 2017, and Submitted to the Committee on January 31, 2017 as Handout 2-A.

RECOMMENDED ACTION:

Receive information from staff and discuss an approach for addressing the various requests from stakeholders for fish habitat improvement projects into the CIP.

SUMMARY:

At the January 31, 2017 CIP Ad Hoc Committee Meeting Mr. Richard McMurtry provided a letter requesting the addition of three feasibility studies the CIP to evaluate the operation and modification of Alamitos Percolation dam and/or Vasona reservoir – key instream water diversion facilities -- to improve fish habitat.

This request is among many received by the District from parties asking for removal or modification of instream recharge facilities (or studies that might indicate the benefits of doing so). These facilities support groundwater recharge and provide water supply to purveyors in the county and are operated with appropriate permits and all have water right allocations permitted by the State Water Resources Control Board (SWRCB). The future operation of these facilities is under consideration as part of the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) process to address an earlier water rights complaint. Such projects require balancing habitat improvement with water supply and groundwater protection, and require agreement by stakeholders and regulatory agencies charged with protection of these resources.

Staff has reviewed Mr. McMurtry's request and advises that, in accordance with Section 6.2.4.2 of the FAHCE settlement agreement, these concepts can be incorporated in the many studies and candidate projects that will be considered in the Adaptive Management Program, developed to support the FAHCE water rights settlement.

The problem with making commitments now towards these studies and projects is that it's not clear, at least to staff, that these specific studies and projects should be assigned top priority among all the others that will ultimately be incorporated into the Adaptive Management Program. Staff recommends an adaptive management approach that relies on stakeholder input and incorporates all appropriate information to identify the most effective solutions. Staff then anticipates receiving Board direction on which studies and projects should be incorporated into the Adaptive Management Program and which, among those, should be implemented with highest priority.

BACKGROUND:

At the January 10, 2012 Board meeting, the Board formed the CIP Ad Hoc Committee to facilitate in-depth discussion about the CIP.

Each year a five-year Capital Improvement Program (CIP) is prepared for Board consideration and approval. The CIP communicates the District's capital investment priorities, and provides information on the planned capital projects and possible sources of funding for the projects. The CIP works in concert with the annual budget process, wherein funding is appropriated to the individual projects.

ATTACHMENT(S):

Attachment 1: 013117 Item 2-A, Handout, R. McMurtry

Michelle Meredith

Subject: FW: Recommendations to CIP Committee
Attachments: 28 January 2017 recommendations.docx; Alamitos Drop Structure Feasibility Study Proposal Overview.pdf; Problem statement.docx

From: Richard McMurtry [mailto:rmcmurtry@baymoon.com]
Sent: Saturday, January 28, 2017 7:18 AM
To: Clerk of the Board <clerkoftheboard@valleywater.org>; John Varela <jvarela@valleywater.org>; Nai Hsueh <NHsueh@valleywater.org>; Tony Estremera <TEstremera@valleywater.org>
Subject: Recommendations to CIP Committee

Dear Clerk of the Board,

Can you please forward this to the members of the CIP committee for its Jan 30th meeting?

Richard

Richard McMurtry
Santa Clara County Creeks Coalition
http://www.sccreeks.org
24010 Summit Road
Los Gatos, CA 95033
408-442-4932

28 January 2017

The Honorable Nai Hsueh
The Honorable Tony Estremera
The Honorable John Varela
Members of the CIP Committee
Santa Clara Valley Water District
By email

Dear Ms. Hsueh, Mr. Estremera and Mr. Varela,

I am writing to request that you consider making additions to the CIP for the next fiscal year and adopt a clearer more consistent policy with respect to the early implementation of these projects.

The three projects I recommend are:

1. Feasibility study to cease operation of the Alamitos flashboard dam forthwith (as soon as possible) by construction of a pipeline to fill the the Alamitos perc ponds without the use of the flashboard dam so as to achieve improved habitat and fish passage conditions in Alamitos Creek

2. Feasilbity study to modify the Alamitos Drop structure to improve the flow of gravel to downstream locations for improved spawning and to improve fish habitat and passage conditions

3. Feasiblity study to address the elevated temperatures created by Lake Vasona and the backwater to the Kirk Diversion facility to improve temperature conditions in the 6 miles between the Campbell Drop Structure and the confluence with the Guadalupe River.

Attached is technical information in support of these recommendations.

The need for a clearer policy statement was evidenced in a recent meeting with staff where staff asserted that FAHCE will address the issues associated with the Alamitos Drop Structure and Flashboard Dam. Staff asserted this even though the FAHCE agreement does not mention this facility in the context of the above goals and the Water Utility staff have declined to include this facility in the publically available Fishery Habitat Restoration Plan being produced pursuant to FAHCE.

The guidance given by the Board to staff on June 28th to "get these fishery project done" should have been sufficient to elicit a more proactive approach to the above projects. However, the Board's discussion of FAHCE in December could be interpreted by staff to imply a "wait for FAHCE" approach.

I recommend that the CIP Committee recommend to the full Board the adoption of a strategy statement to make unequivocal the Board's commitment to expedite the planning and construction of the

fishery projects necessary to improve fish passage and habitat on Santa Clara streams, pursuant to the policy adopted by the Board in July 2012, namely:

4.1.6. To the extent within practicable control of the District, adopt a strategy to restore the salmonid fishery on identified salmonid streams within fifteen years of strategy adoption by creating suitable accessible spawning and rearing habitats.

Proposed Strategy

1. That staff expedite the completion of the FAHCE process while assuring the process resolve the technical issues needed for successful achievement of environmental goals of FAHCE.
2. That staff pursue, in parallel with FAHCE, the expedited planning and construction of the fish migration barrier removals and habitat improvement project specified by FAHCE.
3. That staff pursue the expedited feasibility studies for the Alamitos Drop Structure/Flashboard Dam and Los Gatos Temperature Conditions Improvement Projects and request State Water Resources Control Board amendment of its water rights licenses to include these feasibility studies as a condition of the license prior to completion of FAHCE.

Sincerely,

Richard McMurtry
24010 Summit Road
Los Gatos, CA 95033
RMcMurtry@baymoon.com

SETTLEMENT AGREEMENT REGARDING WATER RIGHTS OF THE SANTA CLARA VALLEY WATER DISTRICT ON COYOTE, GUADALUPE, AND STEVENS CREEKS

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EXHIBITS AND APPENDICES

This Settlement Agreement ("Settlement" or "Agreement") is entered into by and between the Santa Clara Valley Water District ("SCVWD"), the United States Department of the Interior, Fish and Wildlife Service ("FWS"), the United States Department of Commerce, National Marine Fisheries Service ("NMFS"), the California Department of Fish and Game ("DFG"), the Guadalupe-Coyote Resource Conservation District ("GCRCD"), Trout Unlimited, the Pacific Coast Federation of Fishermen's Associations, and California Trout, Inc., to resolve disputes regarding SCVWD's use of its water rights on Coyote, Guadalupe, and Stevens Creeks in Santa Clara County, California.

RECITALS

A. SCVWD is authorized to appropriate and acquire water and water rights for any purpose useful to SCVWD and to manage flood control operations within Santa Clara County. (Water Code Appendix Section 60-1 *et seq*.)

B. Beginning in 1928, SCVWD initiated the appropriation, storage, conservation and distribution of water within Santa Clara County, and continuously thereafter it has applied the conserved water to beneficial use. It obtained permits and then licenses from the State Water Resources Control Board ("SWRCB") and its predecessor agencies.

C. On or about July 11, 1996, GCRCD filed a complaint against SCVWD with the SWRCB ("Complaint"). It alleged that SCVWD's use of its water right Licenses on Coyote Creek, Guadalupe River, and Stevens Creek ("Three Creeks") degraded fish, wildlife, water quality, and other beneficial uses, in violation of the California Constitution, Water Code, Fish and Game Code, and the public trust doctrine.

D. On October 19, 1996, SCVWD answered the Complaint and denied GCRCD's allegations. It stated that its appropriation, storage, conservation and distribution of water complied with all applicable laws.

E. Effective October 17, 1997, Central California Coast steelhead (*Oncorhynchus mykiss*) was listed as threatened under the Federal Endangered Species Act (62 Fed.Reg. 43937, August 18, 1997). The Central California Coast steelhead Evolutionarily Significant Unit includes steelhead in coastal California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays.

F. In 2001, Section 60-4 of the SCVWD authorizing act was amended to modify the objectives and powers of SCVWD to include the power "to enhance, protect, and restore streams, riparian corridors, and natural resources in connection with carrying out the objects and purposes set forth in this section."

G. SCVWD and DFG convened settlement negotiations, referred to as the "Fish and Aquatic Habitat Collaborative Effort" ("FAHCE"). FAHCE undertook field investigations and other studies of the environmental conditions that limit the population and distribution of steelhead trout and salmon in the Three Creeks. The resulting scientific record provides a factual basis for this Agreement. Specifically, the field investigations and other environmental studies indicate that if SCVWD's diversion, storage and use of water under its licenses ("Licenses") and permit ("Permit") are conducted in accordance with the terms of this Agreement, SCVWD will be in compliance with all applicable laws that are within the respective jurisdiction of any Party to this Agreement or within the jurisdiction of the SWRCB.

H. This Agreement embodies a comprehensive settlement resulting from FAHCE's work.

NOW THEREFORE, in consideration of the mutual promises specified herein and by conditioning their performance under this Agreement upon satisfaction of the identified conditions precedent set forth in Article V, and for other good and valuable consideration, the Parties agree as follows:

ARTICLE I
PURPOSE OF AGREEMENT

1.1 Purpose of Agreement

1.1.1 Comprehensive Settlement. This Agreement is a settlement among the Parties to comprehensively address and resolve all issues in the Complaint and any related issues arising under state and federal laws that concern the impacts of SCVWD's facilities and operations on the beneficial uses of the Three Creeks, with the exception of mercury contamination issues that are the subject of a pending Natural Resource Damage Assessment ("NRDA") proceeding, and which are not included in or addressed by this Agreement.

ARTICLE II
RULES OF CONSTRUCTION
AND DEFINITIONS

2.1 Rules of Construction. This Agreement will be subject to the following rules of construction.

2.1.1 No Limitation on Statutory Authority. Other than as expressly set forth herein, the Agreement will not be construed to affect or limit the authority of any Party to fulfill its statutory, regulatory, or contractual responsibilities under applicable law.

2.1.2 Negotiated Resolution. The Agreement is made upon the express understanding that it constitutes a negotiated resolution of disputed issues and an Offer of Compromise in accordance with California Evidence Code Section 1152. No Party will be deemed to have consented to any resolution, except as expressly provided herein. The Agreement is not intended and will not be construed, cited or referenced by any Party in any administrative or legal proceeding between or involving any Party, other than: (i) as proof of the Settlement and that the issues addressed herein have been resolved; or (ii) for use in such proceeding to construe or enforce the provisions of the Agreement in the event of default.

2.1.3 Liberal Construction. The provisions of this Agreement will be liberally construed to effectuate its purposes.

2.1.4 Plain Meaning. The provisions of this Agreement will be construed simply according to their plain meaning and will not be construed for or against any Party, as each Party has participated in the drafting of this Agreement and has had the opportunity to have its counsel review it.

2.1.5 Plural and Gender. Whenever the context and construction so require, all words used in the singular will be deemed to be used in the plural, and all masculine will include the feminine and neuter, and vice versa.

2.1.6 Context. Unless the context otherwise requires, the word "including" means without limitation, the word "or" is not exclusive, and the words "herein," "hereto" and "hereunder" refer to this Agreement as a whole.

2.1.7 Exhibits, Appendices, Amendments and Legislation. All Exhibits attached to this Agreement are incorporated by this reference as though fully stated in this Agreement and are deemed to be part of the Agreement. The Appendices will be used in construing the Agreement, by providing background and illustration, but they are not part of the Agreement. Unless the context otherwise requires, (i) a reference to a provision of the Agreement or other document means such Agreement or other document as amended from time to time; and (ii) a reference to a statute means

such statute as amended from time to time and includes any successor statute thereto. Amendment to the Agreement is binding only as to the Parties that execute the Amendment.

2.1.8 Captions. The captions, headings and index of this Agreement are for convenience only and have no effect in the interpretation of this Agreement.

2.2 Definitions

2.2.1 "Adaptive Management Team" or "AMT" means the entity established by paragraph 7.2 of this Agreement.

2.2.2 "Acre-Foot" means a unit of measurement.

2.2.3 "Additional Measures" means measures that (A) SCVWD will implement in Phases Two or Three, (B) additional to those measures implemented in Phase I, (C) provided the criteria stated in paragraph 6.1.2 are met.

2.2.4 "ADR" means the use of a facilitator or any mutually agreeable form of non-binding mediation or dispute resolution.

2.2.5 "Agreement Year" means a specific year after the Agreement becomes effective, counting chronologically from the Effective Date of this Agreement.

2.2.6 "CEQA" means the California Environmental Quality Act (California Public Resources Code Section 21000 *et seq*.).

2.2.7 "Corps" means the United States Army Corps of Engineers.

2.2.8 "Effective Date" means the date upon which all conditions precedent stated in paragraphs 5.3 to 5.8 have been satisfied, and all Parties have executed the Agreement. SCVWD and other Parties' obligations to perform under Articles VI through IX will commence on the Effective Date.

2.2.9 "EIR" means an environmental impact report pursuant to CEQA.

2.2.10 "EIR/EIS" means both an environmental impact report and an environmental impact statement that may be prepared and issued jointly or independently by responsible state and federal agencies in accordance with applicable environmental laws.

2.2.11 "EIS" means an environmental impact statement pursuant to NEPA.

2.2.12 "Emergency" means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. "Emergency" includes such occurrences as fire, flood,

earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.

2.2.13 "Environmental Review" means review and analysis of potential impacts of the Agreement on the environment under state and federal laws.

2.2.14 "Environmental Setting" means the baseline conditions of the Three Creeks pursuant to CEQA Guidelines Section 15125 and any corresponding NEPA provision, as further described in paragraphs 5.3.2 and 5.4.2.

2.2.15 "ESA" means the Federal Endangered Species Act (16 U.S.C. Sections 1531 *et seq*.).

2.2.16 "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

2.2.17 "HCP" means "a habitat conservation plan" within the meaning of Section 10 of the ESA (16 U.S.C. Section 1539).

2.2.18 "Initialing" means the initialing of this Agreement by a legally authorized representative on behalf of a Party.

2.2.19 "Initialing Date" means the first date when all Parties have initialed this Agreement, or when a subset of Parties have initialed the Agreement as set forth in paragraph 4.1.2.

2.2.20 "NEPA" means the National Environmental Policy Act (42 U.S.C. Sections 4321 *et seq*.).

2.2.21 "Party" or "Parties" means a party to this Agreement.

2.2.22 "SWRCB" means the State Water Resources Control Board.

2.2.23 "Three Creeks" means Coyote Creek, Guadalupe River, and Stevens Creek and their watersheds, including tributaries.

ARTICLE III
TERM, SUSPENSION, WITHDRAWAL AND TERMINATION

3.1 Perpetual Agreement Consisting of Four Phases. This Agreement will consist of a total of four phases. These are: three phases of ten years each for implementation following the Effective Date, and a continuing perpetual phase thereafter. Each of the initial three phases includes distinct management objectives and measures to achieve the Overall Management Objectives stated in paragraph 6.2.2. The fourth and perpetual phase will serve to continue the benefits obtained under Phases One, Two, and Three.

3.1.1 The Agreement, and specifically, the obligations to perform under Articles VI through IX, will be effective as of the Effective Date.

3.1.2 The term of Phase One begins on the Effective Date and continues until the last day of Agreement Year Ten.

3.1.3 The term of Phase Two begins on the first day of Agreement Year Eleven and continues until the last day of Agreement Year Twenty.

3.1.4 The term of Phase Three begins on the first day of Agreement Year Twenty-One and continues until the last day of Agreement Year Thirty.

3.1.5 Phase Four begins on the first day of Agreement Year Thirty-One and continues for so long as SCVWD is diverting water under its Licenses and Permit.

3.2 Termination. The obligations of any Party under this Agreement may be terminated by and for that Party by its withdrawal from the Agreement. However, a Party may withdraw from this Agreement only if: (i) it has complied with the ADR procedures stated in paragraph 9.1.1 to resolve the dispute; or (ii) the withdrawal is required to fulfill its statutory or regulatory responsibility. The withdrawal of any Party other than the SCVWD will not terminate the Agreement among the remaining Parties. However, upon the withdrawal of any other Party, SCVWD will have a right to terminate the Agreement among the remaining Parties by providing notice to them and the SWRCB within 90 (ninety) days of such withdrawal or within a reasonable time following the initiation of legal proceedings against the SCVWD by any withdrawing Party.

3.3 Suspension. Any Party that is a government agency may suspend participation or, if necessary, withdraw from this Settlement, without first using the ADR procedures referenced in paragraph 3.2 and more fully set forth in paragraph 9.1.1 in the event of: (i) an Emergency; or (ii) if required to fulfill a statutory or regulatory responsibility. Upon the withdrawal from the Settlement by any Party, each remaining Party (whether or not a governmental agency) will have discretion whether, with the consent of the other Parties, it will suspend its own performance.

ARTICLE IV
PRE-EFFECTIVE DATE AND CONTINUING COVENANTS

4.1 Pre-Effective Date Covenants. The Parties make and will implement the following covenants, which apply before the Effective Date.

4.1.1 SCVWD will be solely responsible for its costs of processing Environmental Review of the Agreement, and these costs will not apply against the maximum expenditure limitations of paragraph 8.1.1. SCVWD will not have an obligation to reimburse or otherwise pay Parties for any of their assistance, participation, or cooperation in any activities pursuant to the Agreement before the Effective Date.

4.1.2 After the Initialing Date the Parties will jointly submit the Agreement to the SWRCB. They will represent that, to the best of their current knowledge, SCVWD's use of its Licenses and Permit, if amended in substantial conformity with this Agreement, will comply with all applicable laws, including but not limited to the public trust doctrine and Article X, Section 2 of the California Constitution. Accordingly, they will ask the SWRCB to amend such Licenses and Permit in substantial conformity with the Agreement and to issue findings in substantial conformity with those set forth in Exhibit B attached hereto. If the SCVWD, FWS, NMFS, DFG, and GCRCD have initialed the Agreement within 90 (ninety) days after Initialing by any Party, those Parties will submit the Agreement to the SWRCB under this paragraph regardless of the failure of any of the other Parties to initial the Agreement.

4.1.3 In proceedings before the SWRCB to amend the Licenses and Permit in accordance with this Agreement, the Parties will support the adoption of license and permit amendments in substantial conformity with this Agreement and the issuance of each of the findings set forth in Exhibit B, if the record continues to demonstrate that these measures are the best alternative to protect and maintain the beneficial uses of these waters and otherwise comply with applicable laws. The Parties may modify the Agreement if the record demonstrates that another alternative will better protect and maintain such beneficial uses. However, SCVWD may not be compelled to implement the Agreement unless the amendments to its Licenses and Permit and corresponding findings are issued by the SWRCB in substantial conformity with the Agreement.

4.1.4 On submittal described in paragraph 4.1.2, GCRCD will indicate its support for the SWRCB's dismissal of its Complaint against SCVWD upon the SWRCB's adoption of the requested license and permit amendments and the issuance of the related findings in substantial conformity with the Agreement. Upon the SWRCB's approval of the license and permit amendments and the issuance of the related findings in substantial conformity with the Agreement, GCRCD will withdraw its Complaint with prejudice.

4.1.5 Unless a Party, within 30 (thirty) days of the SWRCB's final order issuing license and permit amendments and related findings, objects in writing to all other Parties that such amendments

or findings do not substantially conform with the Agreement, no Party will seek administrative or judicial review of the SWRCB's order.

4.1.6 If a Party objects in writing to all other Parties that the license or permit amendments or the related findings do not substantially conform with the Agreement, the Parties will attempt to resolve the dispute, pursuant to the ADR procedures of paragraph 9.1.1, prior to the deadline for administrative or judicial review. An objecting Party may seek such review of the amendments if the dispute is not resolved by that deadline. If judicial review is taken, the Parties will use the ADR procedures of paragraph 9.1.1 in an effort to resolve the dispute. No Party may be compelled to proceed to implement its obligations under Articles VI through IX of this Agreement unless it determines, in its sole discretion, that the SWRCB approval and findings are in substantial conformity with the Agreement.

4.1.7 The Parties will execute the Agreement upon satisfaction of all conditions precedent stated in paragraphs 5.3 to 5.8.

4.2 Continuing Covenants Before and After Effective Date. The Parties make the following continuing covenants, which will take effect on initialing and continue in effect for the term of the Agreement.

4.2.1 The Parties will perform their obligations arising under this Agreement in good faith.

4.2.2 The Parties will reasonably cooperate in the sharing of data, information and documents to the extent necessary to satisfy the filing and recording requirements of State and Federal regulatory agencies, including those of the SWRCB.

4.2.3 Subject to its right to terminate this Agreement pursuant to paragraph 3.2, SCVWD will operate its diversion, storage and distribution of water and use its water rights in accordance with the requirement that the water be used reasonably and beneficially and in accordance with the terms and conditions of the Permit and Licenses as they may be amended by the SWRCB under its reserved jurisdiction, from time to time.

4.2.4 Each Party independently represents that, subject to the development or discovery of significant new information (including change in applicable law) relevant to this Agreement, each of their respective responsibilities regarding the subject matter of this Agreement has been, is, or will be satisfied through accomplishment of the measures set out in this Agreement.

4.2.5 Prior to securing any binding commitment and thereafter, each Party will give due regard to its responsibilities under applicable law.

4.2.6 SCVWD is solely responsible for the operation of the facilities subject to the Agreement. By this Agreement, no Party other than SCVWD accepts or obtains any responsibility for such operation.

4.2.7 SCVWD will pay for the cost of its actions required by the Agreement or the license and permit amendments. SCVWD will not have an obligation to reimburse or otherwise pay Parties for any of their assistance, participation, or cooperation in any activities pursuant to the Agreement or the license and permit amendments.

4.2.8 Implementation of this Agreement by FWS or NMFS is subject to the Anti-Deficiency Act (31 U.S.C. Section 1341) and the availability of appropriated funds. Similarly, implementation of the Agreement by DFG is subject to the availability of appropriated funds. The Agreement is not intended and will not be construed to require the obligation, appropriation, or expenditure of any money from the U.S. Treasury or the State of California Treasury.

4.2.9 Request for Amendment of the Licenses and Permit

4.2.9.1 Request for Amendment by Party Other than SCVWD. After the Effective Date, and except as required to fulfill statutory or regulatory responsibilities, a Party other than SCVWD may not seek to further amend or otherwise reopen the Licenses and Permit, unless significant new information, not available as of the Effective Date, including change in applicable law, demonstrates that the Licenses and Permit, as amended in conformity with this Agreement, do not comply with applicable law. In such an event, the Party will provide SCVWD with at least 90 (ninety) days notice to consider the new information and the Party's application of that information to the Settlement. In the event of an Emergency, a Party may seek to amend or reopen the Licenses and Permit after providing 72 (seventy-two) hours notice to SCVWD and other Parties. The notice will include a brief summary of the condition creating the Emergency and the relief that the Party intends to request from the SWRCB. Upon a Party's request to reopen SCVWD's water rights Licenses or Permit, SCVWD will have the sole discretion to either suspend performance or, with the consent of the then remaining Parties, to withdraw from the Settlement pursuant to paragraph 3.2.

4.2.9.2 Request for Amendment by SCVWD. SCVWD will not seek to amend its Permit and Licenses in a manner that is inconsistent with this Agreement. SCVWD will provide written notice to the other Parties in advance of filing any petition to the SWRCB to change the place, purpose, method, or quantity of use stated in the Permit or Licenses listed in Exhibit A. In the event that a Party contends that a proposed change is inconsistent with the Agreement, they may resolve the dispute in accordance with the dispute resolution procedures set forth in Article IX.

ARTICLE V
EXPRESS CONDITIONS PRECEDENT TO IMPLEMENTATION OF ARTICLES VI-IX

5.1 Initialing and Release of Agreement. SCVWD and each other Party will initial the Agreement. Following the Initialing Date, the Agreement will be submitted to the SWRCB as an offer of settlement of the Complaint and will be made available for public review and comment.

5.1.1 The initialing of the Agreement will not create any binding commitment by any Party to effect any change in the environment, to carry out any project within the meaning of CEQA or NEPA, or to implement the measures set forth in Articles VI through IX, other than to make the Agreement available for public review and comment and for the purpose of defining a project for Environmental Review.

5.1.2 No Party will allege or seek judicial or administrative redress based upon detrimental reliance or estoppel as a result of actions taken by any other Party after the other Party's initialing of this Agreement and before the Effective Date.

5.2 Time Limit for Satisfaction of Conditions Precedent. SCVWD and other Parties' obligations to implement Articles VI through IX, inclusive, will commence on the Effective Date, upon satisfaction of each of the express conditions precedents set forth in paragraphs 5.3 through 5.8 and within 24 (twenty-four) months of the Initialing Date.

5.3 CEQA Compliance. A condition precedent to the Effective Date is that the SCVWD will have completed Environmental Review for the project in accordance with the provisions of CEQA and all applicable laws within its jurisdiction.

5.3.1 This Agreement will form the basis of the project for the purposes of CEQA. It consists of the complete settlement of the Complaint. The project consists of all commitments in the Agreement, including commitments to continue activities undertaken by SCVWD in response to the Complaint and prior to the start of the environmental analysis.

5.3.2 The baseline for purposes of CEQA will not include any activities undertaken by SCVWD after July 11, 1996, the date on which the Complaint was filed, in response to the Complaint or otherwise as part of the FAHCE process, inasmuch as these activities are experimental management, minor physical alterations, or within the range of ongoing operations.

5.3.3 As provided in the regulatory approvals for flood control projects and other programs, and subject to paragraph 5.3.2, SCVWD will monitor existing conditions of the Three Creeks and will use the monitoring results as part of the Environmental Setting in the CEQA and other regulatory reviews of this Agreement.

5.3.4 Environmental Review will be deemed complete when SCVWD has certified its Environmental Review document in compliance with CEQA.

5.3.5 The Parties will exercise reasonable best efforts to coordinate the CEQA and NEPA related reviews. To the extent practicable, an integrated environmental document will be used.

5.4 NEPA Compliance. A condition precedent to the Effective Date is that the lead federal agency (whether the FWS, NMFS, or another agency) for the actions contemplated in this Agreement will have completed Environmental Review for the project in accordance with NEPA and all related applicable laws.

5.4.1 This Agreement will form the basis of the description of the preferred alternative(s) for the purposes of NEPA. It consists of the complete settlement of the Complaint. The project consists of all commitments in the Agreement, including commitments to continue activities undertaken by SCVWD in response to the Complaint and prior to the start of the environmental analysis.

5.4.2 The baseline for purposes of NEPA will not include any activities undertaken by SCVWD after July 11, 1996, the date on which the Complaint was filed, in response to the Complaint or otherwise as part of the FAHCE process, inasmuch as these activities are experimental management, minor physical alterations, or within the range of ongoing operations.

5.4.3 Environmental Review under NEPA will be deemed complete when the FWS, the NMFS, and the Corps have certified that their respective reviews comply with NEPA.

5.4.4 The Parties recognize that it is likely that the Corps, the FWS, or other federal agency will be the lead agency for purposes of preparing the NEPA document. FWS and NMFS will coordinate environmental review with the Corps. Without regard to which federal agency acts as lead agency, the NEPA document will include a comprehensive conservation strategy.

5.5 SWRCB. A condition precedent to the Effective Date is that, following any administrative or judicial appeal, the SWRCB will have:

5.5.1 Ordered amendments to the Licenses and Permit in substantial conformity with the Agreement; and

5.5.2 Adopted findings in substantial conformity with those set forth in Exhibit B that conclude that SCVWD's storage, diversion and use of water in implementing this Agreement comply with all applicable laws that are within the jurisdiction of the SWRCB. This finding will cover repair and replacement of the existing SCVWD facilities pursuant to which SCVWD presently diverts, stores and distributes water under the Permit and Licenses set forth in Exhibit A. New facilities, including any proposed diversions, storage or distribution of water unrelated to this Agreement, will require independent review and analysis.

5.6 GCRCD. A condition precedent to the Effective Date is that the GCRCD will have indicated its support for the SWRCB's dismissal of GCRCD's Complaint with prejudice. GCRCD will unconditionally support dismissal of its Complaint by the SWRCB if it determines that findings or amendments to the Permit and Licenses in the SWRCB's final order are in substantial conformity with the Agreement. If it determines that such findings or amendments are not in substantial conformity, GCRCD may, consistent with paragraph 4.1.6, elect not to support dismissal of its Complaint or may undertake an administrative or judicial appeal of the SWRCB's order.

5.7 DFG. A condition precedent to the Effective Date is that DFG, in its discretion and in accordance with all applicable laws, will have issued any approvals required to adopt or implement the Agreement, including any permit or approvals that may be necessary under the California Endangered Species Act. Such issuance will be done only after DFG has been provided with a full and fair opportunity to evaluate the scientific record, including but not limited to the EIR/EIS and any other relevant facts and circumstances.

5.8 FWS and NMFS. A condition precedent to the Effective Date is that FWS and NMFS, each in its complete and sole discretion and in accordance with all applicable laws, and only after having been provided a full and fair opportunity to evaluate the scientific record, including but not limited to the EIR/EIS and any other relevant facts and circumstances, will have:

5.8.1 Determined, after completing consultation in full compliance with all requirements of Section 7 of the ESA with any and all responsible federal action agencies, including but not limited to the Corps, that issuance of any permits under the Clean Water Act or any other federal action subject to such consultation that is required to implement the measures contained in this Agreement will neither jeopardize the continued existence of any listed species nor result in the adverse modification of any designated critical habitat, as those terms are used within the meaning of the ESA and provided in Exhibit C;

5.8.2 Found that the Agreement or the implementation of its measures will either not require the issuance of an incidental take permit or issued all such permits under Section 10 of the ESA as may be necessary to implement the Agreement as provided in Exhibit C;

5.8.3 If a permit is required under Section 10 of the ESA, approved an HCP for the Three Creeks subject to this Settlement, inclusive of a no-surprises provision, for a period not less than 50 (fifty) years from the Effective Date as provided in Exhibit C.

5.8.3.1 The HCP will be a multi-species program, which will include all federally-listed species, and all candidate species, proposed species, and species of special concern at the time the HCP is submitted.

5.8.3.2 Upon issuance of an incidental take permit, SCVWD will be provided all no surprises assurances, as set forth in the implementing regulations for the ESA at 50 CFR 17.22(b)(5) and 50 CFR 222.307(g).

5.8.4 Promised to subsequently work in good faith to incorporate the conservation strategy within the HCP for the Three Creeks subject to this Agreement into a countywide HCP for Santa Clara County for a period of not less than 50 (fifty) years from the Effective Date, if and when such a countywide HCP is adopted.

ARTICLE VI
PROGRAM FOR RESTORATION OF THREE CREEKS

6.1 In General. The Agreement will be implemented in Four Phases.

6.1.1 All measures described as occurring in Phase One that do not require additional study, Environmental Review, or modification of capital facilities, including the flow measures, will begin immediately after the Effective Date. All other measures will be implemented expeditiously, not later than the last day within the ten-year term of Phase One.

6.1.2 Implementation of Additional Measures in Phases Two and Three will occur only if: (i) the Parties agree that the Overall Management Objectives defined in the preceding phase(s) have not yet been satisfied at the end of the 10-year term of the immediately preceding phase; (ii) the proposed measures are deemed feasible under CEQA and NEPA; and (iii) the proposed measures are anticipated to contribute to meeting the Overall Management Objectives in a cost-effective manner as provided in paragraph 7.3. Unless each of these three criteria is satisfied, SCVWD will be discharged of further responsibility for carrying out or funding Additional Measures described in each such Phase. Appendix D describes the proposed schedule for implementing measures in Phases One through Three.

6.1.3 In Phase Four, SCVWD will continue the flow and other measures set forth in paragraph 6.7.

6.2 Elements Common to the Three Creeks

6.2.1 Beneficial Uses. This Agreement commits SCVWD and other Parties to a program of measures intended to restore and maintain fisheries, wildlife, water quality and other beneficial uses of the Three Creeks in good condition. The overall management objectives stated in paragraph 6.2.2 focus on steelhead trout (*Oncorhynchos mykiss*) and chinook salmon (*Oncorhynchus tshawytscha*). Since the Agreement is intended to restore both fisheries to good condition in the Three Creeks, the Agreement will not be interpreted or administered in a manner that favors one fishery to the detriment of the other. Accordingly, in construing and implementing this Agreement, the Parties will give equal consideration to both fisheries. In adaptive management of a given measure as provided in paragraph 7.1, the Parties (through the Adaptive Management Team) may implement such measure in a manner which is more beneficial for one fishery than another, after due consideration of the criteria stated in paragraph 7.3.

6.2.2 Overall Management Objectives. Implementation of the Agreement will restore and maintain healthy steelhead trout and salmon populations as appropriate to *each* of the Three Creeks, by providing (A) suitable spawning and rearing habitat within each watershed, and (B) adequate passage for adult steelhead trout and salmon to reach suitable spawning and rearing habitat and for out-migration of juveniles.

6.2.3 Storage, Diversion, and Rediversion of Water. SCVWD will store, divert, and redivert water in a manner that is consistent with the Overall Management Objectives set forth in paragraph 6.2.2.

6.2.4 Phase One Measures

6.2.4.1 Flow Measures. Unless modified under paragraph 6.3, SCVWD will make reservoir flood releases, fisheries passage releases, and other planned (non-Emergency) operations changes using the criteria described in Appendix E.

6.2.4.2 Continuing Efforts to Improve Fish Passage. With the support of the other Parties, SCVWD will make reasonable best efforts to assure that passage barriers other than those listed in paragraphs 6.4 through 6.6, inclusive, are remediated. At a minimum, pursuant to the adaptive management program of Article VII, the Parties will periodically evaluate and determine whether such barriers interfere with the timely achievement of the management objectives for each creek.

6.2.4.3 Fish Habitat Restoration Plan. In coordination with DFG, SCVWD will develop and implement a Fish Habitat Restoration Plan that will specify techniques, locations, and implementation schedules to enhance spawning and rearing habitats for steelhead trout and salmon in the Three Creeks. As early as feasible in the development of the plan, SCVWD will work cooperatively with DFG and NMFS to obtain their input on the content of the plan.

6.2.4.3.1 Spawning Habitat. The plan will include a program of placement of gravel to enhance existing spawning habitat. It will also include:

(A) Identification of existing habitat that is suitable for spawning, but inadequate for gravel;

(B) Procedures to develop an annual work plan for the Adaptive Management Team's review; and

(C) Commitment to implement the program, subject to periodic review and modification by the Adaptive Management Team.

6.2.4.3.2 Rearing Habitat. The plan will include a program to enhance rearing habitat. This program will include:

(A) Appropriate placement of large organic debris, channel modifications including berms, and riparian canopy enhancement;

(B) Procedures to develop an annual work plan for the Adaptive Management Team's review; and

(C) Commitment to implement the program, subject to periodic review and modification by the Adaptive Management Team.

6.2.4.3.3 Fish Passage. The plan will include a program to enhance passage to suitable spawning and rearing habitat. It will incorporate the priorities listed below, unless the Adaptive Management Team established pursuant to paragraph 7.2 determines other priorities.

6.2.4.4 Geomorphic Functions. SCVWD will undertake the following measures to enhance and restore the geomorphic functions of the three watersheds subject to the Settlement.

6.2.4.4.1 SCVWD will prepare a Geomorphic Functions Study. The study will:

(A) Identify stream reaches where geomorphic functions necessary for channel maintenance or formation (e.g., hydraulic runoff, bedload transport, channel migration, riparian vegetation succession) are impaired; and

(B) For each such reach, evaluate the feasibility of restoring such geomorphic functions. SCVWD will consider: modifying the channel dimensions for the purpose of carrying bank-full flow; varying the meander shape; planting riparian vegetation; removing culverts, riprap, and other structures; and stabilizing the area with the use of bioengineering techniques. The study will include an alternative that assumes current right-of-way constraints, and another alternative that investigates right-of-way increases where needed.

6.2.4.4.2 If found to be feasible, SCVWD will develop and implement pilot projects to restore geomorphic functions. These pilot projects will be a minimum of 2,000 linear feet of channel in each of the Three Creeks, chosen for maximum benefit to the steelhead trout and salmon fisheries.

6.2.4.4.3 SCVWD will adopt general guidelines for bank stabilization projects undertaken by other persons. These guidelines will be designed to maintain or enhance geomorphic functions, riparian conditions and fish habitat. They will include techniques and strategies based on the ability of riparian vegetation to hold soil, protect banks, and otherwise stabilize the stream channel. They will address use of structures such as jacks, lunkers, dirt-filled gabions, rock work, and crib walls, if necessary to rebuild a stream bank and offer stability until riparian vegetation is established.

6.2.4.5 Advanced Recycled and Other Urban Water Plan. In cooperation with the City of San Jose, SCVWD will complete an Advanced Recycled and other Urban Water Plan. The plan will evaluate the feasibility and suitability of using the water, supplied by the City of San Jose after Advanced Recycled Water Treatment ("ARWT"), to enhance the continuity of instream flow suitable for achieving the Overall Management Objectives in the Three Creeks, from the highest point of fish passage downstream to the San Francisco Bay. It will also evaluate the feasibility of using other urban water, such as discharges from storm sewers, sump pumps, and similar sources, for this same purpose. The evaluation of feasibility will include, for each watershed, a reasonable range of alternatives for: (i) direct use of ARWT water and other urban water for such instream flow; and (ii) conjunctive use of natural flow, imported water, groundwater, and ARWT or other urban water. The evaluation of suitability will include impacts on fish habitat (including water temperature, toxicity, and endocrine disruption) and other beneficial uses. If a feasible and suitable alternative exists, the plan will recommend action, including designs and schedules for construction of any necessary facilities.

6.2.4.5.1 SCVWD will assist the City of San Jose in the implementation of the plan, including an appropriate contribution of capital and operation and maintenance costs directly associated with use of recycled or other urban water found to be feasible and appropriate.

6.2.4.5.2 Every ten years after the plan has been completed, SCVWD will review any new information or laws that may alter any plan recommendations against use of ARWT or other sources of urban water for augmenting instream flows.

6.2.4.5.3 In recommending or deciding upon the use of recycled water or other urban water as a measure to implement the Overall Management Objectives, the Parties will be guided by the criteria stated in paragraph 7.3.

6.3 Permissible Modifications to Implementation Common to All Watersheds.

6.3.1 Flow schedules or other operational changes described below may be temporarily modified by SCVWD in the event of an Emergency.

6.3.1.1 Within five (5) calendar days of the Emergency, SCVWD will provide written notice of the Emergency to the other Parties.

6.3.1.2 Within 30 (thirty) calendar days of the notice of the Emergency, SCVWD will provide a brief written summary of the actions taken to address the Emergency.

6.3.1.3 Upon written notice of a request for a meeting by a Party other than SCVWD, the Parties will meet to discuss the actions taken and alternative measures and conditions that may be used in the event of similar future emergencies.

6.3.2 Flow schedules or other operational changes described below may be temporarily modified by SCVWD to conduct routine facilities maintenance or repairs on all reservoirs,

diversions, stream flow stations, pipelines or other appurtenant facilities and structures owned by SCVWD in the Three Creeks.

6.3.2.1 Within 60 (sixty) calendar days in advance of the scheduled maintenance activity, SCVWD will provide written notice to the Parties describing the location and nature of the activity.

6.3.2.2 Within 30 (thirty) calendar days of the scheduled maintenance activity, a Party other than SCVWD may provide notice of an objection to the scheduled date, time, location or nature of the activity, and propose conditions or alternative measures that may be employed by SCVWD to remove the objection.

6.3.2.3 SCVWD may proceed with the routine maintenance if (i) if no Party objects; or (ii) SCVWD agrees to adopt the recommendations offered by the objecting Party.

6.3.2.4 If neither condition stated in paragraph 6.3.2.3 is satisfied, the matter will be referred to the AMT for a further recommendation. If the recommendation is unacceptable to any Party, it may exercise its rights to request formal dispute resolution in accordance with paragraph 9.1.

6.4 Coyote Creek Watershed

6.4.1 Management Objectives

6.4.1.1 Overall Management Objective. Implementation of the Agreement will restore and maintain a healthy steelhead trout and salmon population in the Coyote Creek watershed, by providing: (A) Approximately five miles of spawning and rearing habitat below Anderson Dam and in Upper Penitencia Creek; and (B) Adequate passage for adult steelhead trout and salmon to reach suitable spawning and rearing habitat and for out-migration of juveniles.

6.4.1.2 Phase Two Management Objectives. Subject to paragraph 6.1.2, the distribution of suitable habitat for salmon and steelhead trout will be materially extended up to an additional five miles (plus or minus) below Anderson Dam; or up to ten miles above Anderson Reservoir or Coyote Reservoir, as determined feasible.

6.4.1.3 Phase Three Management Objective. Subject to paragraph 6.1.2, the available habitat will be extended into suitable tributaries or above Anderson Reservoir or Coyote Reservoir.

6.4.2 Restoration Measures

6.4.2.1 Phase One Measures. In support of the Phase One Management Objectives described above, in each Agreement Year SCVWD will undertake the following measures:

6.4.2.1.1 Flow Releases. Unless modified under paragraph 6.3, SCVWD will make flow releases from Anderson Reservoir to Coyote Creek below the intake of the Coyote Canal as provided below.

(A) November 1 to April 30. SCVWD will provide a suitable winter base flow in order to support steelhead trout and salmon spawning and egg incubation. SCVWD will make reservoir releases for the purpose of providing winter base flows in accordance with the reservoir operations rule curves contained in Appendix E.

(B) February 1 to April 30. If the combined storage of Anderson and Coyote Reservoirs exceeds 80,000 acre-feet during this period, SCVWD will release a pulse flow from Anderson Reservoir through the outlet or the Anderson Hydroelectric Facility in order to facilitate up-migration of adult steelhead trout and out-migration of steelhead trout and salmon smolt. SCVWD will make pulse flow releases in accordance with the reservoir operations rule curves contained in Appendix E.

(C) May 1 to October 31. SCVWD will maintain a water temperature not to exceed 18 degrees Centigrade throughout as much of the cold water management zone (i.e., the reach from the outlets of Anderson Dam to approximately Golf Course Drive) as available cold water supply will allow. SCVWD will make these releases in accordance with the reservoir operations rule curves contained in Appendix E SCVWD may, but is not obligated to, substitute cold water from the Santa Clara conduit.

(D) February 1 to April 30. Within thirteen (13) months of the Effective Date, SCVWD will have a completed plan for addressing the potential entrainment of smolts in the coyote Percolation Facility. Upon completion of the plan, SCVWD will modify operation of Coyote Percolation Facility to minimize the creation and maintenance of ponds of water so to reduce the entrainment and predation of out-migrating steelhead trout smolts in accordance with the plan.

6.4.2.1.2 Priority Barriers

(A) Priority Barriers Owned by SCVWD. SCVWD will remediate the barriers to fish passage that it owns, as listed in

the following table. SCVWD will be responsible for the costs of such remediation.

Watershed	Barrier Code	Barrier Name
Upper Penitencia	TBD	Penitencia Recharge Pond Diversion
Upper Penitencia	TBD	Overfelt Recharge Pond Diversion

(B) Priority Barriers Owned by Others. SCVWD will make reasonable best efforts to remove or remediate the passage barriers owned by other persons, as listed in the following table. SCVWD will fund not more than 50 percent of the costs to remediate these barriers and will undertake reasonable best efforts with the Parties and owners to secure the additional funds necessary to perform the remediation.

Watershed	Barrier Code	Barrier Name	Owner
Coyote Creek	FB34	Ogier Road Quarry Pond Complex	Santa Clara County
Coyote Creek	FB24	Singleton Road Low-Flow Crossing	City of San Jose
Upper Penitencia Creek	TBD	Unscreened Water Diversion	Santa Clara County

6.4.2.1.3 Coyote Creek Facilities Plan. SCVWD will complete a Coyote Creek Facilities Plan. The plan will include two parts, stated in paragraphs (a) and (b) below. SCVWD will implement the plan after obtaining any necessary regulatory approvals.

(A) Laguna Seca Groundwater Remediation. The plan will evaluate alternatives to manage groundwater inflow from Coyote Creek, for the purpose of allowing flow releases from Anderson Dam to continue uninterrupted to the vicinity of Metcalf Ponds in a manner that protects other parties' properties and water rights. If a feasible alternative exists, SCVWD will recommend action, including design and construction schedules.

(B) Metcalf Ponds Stream Corridor Restoration. The plan will evaluate alternatives to isolate percolation ponds, quarry pits, and other structures from the active channel in the vicinity of

Metcalf Road, in order to reestablish a free-flowing condition through that vicinity. If a feasible alternative exists, the plan will recommend action, including design and construction schedules.

6.4.2.1.4 Cherry Flat Reservoir. SCVWD will undertake reasonable best efforts to develop and execute a cooperative agreement with the City of San Jose regarding the operation of Cherry Flat Reservoir on Upper Penitencia Creek, to help ensure that habitat upstream of SCVWD's facilities is kept in good condition subject to the availability of water for release from the reservoir. In coordination with the cooperative agreement and operational plan for Cherry Flat Reservoir, SCVWD will also develop and execute an operational plan for SCVWD's facilities on Upper Penitencia Creek designed to maintain and enhance stream flow conditions for steelhead trout downstream of the Noble Avenue water diversion. The operational plans for Cherry Flat Reservoir and SCVWD facilities will seek to provide suitable flow conditions for adult passage, spawning, egg incubation, juvenile rearing and downstream migration of steelhead trout in Upper Penitencia Creek.

6.4.2.1.5 Trap and Truck. SCVWD will undertake a feasibility study of trap- and-truck operations at Anderson Reservoir, for the purpose of upstream and downstream migration of steelhead trout. The study will evaluate the suitability of spawning and rearing habitat for steelhead trout above Anderson and Coyote Reservoirs; the practicality of moving steelhead trout above the reservoirs and achieving successful out-migration; and the potential effects of such movement on existing steelhead trout populations in Coyote Creek.

6.4.2.2 Phase Two Additional Measures. Subject to paragraph 6.1.2, Additional Measures will be implemented as needed to achieve the Overall Management Objectives. These Additional Measures will be defined by the Phase One feasibility studies. The menu of potential Additional Measures includes:

(A) Revise water releases from Anderson Reservoir to provide for continuous stream flows in Coyote Creek from the reservoir to approximately Metcalf Road.

(B) Relocate the Coyote Percolation Facility off-stream.

(C) Remove or remediate Priority No. 2 barriers owned by SCVWD.

(D) Use recycled or other urban water to augment instream flows in Coyote Creek.

(E) Implement a Trap and Truck operation to relocate adult steelhead trout into upper watershed habitat above Anderson or Coyote Reservoirs and to assist in smolt out-migration.

6.4.2.3 Phase Three Additional Measures. Subject to paragraph 6.1.2, Additional Measures not implemented in Phase Two will be implemented as needed to achieve the Overall Management Objectives.

6.5 Stevens Creek Watershed

6.5.1 Management Objectives

6.5.1.1 Overall Management Objectives. Implementation of the Agreement will restore and maintain a healthy steelhead trout population in the Stevens Creek watershed, by providing:

(A) Suitable spawning and rearing habitat below Stevens Creek Dam within a cold water management zone determined on an annual basis through the development of an operations plan; and

(B) Adequate passage for adult steelhead trout to reach suitable spawning and rearing habitat and for out-migration of juveniles.

6.5.1.2 Phase Two Management Objectives. Subject to paragraph 6.1.2, the distribution of suitable fishery habitat for steelhead trout will be materially extended up to an additional five miles (plus or minus) above Stevens Creek Reservoir or an additional two miles below Stevens Creek Reservoir, as determined feasible.

6.5.1.3 Phase Three Management Objectives. Subject to paragraph 6.1.2, the suitable habitat will be extended into suitable tributaries or above Stevens Creek Reservoir.

6.5.2 Phase One Restoration Measures. In support of the Phase One Management Objectives described above, in each Agreement Year, SCVWD will undertake the following measures.

6.5.2.1 Flow Releases. Unless modified under paragraph 6.3, SCVWD will make flow releases from Stevens Creek Reservoir as provided below.

(A) November 1 to April 30. SCVWD will provide a suitable winter base flow in order to support steelhead trout spawning and egg incubation. SCWVD will make reservoir releases for the purpose of providing winter base flows in accordance with reservoir operations rule curves contained in Appendix E.

(B) February 1 to April 30. Pulse flow releases will be made from Stevens Creek Reservoir to facilitate up-migration of adult steelhead trout and out-migration of steelhead trout smolt. SCVWD will make pulse flow

releases in accordance with the reservoir operations rule curves contained in Appendix E.

(C) May 1 to October 31. SCVWD will maintain a water temperature not to exceed 19 degrees Centigrade throughout as much of the cold water management zone (i.e., the reach from the outlets of Stevens Creek Dam to approximately Highway 280) as available cold water supply will allow. SCVWD will make these releases in accordance with the reservoir operations rule curves contained in Appendix E.

6.5.2.2 Priority Barriers

(A) Priority Barriers Owned by SCVWD. SCVWD will remediate the barriers to fish passage that it owns, as listed in the following table. SCVWD will be responsible for the costs of such barrier remediation.

Watershed	Barrier Code	Barrier Name
Stevens Creek	HL1	Moffet Fish Ladder
Stevens Creek	HL2	Evelyn Fish Ladder
Stevens Creek	HL3	Fremont Fish Ladder
Stevens Creek	HB10	Stream Gage 35

(B) Priority Barriers Owned by Others. SCVWD will make reasonable best efforts to remove or remediate the passage barriers owned by other persons, as listed in the following table. SCVWD will fund not more than 50 percent of the costs to remediate these passage barriers and will undertake reasonable best efforts with the Parties and owners to secure the additional funds necessary to perform the remediation.

Watershed	Barrier Code	Barrier Name	Owner
Stevens Creek	HB25	Blackberry Farms Road Crossing	City of Cupertino
Stevens Creek	HB27	Blackberry Farms Irrigation Diversion	City of Cupertino

6.5.2.3 Portable Multi-Port Outlet. SCVWD will construct, install, and operate a portable, gravity-fed outlet at Stevens Creek Reservoir subject to the flow schedule described above. The outlet will be operated to manage the release of reservoir waters to maintain or enhance water temperature for steelhead trout rearing.

6.5.2.4 Hypolimneal Aeration. SCVWD will construct, install and operate a device on the downstream end of the reservoir outlet that will increase aeration of the reservoir outlet waters either through mechanical or passive methods.

6.5.2.5 Trap and Truck. SCVWD will undertake a feasibility study of trap-and-truck operations at Stevens Creek Reservoir regarding upstream and downstream migration of steelhead trout. The study will evaluate the suitability of spawning and rearing habitat for steelhead trout above the reservoir; the practicality of moving steelhead trout above the reservoir and achieving successful out-migration; and the potential effects of such movement on existing steelhead trout populations in Stevens Creek.

6.5.3 Phase Two Additional Measures. Subject to paragraph 6.1.2, Additional Measures will be implemented as needed to achieve the Overall Management Objectives. The proposed Additional Measures will be defined by the Phase 1 feasibility studies. The menu of Additional Measures includes:

(A) Remove or address Priority No. 2 barriers owned by SCVWD;

(B) Use recycled or other urban water to augment instream flows in Stevens Creek; and

(C) Implement a trap-and-truck operation to relocate adult steelhead trout into upper watershed habitat above Stevens Creek Reservoir.

6.5.4 Phase Three Additional Measures. Subject to paragraph 6.1.2, Additional Measures not implemented in Phase Two will be implemented as needed to achieve the Overall Management Objectives.

6.6 Guadalupe River Watershed

6.6.1 Management Objectives

6.6.1.1 Overall Management Objectives. Implementation of the Agreement will restore and maintain healthy steelhead trout and salmon populations in the Guadalupe River watershed, by providing:

(A) Suitable spawning and rearing habitat for steelhead trout and salmon in Guadalupe Creek from below Guadalupe Dam to its confluence with the Guadalupe River;

(B) Suitable spawning and rearing habitat for salmon below Calero and Almaden Dams to their confluence with Lake Almaden;

(C) Suitable spawning and rearing habitat for salmon in Los Gatos Creek from Camden Avenue to its confluence with Guadalupe River; and

(D) Adequate passage for adult steelhead trout and salmon to reach suitable spawning and rearing habitat and for out-migration of juveniles.

6.6.1.2 Phase Two Management Objective. Subject to paragraph 6.1.2, the distribution of suitable fishery habitat for steelhead trout will be materially extended in Alamitos Creek up to an additional three miles (plus or minus) above Almaden Reservoir, or below either Calero Reservoir or Almaden Reservoir to its confluence with Lake Almaden, as determined feasible.

6.6.1.3 Phase Three Management Objective. Subject to paragraph 6.1.2, the suitable habitat below Calero and Almaden Reservoirs or above Almaden Reservoir will be extended.

6.6.2 Restoration Measures

6.6.2.1 Phase One Restoration Measures. In support of the Phase One Management Objectives described above, SCVWD will undertake the following measures.

6.6.2.1.1 Guadalupe River Main Stem

(A) Priority Barriers Owned by SCVWD. SCVWD will remediate the barriers to fish passage that it owns, as listed in the following table. SCVWD will be responsible for the costs of such remediation.

Watershed	Barrier Code	Barrier Name
Guadalupe River	AB20	Alamitos Drop Structure
Guadalupe River	AB7	St. John Street Gage Weir

(B) Priority Barriers Owned by Others. SCVWD will make reasonable best efforts to remove or remediate the passage barriers owned by other persons, as listed in the following table. SCVWD will fund not more than 50 percent of the costs to remediate these passage barriers; however, SCVWD will undertake reasonable best efforts with the Parties and owners to secure the additional funds necessary to perform the remediation.

Watershed	Barrier Code	Barrier Name	Owner
Guadalupe River	AB13	Hillsdale Avenue Bridge	City of San Jose
Guadalupe River	AB14	SJWC Low-Flow Crossing	San Jose Water Company

6.6.2.1.2 Guadalupe Creek

6.6.2.1.2.1 Flow Releases. Unless modified under paragraph 6.3, in each Agreement Year SCVWD will make flow releases from Guadalupe Reservoir as provided below.

(A) May 1 to October 31. SCVWD will maintain a water temperature not to exceed 18 degrees Centigrade throughout as much of the cold water management zone (i.e., the reach from the outlets of Guadalupe Dam to approximately Camden Avenue) as available cold water supply will allow. SCVWD will make these releases for the purpose of supporting steelhead trout juvenile rearing. SCVWD will make these releases in accordance with the reservoir operations rule curves contained in Appendix E.

(B) November 1 to April 30. SCVWD will provide a suitable winter base flow in order to support steelhead trout and salmon spawning and egg incubation. SCVWD will make reservoir releases from Guadalupe Reservoir for the purpose of providing winter base flows in accordance with reservoir operations rule curves contained in Appendix E.

(C) February 1 to April 30. Pulse flow releases will be made from Guadalupe Reservoir to facilitate up-migration of adult steelhead trout and out-migration of steelhead trout and chinook salmon smolt. SCVWD will make pulse flow releases in accordance with the reservoir operations rule curves contained in Appendix E.

6.6.2.1.2.2 Priority Barriers Owned by Others. SCVWD will make reasonable best efforts to remove or remediate the passage barriers owned by other persons, as listed in the following table. SCVWD will fund not more than 50 percent of the costs to remediate these passage barriers. However, SCVWD will undertake reasonable best efforts with the Parties and owners to secure the additional funds necessary to perform the remediation.

Watershed	Barrier Code	Barrier Name	Owner
Guadalupe River (Pheasant Creek)	AAB1	Pheasant Creek Culvert	Unknown
Guadalupe River (Guadalupe Creek)	DB7	Old Dam	Private

6.6.2.1.3 Alamitos Creek

6.6.2.1.3.1 Flow Releases. Unless modified under paragraph 6.3, in each Agreement Year SCVWD will make flow releases from Almaden Reservoir as provided below.

(A) November 1 to April 30. SCVWD will provide a suitable winter base flow in order to support steelhead trout and salmon spawning and egg incubation. SCVWD will make reservoir releases from Almaden Reservoir for the purpose of providing winter base flows in accordance with reservoir operations rule curves contained in Appendix E.

(B) February 1 to April 30. Pulse flow releases will be made from Almaden Reservoir to facilitate up-migration of adult steelhead trout and out-migration of steelhead trout and chinook salmon smolt. SCVWD will make pulse flow releases in accordance with the reservoir operations rule curves contained in Appendix E.

6.6.2.1.3.2 Priority Barriers Owned by Others. SCVWD will make reasonable best efforts to remove or remediate the passage barriers owned by other persons, as listed in the following table. SCVWD will fund not more than 50 percent of the costs to remediate these passage barriers. However, SCVWD will undertake reasonable best efforts with the Parties and owners to secure the additional funds necessary to perform the remediation.

Watershed	Barrier Code	Barrier Name	Owner
Guadalupe River (Alamitos Creek)	CB5	Drop Structure	Private

6.6.2.1.3.3 Alamitos Creek Facilities Plan. SCVWD will complete an Alamitos Creek Facilities Plan. The plan will include two parts, stated below. SCVWD will implement the plan, after obtaining any necessary regulatory approvals.

(A) Almaden Dam. The plan will evaluate alternatives to provide unimpeded passage, both upstream and downstream, at the existing dam and reservoir; eliminate the warming of water temperature in the reservoir; and eliminate or minimize the methylation of mercury in the sediments behind the dam. If a feasible alternative exists, the plan will recommend action, including design and construction schedules. The flow schedules stated above will be amended as appropriate on the basis of such removal or modification of Almaden Dam.

(B) Almaden Lake. The plan will evaluate alternatives, including a bypass channel, to isolate Almaden Lake from Alamitos Creek and Guadalupe Creek, and to screen flow entering Almaden Lake to prevent entrainment and impingement of steelhead trout and salmon. If a feasible alternative exists, the plan will recommend action, including design and construction schedules. The plan will be completed no later than seven years and one day after the Effective Date.

6.6.2.1.4 Calero Creek. Unless modified under paragraph 6.3, SCVWD will make flow releases from Calero Reservoir as provided below.

(A) November 1 to April 30. SCVWD will provide a suitable winter base flow in order to support steelhead trout and salmon spawning and egg incubation. SCVWD will make reservoir releases from Calero Reservoir for the purpose of providing winter base flows in accordance with reservoir operations rule curves contained in Appendix E.

(B) February 1 to April 30. If it is safe to do so, pulse flow releases will be made from Calero Reservoir to facilitate up-migration of adult steelhead trout and out-migration of steelhead trout and chinook salmon smolt. The SCVWD will make pulse flow releases in accordance with the reservoir operations rule curves contained in Appendix E.

6.6.2.1.5 Los Gatos Creek. Unless modified under paragraph 6.3, SCVWD will make flow releases from Lexington Reservoir, Vasona Reservoir, or Vasona Pump Station, or any combination thereof, as provided below.

(A) November 1 to April 30. SCVWD will provide a suitable winter base flow in order to support chinook salmon spawning and egg incubation. SCVWD will make releases for the purpose of providing winter base flows in accordance with reservoir operations rule curves contained in Appendix E.

6.6.2.2 Phase Two Measures. Subject to paragraph 6.1.2, Additional Measures will be defined by the Phase One feasibility studies. Following such studies, if the Overall Management Objectives have not been met, the AMT may undertake periodic review of reaches within Los Gatos Creek below Lexington Reservoir, to identify opportunities for Additional Measures that may be implemented in Phases Two and Three, specifically to increase access to spawning or juvenile rearing habitat. The menu of potential measures includes:

(A) Remove or address Priority No. 2 barriers owned by SCVWD.

(B) Use recycled or other urban water to augment instream flows in the Guadalupe main stem or its tributaries.

(C) Implement a trap-and-truck operation to relocate adult steelhead trout into upper watershed habitat above Almaden Reservoir.

(D) Construct a bypass channel or other modification necessary to isolate Alamitos Creek from Lake Almaden.

(E) Remove or modify Almaden Reservoir to allow for unimpeded access to upper watershed habitat.

6.6.2.3 Phase Three Additional Measures. Subject to paragraph 6.1.2, Additional Measures not implemented in Phase Two will be implemented as needed to achieve Overall Management Objectives.

6.7 Phase Four - Continuing Actions

6.7.1 Maintenance of Flows. SCVWD will continue to provide instream flows in accordance with paragraphs 6.2 through 6.6, inclusive, in Phase Four as long as SCVWD diverts water under its Licenses and Permit, unless modified under paragraph 6.3.

6.7.2 Long-Term Monitoring. Long-term monitoring will continue as part of Phase Four. The cost of such monitoring will be limited to a financial expenditure by SCVWD of an amount not to exceed 5 percent of the annualized cost for measures implemented during Phases One, Two and Three.

6.7.3 Maintenance of Non-Flow Measures. Maintenance of facility improvements and other non-flow measures will continue as part of Phase Four. SCVWD's financial responsibility for facilities that have been completed prior to the end of Phase Three will be limited to the actual average annual cost for monitoring and maintenance incurred under this Agreement during Phase Three. For any facilities completed after the end of Phase Three, SCVWD's financial responsibility will be increased to include the actual average annual cost for monitoring and maintenance of those facilities for the first 10 (ten) years following completion.

ARTICLE VII
ADAPTIVE MANAGEMENT

7.1 Adaptive Implementation. SCVWD will implement the measures required in paragraphs 6.2 through 6.7, inclusive, in an adaptive manner in order to effectively mitigate any adverse impacts on the steelhead trout and Chinook salmon fisheries and their habitat, resulting from SCVWD's water supply facilities and operations.

7.2 Adaptive Management Team. SCVWD and the other Parties will form an Adaptive Management Team (AMT). The AMT will comprise a single representative from each Party. Membership in this team may be open to other interested persons, with the consent of SCVWD and the other Parties. In a written application for membership, each such person will demonstrate: (A) commitment to implement the Settlement, (B) willingness to dedicate the time and other resources necessary for effective participation in the Adaptive Management Program, and (C) ability to add value to the existing membership. The AMT will be formed on the Effective Date, and the rules and procedures of the AMT will be developed by the AMT within sixty (60) days of the Effective Date. The rules and procedures will address the manner in which the Parties will participate in the Implementation of the Adaptive Management Program. The Parties will review and consent to all of the plans, studies, reports, and other measures required by the Agreement. The members of the AMT will exercise best efforts to reach decisions by consensus. If they are unable to reach a consensus, disputes may be resolved in accordance with the provisions of Article IX.

7.3 Adaptive Management Program. Within one year of the Effective Date, and in consultation with the AMT, SCVWD will develop and thereafter implement an Adaptive Management Program. The purpose of the Adaptive Management Program is to maximize biological and physical benefits material to the Overall Management Objectives through the choice and implementation of the most cost-effective flow and non-flow measures. In making such decisions, the AMT will take into consideration: inter-annual and seasonal variation in hydrologic conditions, other constraints and limiting factors that affect achievement of the Overall Management Objectives, and monitoring results of the actual performance of measures already implemented, and opportunities for such measures to provide multiple benefits in the form of improvements to habitat for other fish, wildlife, and plant species and, more generally, the ecological conditions of the Three Creeks. The program will include:

(A) Measurable objectives consistent with the Phase One, Two, and Three management objectives for the steelhead trout and salmon fisheries and their habitats in the watersheds subject to the Agreement. The measurable objectives will relate to those habitat qualities impacted by SCVWD's facilities and operations, given the Parties' recognition that SCVWD is not responsible under this Agreement for other environmental conditions that may limit the population or distribution of these fisheries. Measurable objectives will be developed for flow measures, including maintenance of suitable water temperatures for summer steelhead rearing, performance of fish passage facilities, and other non-flow measures

(B) Operation and maintenance procedures and performance standards for individual facilities to contribute to the achievement of such objectives.

(C) Systematic monitoring of fish populations and actual habitat conditions affected by the measures implemented under this Agreement, to determine whether the measures are contributing to achievement of the measurable objectives. During each phase, and on the basis of these monitoring results, the AMT will also evaluate the performance of the entire program in maximizing habitat quality and availability for steelhead and salmon within the framework of this Agreement. The assessment will also evaluate the performance of the program at each phase in reducing or eliminating limiting factors affecting various life stages of steelhead and salmon directly attributable to SCVWD facilities and operations.

(D) Modification of flow and non-flow measures and other requirements of paragraphs 6.2 through 6.7, as appropriate to remedy any continuing impairment of a beneficial use.

7.4 **Coordination of Efforts.** The AMT will coordinate its efforts with other adaptive programs operating in the Three Creeks, as appropriate.

7.5 **Annual Report.** The AMT will publish and distribute to the Parties according to paragraph 10.1 an Annual Report that describes: (i) SCVWD's actions pursuant to the Settlement, (ii) monitoring results, and (iii) plans for the subsequent year, to the extent known.

ARTICLE VIII
FUNDING

8.1 Initial Funding

8.1.1 Provided that the implementation measures set forth in Article VI and summarized in Appendix B satisfy the requirements of paragraph 6.1.2, a maximum of $42 million will be made available by SCVWD in each of the Phases One, Two and Three in accordance with the agreed-upon cost accounting methodology. Appendix C describes the estimated budget for implementation of all measures contained in Phase One. Appendix D provides a detailed description of the cost accounting methodology that will be used under the Agreement.

8.1.2 Budget carryover will be allowed between the phases if the Parties agree that the Overall Management Objectives have not been met in the prior phase. However, unspent funds will not be carried over if the Parties agree that the Overall Management Objectives have been met and no Additional Measures are required under this Agreement.

8.2 Additional Funding. The Parties will make best efforts to secure additional funds where available and appropriate for the purpose of performing additional restoration of the Three Creeks. However, the acquisition of additional funds does not replace or diminish SCVWD's commitment to provide the funds described in paragraph 8.1.1 above.

8.3 No State or Federal Funding. As provided in paragraph 4.2.8 above, implementation of this Agreement by FWS or NMFS is subject to the Anti-Deficiency Act, 31 United States Code section 1341 and the availability of appropriated funds. Similarly, implementation of this Agreement by DFG is subject to the availability of appropriated funds. This Agreement is not intended and will not be construed to require the obligation, appropriation, or expenditure of any money from the U.S. Treasury or the State of California Treasury.

ARTICLE IX
DEFAULT, DISPUTE RESOLUTION AND REMEDIES

9.1 Dispute Resolution. Parties will exercise best efforts to reach consensus on all decisions arising under the Agreement, including (i) response to developments in regulatory review prior to the Effective Date; (ii) the Adaptive Management Program; and (iii) any proposed amendments to the Agreement. Unless the authorizing legislation of an agency (including any Party) with jurisdiction over a dispute resolved by this Agreement mandates a different procedure, all disputes among the Parties regarding this Agreement, including any disputes related to the consistency of the requested license and permit amendments by the SWRCB, will be addressed through non-binding ADR.

9.1.1 ADR Procedures. A Party claiming a dispute will give notice of the dispute within thirty (30) days of its actual knowledge of the event that gives rise to the dispute. The Parties participating in a dispute will devote the time, resources, and attention necessary to resolve the dispute expeditiously. If informal meetings do not resolve the dispute, the disputing Parties will select a neutral mediator to assist in further efforts. Unless otherwise agreed, the disputing Parties will implement promptly any final agreement reached, consistent with its applicable statutory and regulatory responsibilities.

9.1.2 Failure to Resolve Dispute. If the Parties fail to resolve the dispute in a manner satisfactory to them within 180 (one hundred and eighty) days of the initial notice of the dispute, any decision will be effective under the Agreement if it is supported by: (i) SCVWD and (ii) each regulatory agency with jurisdiction over the disputed measure. A Party that does not support the decision may be eligible to withdraw pursuant to paragraph 3.2.

9.1.3 Emergency Exception. In the event of an existing or threatened Emergency, a Party may immediately pursue its available remedies under this Agreement.

9.2 Default. The failure of any Party to perform its obligations under this Agreement, which failure continues for more than 90 (ninety) days after receipt of written notice from another Party, will constitute a default, unless the default is of a nature that it cannot be cured within 90 (ninety) days and the defaulting Party works continuously and diligently to remedy the default. Written notice by the other Party will be pursuant to paragraph 10.1, and will state the existence and the nature of such default.

9.3 Remedies

9.3.1 The Parties agree and recognize that the rights and obligations set forth in this Agreement are unique and of such a nature as to be inherently difficult or impossible to value in money damages. Accordingly, the Agreement will be enforceable in a court of equity by specific performance or injunction, and such specific performance or injunction will be the exclusive remedies available for alleged breach of this Agreement.

9.3.2 If the non-breaching Party fails to exercise or delays in exercising any right or remedy, the non-breaching Party does not thereby waive that right or remedy. Furthermore, no single or partial exercise of any right, power, or privilege precludes any further exercise of a right, power, or privilege granted by this Agreement or otherwise.

ARTICLE X
GENERAL PROVISIONS

10.1 Notice. Any notice under this Agreement will be written and distributed by first-class mail or comparable method of distribution and will be filed with the SWRCB. Any other notice will be provided by facsimile, electronic mail, or other reliable method of communication to the Parties. The list of authorized representatives of the Parties as of the Effective Date is attached as Appendix A. The Parties will provide notice of any change in the authorized representatives designated in Appendix A, and SCVWD will maintain the current distribution list of such representatives.

10.2 Governing Law. The Agreement will be construed under the laws of the State of California without giving effect to the principles of conflict of laws, with exclusive venue for all purposes proper only in the County of Santa Clara, State of California. The rights and duties of FWS and NMFS will be construed under the applicable federal authorities; and these agencies, by executing the Agreement, do not consent to the jurisdiction of a state agency or court. All activities undertaken pursuant to this Agreement will be in compliance with all applicable laws. Nothing herein will be construed as limiting the lawful discretion of FWS and NMFS in accordance with applicable laws.

10.3 Non-Severability. The paragraphs of this Agreement are not severable. This Agreement is executed on the understanding that each paragraph is in consideration of the others.

10.4 Good Faith. Wherever in this Agreement a Party has a right to approve an act of another Party, the former will exercise such discretion in good faith and according to reasonable standards. Similarly, where a Party is required to satisfy a condition or complete an act in a certain fashion or within a specified time period, that Party will pursue such objectives in good faith and make all reasonable efforts to accomplish the same; the other Party will likewise in good faith cooperate and assist the other Party in accomplishing this task to cause the consummation of the agreement as intended by the Parties and evidenced by this Agreement.

10.5 Other Instruments. Each Party will, wherever and as often as reasonably requested by another Party, execute, acknowledge and deliver or cause to be executed, acknowledged and delivered, any and all documents and instruments as may be necessary or proper in the reasonable opinion of the requesting Party.

10.6 Signatures - Counterparts. This Agreement may be initialed or signed in two or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. The Parties authorize each other to detach and combine original signature pages and consolidate them into a single identical original. Any of such completely executed counterparts will be sufficient proof of this Agreement.

10.7. Successors and Assigns. This Agreement will be binding and will inure to the benefit of the Parties and their respective heirs, legal representatives, successors and permitted assigns, except as restricted by this Agreement.

10.8. Waiver. No waiver of any provision or consent to any action will constitute a waiver of any other provision or consent to any other action, whether or not similar. No waiver or consent will constitute a continuing waiver or consent or commit a Party to provide a waiver in the future except to the extent specifically stated in writing. Any waiver given by a Party will be null and void if the Party requesting such waiver has not provided a full and complete disclosure of all material facts relevant to the waiver requested. No waiver will be binding unless executed in writing by the Party making the waiver.

10.9 Authorizations. All individuals executing this Agreement and other documents on behalf of the respective Parties certify and warrant that they have the capacity and have been duly authorized to so execute the documents on behalf of the Party so indicated. Each signatory will hold the other Parties harmless from any and all damages, costs, attorneys' fees, and other expenses.

10.10 Advice of Attorneys. Each Party represents and warrants that in executing this Agreement, each has been advised by and has relied upon independent legal counsel, that the terms of this Agreement have been read and their consequences have been completely explained by said counsel, and that each Party fully understands the terms of the Agreement. Each Party further acknowledges and represents that, in executing this Agreement, it has not relied on any inducements, promises or representations made by any other Party or its representatives, except as otherwise stated in this Agreement.

10.11 No Third Party Rights. Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies on any person other than the Parties to this Agreement and their respective successors and assigns. Nothing in this Agreement is intended to relieve or discharge the obligations or liability of any third persons to any Party to this Agreement.

10.12 Entire Agreement and Amendment. With respect to the issues considered herein, this Agreement contains the entire understanding and agreement of the Parties. There have been no promises, representations, agreements, warranties or undertakings by any of the Parties, either oral or written, of any character or nature binding except as stated in this Agreement. This Agreement may be altered, amended or modified only by an instrument in writing, executed by the Parties to this Agreement and by no other means. An amendment to the Agreement is binding only on the Parties that execute the Amendment. Each Party waives its right to claim, contest or assert that this Agreement was modified, cancelled, superseded or changed by any oral agreement, course of conduct, waiver or estoppel.

SANTA CLARA VALLEY WATER DISTRICT

DATED May 27, 2003 INITIALED _____

DATED _____, 20___ EXECUTED _____

Approved as to Form

Dated _____, 20___ By _____

UNITED STATES DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE

DATED May 27, 2003 INITIALED _____

DATED _____, 20___ EXECUTED _____

Approved as to Form

Dated _____, 20___ By _____

UNITED STATES DEPARTMENT OF COMMERCE, NATIONAL MARINE FISHERIES SERVICE

DATED May 27, 2003 INITIALED _____

DATED _____, 20___ EXECUTED _____

Approved as to Form

Dated _____, 20___ By _____

SH 320572 v1:003677.0001 01/06/2003

CALIFORNIA DEPARTMENT OF FISH AND GAME

DATED 5-27-03, 20__ INITIALED CGW

DATED _____, 20__ EXECUTED _____

Approved as to Form

Dated _____, 20__ By _____

GUADALUPE-COYOTE RESOURCE CONSERVATION DISTRICT

DATED 5.27.03, 20__ INITIALED _____

DATED _____, 20__ EXECUTED _____

Approved as to Form

Dated _____, 20__ By _____

TROUT UNLIMITED

DATED 5/21/, 2003 INITIALED RMC

DATED _____, 20__ EXECUTED _____

Approved as to Form

Dated _____, 20__ By _____

SB 320572 v1:007677.0001 01/06/2003

PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS

DATED 5/27, 2003 INITIALED RHC

DATED _____, 20___ EXECUTED _____

Approved as to Form

Dated _____, 20___ By _____

CALIFORNIA TROUT, INC.

DATED 5/27, 2003 INITIALED _____

DATED _____, 20___ EXECUTED _____

Approved as to Form

Dated _____, 20___ By _____

URBAN CREEKS COUNCIL

DATED 5/27, 2003 INITIALED _____

DATED _____, 20___ EXECUTED _____

Approved as to Form

Dated _____, 20___ By _____

SD 320572 v1:007677.0001 01 06 2003

NORTHERN CALIFORNIA COUNCIL OF FEDERATION OF FLY FISHERS

DATED 5/21, 2003 INITIALED

DATED _____, 20___ EXECUTED _____

Approved as to Form

Dated _____, 20___ By _____

EXHIBIT A

SCVWD Licenses and Permit in the Three Creeks

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(1) Coyote Watershed

Coyote Creek		
License #007211	1937	24,560 AFY
License #002210	1937	5,000 AFY
License #007212	1951	71,100 AFY
License #010607	1965	20,180 AFY
Penitencia Creek		
Permit #006565	1946	3,500 AFY

(2) Guadalupe Watershed

Guadalupe Creek		
License #006943	1928	3,302 AFY
License #002206	1937	3,500 AFY
License #002837	1939	0.770 CFS
Los Gatos Creek		
License #011791	1928	9,090 AFY
License #006944	1937	1,684 AFY
License #005729	1950	30,000 AFY
Almaden Creek		
License #002205	1937	2,500 AFY
License #002209	1934	6,000 AFY
Calero Creek		
License #002208	1937	3,500 AFY

(3) Stevens Creek Watershed

Stevens Creek		
License #002207	1937	4,000 AFY

EXHIBIT B
Proposed SWRCB Form of Approval

A condition precedent to the implementation of the Agreement is that the SWRCB make findings, based upon substantial evidence, in a manner substantially similar to the findings set forth in Paragraph A herein ("Findings"); issue a decision or order approving the Agreement; and condition the Licenses and Permit described in Exhibit A in a manner substantially similar to the provision set forth in Paragraph B herein ("Request for Continuing Jurisdiction").

A. Findings

1. SCVWD in Compliance With All Applicable Laws. "SCVWD's diversion, storage and use of water under its existing SWRCB Licenses and Permit for Stevens Creek, Coyote Creek and Guadalupe Creek, as modified by Articles VI – IX of the Agreement and this Order, are in compliance with Article X, Section 2 of the California Constitution, the California public trust doctrine, and all related laws within the SWRCB's jurisdiction."

2. SCVWD May Divert, Store and Use Water Under its Licenses and Permit. "SCVWD's diversion, storage and use of water under its existing SWRCB Licenses and Permit as modified by Articles VI – IX of the Agreement and this Order, are in full compliance with such Licenses and Permit."

3. SWRCB Anticipates No Further Measures Beyond the Settlement. "SCVWD will make substantial improvements in facilities and operations to implement Articles VI - IX of the Agreement and this Order at great cost to SCVWD and its rate-payers. Based on this fact and Findings 1 and 2 above, and so long as SCVCWD complies with the Agreement and this Order, the SWRCB does not anticipate that SCVWD will be required to take additional measures related to its Licenses and Permit other than those required by the Agreement and this Order to address instream flow needs for Stevens Creek, Coyote Creek and Guadalupe River."

4. Resolution of Complaint and Compliance With All Applicable Laws. "SCVWD and all other Parties to the Agreement have agreed to resolve this matter by establishing those measures stated in Articles VI – IX of the Agreement, and by asking the SWRCB to exercise continuing jurisdiction over the District's Licenses and Permit as stated in Paragraph B below. We find that these requirements will maintain compliance of the District's operations with Article X, Section 2 of the California Constitution, the California public trust doctrine, and all related laws under the SWRCB's jurisdiction."

B. Request for Continuing Jurisdiction

Once every ten years following issuance of the SWRCB's Order, the SWRCB will request, from the Parties and any other interested party, an update as to the SCVWD's compliance with the Agreement and this Order and whether there has been a substantial change in circumstances that affects the SWRCB's finding made in Finding 1 above. If the SWRCB determines that SCVWD is in compliance and there has been no substantial change in circumstances that affects the SWRCB's finding made in Finding 1, the SWRCB will issue a supplemental order further finding and declaring that SCVWD's diversion, storage and use of water from Stevens Creek, Coyote Creek and Guadalupe Creek are in compliance with Article X, Section 2 of the California Constitution, the public trust doctrine and all related laws under the SWRCB's jurisdiction.

EXHIBIT C

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ESA Compliance

Tthe form of NMFS and FWS approvals associated with Section 7, Section 10 and no surprises assurances of the ESA that must be obtained before the Settlement can be effective are as follows:

Activity	NEPA	CWA §404	ESA §7	ESA §10	No Surprises
Wetted Channel	Yes	Yes	Yes	No	No
Non-wetted Channel	Yes	No	No	Yes	Yes
Water Operations and Maintenance	Yes	No	No	Yes	Yes

This Table illustrates the Parties agreement that a Settlement activity that involves "wetted channel" will require NEPA review,a Clean Water Act Section 404 permit, and ESA-appropriate no-jeopardy, incidental take permission. Conversely, Settlement activities related to water operations and maintenancewill require NEPA review, but would not a Clean Water Act Section 404 permit and thus no Section 7 compliance. However, such activity could be covered under Section 10 through an HCP and a no-surprises assurance.

APPENDIX A

Authorized Representatives of the Parties Signatory to the Agreement

[COMMENT: INSERT NAMES BEFORE EACH PARTY]

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

United States Department of the Interior, Fish and Wildlife Service

United States Department of Commerce, National Marine Fisheries Service

California Department of Fish and Game

Guadalupe-Coyote Resource Conservation District

Trout Unlimited

Pacific Coast Federation of Fishermen's Associations

California Trout, Inc.

APPENDIX B

Proposed Schedule of Implementation

Phase 1 (Years 1-10)

Measures

Summer Rearing Flows
Winter Base Flows
Pulse Passage Flows
Ramping Rates
District Owned Passage Barrier Removal
Non-District Owned Passage Barrier Removal
Gravel Replenishment
Riparian Cover In-Fill
Instream Habitat Enhancement
Geomorphic Functions Pilot Project
Hypolimneal Aeration Project
Multi-Port Outlet Project

Studies

Fish Habitat Restoration Plan
Geomorphic Functions Plan
ARWT Feasibility Study
Trap & Truck Feasibility Study
Alamitos Creek Feasibility Study
Coyote Valley Feasibility Study
Multi-Port Feasibility Study
Cherry Flat Reservoir Operations Plan
Coyote Percolation Facility Operations Plan

Adaptive Management

Biological Monitoring
Program Administration
Supplemental Studies (as needed)
Additional Measures (as needed)

Phase 2 (Years 11-20)

Measures

Summer Rearing Flows
Winter Base Flows
Pulse Passage Flows
Ramping Rates

Adaptive Management

Biological Monitoring
Program Administration
Supplemental Studies (as needed)
Additional Measures (as needed)

Phase 3 (Years 21-30)

Measures
Summer Rearing Flows
Winter Base Flows
Pulse Passage Flows
Ramping Rates

Adaptive Management

Biological Monitoring
Program Administration
Supplemental Studies (as needed)
Additional Measures (as needed)

Phase 4 (Years 31-and beyond)

Measures

Summer Rearing Flows
Winter Base Flows
Pulse Passage Flows
Ramping Rates
Maintenance of facilities and projects undertaken in Phases 1-3.

Adaptive Management

Biological Monitoring
Program Administration

APPENDIX C

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Proposed Budget For Implementation

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Flow Elements											
Summer Rearing Flows		(The cost of implementing various flow elements will vary on an annual basis as a result of variation in annual hydrology.									$0
Winter Base Flows		As a result, no estimated costs have been provided.)									$0
Pulse Passage Flows											$0
Cherry Flat Cooperative Ops Plan	$25,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$25,000
Passage Barriers											
Priority #1 (District)	$1,460,000	$1,460,000	$1,460,000	$0	$0	$0	$0	$0	$0	$0	$4,380,000
Priority #1 (Non-District)	$0	$0	$500,000	$1,000,000	$1,000,000	$500,000	$0	$0	$0	$0	$3,000,000
Habitat Restoration											
Fish Habitat Restoration Plan	$50,000	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$100,000
Gravel Replenishment	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$2,000,000
Riparian Cover In-Fill	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$2,000,000
In-Stream Habitat Enhancement	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$2,000,000
Geomorphic Functions Plan	$0	$400,000	$400,000	$400,000	$0	$0	$0	$0	$0	$0	$1,200,000
Geomorphic Functions Pilot Projects	$0	$0	$0	$0	$1,000,000	$1,000,000	$1,000,000	$0	$0	$0	$3,000,000
Capital Improvement Projects											
Hypolimneal Aeration	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,000
Multi-Port Outlet	$75,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$75,000
Feasibility Studies											
ARWT Feasibility Study	$0	$0	$0	$0	$0	$0	$1,500,000	$1,500,000	$1,000,000	$0	$4,000,000
Trap & Truck Feasibility Study	$0	$0	$0	$0	$0	$200,000	$200,000	$200,000	$0	$0	$600,000
Alamitos Creek Feasibility Study	$0	$0	$0	$0	$0	$500,000	$500,000	$0	$0	$0	$1,000,000
Coyote Valley Feasibility Study	$0	$0	$0	$0	$0	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$0	$4,000,000
Multi-Port Feasibility Study	$0	$0	$0	$0	$50,000	$0	$0	$0	$0	$0	$50,000
Adaptive Management											
Biological Monitoring		(The cost of implementing biological monitoring and other scientific studies associated with a long-term adaptive									
Program Administration		management program are not known at this time. Additional program development will be necessary to complete a									
Supplemental Studies		program budget.)									
Additional Measures											
Annual Total	$2,260,000	$2,510,000	$2,960,000	$2,000,000	$2,650,000	$3,800,000	$4,800,000	$3,300,000	$2,600,000	$600,000	$27,480,00

APPENDIX D
Cost Accounting Methodology

The following costs will apply towards the maximum funds permitted under paragraph 8.1.1.

1. **Capital Improvements:** actual costs including land, building, structures & improvements, and equipment, furnishings & fixtures associated with capitalized projects under the settlement.

2. **Water Supply Management:** actual costs to replace water lost to groundwater recharge as a result of implementing the Agreement when compared to normal or historic SCVWD operations in similar circumstances. These costs including water purchases and associated transmission costs.

   - SCVWD will document the water loss. Replacement water costs will be calculated based on multiplying the volume of replacement water by the District's unit cost of supply, as defined below and adjusted annually by the change in the Consumer Price Index.

   - The unit cost of supply will be based on $386 per acre-foot (in 1996 dollars, as estimated in the District's 1997 IWRP) and will increase annually by the change in the Bureau of Labor Statistics Consumer Price Index. The unit cost of supply in fiscal year 2002-03 is $428 per acre-foot (2001CPI of 177.1 divided by 1996 CPI of 156.9 or 1.11 times $386).

   - At the end of each 10-year period, if the unit cost of supply is less than 75 percent of the District's price for delivering treated water, the unit cost for the first year in the ensuing 10-period will be established at 90 percent of the price of treated water in the first year of the 10-year decade.

3. **Research and Environmental Studies:** actual costs associated with research, feasibility studies, and plan/program development.

   Each of the cost categories above may be comprised of labor, services, supplies & operating costs, overhead allocation, and debt service

   - Labor—includes direct salaries and employee benefits

   - Services, supplies, and operating costs—Includes, but not limited to, engineering services, repair & maintenance services, scientific & technical services, materials & supplies, travel, etc.

   - Overhead allocation—Includes the standard District overhead allocation

   - Debt service—Includes the interest charges on money borrowed to fund capital costs. The interest rate is based on the most recent long term borrowing cost (Series 2000A revenue bonds) of 5.1975 percent for a period not to exceed 30 years, or when the aforementioned debt is paid off by the district.

Note: Fish passage remediation costs spent prior to the Effective Date of this Agreement will apply toward the maximum amount provided in paragraph 8.1.1, in amounts as follows:

Project	Total Cost	Grants or Other Funding	Net Cost
Guadalupe River Fish Passage Projects – Hillsdale Ave Bridge; SJWC Low-Flow Road Crossing	$382,000	$178,000	$204,000
Stream Flow Station 35	$1,870,000	$167,000	$1,703,000
Total	$2,252,000	$345,000	$1,907,000

APPENDIX E
Reservoir Operations: Section 1

ELEMENTS COMMON TO ALL WATERSHEDS

Ramping Rates

Discharge rating curves indicating the outlet flow rate resulting from the outlet valve position over a range of storage conditions will be utilized for ramping at each of the reservoirs. The discharge rating curves will be reviewed annually and the results of the review will be included in the annual report on reservoir operations.

Reservoir flood releases, fisheries passage releases, and other planned (non-emergency) operations flow changes using the following criteria:

Flow Decrease of 50 cfs or Less

For decreases in flow of 50 cubic feet per second (cfs) or less, ramping is required when the total decrease in flow is greater than 50 percent of the total original flow. Ramping will occur over a period of up to 36 hours, with ramping performed in a maximum of four (4) increments with a target of 50 percent reduction in successive incremental flows. Adjustments in flow will be equally timed over the ramping period (i.e., at approximately 1 [start], 12, 24, and 36 hours for the maximum 36-hour ramping period). In addition, incremental flows will be adjusted to maintain a minimum change between successive increments of 2 cfs. The actual number of incremental adjustment, with a maximum of four (4), will be based on the following equation:

$$\text{Number of Increments} = 1/(\text{LOG}_{(\text{End Flow/Start Flow})}0.5)$$

Flow Decrease of 50 cfs or Greater

For decreases in flow greater than 50 cfs, ramping is required when the total decrease in flow is greater than 50 percent of the total original flow. Ramping will occur over a period of up to 72 hours, with ramping performed in a maximum of (7) increments with a target of 50 percent reduction in success incremental flows. Adjustments in flow will be equally timed over the ramping period (i.e., at approximately 1 [start], 12, 24, 36, 48, 60, and 72 hours for the maximum 72-hour ramping period). In addition, incremental flows will be adjusted to maintain a minimum change between successive increments of 2 cfs. The actual number of incremental adjustment with a maximum of seven (7) will be based on the following equation:

$$\text{Number of Increments} = 1/(\text{LOG}_{(\text{End Flow/Start Flow})}0.5)$$

Success Criteria

The success criteria for releases will be based on a 3 day rolling average of flow measurements conducted at the existing stream flow gages located just downstream of the dams. Flow measurements will be incorporated into the annual report.

Winter Base Flow Releases

Winter base flow releases will not be increased until there is adequate storage above a given curve which will allow for 5 days of releases at the higher release rate. Flow reduction will be made once the storage falls below a given curve.

Flood Rule Curves

Reservoirs are operated to storage flood rule curve which specify target maximum storage levels for specific dates between December 1 and April 30. When safe to do so, reservoir releases will be made to maintain maximum storage levels.

ELEMENTS SPECIFIC TO EACH WATERSHED

Coyote Creek Watershed

Imported water temporarily stored in Anderson Reservoir will not be included in volume calculations for habitat management programs.

Winter Base Flow

Anderson and Coyote Reservoirs will be operated to the rule curves as shown in Figure 1 and Figure 2 included at the end of this Appendix. The curves consists of graduated winter base rule curves and will be utilized to provide winter base flows while maintaining cold water storage for the summer release program.

Winter base flow will be released from Anderson Reservoir from November 1 to April 30 to support steelhead trout and Chinook salmon. The specific flow rate will depend on the storage and where that storage volume falls within the range of the graduated curves. If the storage is above the highest winter base rule curve then 26 cfs or that flow rate required for recharge will be released past the upstream end of Coyote Canal. Releases to the raw water distribution system are also allowed when the reservoir storage is in this zone. As storage decreases, or if storage never reaches the 26 cfs winter base rule curve, a reduced winter flow will be released. Releases will be monitored and recorded at Stream Flow Station 82 (SF–82) located downstream of Anderson Dam. The release determined from the combined storage may be made from Anderson Reservoir or the Santa Clara Conduit or some combination of both provided the total required release is made.

Pulse Flow

Pulse flow releases will be made between February 1 and April 30 to improve passage conditions for adult steelhead trout to reach suitable spawning habitat and for out-migration of juvenile steelhead and Chinook salmon. If the combined storage of Anderson Reservoir and Coyote Reservoir exceeds the pulse flow rule curve which is a combined storage of 80,000 acre-feet and when it is safe to do so, 50 cfs will be released from Anderson Reservoir through the outlet or the Anderson Hydroelectric Facility or some combination of both. The reservoir will be operated in this manner until there are two periods of five consecutive days of flows greater than 50 cfs measured at SF–82. Flood releases and spill events in excess of 50 cfs for five consecutive days between February 1 and April 30 will also be considered a pulse flow event.

Summer Rearing

Releases from Anderson Reservoir will be made from May 1 to October 31 to maintain a water temperature not to exceed 18 degrees C throughout as much of the cold water management zone as available cold water storage will allow. The cold water management zone is the reach of Coyote Creek from the outlet of Anderson Dam to the old Riverside Golf Course entrance. Between April 15 and 30 of each year, a temperature survey of Anderson Reservoir (and if required Coyote Reservoir) will be conducted to determine the available hypolimnetic volume with a temperature of 14 degrees C or less. If required, additional reservoir temperature profiles will be established on a monthly basis from June through October and releases adjusted to correspond to changes in the measured hypolimnetic volume.

Flow will be released through the Anderson Reservoir outlet or the Anderson Hydroelectric Facility outlet at a rate sufficient to maintain a continuous flow of water with a temperature less than 18 degrees C in the cold water management zone and a minimum flow of 1 cfs at the old golf course entrance. If there is not sufficient storage to satisfy this condition, the release will be equal to the total available cold water storage less estimated evaporation divided by 184 days.

If water from the Santa Clara conduit is 14 degrees C or less and the combined reservoir storage is adequate for summer releases, releases from the Santa Clara conduit to Coyote Creek may be substituted for releases from Anderson Reservoir. Storage in excess of the requirements outlined above may be released to Coyote Creek, Coyote Canal, or used for treated water supply.

Stevens Creek Watershed

The cold water management zone for Stevens Creek is approximately 3.8 miles in length from the base of the Dam to approximately Hwy 280 and is located upstream of Heney Creek.

Winter Base Flow

Stevens Creek Reservoir will be operated to the rule curves as shown in Figure 3 included at the end of this Appendix. The curves consists of graduated winter base rule curves and will be utilized to provide winter base flows while maintaining cold water storage for the summer release program.

Winter base flow will be released from Stevens Creek Reservoir from January 1 to April 30 to support steelhead trout. The specific flow rate will depend on the storage and where that storage volume falls within the range of the graduated curves. If the storage is above the highest winter base rule curve then 16 cfs will be released. As storage decreases or if storage never reaches the 16 cfs winter base rule curve, winter releases will be reduced. Releases will be monitored and recorded at Stream Flow Station 44 (SF–44) located downstream of Stevens Creek Dam. From November 1 through December 31, flows will be equal to or greater than those releases made for the previous water year's summer cold water program.

Pulse Flow

When it is safe to do so, pulse flow releases will be made between February 1 and April 30 to improve passage conditions for adult steelhead trout and for out-migration of juveniles. If the storage in Stevens Creek Reservoir exceeds the pulse flow rule curve which is equal to the 16 cfs winter base rule curve plus 250 acre-feet, 50 cfs will be released from Stevens Creek Reservoir through the outlet. The reservoir will be operated in this manner until there are two periods of five consecutive days of flows greater than 50 cfs measured at SF–44. Spill events in excess of 50 cfs for five consecutive days between February 1 and April 30 will also be considered as a pulse flow.

Summer Rearing

Summer releases from Stevens Creek Reservoir will be made from May 1 to October 31 to maintain the cold water management zone as available cold water storage will allow. Between April 15 and 30 of each year, a temperature survey of Stevens Creek Reservoir will be conducted to determine the available hypolimnetic volume with a temperature of 15 degrees C or less. Additional reservoir temperature profiles will be established on a monthly basis from June through October and releases adjusted to correspond to changes in the measured hypolimnetic volume. The cold water volume will be released at a constant rate, in order to maintain a water temperature not to exceed a daily average temperature of 19 degrees C in order to maintain a water temperature not to exceed a daily maximum of 22 degrees C throughout the cold-water management zone.

If the available cold water volume would produce a cold water flow release of less than 1 cfs throughout the summer months then releases will not be limited to the calculated cold water release and releases up to the recharge capacity of the system will be allowed.

Guadalupe Watershed

Guadalupe Creek

The cold water management zone for Guadalupe Creek is approximately 3.3 miles in length from the base of the Dam to Camden Avenue

Winter Base Flow

Guadalupe Reservoir will be operated to the rule curves shown in Figure 4, included at the end of this Appendix. The curves consists of graduated winter base rule curves and will be utilized to provide winter base flows while maintaining cold water storage for the summer release program.

Winter base flow will be released from Guadalupe Reservoir from November 1 to April 30 to support steelhead trout and Chinook salmon spawning and egg incubation. The specific flow rate will depend on the storage and where that storage volume falls within the range of the graduated curves. If the storage is above the highest winter base rule curve then 11 cfs will be released. As storage decreases or if storage never reaches the 11 cfs winter base rule curve a reduced winter flow will be released. Releases will be monitored and recorded at Stream Flow Station 17 (SF–17) located downstream of Guadalupe Dam. Flows may be diverted at Mason Diversion Dam provided there is at least 4 cfs flowing through the fish ladder.

Pulse Flow

When it is safe to do so, pulse flow releases will be made between February 1 and April 30 to improve passage conditions for adult steelhead trout and for out-migration of juvenile steelhead and Chinook salmon. If the storage in Guadalupe Reservoir exceeds the pulse flow rule curve which is equal to the 11 cfs winter base rule curve plus 250 acre-feet, 50 cfs will be released from Guadalupe Reservoir through the outlet. The reservoir will be operated in this manner until there are two periods of five consecutive days of flows greater than 50 cfs measured at SF–17. Spill events in excess of 50 cfs for five consecutive days between February 1 and April 30 will also be considered as a pulse flow.

Summer Rearing

Summer releases from Guadalupe Reservoir will be made from May 1 to October 31 to maintain the cold water management zone as available cold water storage will allow. Between April 15 and 30 of each year, a temperature survey of Guadalupe Reservoir will be conducted to determine the available hypolimnetic volume with a temperature of 14 degrees C or less. Additional reservoir temperature profiles will be established on a monthly basis from June through October and releases adjusted to correspond to changes in the measured hypolimnetic volume. The cold water volume will be released at a constant rate, in order to

maintain a water temperature not to exceed 18 degrees C throughout the cold-water management zone.

If the available cold water volume would produce a cold water flow release of less than 1 cfs throughout the summer months, then releases will not be limited to the calculated cold water release and releases up to the recharge capacity of the system will be allowed. In addition, releases to Guadalupe Creek for recharge from the Almaden Valley Pipeline located below Camden Avenue will be allowed.

Alamitos Creek

The management zone for Alamitos Creek is from Almaden Dam to Lake Almaden. There is no cold water management zone for Alamitos Creek.

Winter Base Flow

Almaden Reservoir will be operated to the rule curves shown in Figure 5 included at the end of this Appendix. The curves consist of graduated winter base rule curves and will be utilized to provide winter base flows while maintaining storage for release during the rest of the year.

Flow will be released from Almaden Reservoir from November 1 to April 30 to support Chinook salmon spawning and egg incubation. The specific flow rate will depend on the storage and where that storage volume falls within the range of the graduated curves. If the storage is above the highest winter base rule curve then 14 cfs will be released. As storage decreases or if storage never reaches the 14 cfs winter base rule curve a reduced winter flow will be released. Releases will be monitored and recorded at Stream Flow Station 16 (SF–16) located downstream of Guadalupe Dam.

Pulse Flows and Water Transfers

When it is safe to do so, pulse flow releases will be made between February 1 and April 30 to improve passage conditions for juvenile Chinook salmon out-migration. If the storage in Almaden Reservoir exceeds the pulse flow rule curve which coincides with the transfer curve, 50 cfs will be released from Almaden Reservoir through the outlet. The reservoir will be operated in this manner until there are two periods of five consecutive days of flows greater than 50 cfs measured at SF–16. Spill events in excess of 50 cfs for five consecutive days between February 1 and April 30 will also be considered as a pulse flow.

If the reservoir storage from December 1 to January 31 exceeds the transfer curve as shown in Figure 10, water will be transferred to Calero Reservoir via the Almaden-Calero Canal. Pulse flows and water transfers to Calero may take place simultaneously provided there is adequate storage above the curve to meet the two pulse flow per season requirement. Otherwise, if less than two pulse flow events have taken place for the season, pulse flows have priority over water transfers.

Summer Release Program

Cold water releases from Almaden Reservoir are not required for the May 1 to October 31 time period. Instead releases will be made in order to achieve a minimum pool storage of 400 acre-feet on December 1.

Calero Creek

The management zone for Calero and Alamitos Creek is from Calero Dam to Lake Almaden. There is no cold water management zone for Calero Creek.

Imported water temporarily stored in Calero Reservoir will not be included in volume calculations for habitat management programs.

Winter Base Flow

Calero Reservoir will be operated to the rule curves shown in Figure 6. The curves consist of graduated winter base rule curves and will be utilized to provide winter base flows while maintaining storage for release during the rest of the year.

Flow will be released from Calero Reservoir from November 1 to April 30 to support Chinook salmon spawning and egg incubation. The specific flow rate will depend on the storage and where that storage volume falls within the range of the graduated curves. If the storage is above the highest winter base rule curve then 10 cfs will be released. As storage decreases or if storage never reaches the 11 cfs winter base rule curve a reduced winter flow will be released. Releases will be monitored and recorded at Stream Flow Station 13 (SF–13) located downstream of Calero Dam.

Pulse Flows

When it is safe to do so, pulse flow releases will be made between February 1 and April 30 to improve passage conditions for juvenile Chinook salmon out-migration. If the storage in Calero Reservoir exceeds the pulse flow rule curve, 50 cfs will be released from Calero Reservoir through the outlet. The reservoir will be operated in this manner until there are two periods of five consecutive days of flows greater than 50 cfs measured at SF–13. Spill events in excess of 50 cfs for five consecutive days between February 1 and April 30 will also be considered as a pulse flow.

Summer Release Program

Cold water releases from Calero Reservoir are not required for the May 1 to October 31 time period. Instead releases will be made in order to achieve an emergency pool storage of 4,000 acre-feet on December 1.

Los Gatos Creek

The management zone objective for Los Gatos Creek is from the Camden Avenue drop structure to the confluence with Guadalupe River. There is no cold water management zone for Los Gatos Creek.

Winter Base Flow

Lexington Reservoir will be operated to the rule curves shown in Figures 7 and 8. For storages above the low storage rule curve and below the water supply rule curve, releases will be made so that there is 3 cfs at Stream Flow Station 50 (SF–50) located at Lincoln Avenue. For storages above the water supply rule curve releases will be made at the flow rate indicated by the curves to be measured at SF–50 and for water supply.

Winter base flow will be released from either Lexington Reservoir, Vasona Reservoir, imported supplies or a combination of all three from November 1 to April 30. The specific flow rate will depend on the storage in Lexington Reservoir and where that storage volume falls within the range of the graduated curves. If the storage is above the highest winter base rule curve then releases will be made to obtain 13 cfs at stream gage 50. As storage decreases or if storage never reaches the 13 cfs winter base rule curve a reduced winter flow will be released.

Pulse Flows

Pulse flows will be obtained through uncontrolled flows or during spill events. No additional releases will be made for pulse flows.

Summer Release Program

Cold water releases from Lexington Reservoir are not required for the May 1 to October 31 time period. Instead releases for recharge and water supply will be made in an attempt to maintain the recreation pool and a minimum pool storage of 2000 acre-feet on December 1.

FIGURE 1
ANDERSON/COYOTE RESERVOIRS OPERATION RULE CURVES

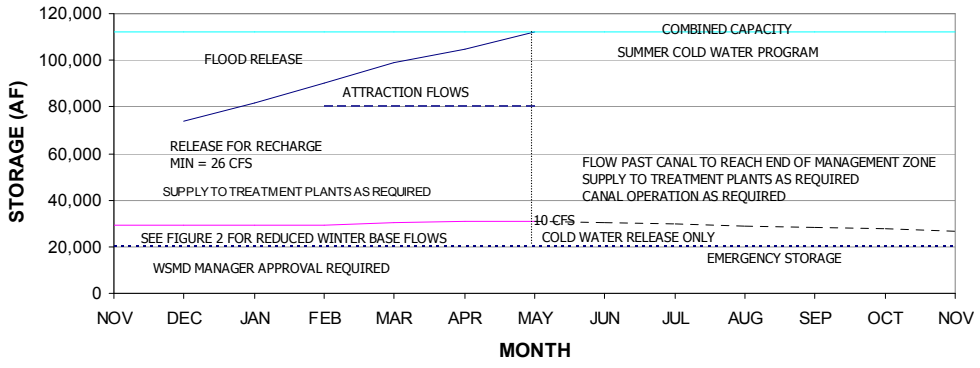


FIGURE 2
ANDERSON/COYOTE RESERVOIRS LOW STORAGE RULE CURVES

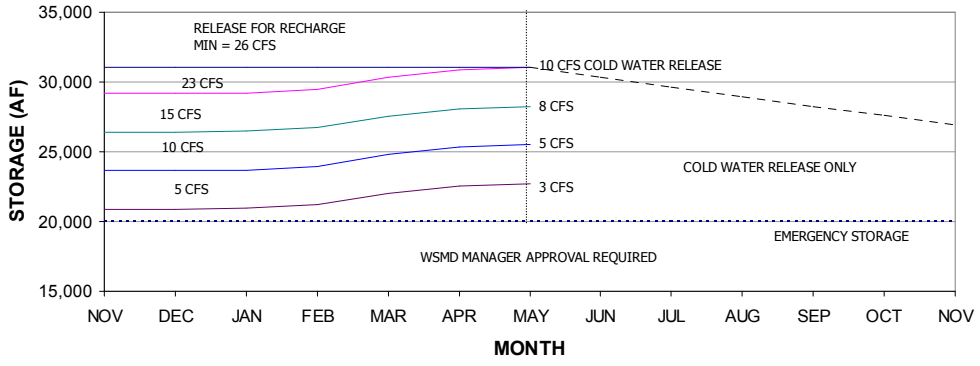


FIGURE 3
STEVENS CREEK RESERVOIR OPERATION RULE CURVES

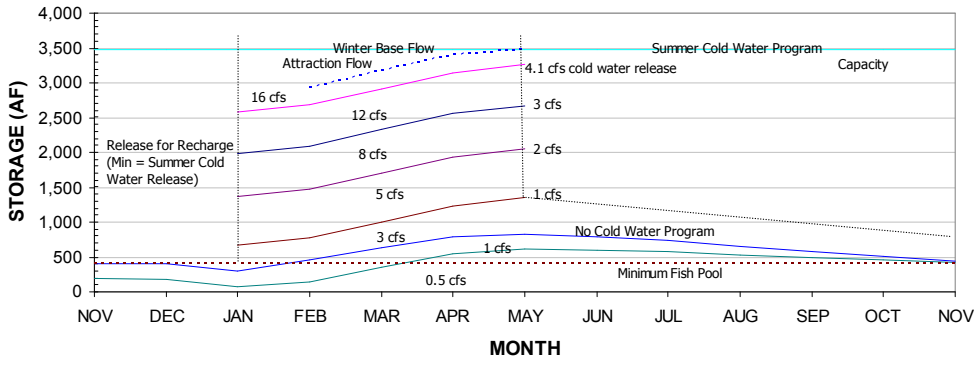
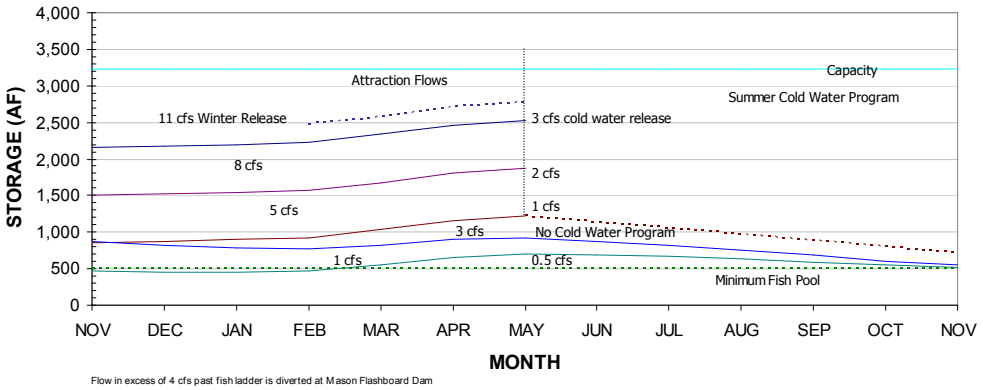


FIGURE 4
GUADALUPE RESERVOIR OPERATION RULE CURVES



Flow in excess of 4 cfs past fish ladder is diverted at Mason Flashboard Dam

FIGURE 5
ALMADEN RESERVOIR OPERATION RULE CURVES

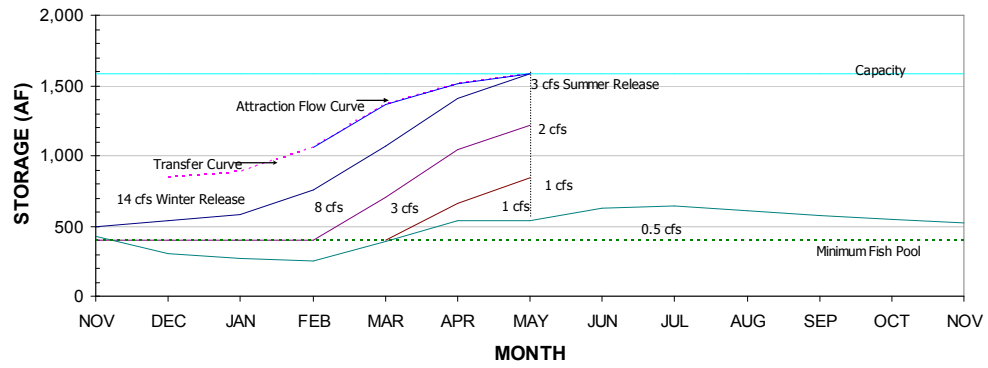


FIGURE 6
CALERO RESERVOIR OPERATION RULE CURVES

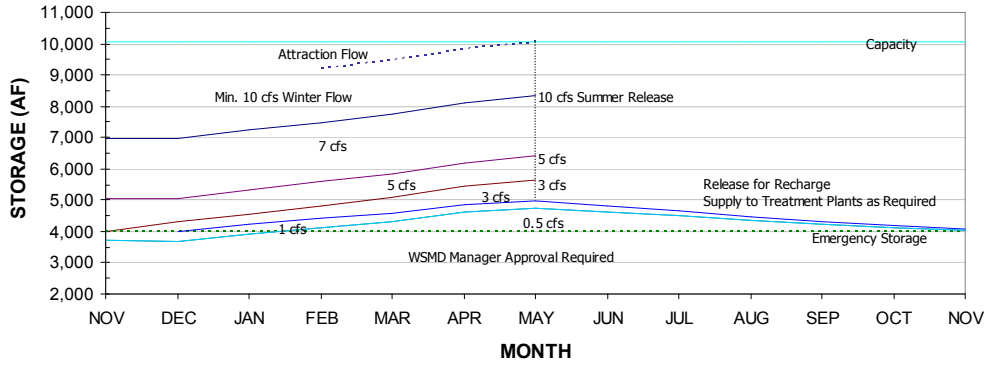


FIGURE 7
LEXINGTON RESERVOIR OPERATION RULE CURVES

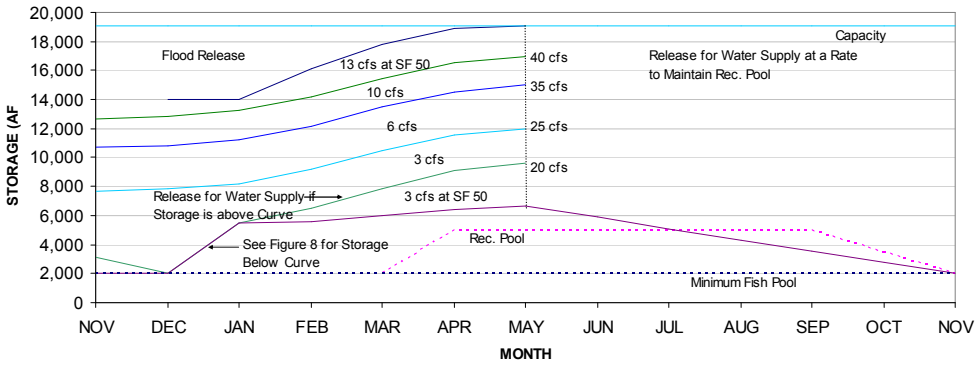
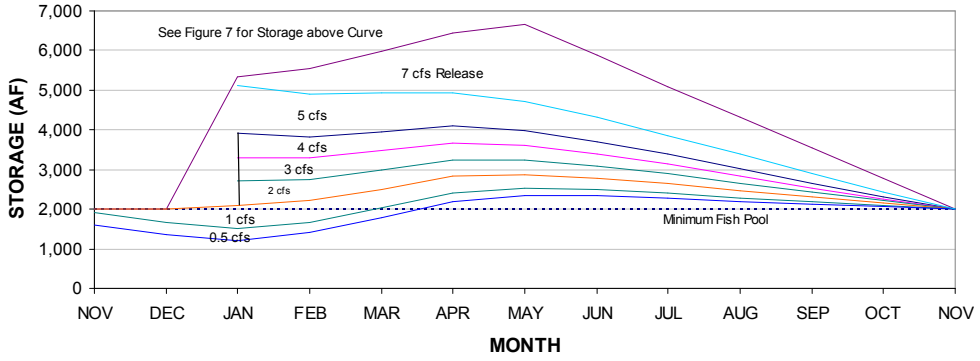


FIGURE 8
LEXINGTON RESERVOIR LOW STORAGE RULE CURVES



APPENDIX E
Reservoir Operations: Section 2

This section is intended to describe and further explain reservoir operations. It does not dictate or control how the reservoirs will be operated. The revised reservoir operations within the Coyote Creek Watershed, Stevens Creek Watershed and Guadalupe Watershed are described. More specifically, operations for Coyote and Anderson Reservoirs, Stevens Creek Reservoir, Guadalupe Reservoir, Almaden Reservoir, Calero Reservoir and Lexington Reservoir are discussed. Procedures will be developed for the daily operations of each of the reservoirs. These procedures will include tables to direct operations staff to release a specific flow rate based on the daily storage of the reservoir.

ELEMENTS COMMON TO ALL WATERSHEDS

Ramping Rates

Examples of flow ramping for decreases in flow of 50 cfs or less and flow decreases of 50 cfs or greater are included in Table 1 at the end of this TM. For example, if flood releases were made from Anderson Reservoir at 300 cfs and the desired end release following the completion of the flood release was 25 cfs, the table could be used to determine the number of increments and the associated flow releases. The table shows that for this example, 4 ramping increments are required and the following series of releases would be made at 12 hour increments: 300[begin], 161, 87, 47, 25[end]. The table also shows that the actual ramping factor is 0.46. In other words the flow is reduced by 46 percent between successive increments until the ending flow is reached. Specific beginning and ending release values can be input into the spreadsheet this table is derived from, and the incremental flow rates calculated.

Winter and Summer Time Periods

Reservoir operations are broken done into two time periods. Typically November 1st through April 30th is called the winter period and May 1st through October 31st is the summer period. This is the case for all reservoirs with the exception of Stevens Creek where the winter time period is from January 1st through April 30th.

Low Storage Rule Curves

If storage is extremely low, releases will be made based on the low storage rule curves. Under these conditions minimal releases will be made in order to maintain a wet creek for a short distance downstream of the reservoir. If inflow is poor and storage falls to these low levels, it is possible that 1 cfs or even 0.5 cfs would be released for both the winter and summer time periods. These curves are based on a 90 percent exceedence inflow probability and account for both estimated evaporation and the given release flow rate.

ELEMENTS SPECIFIC TO EACH WATERSHED

The following section includes information not already included in Appendix E on reservoir operations and flow requirements for each of the three watersheds and for the individual reservoirs within these watersheds.

COYOTE CREEK WATERSHED

The cold water management zone for Coyote Creek is approximately 6 miles in length from the base of the Dam to the old Riverside Golf Course entrance. This course has been renamed The Coyote Creek Golf Course. The limits of the cold water management zone are shown in Figure 1. The watershed area for Coyote and Anderson Reservoirs is 193 mi^2 and the approximate uncontrolled watershed area between the dam and the end of the management zone is 9 mi^2.

Winter Base Flow Rule Curves

The winter base flow curves will be utilized to provide winter flows while maintaining cold water storage for the summer release program. The graduated winter base rule curves were constructed by first determining the required May 1 storage for a given cold water release plus the estimated evaporation and emergency storage. The curve values for November 1 through April 30 are constructed by summing historic inflows with a 90 percent exceedence probability and subtracting this from the May 1 storage. The May 1 combined target storage is 31,050 acre-feet based on a combined emergency storage of 20,000 acre-feet, plus 5,050 acre-feet for summer cold water releases of 10 cfs from May 1 through October 31, plus 4,000 acre-feet of dead pool storage plus 2,000 acre-feet for evaporation.

STEVENS CREEK WATERSHED

The cold water management zone for Stevens Creek is approximately 3.8 miles in length from the base of the Dam to approximately Hwy 280 and is located upstream of Heney Creek. The limits of the cold water management zone are shown in Figure 2. The reservoir watershed area is 17.5 mi^2 and the approximate uncontrolled watershed area between the dam and the end of the management zone is 2.5 mi^2. The uncontrolled watershed area between the dam and the end of the groundwater recharge zone is 4.7 mi^2.

Winter Base Flow Rule Curves

The graduated curves were constructed by first determining the required May 1 storage for a given cold water release plus the estimated evaporation and minimum pool. The curve values for January 1 through April 30 are constructed by summing historic inflows with a 90 percent exceedence probability and subtracting this from the May 1 storage.

GUADALUPE WATERSHED

Figure 3 shows the Guadalupe Watershed.

GUADALUPE CREEK

The Guadalupe Reservoir watershed area is 6 mi^2 and the approximate uncontrolled watershed area between the dam and the end of the cold water management zone is 7 mi^2. The cold water management zone for Guadalupe Creek is approximately 3.3 miles in length from the base of the Dam to Camden Avenue. The limits of the cold water management zone are shown in Figure 4.

Winter Base Flow Rule Curves

The graduated curves were constructed by first determining the required May 1 storage for a given cold water release plus the estimated evaporation and minimum pool. The curve values for November 1 through April 30 are constructed by summing historic inflows with a 90 percent exceedence probability and subtracting this from the May 1 storage.

ALAMITOS CREEK

There is no cold water management zone for Alamitos Creek. The reservoir watershed area is 12 mi^2 and the approximate uncontrolled watershed between the dam and the confluence with Guadalupe Creek excluding the Calero Creek watershed is 17.3 mi^2. The Alamitos Creek to the confluence with Guadalupe Creek is shown in Figure 5.

CALERO CREEK

There is no cold water management zone for Calero Creek. The reservoir watershed area is 7 mi^2 and the approximate uncontrolled watershed between the dam and the confluence with Alamitos Creek is 5.4 mi^2. The Calero Creek to the confluence with Alamitos Creek is shown in Figure 6.

LOS GATOS CREEK

The reservoir watershed area is 38 mi^2 and the approximate watershed area between the dam and the confluence with Guadalupe River is 17 mi^2. The Los Gatos Creek to the confluence with Guadalupe River is shown in Figure 7.

STEVENS CREEK RESERVOIR EXAMPLE

The following example demonstrates how Stevens Creek Reservoir might be operated using the rule curves included in Appendix E during average, dry and wet year conditions.

Initial Storage

The example includes the assumption that Stevens Creek Reservoir in the year prior to the example year was full on May 1 and a full summer cold water program was in effect. With a full reservoir on May 1, approximately 5 cfs of cold water could be released during the cold water release period from May 1 to November 1. The estimated resulting November 1

storage would be 1,460 acre-feet taking into account summer releases and estimated losses due to evaporation. This is designated as point 1 on Figure 8 and is the starting point for each of the inflow conditions.

Inflow Conditions

Thirty years of historic inflows were used to calculate monthly inflows for average year, dry year and wet year inflow conditions. These monthly inflows were then input into the model with the initial storage discussed above in order to determine monthly storages and release flow rates.

Average Year Inflow

For this example the monthly average year reservoir inflow for each month is based on a 50 percent exceedence probability. In other words, based on the historic monthly inflow into Stevens Creek half the time more inflow could be expected and half the time less could be expected.

Dry Year Inflow

Inflow with a 95 percent exceedence probability was used for dry year inflow in this example. In other words 95 percent of years considered were "wetter" or had larger inflows than the values used for the dry year.

Wet Year Inflow

Wet year inflow conditions were based on a 10 percent exceedence probability. Only 10 percent of the years considered had inflow equal to or greater than the values used for the wet year. The monthly inflow for the three inflow conditions are shown in Table 2 below:

TABLE 1
Monthly Inflows

Month	Average Year Inflow Condition – 50% Exceedence Probability (acre-feet)	Dry Year Inflow Condition – 95% Exceedence Probability (acre-feet)	Wet Year Inflow Condition – 10% Exceedence Probability (acre-feet)
Nov	120	5	859
Dec	491	25	2799
Jan	1022	25	4978
Feb	1279	127	5949
Mar	1259	194	4544
Apr	597	25	2733
May	252	25	1190
Jun	153	11	504
Jul	63	0	293
Aug	42	0	169
Sep	25	0	169
Oct	29	0	300

Average Inflow Year Operations

Figure 8 shows the reservoir storages under the average year inflow conditions described above with Stevens Creek Reservoir operated to the curves included in Appendix E.

As Figure 8 shows, on November 1 the storage is at **Point 1**. As indicated on the figure, releases for November and December are for recharge with a minimum release equal to the cold water program of the previous water year. Since the summer release was 5 cfs, the releases for November and December are also 5 cfs. Winter base releases start on January 1 for Stevens Creek Reservoir.

Inflows during December allowed the reservoir to reach storage of approximately 2,700 acre-feet on January 1 as indicated as **Point 2a** in Figure 8. The operation rule curves indicate that a release of 12 cfs is required.

Inflow continues to raise the reservoir storage and **Point 3a** designates when the winter base flow should be increased to 16 cfs. The flow increase is not actually made until there is adequate storage above the 16 cfs release curve which will allow for 5 days of releases at the higher release rate. In other words, if the 16 cfs curve is at 2,600 acre-feet the increase will not be made until the storage reaches 2,760 acre-feet (2600 + 16 x 5 x 1.98 = 2,760). This is designed to prevent oscillations between adjacent winter base flow releases. The daily procedures tables will include this calculation and will clearly indicate when flow regulations are required.

Pulse flows are required from February 1 to April 30. Since the reservoir storage on February 1 is above the attraction flow rule curve, designated as **Point 4a**, a pulse release of 50 cfs for 5 consecutive days is released. Following the pulse release, flow is ramped backed down to 16 cfs since the storage is no longer above the pulse flow rule curve. The starting and ending ramping values are plugged into the spreadsheet shown in Table 1 and the following ramping flow rates are released at 12 hour increments: 50[begin], 28, 16[end]. Ramping takes place over 2 increments and a 24 hour time period.

Inflows are not large enough to compensate for the pulse flow and maintain storage in the 16 cfs winter release zone. At **Point 5a** the winter release is reduced to 12 cfs. This flow rate is maintained for the remainder of the winter base flow time period.

Between April 15 and 30, a temperature survey of Stevens Creek Reservoir is conducted to determine the available hypolimnetic volume with a temperature of 15 degrees C or less. This corresponds to **Point 6a**. The depth to cold water is calculated from field measurements and the rating curve is used to determine the volume of cold water. Assuming a depth to cold water of 21 feet there should be enough cold water to release approximately 3 cfs from May 1 to Nov 1. The flow will be ramped down from 12 cfs to 3 cfs over 2 increments and a 24 hour time period with the following release rates: 12[begin], 6, 3[end]. The cold water volume will be released at a constant rate, in order to maintain a water temperature not to exceed a daily average temperature of 19 degrees C and a daily maximum temperature of

22 degrees C throughout the cold-water management zone. Additional reservoir temperature profiles will be established on a monthly basis from June through October and releases adjusted to correspond to changes in the measured hypolimnetic volume.

Dry Inflow Year Operations

Starting again with the initial reservoir storage as discussed above, the storage on November 1 is at **Point 1**. Since the summer release was 5 cfs for the assumed full reservoir initial conditions, the releases for November and December are also 5 cfs.

Low inflows for November and December cause the reservoir storage to decrease to approximately 900 acre-feet on January 1 as indicated as **Point 2d** in Figure 8. The operation rule curves indicate that a release of 5 cfs is required. Since it is very early in the water year, moderate winter base releases are maintained since significant inflows are still possible.

As the winter continues on, reservoir storage continues to decrease reaching **Point 3d** and winter releases are cut to 3 cfs. At **Point 4d**, release are reduced to 1 cfs and a cold water program is not going to be possible without some late season inflow. By May 1, inflows do not materialize and there is not adequate storage to maintain a cold water program through October 1. Releases are made based on the low storage rule curves designed to maintain a wet creek below the dam. Releases are reduced to 0.5 cfs at **Point 5d**.

Wet Inflow Year Operations

Starting again with the initial reservoir storage as discussed above, the storage on November 1 is at **Point 1**. Since the summer release was 5 cfs for the assumed full reservoir initial conditions, the releases for November and December are also 5 cfs.

Inflows during November and December allow the reservoir to reach a storage of approximately 3,100 acre-feet on January 1 as indicated as **Point 2w** in Figure 8. The operation rule curves indicate that a release of 16 cfs is required.

Inflow continues to raise the reservoir storage and **Point 3w** depicts the time when pulse flows should begin. Since the storage remains above the pulse flow curve a second pulse release of 50 cfs for 5 consecutive days is released. Additional pulse flow releases are not required since two have already been performed for the winter. Following the pulse releases, flow may be ramped back down to 16 cfs or flood releases may be performed, if appropriate. Assuming a 16 cfs release, the starting and ending ramping values are plugged into the spreadsheet shown in Table 1 and the following ramping flow rates are released at 12 hour increments: 50[begin], 28, 16[end]. Ramping takes place over 2 increments and a 24 hour time period.

Inflows continue to raise the reservoir storage and the reservoir begins to spill at **Point 4w**. A winter base flow of 16 cfs or greater is maintained by spill or through releases. The reservoir remains full until May 1.

Between April 15 and 30, a temperature survey of Stevens Creek Reservoir is conducted to determine the available hypolimnetic volume with a temperature of 15 degrees C or less. This corresponds to **Point 5w**. Assuming a depth to cold water of 21 feet there should be enough cold water to release approximately 5 cfs from May 1 to Nov 1. The flow will be ramped down from 16 cfs to 5 cfs over 2 increments and a 24 hour time period with the following release rates: 16[begin], 9, 5[end]. The cold water volume will be released at a constant rate, in order to maintain a water temperature not to exceed a daily average temperature of 19 degrees C and a daily maximum temperature of 22 degrees C throughout the cold-water management zone. Additional reservoir temperature profiles will be established on a monthly basis from June through October and releases adjusted to correspond to changes in the measured hypolimnetic volume.

TABLE 2

FLOW RAMPING

Target Ramping Factor 0.25
Flow Percent Criteria 50

Begin	End	Change	Percent	Ramping	Calc. Increments	No. of Increments	Max Increments	No. of Increments	Act. Ramping Factor	Increments 0	1	2	3	4	5	6	7
300	250	50	17%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
300	200	100	33%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
300	100	200	67%	YES	3.8	4	7	4	0.24	300	228	173	132	100	-	-	-
300	25	275	92%	YES	8.6	9	7	7	0.30	300	210	147	103	73	51	36	25
300	10	290	97%	YES	11.8	12	7	7	0.38	300	185	114	70	43	26	16	10
100	80	20	20%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
100	60	40	40%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
100	50	50	50%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
100	49	51	51%	YES	2.5	3	7	3	0.21	100	79	62	49	-	-	-	-
100	20	80	80%	YES	5.6	6	7	6	0.24	100	76	58	45	34	26	20	-
50	40	10	20%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
50	25	25	50%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
50	16	34	68%	YES	1.64	2	4	2	0.43	50	28	16	-	-	-	-	-
50	10	40	80%	YES	5.6	6	4	4	0.33	50	33	22	15	10	-	-	-
50	5	45	90%	YES	8.0	9	4	4	0.44	50	28	16	9	5	-	-	-
20	15	5	25%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
20	12	8	40%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
20	10	10	50%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
20	8	12	60%	YES	3.2	4	4	4	0.20	20	16	13	10	8	-	-	-
20	6	14	70%	YES	4.2	5	4	4	0.26	20	15	11	8	6	-	-	-
20	4	16	80%	YES	5.6	6	4	4	0.33	20	13	9	6	4	-	-	-
20	2	18	90%	YES	8.0	9	4	4	0.44	20	11	6	4	2	-	-	-
10	8	2	20%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
10	7	3	30%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
10	6	4	40%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
10	5	5	50%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
10	4	6	60%	YES	3.2	4	4	4	0.20	10	8	6	4	-	-	-	-
5	4	1	20%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
5	3	2	40%	NO	-	-	-	-	-	-	-	-	-	-	-	-	-
5	2	3	60%	YES	3.2	4	4	4	0.20	5	2	-	-	-	-	-	-
5	1	4	80%	YES	5.6	6	4	4	0.33	5	3	1	-	-	-	-	-

Rules:
Max of 7 increments for change in flow greater than 50 cfs otherwise a max of 4 increments
Minimum of 2 cfs change in flow b/w successive increments

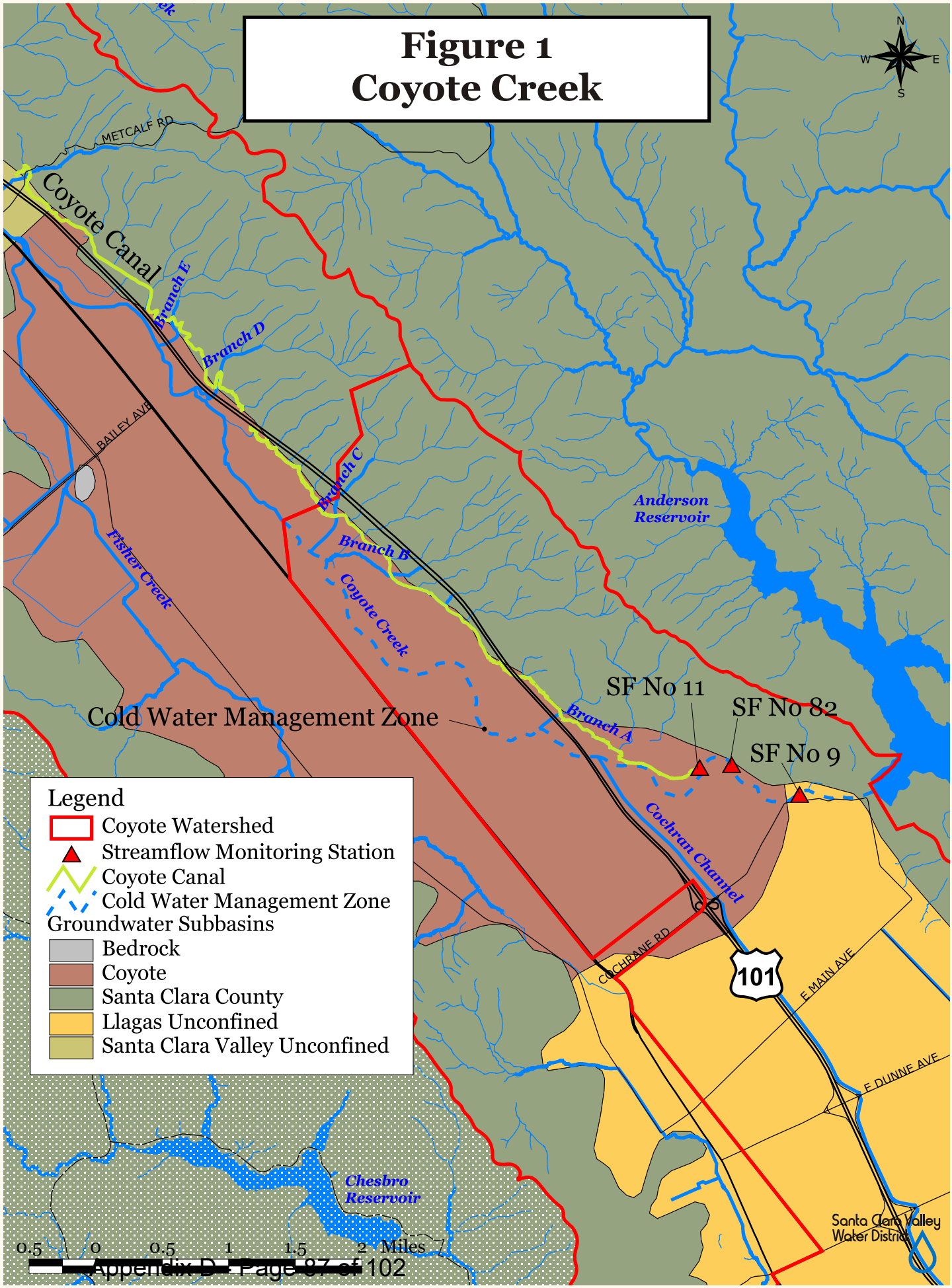


Figure 1
Coyote Creek
N
W
E
S
METCALF RD
Coyote Canal
Branch E
Branch D
Branch C
Branch B
Branch A
BAILEY AVE
Fisher Creek
Coyote Creek
Anderson Reservoir
Cold Water Management Zone
SF No 11
SF No 82
SF No 9
Cochran Channel
COCHRANE RD
101
F MAIN AVE
F DUNNE AVE
Chesbro Reservoir
Santa Clara Valley Water District
Legend
Coyote Watershed
Streamflow Monitoring Station
Coyote Canal
Cold Water Management Zone
Groundwater Subbasins
Bedrock
Coyote
Santa Clara County
Llagas Unconfined
Santa Clara Valley Unconfined
0.5 0 0.5 1 1.5 2 Miles

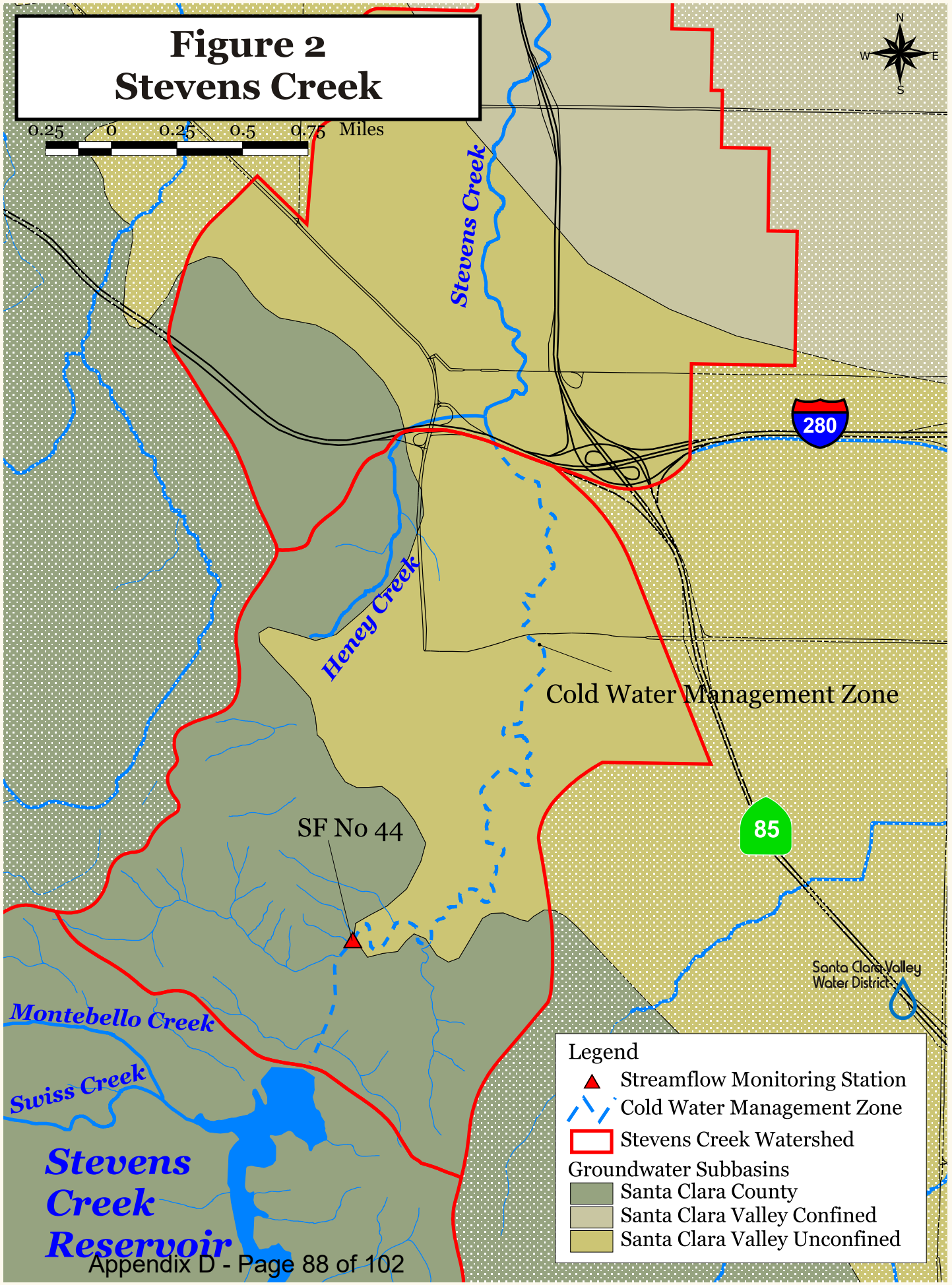


Figure 2
Stevens Creek
0.25 0 0.25 0.5 0.75 Miles
N
W
E
S
Stevens Creek
280
Heney Creek
Cold Water Management Zone
SF No 44
85
Santa Clara Valley Water District
Montebello Creek
Swiss Creek
Stevens Creek Reservoir
Legend
Streamflow Monitoring Station
Cold Water Management Zone
Stevens Creek Watershed
Groundwater Subbasins
Santa Clara County
Santa Clara Valley Confined
Santa Clara Valley Unconfined

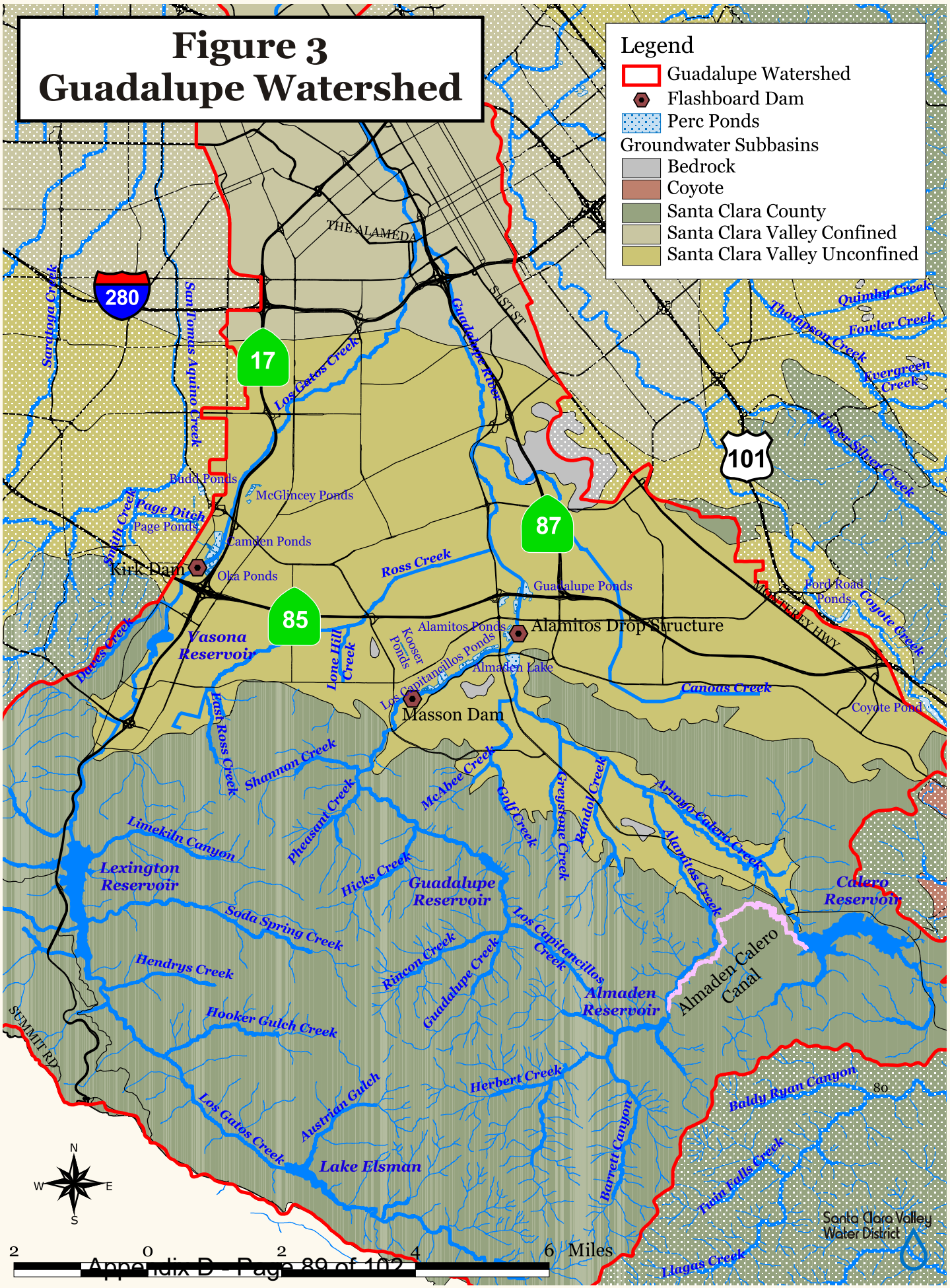


Figure 3
Guadalupe Watershed
Legend
Guadalupe Watershed
Flashboard Dam
Perc Ponds
Groundwater Subbasins
Bedrock
Coyote
Santa Clara County
Santa Clara Valley Confined
Santa Clara Valley Unconfined
THE ALAMEDA
SILVER ST
280
17
87
85
101
Saratoga Creek
San Tomas Aquino Creek
Los Gatos Creek
Guadalupe River
Quimby Creek
Thompson Creek
Fowler Creek
Evergreen Creek
Upper Silver Creek
Budd Ponds
McGlincey Ponds
Page Ditch
Page Ponds
Camden Ponds
Smith Creek
Kirk Dam
Oka Ponds
Ross Creek
Guadalupe Ponds
Ford Road Ponds
MONTEREY HWY
Coyote Creek
Alamitos Ponds
Alamitos Drop Structure
Kooser Ponds
Los Capitancillos Ponds
Almaden Lake
Lone Hill Creek
Vasona Reservoir
Dees Creek
Canoas Creek
Coyote Pond
Masson Dam
East Ross Creek
Shannon Creek
McAbee Creek
Golf Creek
Greystone Creek
Randol Creek
Arroyo Calero Creek
Alamitos Creek
Pheasant Creek
Limekiln Canyon
Lexington Reservoir
Hicks Creek
Guadalupe Reservoir
Calero Reservoir
Soda Spring Creek
Los Capitancillos Creek
Rincon Creek
Guadalupe Creek
Almaden Reservoir
Almaden Calero Canal
Hendrys Creek
Hooker Gulch Creek
SUMMIT RD
Herbert Creek
Austrian Gulch
Los Gatos Creek
Lake Elsman
Barrett Canyon
Baldy Ryan Canyon
80
Train Falls Creek
Llagas Creek
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S
2 0 2 4 6 Miles
Santa Clara Valley Water District

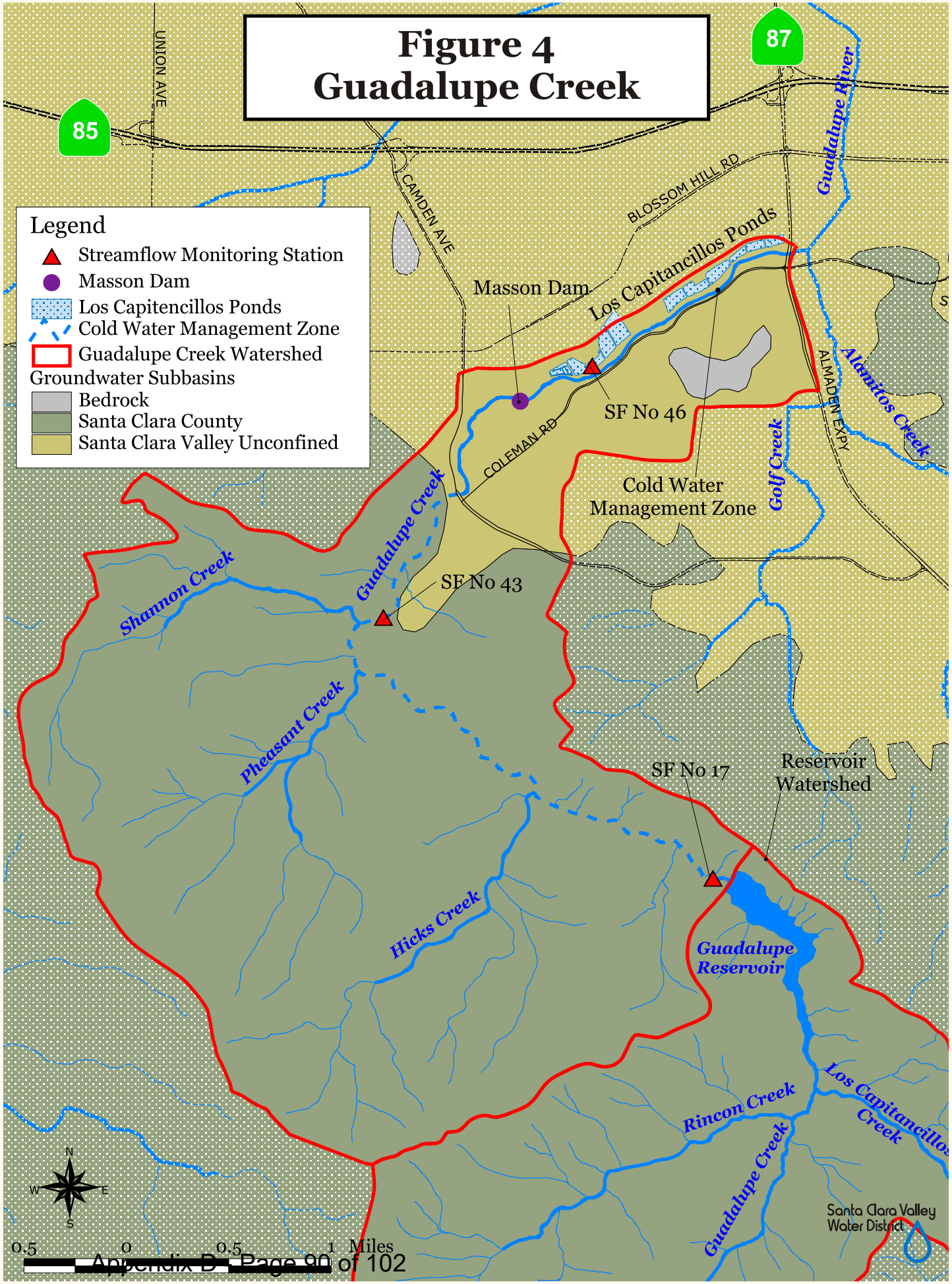
Figure 4
Guadalupe Creek
Legend
Streamflow Monitoring Station
Masson Dam
Los Capitencillos Ponds
Cold Water Management Zone
Guadalupe Creek Watershed
Groundwater Subbasins
Bedrock
Santa Clara County
Santa Clara Valley Unconfined
85
87
UNION AVE
CAMDEN AVE
BLOSSOM HILL RD
Guadalupe River
Masson Dam
Los Capitancillos Ponds
SF No 46
COLEMAN RD
ALMADEN EXPY
Almaden Creek
Golf Creek
Cold Water
Management Zone
Guadalupe Creek
Shannon Creek
SF No 43
Pheasant Creek
SF No 17
Reservoir
Watershed
Hicks Creek
Guadalupe
Reservoir
Rincon Creek
Los Capitancillos
Creek
Guadalupe Creek
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1 Miles
Santa Clara Valley
Water District

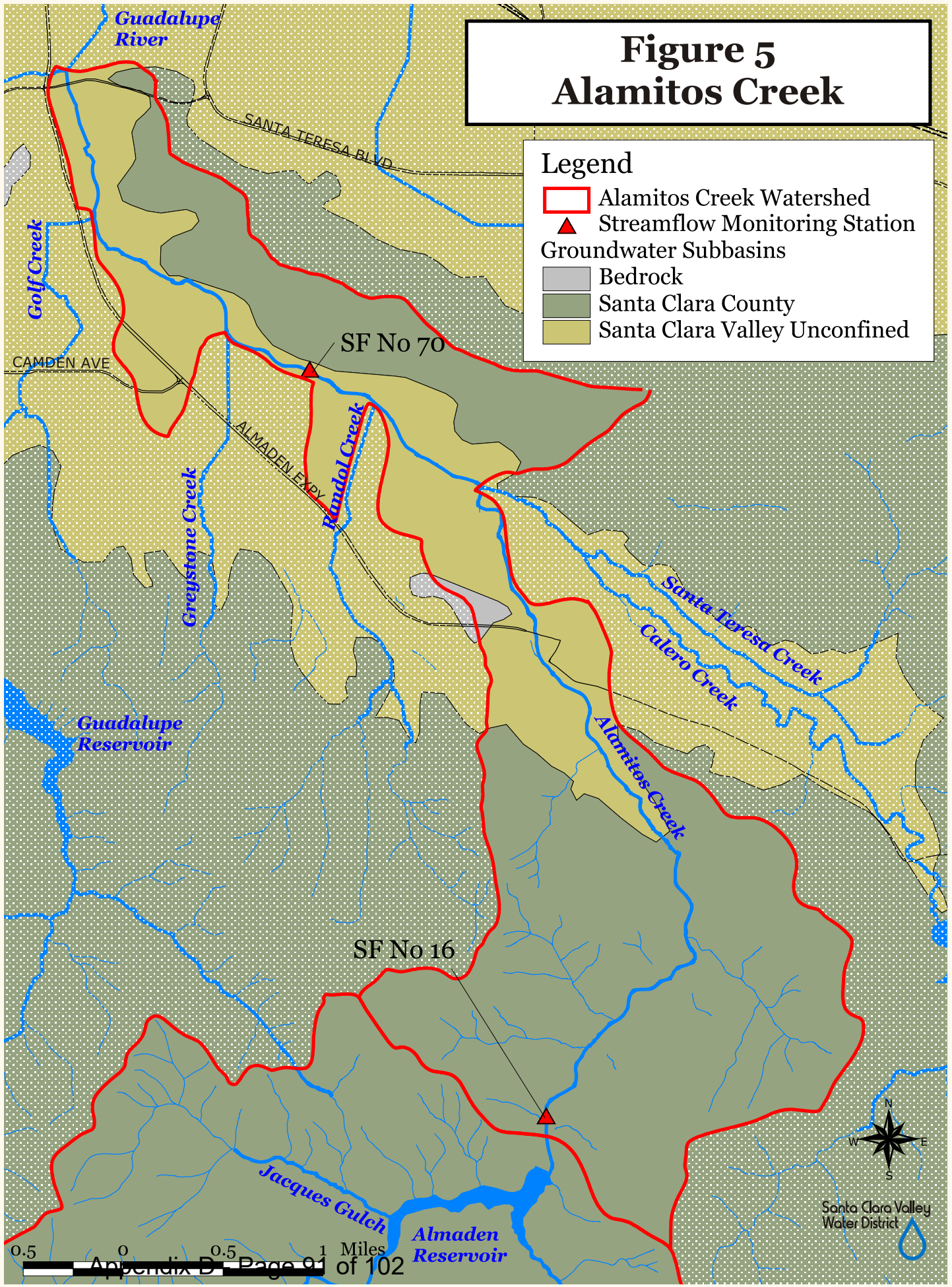
Figure 5
Alamitos Creek
Legend
Alamitos Creek Watershed
Streamflow Monitoring Station
Groundwater Subbasins
Bedrock
Santa Clara County
Santa Clara Valley Unconfined
Guadalupe River
SANTA TERESA BLVD
Golf Creek
CAMDEN AVE
SF No 70
ALMADEN EXPY
Randol Creek
Greystone Creek
Santa Teresa Creek
Calero Creek
Alamitos Creek
Guadalupe Reservoir
SF No 16
Jacques Gulch
Almaden Reservoir
N
W
E
S
Santa Clara Valley Water District
0.5 0 0.5 1 Miles

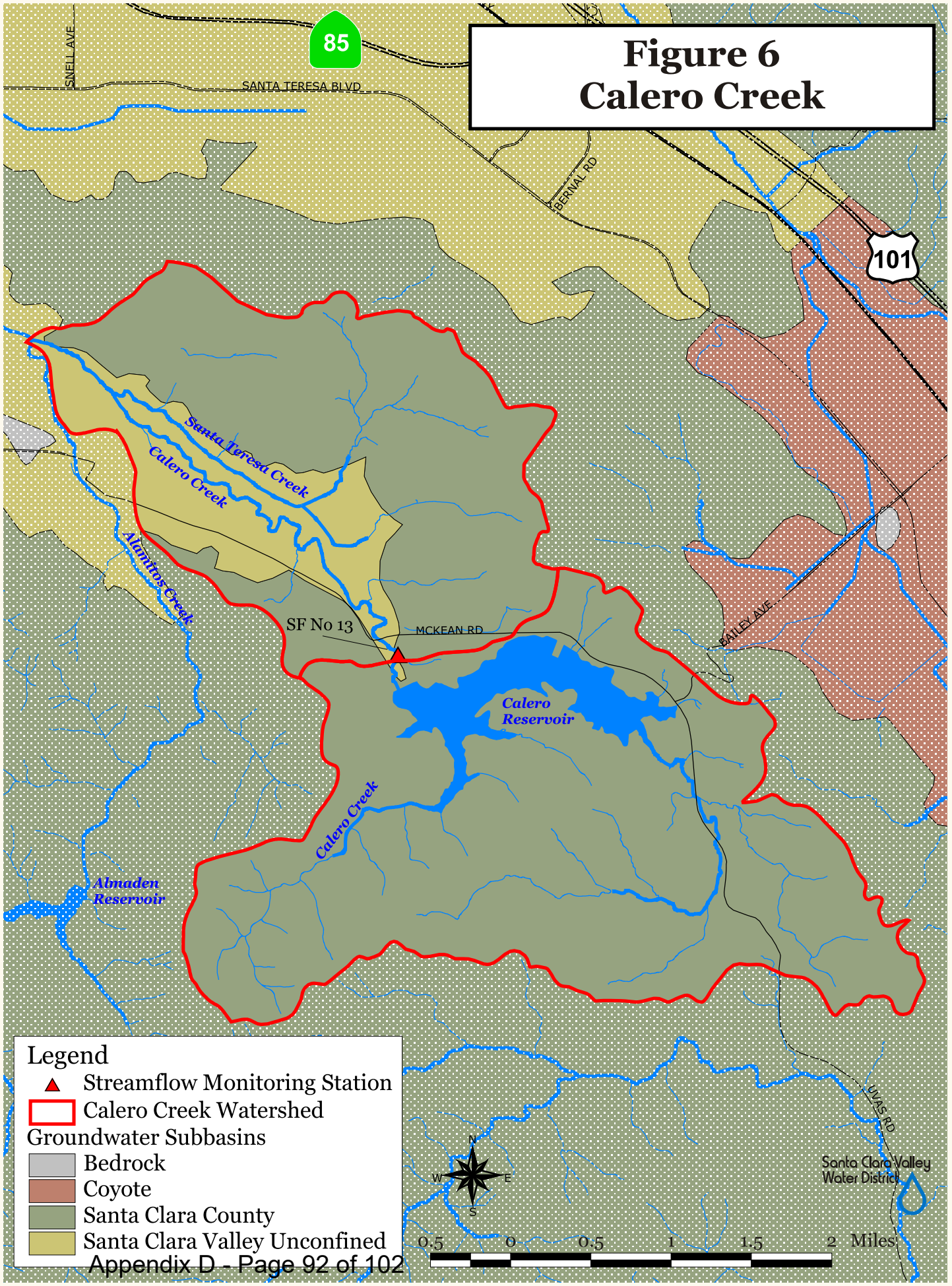
Figure 6
Calero Creek
85
SNELL AVE
SANTA TERESA BLVD
BERNAL RD
101
Santa Teresa Creek
Calero Creek
Alamitos Creek
SF No 13
MCKEAN RD
BAILEY AVE
Calero Reservoir
Calero Creek
Almaden Reservoir
UVAS RD
Legend
Streamflow Monitoring Station
Calero Creek Watershed
Groundwater Subbasins
Bedrock
Coyote
Santa Clara County
Santa Clara Valley Unconfined
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E
S
Santa Clara Valley Water District
0.5 0 0.5 1 1.5 2 Miles

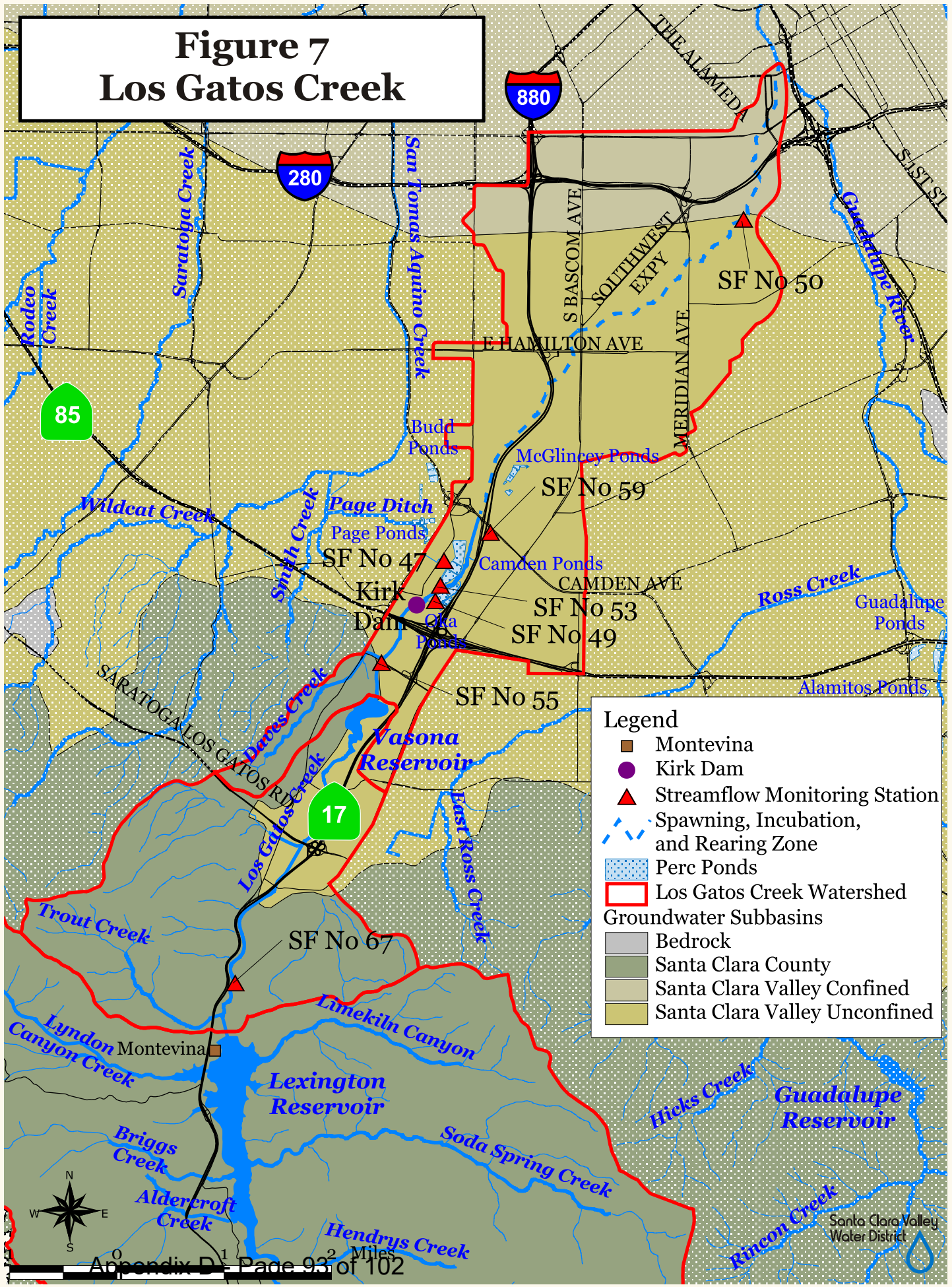
Figure 7
Los Gatos Creek
880
280
85
17
THE ALAMEDA
S 1ST ST
Guadalupe River
San Tomas Aquino Creek
Saratoga Creek
Rodeo Creek
S BASCOM AVE
SOUTHWEST EXPY
MERIDIAN AVE
E HAMILTON AVE
SF No 50
Budd Ponds
McGlincey Ponds
SF No 59
Page Ditch
Wildcat Creek
Smith Creek
Page Ponds
SF No 47
Kirk Dam
Camden Ponds
CAMDEN AVE
SF No 53
SF No 49
Ross Creek
Guadalupe Ponds
Alamitos Ponds
SF No 55
SARATOGA-LOS GATOS RD
Daves Creek
Vasona Reservoir
Los Gatos Creek
East Ross Creek
Trout Creek
SF No 67
Limekiln Canyon
Lyndon Canyon Creek
Montevina
Lexington Reservoir
Hicks Creek
Guadalupe Reservoir
Briggs Creek
Soda Spring Creek
Aldercroft Creek
Hendrys Creek
Rincon Creek
Legend
Montevina
Kirk Dam
Streamflow Monitoring Station
Spawning, Incubation, and Rearing Zone
Perc Ponds
Los Gatos Creek Watershed
Groundwater Subbasins
Bedrock
Santa Clara County
Santa Clara Valley Confined
Santa Clara Valley Unconfined
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Santa Clara Valley Water District

FIGURE 8
STEVENS CREEK RESERVOIR OPERATION RULE CURVES
EXAMPLE

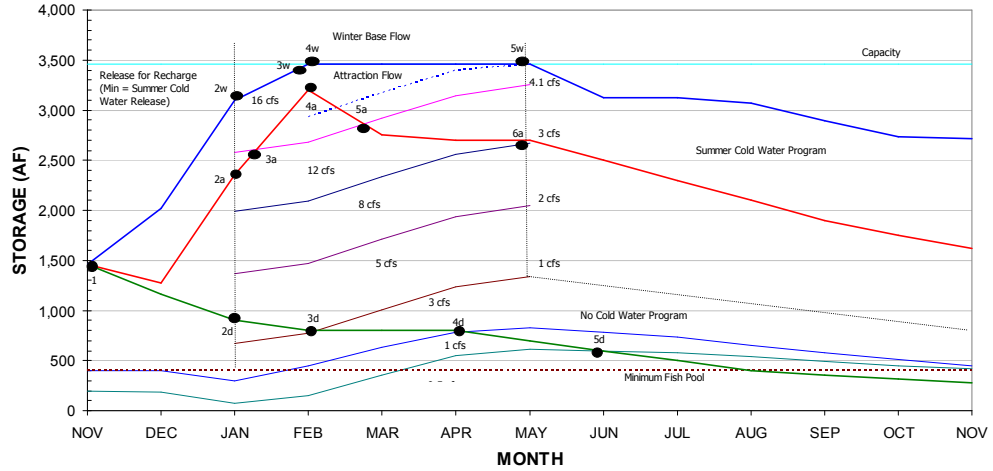
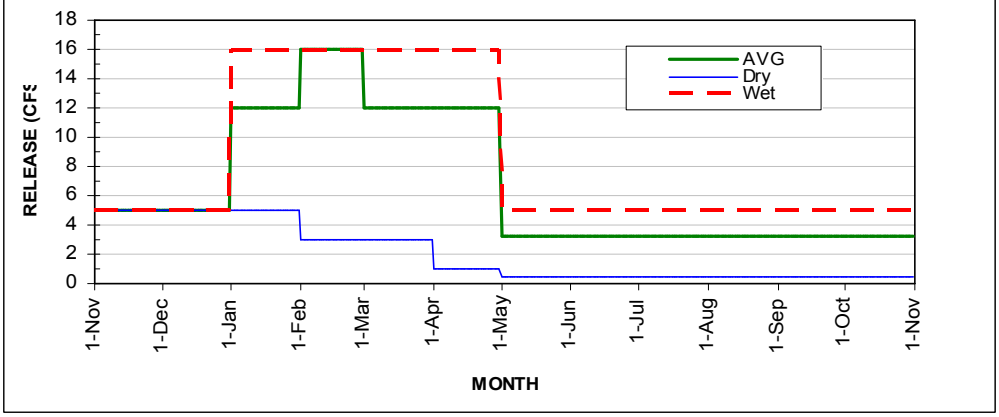


FIGURE 9
STEVENS CREEK RESERVOIR OPERATIONS EXAMPLE
RELEASES



Santa Clara Valley
Urban Runoff
Pollution Prevention Program

Campbell • Cupertino • Los Altos • Los Altos Hills • Los Gatos • Milpitas • Monte Sereno • Mountain View • Palo Alto
San Jose • Santa Clara • Saratoga • Sunnyvale • Santa Clara County • Santa Clara Valley Water District

January 18, 2019

Mr. Richard Looker
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Proposed Revisions to the Clean Water Act Section 303(d) List of Impaired Water Bodies in the San Francisco Bay Basin

Dear Mr. Looker:

This letter is submitted on behalf of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) regarding the *Clean Water Act Sections 303(d) and 305(b) 2018 Integrated Report for the San Francisco Bay Region* (Integrated Report). SCVURPPP is an association of 13 cities and towns[1] in the Santa Clara Valley, unincorporated Santa Clara County and the Santa Clara Valley Water District. Along with other San Francisco Bay Area public agencies, SCVURPPP participants share a common National Pollutant Discharge Elimination System (NPDES) permit to discharge municipal stormwater to receiving water bodies in the San Francisco Bay Area. Since its inception, SCVURPPP has been a recognized leader in stormwater management and monitoring in the San Francisco Bay region, and continues to be dedicated to protecting and improving the quality of our water bodies.

We appreciate the opportunity to submit comments regarding the proposed 2018 revisions to the 303(d) list for the San Francisco Bay Region. Our comments are specifically regarding proposed listing of Los Gatos Creek in Santa Clara County for temperature. We would like to point out that there was insufficient time provided by the SF Bay Water Quality Control Board (SF Bay Water Board) to adequately review the data used to propose the new listing and provide meaningful comments. For this reason, these comments should be considered preliminary. The release of the public notice occurred on Friday, December 21st (prior to the winter holiday season), with comments due on January 21st, 2019 (Martin Luther King Day). The timeline provided less than one month (including holidays and weekends) to review a dataset with millions of data points (i.e., hourly data collected at 32 sites over a 13-year period) and the evaluation guidelines used by the SF Bay Water Board staff to support the listing. Considering that this listing could significantly impact current watershed management measures in the watershed (as well as setting precedent for other watersheds), the time provided to adequately review the lines of evidence used by the SF Bay Water Board was thoroughly insufficient. Our preliminary comments are as follows:

[1] Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga and Sunnyvale

1. Evaluation guidelines used by Water Board staff are not derived from peer reviewed sources.

The State of California's Water Quality Control Policy for Developing California's Clean Water Act Section 303(D) List (Policy) describes the process that the State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (Regional Water Board) use to comply with the listing requirements of section 303(d) of the federal Clean Water Act. Section 6.1.5.9 of the Policy describes the evaluation of temperature data and states, "determination of life stage temperature requirements of sensitive aquatic life species shall be based on peer-reviewed literature." The references associated with the evaluation guidelines used for Los Gatos Creek data analyses include Carter (2008) and Sullivan et al. (2000) (Table 1). Neither of these documents appear to have undergone the rigorous scientific review process typical of journal publications. More specifically, the documents are not journal publications.

Table 1. Evaluation Guidelines used by the SF Bay Water Board to evaluate temperature data collected in Los Gatos Creek.

Guideline	Criteria	Exceedance of critical value	Guideline Reference
Rolling 7-Day Average Daily Maximum (7DADM)	20 ºC	Y	Carter (2008)
Instantaneous (Lethal)	24 ºC	N	
Maximum Weekly Average (MWAT)	19.6 ºC	Y	Sullivan et al. (2000)
Rolling 7-Day Average (7DAVG)	17 ºC	Y	

Sullivan et al. (2000) is a consulting report prepared by the Sustainable Ecosystems Institute of Portland, Oregon for the Oregon Forest Industries Council, Washington Forest Protection Association, and Weyerhaeuser Company. Sullivan et al (2000) uses existing temperature guidelines and applies a risk assessment approach to evaluate the effects of temperature on the growth rates of juvenile salmonids in a laboratory setting. The existing temperature guidelines are based on data collected from cold water streams in the State of Washington and/or Oregon. Carter (2008) is an unpublished literature review of salmonid temperature guidance conducted by North Coast Regional Water Quality Control Board staff for evaluation of water temperatures for streams in that region. The Sullivan et al. (2000) paper is included in the Carter (2008) literature review. Neither of the references underwent a thorough peer review process, nor suggest that their recommended temperature guidelines should be applied to ecoregions other than those specifically studied.

Recommendation: The SF Water Board should delay their consideration for listing Los Gatos Creek for temperature until a thorough review of published literature sources applicable to watersheds in Santa Clara County (including Los Gatos Creek) is conducted and applicable temperature guidelines based on these published sources are identified.

2. Evaluation guidelines used by Water Board staff are not applicable to streams in Santa Clara County

The temperature guidelines used by the SF Bay Water Board to support the Los Gatos Creek listing are based on data summarized in Carter (2008) and Sullivan et al. (2000). Data used to establish these guidelines were collected from cold water, salmonid streams in the State of Washington and/or Oregon. A thorough technical review has not been conducted to evaluate the

applicability of these guidelines to Los Gatos Creek or other streams located in the Bay Area, which has a significantly different (Mediterranean) climate than the ecoregion where the guidelines were established. This is problematic because a wide range of natural climatic conditions, watershed characteristics, and geographic factors can influence natural water temperatures in streams and their effects on biological conditions. Guidelines developed for streams in the Pacific Northwest may not be applicable to streams in other ecoregions, such as the drier and warmer salmonid streams in Santa Clara County. In addition, the Sullivan et al. (2000) risk assessment approach relies on the effects of temperature on juvenile salmon growth rates in a laboratory setting. These dose-response relationships established in a laboratory may not be representative of what is present in highly variable natural stream conditions. These issues should be further evaluated by experts to determine the overall applicability of temperature guidelines to different types of streams and the regulatory consequences of inappropriately using these guidelines.

Several important factors should be considered when selecting the appropriate temperature guidelines for evaluating data collected from streams that support salmonid fish communities in the San Francisco Bay Area region. Temperature patterns for salmonid streams in the Pacific Northwest would be expected to naturally be colder than salmonid streams in the San Francisco Bay Area. For illustrative purposes, the daily average temperatures for two salmonid streams in State of Washington are compared to two salmonid streams in Santa Clara County (Figure 1). The median temperatures are approximately 3 to 7 °C cooler in the two streams in State of Washington.

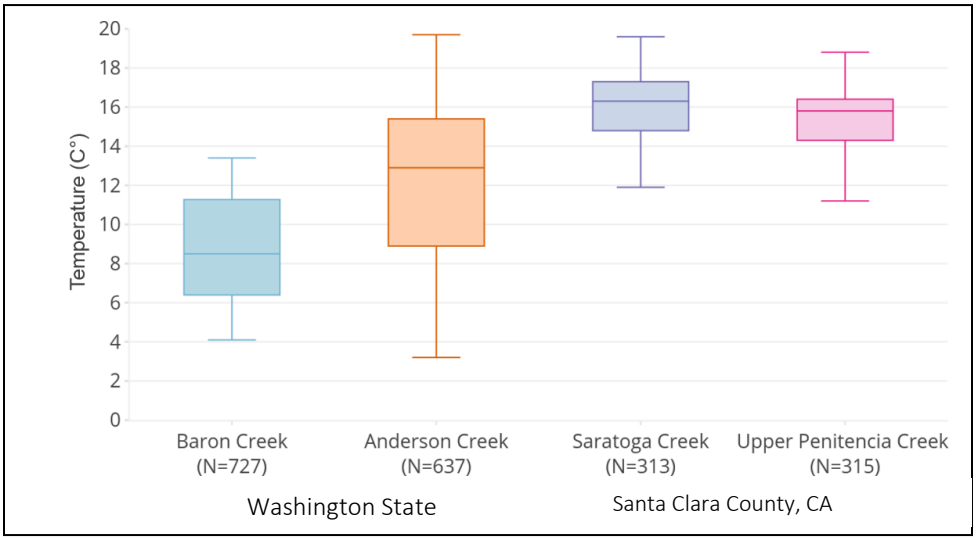


Figure 1. Distribution of water temperature data collected between March and October (2016 – 2018) in two natural creeks in Washington State (Baron and Anderson Creeks) and two natural creeks in Santa Clara County, California (Saratoga and Upper Penitencia Creeks).

Furthermore, a single temperature threshold may not apply to all creeks in the San Francisco Bay Area due to the high variability in climate and watershed characteristics within the region. Long-term water temperature records measured at USGS gaging stations in the San Francisco Bay area are highly variable, especially when comparing the relatively wet, cool creeks of to the Santa Cruz Mountains to the drier, warmer creeks of the East Bay (USGS 1971).

Several case studies demonstrate that the Central California Coast Steelhead Distinct Population Segment (DPS)[2] have adapted feeding behaviors and life history strategies to deal with warmer water temperatures characteristic of the southern end of their range. Smith and Li (1983) observed that juvenile steelhead will tolerate warmer temperatures when food is abundant by moving into riffle habitats to increase feeding success. Juvenile steelhead will also move into coastal estuaries to feed during the summer season when stream conditions become stressful to the fish (Moyle 2008). Sogard et al. (2012) determined that steelhead growth rates were higher during winter-spring season compared to summer-fall season in Central California coastal creeks, whereas the opposite was true for steelhead in creeks of the Central Valley. Railsback and Rose (1999) concluded that juvenile growth rate during the summer season was more dependent on food availability and consumption than temperature.

Recommendation: Temperature guidelines used to evaluate temperature data in Los Gatos Creek (and other Bay Area streams) should be based on peer-reviewed case studies that evaluate temperature effects on salmonid populations that occur in watersheds of the Central Coast region. Furthermore, temperature guidelines derived from laboratory studies (such as Sullivan et al. (2000)) should be tested in real-world conditions, prior to their use as evaluation guidelines for 303(d) listings. Accordingly, the SF Bay Water Board should delay their consideration for listing Los Gatos Creek for temperature until a thorough review of published literature sources applicable to watersheds in Santa Clara County (including Los Gatos Creek) is conducted and applicable temperature guidelines based on these published sources are identified.

3. Current Programs exist to protect/restore cold water habitat beneficial uses

There are several existing and ongoing efforts to increase salmonid populations in the San Francisco Bay. For example, the National Oceanic and Atmospheric Administration (NOAA) recently developed the Coastal Final Recovery Plan for California Coastal Chinook Salmon, Northern California steelhead and Central California Coast steelhead (NMFS 2016). The plan is based on the biological needs of fish in Central California and provides the foundation for restoring the populations to healthy levels. Specific actions associated with Guadalupe River watershed are identified in Volume IV: Central California Coast Steelhead DPS. Additionally, actions to improve aquatic spawning and rearing habitat and fish passage for migration are included in the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) Settlement Agreement (Settlement Agreement) that was initialed in 2003, by the Santa Clara Valley Water District and nine other parties, including the Guadalupe-Coyote Resource Conservation District (GCRCD), the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and National Marine Fisheries Service to address the 1996 water rights complaint filed by the GCRCD with the State Water Resources Control Board. The FAHCE Settlement Agreement includes addressing temperature issues as they relate to fisheries.

Recommendation: Given these ongoing management efforts in the Los Gatos Creek watershed, should the SF Bay Water Board proceed with the listing for temperature (after appropriate temperature guidelines are established), it should be placed into Category 4b (TMDL is not needed because other pollution control requirements are expected to result in the attainment of an applicable water quality standard in a reasonable period of time). Development of a TMDL for temperature in Los Gatos Creek will divert local resources away from implementing the

[2] CCC steelhead DPS includes all populations between Russian River and south to Aptos Creek. Also included are all drainages of San Francisco, San Pablo and Suisun Bays eastward at the confluence of the Sacramento and San Joaquin Rivers.

recommendations in the FACHE agreement and delay further recovery of salmonids in Santa Clara County watersheds.

In addition to these comments and recommendations provided herein, we both support and incorporate by reference, the comments made by the Santa Clara Valley Water District related to issues with the regulatory basis for the temperature evaluation used for this listing.

We hope that you seriously consider these comments and our recommendations to postpone the listing of Los Gatos Creek for temperature. Given that this listing would be significant and precedent-setting, and that there are significant issues with the listing evaluation process, we strongly believe that potential temperature impacts to SF Bay Area streams needs to be studied further prior to listing streams on the 303(d) list. Please contact me at (510) 832-2852 (x115) or Chris Sommers (x 109) if you have questions regarding our comments or recommendations. We look forward to continuing to work with you during the development of the 2018 and subsequent 303(d) lists.

Sincerely,

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

cc. SCVURPPPP Management Committee
Tom Mumley, Assistant Executive Officer, SF Bay Water Board
Keith Lichten, Division Chief, SF Bay Water Board

References

Carter, K. 2008. Effects of Temperature, Dissolved Oxygen/Total Dissolved Gas, Ammonia, and pH on Salmonids. Implications for California's North Coast TMDLs. January 2008.

National Marine Fisheries Service. 2016. Coastal Multispecies Recovery Plan. National Marine Fisheries Service, West Coast Region, Santa Rosa, California.

Moyle, P.B., J.A. Israel, and S.E. Purdy. 2008. Salmon, Steelhead and Trout in California: Status of an Emblematic Fauna. A report commissioned by Cal Trout 2008.

Smith, J.J. and H.W. Li. 1983. Energetic factors influencing foraging tactics of juvenile steelhead trout, *Salmo gairdneri*. Pp. 173-180 in D.L.G. Noakes et al. (eds.), *Predators and Prey in Fishes*. Dr. W. Junk Publishers, The Hague.

Sogard, Susan M., Merz, Joseph E., Satterthwaite, William H., Beakes, Michael P., Swank, David R., Collins, Erin M., Titus, Robert G. and Mangel, Marc (2012): Contrasts in Habitat Characteristics and Life History Patterns of Oncorhynchus mykiss in California's Central Coast and Central Valley, Transactions of the American Fisheries Society, 141:3, 747-760.

Sullivan, K., D.J. Martin, R.D. Cardwell, J. E. Toll, and S. Duke. 2000. An analysis of the effects of temperature on salmonids of the Pacific Northwest with implications for selecting temperature criteria. Sustainable Ecosystems Institute, Portland Oregon.

United States Geological Service. 1971. Water Temperatures of California Streams. San Francisco Bay Subregion.

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Santa Clara Valley Water District

January 18, 2019

San Francisco Bay Regional Water Quality Control Board
Attention: Richard Looker
1515 Clay Street, Suite 1400
Oakland, CA 94612

Delivered by email: Richard.Looker@waterboards.ca.gov

SUBJECT: Comment Letter – Proposed Revisions to the Clean Water Act Section 303(d) list of impaired water bodies in the San Francisco Bay Basin – Lower Los Gatos Creek Temperature

Dear Mr. Looker:

Thank you for the opportunity to provide comments on the Proposed Revisions to the Clean Water Act Section 303(d) list of impaired water bodies in the San Francisco Bay Basin released for public review on December 21, 2018.

The Santa Clara Valley Water District (District) is a special district with jurisdiction throughout Santa Clara County. The District is the county's primary water resource agency and acts as a steward for its streams and creeks. The District is the groundwater management agency for Santa Clara County and actively manages our groundwater basins, replenishing them with local and imported water through our percolation ponds and stream beds. The Water District comments relate to the listing of lower Los Gatos Creek as impaired by temperature.

The District has the following comments and clarifications to offer:

- **Flawed Steelhead Migration and Habitat Analysis**
  The Line of Evidence in the listing fact sheet indicates that data collected hourly from 2000 through 2012 at monitoring stations along lower Los Gatos Creek by the Santa Clara Valley Water District was used to develop the listing. The fact sheet indicates that "data from migration period - March 15 through June 15 and September 1 through October 31 were assessed." Los Gatos Creek is not considered critical steelhead habitat by the National Marine Fisheries Service. In addition, "California winter steelhead enter coastal streams after rains increase flows… Fish may move upstream any time during the period December-March, although the peaks for such activity are typically in January and February." (Moyle 2002). The migration period September 1 through October 31 is typical for chinook salmon not steelhead in local systems. Outmigration of juvenile steelhead may occur between February and late May. The analysis therefore does not accurately reflect timing of steelhead migration in our area, is based on erroneous criteria and draws flawed conclusions.

- **Inappropriate Temperature Thresholds**
  The threshold of 17°C from Sullivan is a comparison to maximum growth which does not provide for evaluation of steelhead survival and habitat usage. Habitat usage would be a more appropriate measure for our region rather than growth rate. Carter (2008) showed a

range of steelhead habitat usage up to 24°C which is relevant to this region. More recent studies show steelhead possess a greater ability to withstand high temperatures than summarized in Carter, particularly if acclimated. Sloat and Osterback (2013) showed steelhead were able to persist in streams >30°C through summer months. Like the steelhead streams studied in Sloat and Osterback, Los Gatos Creek is in the southern portion of the steelhead range where steelhead are commonly exposed to elevated water temperature. Temperature thresholds used in the listing should be peer-reviewed per the listing policy.

- **Current Programs Exist**
  Based on the comments above, listing for temperature is not appropriate. However, if the listing proceeds, it should not be in the "TMDL required" category. Los Gatos Creek is in the Guadalupe River Watershed, which already has ongoing action to improve aquatic spawning and rearing habitat and fish passage for migration to and from the watersheds. The Fisheries and Aquatic Habitat Collaborative Effort (FAHCE) Settlement Agreement (Settlement Agreement) was initialed in 2003, by the District and nine other parties including: the Guadalupe-Coyote Resource Conservation District (GCRCD) - the water rights complainants, and the regulatory agencies – California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS) to address the 1996 water rights complaint filed by the GCRCD with the State Water Resources Control Board (SWRCB). The FAHCE Settlement Agreement includes actions regarding temperature issues as they relate to fisheries. Given this ongoing effort, the listing should not be categorized as "TMDL required" but instead should be listed in Category 4b: TMDL is not needed because other pollution control requirements are expected to result in the attainment of an applicable water quality standard in a reasonable period of time.

The District supports and incorporates by reference comments made by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) regarding the evaluation guidelines used as the regulatory basis for listing.

Given the flawed steelhead migration analysis, inappropriate temperature thresholds, the ongoing FAHCE Settlement actions, and questionable regulatory basis for the evaluation guidelines detailed in comments by SCVURPPP, the Santa Clara Valley Water District urges the San Francisco Bay Regional Water Quality Control Board to delay consideration of the proposed listing of Los Gatos Creek for temperature. Please feel free to contact Kirsten Struve at (408) 630-3138, should you have any questions.

Sincerely,

Melanie Richardson
Chief Operating Officer, Watersheds

Cc: N. Camacho, N. Hawk, R. Callender, District Counsel, V. Gin, K. Arends

SIERRA CLUB
LOMA PRIETA

SAN MATEO, SANTA CLARA & SAN BENITO COUNTIES

January 21, 2019

San Francisco Bay Regional Water Quality Control Board
Attention: Richard Looker
1515 Clay Street, Suite 1400
Oakland, CA 94612

RE: Clean Water Act Section 303(d) 2018 Impaired Waters List Updates for the San Francisco Bay Region

Dear Mr. Looker and Water Board,

The Sierra Club Loma Prieta Chapter has been working for years to protect and rehabilitate Santa Clara County creeks, especially our Steelhead creeks. We participate in efforts to improve water quality, to secure public trust water rights for the environment, and to protect the riparian habitat corridors from new development.

The work of many conservation organizations in the County, especially the South Bay Clean Creeks Coalition, has resulted in improved conditions for trout, salmon and other wildlife over the past several years. However, the Santa Clara Valley Water District has been slow to act on other measures needed to support a sustainable population of anadromous fish in our streams. The District is especially not willing to address the need to allocate water for the environment that would provide the flows these magnificent fish require.

The District has in the past few years started work to remove the barriers to fish passage identified in the Fisheries and Aquatic Habitat Collaborative Effort (2003), but there are many other issues such as the temperature issue in Los Gatos Creek that are not being addressed. The District uses the FAHCE agreement and related projects as a reason to postpone addressing these other issues. Therefore, the listing of Los Gatos Creek as impaired for temperature is a critical and timely step towards the restoration of species and general water quality in the Guadalupe River watershed.

Thank you for doing the work to analyze the Los Gatos Creek temperature data, and for your recommendation to add the Creek to the Clean Water Act Section 303(d) List of Impaired Water Bodies in the San Francisco Bay Basin.

Respectfully submitted,

Katja Irvin

Katja Irvin
Conservation Committee Co-Chair
Sierra Club Loma Prieta Chapter