

RESOLUTION NO. 2026-02

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE UPPER VENTURA RIVER GROUNDWATER AGENCY CONDITIONALLY AGREEING TO SERVE AS THE MAINSTEM MANAGEMENT ENTITY UNDER THE PROPOSED VENTURA RIVER WATERSHED PHYSICAL SOLUTION

WHEREAS, The Upper Ventura River Groundwater Agency (Agency) is a joint powers agency formed in December 2016 and serves as the exclusive groundwater sustainability agency for the Upper Ventura River Groundwater Basin (Basin), with responsibility for implementing the Sustainable Groundwater Management Act (SGMA) and the Basin's Groundwater Sustainability Plan;

WHEREAS, The Ventura River watershed litigation is pending in the Superior Court of California, County of Los Angeles (Court), as Santa Barbara Channelkeeper v. State Water Resources Control Board, et al., and the related cross-action, City of San Buenaventura v. Duncan Abbott, et al., Case No. 19STCP01176 (Action);

WHEREAS, A proposed Judgment and Physical Solution has been prepared in the Action to establish coordinated watershed management, immediate management actions, monitoring, and a Fish Habitat Enhancement Plan to help support recovery of the Ventura River Steelhead by maintaining and enhancing suitable habitat, while also providing for existing reasonable and beneficial human uses of water and protecting all water rights in the;

WHEREAS, The September 4, 2026 proposed Judgment and Physical Solution, including its exhibits, presented to this Board (Proposed Physical Solution), designates the Agency as the Mainstem Management Entity for the Mainstem Management Area, as defined therein, and provides for the Agency to serve as an arm of the Court while retaining its independent authority under SGMA; and

WHEREAS, The Board finds that the Agency's groundwater management responsibilities, monitoring activities, and knowledge of the Basin and its connection to the Ventura River support its service as the Mainstem Management Entity under the terms of the Proposed Physical Solution.

NOW, THEREFORE, BE IT HEREBY RESOLVED by the Board of Directors of the Upper Ventura River Groundwater Agency as follows:

- 1. Findings.** The foregoing recitals are true and correct and are adopted as findings of the Board.
- 2. Conditional acceptance.** The Board hereby resolves that the Agency shall serve as the Mainstem Management Entity under the terms of the Proposed Physical Solution if the Court adopts and enters the physical solution in substantially the same form as the Proposed Physical Solution presented to this Board. Upon that adoption and entry, the Agency accepts the appointment and shall perform the powers, duties, and responsibilities assigned to it in that capacity, subject to the terms of the Court-adopted physical solution.

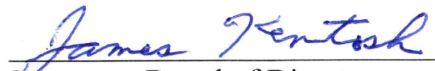
- 3. Substantial conformity.** Changes that materially alter the Agency's management area, powers, duties, financial obligations, or independent SGMA authority shall be returned to the Board for consideration and further approval before the Agency accepts appointment under the changed terms.
- 4. Independent responsibilities.** Consistent with Sections II.A.16, III.A, and III.B of the Proposed Physical Solution, the Agency shall retain its independent powers and responsibilities under SGMA, its joint powers agreement, and other applicable law, including its SGMA responsibilities throughout the Upper Ventura Basin and the two portions within the San Antonio Creek Management Area. As Mainstem Management Entity, the Agency shall implement the physical solution in a manner that will not substantially impair its management efforts under SGMA. The powers, duties, and review procedures applicable to the Agency's independent SGMA decisions remain unchanged.
- 5. Implementation and effective date.** The Agency's Executive Director and General Counsel are authorized to communicate this conditional acceptance to the Court and the parties and to take actions reasonably necessary to carry out this resolution, subject to applicable Board approval requirements. The Secretary shall retain the September 4, 2026 Proposed Physical Solution, including all exhibits, with the official record of this resolution. This resolution takes effect upon adoption; the Agency's acceptance of appointment remains subject to Sections 2 and 3.

PASSED, APPROVED, AND ADOPTED this 8th day of October, 2026, by the following vote:

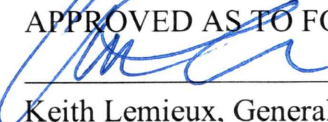
AYES: 5
NOES: 0
ABSENT: 2
ABSTAIN: 0


Chair, Board of Directors

ATTEST:


Secretary, Board of Directors

APPROVED AS TO FORM:


Keith Lemieux, General Counsel
Upper Ventura River Groundwater Agency

SUPERIOR COURT OF THE STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

SANTA BARBARA CHANNELKEEPER, a
California non-profit corporation,

Petitioner,

v.

STATE WATER RESOURCES CONTROL
BOARD, et al,

Respondents.

CITY OF SAN BUENAVENTURA, et al.,

Cross-Complainant,

v.

DUNCAN ABBOTT, an individual, et al.,

Cross-Defendants.

Case No. 19STCP01176

Judge: Hon. William F. Highberger

[PROPOSED] JUDGMENT AND
PHYSICAL SOLUTION¹

Action Filed: Sept. 19, 2014
Trial Date: October 26, 2026

¹ This Proposed Judgment and Physical Solution is submitted by the Casitas Municipal Water District, the City of San Buenaventura, the Meiners Oaks Water District, the Ventura River Water District, and the Wood-Claeyssens Foundation, in accordance with the Court's rulings on August 13, 2026 and the agreed upon process for submitting an updated Proposed Judgment and Physical Solution.

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1 **I. INTRODUCTION**

2 The Court enters and imposes this **Judgment and Physical Solution** (“**Physical**

3 **Solution**”)² in this **Action** regarding the **Ventura River Watershed** (“**Watershed**”)³. This

4 Physical Solution establishes a comprehensive management structure, requires the

5 implementation of specific **Immediate Management Actions** and requires the preparation of a

6 **Fish Habitat Enhancement Plan** (“**FHEP**”) to help support the recovery of the **Ventura River**

7 **Steelhead** by, among other things, maintaining and enhancing suitable habitat, while also

8 providing for existing reasonable and beneficial human uses of **Water**, and protecting all water

9 rights in the Watershed, without the need to determine individual **Water** rights or adjudicate

10 whether to limit Water **Production** in the Watershed. The Court has determined that this

11 Physical Solution provides for the reasonable and beneficial use of the Water in the Watershed

12 and avoids substantial injury, material expense, and waste of scarce Water resources in

13 furtherance of Article X, section 2 of the California Constitution, and consistent with Code of

14 Civil Procedure sections 830-852, as applicable, and California Water law and policy. The Court

15 retains continuing jurisdiction to enforce this Physical Solution and to address future disputes.

16 The Court has concurrently issued a comprehensive **Statement of Decision** that sets forth

17 the findings of fact and conclusions of law supporting the entry and imposition of this Physical

18 Solution. The Court incorporates the Statement of Decision by this reference. Because this

19 Physical Solution will control how the Watershed is managed for the foreseeable future, this

20 Physical Solution focuses on setting forth the specific obligations of the **Bound Parties** to

21 implement this Physical Solution. It first defines key terms used throughout the document. It

22 next describes the two **Management Areas** in the Watershed and the powers of the two

23 **Management Entities** who will assist the Court in implementing this Physical Solution. This

24 Physical Solution sets forth specific Immediate Management Actions which certain **Responsible**

25 **Parties** shall implement while the FHEP is prepared, approved, and then implemented. It also

26 establishes requirements for the FHEP, an initial **Monitoring Program**, and how this Physical

27 _____

28 ² Defined terms are bolded when first used. Definitions are found in Section II of this Physical Solution.

³ The Watershed is generally depicted in Exhibit “A” to this Physical Solution.

1 Solution will be funded. It ends with general provisions, including, without limitation, a dispute
2 resolution process and a description of the Court’s retained jurisdiction to oversee implementation
3 of this Physical Solution.

4 **II. DEFINITIONS AND EXHIBITS**

5 **A. Definitions**

6 The following definitions shall govern the construction of this Physical Solution. Other
7 terms are defined within the body of the document.

- 8 1. **Action.** Los Angeles Superior Court Case No. 19STCP01176, *Santa Barbara*
9 *Channelkeeper v. State Water Resources Control Board, et al. (original*
10 *complaint); City of San Buenaventura v. Duncan Abbott et al. (cross-complaint).*
- 11 2. **AFY.** Acre feet per year.
- 12 3. **Arundo.** *Arundo donax*.
- 13 4. **Arundo Removal Program.** The comprehensive program established in this
14 Physical Solution to remove Arundo from a target amount of approximately 130
15 acres of land in the Watershed in three phases. This target amount does not
16 include approximately 95 acres of Arundo located on the Wood-Claeysens
17 Foundation Property that will be managed by that entity as provided in this
18 Physical Solution.
- 19 5. **Basins.** The four **Groundwater Basins** located in whole or in part in the
20 Watershed, as defined by the Court’s Order Establishing Watershed and Basin
21 Boundaries dated January 13, 2022 attached to this Physical Solution as Exhibit
22 “B”. These four Groundwater Basins are the **Upper Ojai Valley Basin**, the **Ojai**
23 **Valley Basin**, the **Upper Ventura River Basin** and the **Lower Ventura River**
24 **Basin**.
- 25 6. **Bound Parties.** All **Parties** and property bound by this Physical Solution and
26 their successors. Bound Parties include, but are not limited to, all Persons in the
27 Watershed who were served with a summons and all owners of property overlying
28 the Basins, the **State Water Resources Control Board (“State Board”)**, the

California Department of Fish and Wildlife (“CDFW”), Santa Barbara Channelkeeper (“SBCK”) and any other Person joining this Action.

7. **Casitas MWD.** The Casitas Municipal Water District.

8. **CDFW.** The California Department of Fish and Wildlife.

9. **cfs.** Cubic feet per second.

10. **Day or Days.** A calendar day or calendar days unless a business day is otherwise specified in the Physical Solution. In computing any period of time for a deadline under this Physical Solution, where the last day would fall on a Saturday, Sunday, or state or federal holiday, the period runs until the close of business on the next business day.

11. **DWR.** The California Department of Water Resources.

12. **Exempt Parties.** Parties that **Produce** less than five (5) AFY of **Water** from the Watershed, as more fully defined in the Court’s Interim Order Confirming An Exempt Cross-Defendant Class dated October 7, 2022 attached to this Physical Solution as Exhibit “C”. The Court retains continuing jurisdiction over the Exempt Parties, consistent with its October 7, 2022 Order and Code of Civil Procedure section 833(d)(2). Except as expressly exempted in the Court’s Interim Order, Exempt Parties remain Bound Parties subject to the obligations of this Physical Solution. In addition, Exempt Parties shall comply with all requirements under the **Sustainable Groundwater Management Act (“SGMA”)**, the orders or directives of the **Groundwater Sustainability Agencies (“GSAs”)** under SGMA, other applicable SGMA reporting requirements, or other applicable requirements outside of this Physical Solution.

13. **Fish Habitat Enhancement Plan or FHEP.** The plan to be developed, adopted, and implemented as provided in this Physical Solution in furtherance of the **Management Objective.** Initially, the FHEP shall address conditions in the Watershed between entry of this Physical Solution and the completion of **Matilija Dam** removal. The FHEP shall be reviewed annually and updated as needed. The

scope and contents of the FHEP shall be reassessed to address Watershed conditions existing after Matilija Dam removal.

14. **Groundwater.** Water beneath the surface of the earth within the zone below the water table, in which the soil is completely saturated with water, but not including water that flows in known and definite channels, as the term is defined in Code of Civil Procedure section 832(g) and Water Code section 10721(g).
15. **Groundwater Basin.** A basin or subbasin identified in DWR's Bulletin 118. The four Groundwater Basins at issue in this Action are the Basins as defined by the Court's Order Establishing Watershed and Basin Boundaries dated January 13, 2022.
16. **Groundwater Sustainability Agency or GSA.** An entity or entities that implement the provisions of SGMA as defined in Water Code section 10721(j). This Physical Solution will not substantially impair the ability of a GSA, the State Board, or DWR to comply with SGMA and to achieve sustainable groundwater management. This Physical Solution shall not modify the powers and duties of a GSA under SGMA, nor modify the process that shall be followed to review decisions made by a GSA under SGMA.
17. **Groundwater Sustainability Plan or GSP.** A plan developed by a GSA to manage a Groundwater Basin in accordance with SGMA, as defined in Water Code section 10721(k).
18. **Immediate Management Actions.** The **Management Actions** that certain Responsible Parties will implement starting in Phase 1 of this Physical Solution. These Immediate Management Actions may be reconsidered, revised and/or replaced as necessary based on the FHEP.
19. **Lower Ventura Basin.** The Groundwater Basin designated as Number 4-003.02 in DWR's Bulletin 118 and described therein as the Ventura River Valley-Lower Ventura River Subbasin. The boundaries of the Lower Ventura Basin are those established by the Court's Order Establishing Watershed and Basin Boundaries

dated January 13, 2022.

20. **Mainstem.** That portion of the Ventura River extending from the Pacific Ocean to the confluence of North Fork and Matilija Creeks, excluding the **San Antonio Creek Management Area**.
21. **Mainstem Management Area** or **Mainstem MA.** The portion of the Watershed outside of the San Antonio Creek Management Area, as depicted in Exhibit “A” to this Physical Solution. In general, the Mainstem MA includes the Mainstem and its tributaries (excluding San Antonio Creek) below Matilija Dam and surrounding lands that drain to them. The **WCF Property Specific Management Area** is expressly excluded from the Mainstem MA.
22. **Management Actions.** Specific activities to be implemented by Responsible Parties (or **Management Entities**, at their discretion) that collectively are designed to achieve the Management Objective.
23. **Management Areas** or **MAs.** The Mainstem Management Area and the San Antonio Creek Management Area, which are the two main distinct but interrelated portions of the Watershed. The Mainstem Management Area does not include the unique WCF Property Specific Management Area, and the WCF Property Specific Management Area is not a Management Area as defined herein and as used in this Physical Solution. The Management Areas are depicted in Exhibit “A” to this Physical Solution.
24. **Mainstem Management Entity.** The **Upper Ventura River Groundwater Agency (“UVRGA”)** or its Court appointed successor.
25. **Management Entities** or **MEs.** The entities appointed by the Court to implement the Physical Solution in the Management Areas as “arms of the Court” within the Watershed. The MEs shall implement their powers in a neutral fashion, and the Court expressly retains the power to remove and replace an ME for good cause shown. As used herein, the term Management Entities does not include the unique WCF Property Specific Management Entity.

- 1 26. **Management Objective.** To help support species recovery by, among other
2 actions, maintaining and enhancing suitable habitat for the Ventura River
3 Steelhead, while also providing for existing reasonable and beneficial uses of
4 Water and protecting all water rights in the Watershed.
- 5 27. **Matilija Dam.** An obsolete concrete arch dam in the upper portion of the
6 Watershed that impounds the waters of Matilija Creek.
- 7 28. **Matilija Dam Ecosystem Restoration Project or MDERP.** A multi-million-
8 dollar public-private partnership to remove the obsolete Matilija Dam and provide
9 increased flood protection and ecosystem improvements to the Watershed.
- 10 29. **Monitoring Program.** The program, as may be amended, contained in Exhibit
11 “D” to this Physical Solution.
- 12 30. **New Production.** Any **Production** from the Watershed by a Person who did not
13 **Produce** Water from the Watershed prior to entry of the Physical Solution. New
14 Production does not include replacement Groundwater or **Surface Water**
15 Production facilities.
- 16 31. **Non-Exempt Party.** A Bound Party who does not qualify as an Exempt Party and
17 who Produces Water in the Watershed.
- 18 32. **Non-Producer(s).** A Person who owns real property within the Watershed who is
19 not presently Producing Water and did not do so any time during the five years
20 preceding entry of the Physical Solution, and who may claim the right to Produce
21 Water from the Watershed.
- 22 33. **Notice of Dispute.** The notice a Bound Party must send to another Bound Party or
23 a Management Entity to initiate the informal dispute resolution process required
24 under this Physical Solution.
- 25 34. **Ojai Basin Groundwater Management Agency or OBGMA.** The GSA for the
26 Ojai Valley Basin and the entity that administers the **Ojai Valley Groundwater**
27 **Basin Groundwater Sustainability Plan.**
- 28 35. **Ojai Valley Basin.** The Groundwater Basin designated as Number 4-002 in

DWR’s Bulletin 118 and described therein as the Ojai Valley Groundwater Basin. The boundaries of the Ojai Valley Basin are those established by the Court’s Order Establishing Watershed and Basin Boundaries dated January 13, 2022.

36. **Ojai Valley Groundwater Basin Groundwater Sustainability Plan or Ojai Valley GSP.** The GSP for the Ojai Valley Basin, adopted by OBGMA, and approved by DWR with recommended corrective actions on or about October 26, 2023. This Physical Solution incorporates the description of the Ojai Valley Basin as set forth in the Ojai Valley GSP, as it may be amended from time to time.⁴
37. ***O. mykiss*.** Coastal steelhead/rainbow trout (*Oncorhynchus mykiss* or *O. mykiss*) that occupy Pacific coastal streams from Alaska to Baja California.
38. **Party or Parties.** The parties to this Action and their successors. This may be a subset of Bound Parties depending on context and intent.
39. **Person.** Any natural person, firm, association, organization, joint venture, partnership, business, trust, corporation or public entity.
40. **Physical Solution.** This Judgment and Physical Solution entered and imposed by the Court in this Action.
41. **Produce or Production.** To pump, extract, or divert Surface Water or Groundwater.
42. **Producer(s).** A Person who Produces Water.
43. **Production Inventories.** The inventories of Production that may be developed and maintained by the two Management Entities in accordance with this Physical Solution for their respective Management Areas.
44. **Production Report.** An annual report that a Non-Exempt Party may be required to submit to their Management Entity providing information on the Non-Exempt Party’s Production.
45. **Responsible Party(ies).** The Bound Party or Bound Parties who have agreed to take or are required to take specific actions under this Physical Solution, including

⁴ Subject to Section VI.I of this Physical Solution.

the Party or Parties who must implement each Immediate Management Action.

46. **San Antonio Creek Management Area or SAC MA.** The geographic area of the Watershed in which Water drains to San Antonio Creek, as depicted in Exhibit “A” to this Physical Solution. The SAC MA generally commences upstream of the confluence of San Antonio Creek and the Ventura River and extends into the Ojai Valley Basin and portions of the Upper Ojai Valley Basin. It generally aligns with the San Antonio Creek Sub-Watershed as identified in USGS HU-12 (180701010103).

47. **San Antonio Creek Management Entity or SAC ME.** Casitas MWD or its Court appointed successor.

48. **SBCK.** Santa Barbara Channelkeeper.

49. **Southern California Steelhead or Steelhead.** The Southern California population of the steelhead/rainbow trout species (*Oncorhynchus mykiss* or *O. mykiss*) that has been listed as endangered under the California Endangered Species Act (including anadromous steelhead and resident rainbow trout life history forms) and as an endangered distinct population segment under the Federal Endangered Species Act (anadromous steelhead life history form).

50. **Specific Funding Source.** A funding source that is not part of the Management Entities’ annual budgets, generally anticipated to consist of voluntary funding by Responsible Parties, grant funding or other independent funding sources.

51. **State Board.** The State Water Resources Control Board.

52. **State Parties.** The State Board and CDFW.

53. **State Parties’ Designated Liaison.** The person jointly designated in writing by the State Parties to attend and provide comments at the meetings of the Management Entities to promote communication and collaboration, as provided in Section III.B.2 of this Physical Solution. The State Parties may designate a different person to attend the meetings of the different Management Entities.

54. **Statement of Decision.** The Statement of Decision issued by the Court in

connection with the entry and imposition of this Physical Solution.

55. **Surface Water.** All Water open to the atmosphere and subject to surface water runoff, including, but not limited to, a stream, lake or other water body, and water in subterranean streams flowing through known and definite channels, consistent with Water Code section 1200.
56. **Sustainable Groundwater Management Act or SGMA.** Part 2.74 of the Water Code, commencing at Section 10720, setting forth requirements for the sustainable management of Groundwater Basins in the State of California.
57. **Uncontrollable Conditions.** Any unforeseeable circumstance arising from causes beyond the control of the Bound Party or the Management Entities, which delays or prevents the performance of any obligation under this Physical Solution, despite the Bound Party's or the Management Entities' best efforts to fulfill the obligation, which includes both taking steps to anticipate and avoid the circumstance and also taking steps to minimize the adverse impacts of the circumstance. "Uncontrollable Conditions" may include, without limitation, any act of God, war, fire, earthquake, flood, windstorm, or natural catastrophe, including wildfire and extreme, multi-year drought in the Watershed; criminal acts; civil disturbance, pandemic, vandalism, sabotage, or terrorism; restraint by court order or public authority or agency; or action or non-action by, or inability to obtain the necessary permits, authorizations or approvals from any governmental agency despite good faith and diligent efforts to secure such authorization or approval.
58. **Upper Ojai Valley Basin.** The Groundwater Basin designated as Number 4-001 in DWR's Bulletin 118 and described therein as the Upper Ojai Valley Groundwater Basin. The boundaries of the Upper Ojai Valley Basin are established by the Court's Order Establishing Watershed and Basin Boundaries dated January 13, 2022.
59. **Upper Ojai Valley Basin Autonomy Provisions.** The provisions under which Parties in the Upper Ojai Basin may self-manage their Production and

Management Actions, subject to oversight by the San Antonio Creek Management Entity.

60. **Upper Ventura Basin.** The Groundwater Basin designated as Number 4-003.01 in DWR’s Bulletin 118 and described therein as the Upper Ventura River Valley—Upper Ventura River Subbasin. The boundaries of the Upper Ventura Basin are those established by the Court in its Order Establishing Watershed and Basin Boundaries dated January 13, 2022.
61. **Upper Ventura River Groundwater Agency or UVRGA.** The joint powers agency formed in December of 2016 to serve as the GSA for the Upper Ventura Basin.
62. **Upper Ventura River Groundwater Sustainability Plan or UVR GSP.** The GSP for the Upper Ventura Basin adopted by UVRGA and approved by the DWR, with recommended corrective actions, on or about April 27, 2023. This Physical Solution incorporates the description of the Upper Ventura Basin as set forth in the UVR GSP, as it may be amended from time to time.
63. **Ventura.** The City of San Buenaventura.
64. **Ventura River Steelhead.** The population of Southern California Steelhead that occupy the Ventura River Watershed. Unless context indicates otherwise, references in this Physical Solution to Steelhead or *O. mykiss* are intended to be limited to the Ventura River Steelhead.
65. **Ventura River Watershed or Watershed.** The geographic area that drains to the Ventura River, and as defined by the Court in its Order Establishing Watershed and Basin Boundaries dated January 13, 2022. In its Order, the Court established the Watershed boundaries using the USGS HU-10 watershed. The USGS HU-10 watershed includes the following USGS HU-12 sub-watersheds: Matilija Creek, North Fork Matilija Creek, San Antonio Creek, Upper Ventura River, Coyote Creek and Lower Ventura River (including Canada Larga). This Physical Solution incorporates the general descriptions of the Watershed as contained in the Ojai

Valley GSP and the UVR GSP.

66. **Water.** Unless the context indicates otherwise, both Groundwater and Surface Water.

67. **WCF Property Specific Management Area** or **WCF Management Area.** The property under the ownership and management of the **Wood-Claeysens Foundation (“WCF”)** as set forth in the Physical Solution.

68. **WCF Property Specific Management Entity** or **WCF Management Entity.** WCF, as appointed in and subject to this Physical Solution. The WCF Management Entity has a unique role to manage the WCF Management Area and is not subject to the provisions of this Physical Solution applicable to the Management Entities.

B. Exhibits

Exhibit A – Map of Watershed and Management Areas

Exhibit B – Order Establishing Watershed and Basin Boundaries

Exhibit C – Interim Order Confirming an Exempt Cross-Defendant Class

Exhibit D – Monitoring Program

Exhibit D1 – Mainstem Monitoring Plan

Exhibit D2 – San Antonio Creek Monitoring Plan

Exhibit E – SAC ME Initial Budget

Exhibit F – Mainstem ME Initial Budget

Exhibit G – Mainstem ME Funding Plan

Exhibit H – Summary of Robles Diversion and Fish Passage Facility Protocols

Exhibit I – Steelhead Habitat Needs

Exhibit J – Contents of FHEP

III. MANAGEMENT AREAS, MANAGEMENT ENTITIES AND PHASES

This Physical Solution shall be implemented in a comprehensive manner to achieve the Management Objective through the appointment of two Management Entities to manage two separate but integrated Management Areas. This Physical Solution also appoints WCF to manage

1 the unique WCF Property Specific Management Area. This Physical Solution shall be
2 implemented in three defined phases. This Section of the Physical Solution describes the
3 Management Areas, the powers of the Management Entities and the Court’s oversight of the
4 Management Entities, and the three implementation phases of this Physical Solution.

5 **A. Management Areas and Management Entities**

6 The Watershed is an integrated system that must be managed in a comprehensive manner.
7 At the same time, different portions of the Watershed serve different functions and have unique
8 characteristics. Therefore, this Physical Solution divides the Watershed into two separate but
9 integrated Management Areas—the San Antonio Creek Management Area and the Mainstem
10 Management Area.

11 The Mainstem MA includes, in general, the Mainstem of the Ventura River from the
12 Pacific Ocean to Matilija Dam, and surrounding land, as depicted in Exhibit “A” to this Physical
13 Solution. The WCF Property Specific Management Area is expressly excluded from the
14 Mainstem MA. The Mainstem MA includes the Upper and Lower Ventura River Basins, as
15 depicted in Exhibit “A”. The Mainstem MA will be most directly impacted by the sediment
16 loading and other changes that will follow Matilija Dam removal. The UVRGA shall serve as the
17 Management Entity for the Mainstem MA. While serving as the Management Entity for the
18 Mainstem MA, UVRGA shall maintain its independent responsibilities under SGMA to
19 exclusively manage Groundwater in the Upper Ventura Basin, including but not limited to
20 managing interconnected Surface Water in the Upper Ventura Basin, in accordance with SGMA
21 and the UVR GSP. As Management Entity for the Mainstem MA, UVRGA shall implement this
22 Physical Solution in a manner that will not substantially impair its management efforts under
23 SGMA.

24 The San Antonio Creek Management Area covers the geographic area of the Watershed in
25 which Water drains to San Antonio Creek, above the confluence with the Ventura River, as
26 depicted in Exhibit “A” to this Physical Solution. The SAC MA includes the Upper Ojai Valley
27 and Ojai Valley Basins (other than a portion of the Upper Ojai Valley Basin which drains to a
28 different watershed). Casitas MWD shall serve as the Management Entity for the SAC MA;

1 provided, however, that OBGMA shall maintain its independent responsibilities under SGMA to
2 manage the Ojai Valley Basin in accordance with the Ojai Valley Basin GSP. The SAC MA also
3 includes two areas that overlap with the Upper Ventura Basin, as depicted in Exhibit “A”
4 (“**Overlap Areas**”). Review of New Production, as provided in Section III.B.6 of this Physical
5 Solution, in the Overlap Areas shall be performed jointly by the SAC Management Entity and the
6 Mainstem Management Entity, with the Mainstem Management Entity addressing Groundwater
7 issues and the SAC Management Entity addressing Surface Water issues. As Management Entity
8 for the SAC MA, Casitas MWD shall coordinate with OBGMA and UVRGA so that
9 implementation of this Physical Solution supports and will not substantially impair the
10 Groundwater management efforts of OBGMA and UVRGA under SGMA. In addition, UVRGA
11 shall maintain its independent responsibilities under SGMA to manage the Upper Ventura Basin
12 (including the two portions within the SAC MA) in accordance with the UVR GSP.

13 The powers, manner of operating and process for the review of decisions of these two
14 Management Entities are set forth below.

15 **B. Powers, Manner of Operating and Review of Decisions of the Management**
16 **Entities**

17 The Court appoints UVRGA and Casitas MWD to serve as “arms of the Court” to manage
18 the Mainstem MA and the SAC MA, respectively. The powers of the Management Entities as set
19 forth in this Physical Solution derive from this Court’s inherent authority to impose this Physical
20 Solution on Bound Parties and to appoint entities to assist the Court in implementing this Physical
21 Solution in accordance with existing law. Nothing in this Physical Solution limits or removes
22 other powers that UVRGA or Casitas MWD possess through their organic law, SGMA or other
23 applicable law. Nothing in this Physical Solution changes the Bound Parties’ ability to challenge,
24 a court’s power to review, or the standard of review, applicable to, actions taken by UVRGA or
25 Casitas MWD under these other sources of law. The Court’s review of actions taken by the
26 Management Entities under this Physical Solution shall be under the standards set forth in this
27 document. As appointed “arms of the Court”, the Court expressly retains the right to remove a
28 Management Entity and appoint a new Management Entity after a noticed hearing and upon good

1 cause shown.

2 The Management Entities shall have the powers set forth below within their respective
3 Management Areas. The Management Entities shall implement these powers in an impartial
4 manner without favor or prejudice to any Bound Party and shall act in a manner consistent with
5 the terms of this Physical Solution to achieve the Management Objective of this Physical
6 Solution. When acting in their Management Entity roles, as opposed to when acting under their
7 other organic laws, the Management Entities shall affirmatively implement this Physical Solution.
8 The Management Entities shall also operate in an open and transparent manner, and their
9 decisions are subject to Court review, as described below.

10 1. Oversee Implementation of the Physical Solution

11 The Management Entities shall administer this Physical Solution to assure its timely and
12 effective implementation and shall ensure that Responsible Parties perform their obligations
13 imposed in this Physical Solution. The Management Entities shall have the power to monitor
14 performance of the obligations imposed in this Physical Solution to resolve, if feasible, any
15 failures to perform these obligations, and to report all resolved or unresolved failures to perform
16 to the Court for final action. The Management Entities shall use their powers within their
17 respective Management Areas but shall also collaborate, as provided in this Physical Solution, to
18 collectively manage the Watershed in a comprehensive manner. These powers include, but are
19 not limited to, the power to file such motions or take such similar actions with this Court as are
20 necessary to allow the Court to enjoin any conduct prohibited by this Physical Solution.

21 2. Open and Transparent Administration; State Parties' Designated Liaison
22 Role

23 The Management Entities shall operate in an open and transparent manner that follows the
24 requirements of the **Ralph M. Brown Act** (Government Code sections 54950 et seq. ("**Brown**
25 **Act**")), except as otherwise provided herein. Although the Management Entities may convene
26 closed sessions consistent with the Brown Act, all decisions of the Management Entities'
27 governing bodies regarding implementation of this Physical Solution shall be made at an open
28 and public meeting, with a written agenda and advance public notice. For regular and special

1 meetings of the Management Entities, notice of the public meeting and agenda shall follow the
2 Brown Act requirements. The Management Entities shall hold at least four regular meetings each
3 year, with at least one regular meeting occurring during each quarter of the year. All final
4 reportable decisions of the Management Entities' governing bodies shall be in writing. The
5 default voting processes for each Management Entity shall be the then current voting processes of
6 Casitas MWD (for the SAC ME) and UVRGA (for the Mainstem ME) respectively. These
7 default voting processes for each Management Entity may be changed by the individual
8 Management Entity through adoption of voting procedures under Section III.B.12 of this Physical
9 Solution, subject to review by the Court if the adoption of new voting procedures is challenged by
10 a Bound Party as provided in this Physical Solution.

11 Although the Management Entities shall operate in an open and transparent manner that
12 follows the requirements of the Brown Act, they are not "legislative bodies" under the Brown Act
13 because they are appointed by and serve at the pleasure of the Court. Therefore, actions by the
14 Management Entities taken pursuant to this Physical Solution may not be challenged by Persons
15 who are not Bound Parties to this Physical Solution. However, Bound Parties may challenge, by
16 noticed motion, actions by the Management Entities, including the failure to conduct their
17 business in an open and transparent manner, as required by this paragraph; provided, however,
18 that the Bound Party seeking to challenge an action shall first provide written notice within sixty
19 (60) days to the Management Entity of the action and the Management Entity shall have forty-
20 five (45) days from the written notice to review and cure, if needed.

21 Each Management Entity shall establish a **State Parties' Designated Liaison** role for
22 their meetings to promote participation by a designated representative of the State Parties at each
23 of the open session portions of their regular and special meetings. The State Parties' Designated
24 Liaison for each Management Entity shall have the ability to reasonably provide input on each of
25 the items on the Management Entity's public session agenda, without being limited to the
26 otherwise applicable time limits for public comment. Participation by and comments from the
27 Designated Liaison should be reflected in the meeting minutes. Because the Designated Liaison
28 position is intended to promote direct communication and collaboration, the Designated Liaison

1 should attend the meetings of the Management Entity in-person. At least twice a year, the
2 Designated Liaison shall provide the Management Entity with an oral or written report on
3 relevant activities of the State Parties in the Watershed, including, but not limited to, funding
4 opportunities and non-privileged enforcement activities taken by the State Parties in the
5 Watershed.

6 The Management Entities shall establish and maintain a public website or page on an
7 existing website regarding the implementation of this Physical Solution. The public website or
8 page should include agendas for the Management Entities' meetings, as well as other reports and
9 documents required under this Physical Solution.

10 Prior to the first meeting of the Management Entities, the State Parties shall jointly
11 designate in writing to each ME the Designated Liaison for each ME. The State Parties may
12 designate a different person as the Designated Liaison for the different Management Entities. The
13 Designated Liaison should have appropriate technical expertise to assist the Management Entity
14 in implementing this Physical Solution. The State Parties may change the Designated Liaison for
15 each Management Entity from time-to-time with reasonable written notice to the Management
16 Entity, although the goal is to promote consistency through maintaining the same person in the
17 Designated Liaison role for each Management Entity, as feasible.

18 3. Maintain a Notice List

19 The Management Entities shall maintain a current list of Bound Parties located within
20 their respective Management Areas, including sufficient contact information such as mailing
21 addresses and email addresses sufficient to allow for notice as required by this Physical Solution.
22 The State Board and CDFW shall be included in the Notice List for each ME. Each Bound Party
23 is required to provide the Management Entity with its current contract information including an
24 email address for noticing purposes. Any Person may be added to the notice list by electronic
25 written request. Whenever any parcel of property that is subject to this Physical Solution is
26 transferred, the grantor of the property shall notify the grantee of the existence of this Physical
27 Solution, and the grantee shall provide the applicable Management Entity with its current contact
28 information.

1 The Management Entities shall use their respective lists of email addresses of the Bound
2 Parties within their respective Management Areas to provide notice under this Physical Solution,
3 unless this Physical Solution expressly provides for a different form of notice. Whenever this
4 Physical Solution requires the Management Entities to provide “notice”, notice through their
5 email lists is sufficient unless this Physical Solution expressly provides for a different form of
6 notice. Publication in a newspaper is not required, even when this Physical Solution calls for a
7 “public hearing”.

8 4. Maintain a Production Inventory

9 The Management Entities shall develop and maintain a Production Inventory documenting
10 total Production of Water within their respective Management Areas, as each Management Entity
11 may determine is necessary to achieve the Management Objective within their Management
12 Areas. This Production Inventory could cover the entire Management Area or the parts of the
13 Management Area where each Management Entity determines maintaining a Production
14 Inventory is necessary to achieve the Management Objective. The Management Entities shall
15 review any Production Inventory annually as part of the Annual Report and amend the Production
16 Inventory as they determine necessary to achieve the Management Objective.

17 The Management Entities may use any existing legally required Production Reports as the
18 starting point for the development and maintenance of the Production Inventory. The County of
19 Ventura will reasonably coordinate with the Management Entities upon request regarding current
20 records of Groundwater Production (Annual Water Well Usage Statements) for wells located
21 outside the GSA boundaries. If the Management Entity identifies Production by any Bound
22 Party, other than an Exempt Party, that does not currently file any Production Report, the
23 Management Entity shall have the power to require that Bound Party to file a Production Report
24 in a format required by the Management Entity. While not required, the Management Entities
25 shall have the power to require metering or measurement requirements if necessary for the
26 development and maintenance of the Production Inventory.

27 5. Maintain an Exempt Party List

28 The Management Entities shall develop and maintain a list of Exempt Parties within their

1 respective Management Areas. The Management Entities shall develop forms and procedures for
2 Exempt Parties to certify their Exempt Party status, under penalty of perjury. Exempt Parties
3 shall certify their exempt status within eighteen (18) months after entry of this Physical Solution,
4 and report any changes in their Water Production that would render them a Non-Exempt Party in
5 subsequent years. Changes in Exempt Party status shall be noted in the Annual Report. The
6 Management Entities' procedures regarding Exempt Parties shall conform with the Court's
7 Interim Order Confirming an Exempt Cross-Defendant Class dated October 7, 2022.

8 6. New Production Review

9 The Management Entities shall review and comment on all New Production within their
10 Management Area for consistency with this Physical Solution. Any Bound Party seeking to
11 commence New Production shall notify the applicable Management Entity in writing and execute
12 an acknowledgement form provided by the Management Entity prior to obtaining a well permit
13 from the County of Ventura. The Management Entity shall have one hundred and twenty (120)
14 days from the receipt of such notice to perform this review and comment. The Management
15 Entities shall assess whether the New Production would materially interfere with implementation
16 of this Physical Solution and may make recommendations to the Bound Party and any associated
17 permitting agency regarding the New Production, consistent with implementation of this Physical
18 Solution. The Management Entities may also notify the Court of any New Production that is
19 found to materially interfere with the implementation of the Physical Solution and request Court
20 consideration and appropriate action regarding the New Production.

21 7. Adoption of Budgets

22 The Management Entities shall each prepare proposed budgets for each year covering
23 each of their Management Entity operations. The Management Entities shall provide at least
24 thirty (30) days public notice of a public hearing to consider adoption of the budget, including
25 notice pursuant to the Notice List to all Bound Parties within their applicable Management Areas.
26 The annual budgets of the Management Entities shall be separate from any other budget(s) they
27 maintain in their other capacities, although they can be adopted concurrently with such other
28 budget(s). The annual budgets shall include, at a minimum: (a) all the administrative and

1 coordination activities required by this Physical Solution; (b) all the monitoring activities required
2 by this Physical Solution; (c) all the reporting costs required by this Physical Solution; and (d) a
3 contingency that could be used to support the implementation of Management Actions.

4 Following adoption of the budgets, the Management Entities may make expenditures consistent
5 with their budgets in the exercise of the powers herein granted.

6 Commencing upon the adoption of their second annual budgets, the Management Entities
7 shall commence a process to develop a Master Plan (“Master Plan”) to identify future
8 Management Actions (“Future Management Actions”) that may be selected and implemented
9 through the FHEP implementation process or through the recommendations of the TACs or other
10 committees established in this Physical Solution, the estimated cost to implement those Future
11 Management Actions, and potential funding sources to implement those Future Management
12 Actions. As part of this process, the Management Entities shall coordinate with the Watershed
13 TAC regarding the status of the development of the FHEP and potential recommended Future
14 Management Actions, as well as other committees that may recommend Future Management
15 Actions. If the FHEP has been adopted prior to the time of the adoption of their third annual
16 budgets, the Management Entities shall adopt their Master Plan at the same time as the adoption
17 of their third annual budgets. If the FHEP has not been adopted by the time of the adoptions of
18 their third annual budgets, the Management Entities shall adopt their Master Plan at the same time
19 as the adoption of their next annual budgets following FHEP adoption. Thereafter, the
20 Management Entities shall review and update their Master Plan annually as part of their regular
21 annual budget process. As part of the Master Planning process, the Mainstem Management Entity
22 and SAC Management Entity shall each propose funding plans to implement any Future
23 Management Actions selected in their respective Management Areas, which may include
24 independently provided funding sources such as grants, donations, or any other voluntary
25 commitments obtained by the Management Entities, or other funding options.

26 8. Funding of Management Entity Activities

27 Casitas MWD shall fund its Management Entity administration, monitoring and reporting
28 activities and the Boulder Augmentation Pilot Project described in Section IV.B.1 for the SAC

1 MA through Casitas MWD's water rates. Casitas MWD may implement other Management
2 Actions through independently provided funding sources such as grants, donations or any other
3 voluntary commitments obtained by Casitas MWD, consistent with its Annual Budget. For
4 illustration purposes, a Casitas MWD Fisheries Budget for FY 2025-2026 is attached as Exhibit
5 "E". Casitas MWD anticipates the need to hire one additional full-time employee to administer
6 the additional Management Entity responsibilities at a cost of \$160,000 - \$180,000 per year and
7 that the currently identified Immediate Management Actions within the SAC MA can be
8 implemented within its existing water rate structure. If Casitas MWD is removed as the
9 Management Entity for the SAC MA, the replacement Management Entity for the SAC MA shall
10 propose a funding plan to the Court for approval.

11 UVRGA, as the Management Entity for the Mainstem MA, shall, within ninety (90) days
12 of entry of this Physical Solution, and at a noticed public meeting, adopt a plan to fund the
13 administrative, monitoring and reporting activities required by this Physical Solution within its
14 Management Area consistent with the requirements of this Physical Solution. This funding plan
15 may include a proposed assessment on Groundwater Production, fixed contributions from Bound
16 Parties within the Mainstem MA, a combination of a Groundwater Production assessment or
17 fixed contributions, or other funding options. The funding plan shall address and account for
18 inflation. For illustration purposes, an estimated initial Mainstem Management Entity budget is
19 attached as Exhibit "F". A proposed Mainstem Management Entity initial funding plan to fund
20 this estimated budget is attached as Exhibit "G". UVRGA shall use this initial estimate and
21 proposed initial funding plan to prepare its funding plan. Any proposed assessment on
22 Groundwater Production or any fixed contribution shall include a not-to-exceed amount for an
23 initial three-year period to provide Bound Parties within the Mainstem MA with certainty
24 regarding the amount of the assessment or fixed contribution. The adoption of the funding plan is
25 subject to Court review as provided in this Physical Solution. The initial funding plan is intended
26 primarily to cover administrative, monitoring and reporting activities. However, the Mainstem
27 Management Entity may fund Management Actions or other activities through grant funding or
28 any other funding sources available to the Management Entity, including contingency funds from

1 the assessment or fixed charges, as provided in its Annual Budget. The initial funding plan does
2 not include funding for the development of work product that is the sole responsibility of the
3 Watershed TAC, the Management Entity TACs or the committees established under this Physical
4 Solution, or the cost to perform modeling by UVRGA.

5 The Management Entities shall make good-faith, reasonable efforts to obtain additional
6 funding to implement Future Management Actions selected by the Management Entities through
7 the FHEP implementation process or through the recommendations of the TACs or other
8 committees established in this Physical Solution. Specifically, the Mainstem ME shall make
9 reasonable efforts to obtain such additional funding through available funding options, including
10 grant funding or, if financially feasible, through the funding mechanisms provided in the funding
11 plan. Similarly, the SAC ME shall make reasonable efforts to seek such additional funding
12 outside of Casitas MWD's rates and fees.

13 The Management Entities shall have the authority to develop and implement cost recovery
14 fees for their review of New Production applications, for the processing of disputes under the
15 dispute resolution process or for other specific activities that are triggered by individual Bound
16 Parties. Such fees shall reasonably relate to the cost for providing the services to be performed by
17 the Management Entities.

18 9. Contracts and Insurance

19 The Management Entities may enter into contracts and agreements as necessary,
20 appropriate and in furtherance of the Physical Solution and consistent with their adopted budgets.
21 The Management Entities shall have the discretion and authority to employ, contract with or
22 otherwise engage such administrative personnel, engineering, biological, legal, accounting or
23 other specialty services and consulting assistants as may be deemed appropriate in carrying out
24 the terms of this Physical Solution, including the FHEP, and consistent with their adopted
25 budgets. The Management Entities shall have the power to purchase insurance as necessary to
26 carry out the terms of this Physical Solution.

27 10. Monitoring

28 The Management Entities shall conduct monitoring within their respective Management

1 Areas as set forth in Exhibit “D” of this Physical Solution. The Management Entities may
2 determine that a monitoring implementation plan (“**Monitoring Implementation Plan**”) based
3 on Exhibit “D” is necessary for the purposes of contracting for and implementation of the
4 monitoring. If a Management Entity determines a Monitoring Implementation Plan is needed, it
5 shall task its Management Entity TAC with development of that document. The Monitoring
6 Implementation Plan shall seek to avoid redundant monitoring and shall minimize duplication of
7 effort. The Management Entities may retain or appoint one Person to conduct the monitoring
8 throughout their entire Management Area, or throughout the Watershed. The Management Entity
9 TACs may consider whether it is appropriate to update the Monitoring Plans set forth in Exhibit
10 “D” of this Physical Solution or any Monitoring Implementation Plan following development of
11 the FHEP, and propose any changes to the Management Entities for consideration. The
12 Management Entities shall file any approved updates to the Monitoring Plans set forth in Exhibit
13 “D” with the Court as part of the Annual Report, and implement any approved updates to the
14 Monitoring Plans.

15 11. Approval and Implementation of FHEP

16 The Management Entities shall each consider and take action on the FHEP as provided in
17 Section V of this Physical Solution. Once the FHEP is approved, the Management Entities shall
18 implement the FHEP as provided in Section V of this Physical Solution.

19 12. Adoption of Procedures, Policies and Forms

20 The Management Entities may adopt such additional procedures, policies and forms as
21 necessary to implement this Physical Solution.

22 13. Biannual (Twice a Year) Coordination Meetings

23 The Management Entities shall hold at least biannual (twice a year) joint public meetings
24 to coordinate their activities in their respective Management Areas at the Watershed level. The
25 biannual joint public meetings shall include, without limitation, discussion of funding and
26 Management Action priorities within the Watershed and ways in which the Management Entities
27 may collaborate to collectively achieve those priorities. The Management Entities shall invite the
28 members of the **Watershed Technical Advisory Committee (“Watershed TAC”)** and other

1 interested parties to the joint public meetings to support coordination of activities. The
2 Management Entities may convene additional coordination meetings as needed, and are
3 encouraged to convene such meetings as often as required to make sure they are coordinating the
4 activities in their respective Management Areas in a manner that promotes comprehensive,
5 Watershed-wide management.

6 14. Management Entity TACs

7 Each Management Entity shall have its own Technical Advisory Committee. Within one
8 hundred and eighty (180) days of entry of this Physical Solution, each Management Entity shall
9 establish a voluntary Management Entity Technical Advisory Committee (“**Management Entity**
10 **TAC**”) to provide input to the Management Entity regarding its activities as set forth in this
11 Physical Solution. The Management Entity TAC for the SAC MA (“**SAC TAC**”) shall consist of
12 at least three (3) members, but no more than five (5) members, who shall have sufficient technical
13 expertise regarding hydrology, geology, fisheries biology, ecology, geomorphology or similar
14 specialties to meaningfully provide input to the SAC Management Entity. The SAC TAC is
15 hereby comprised of one representative from each of the following entities: the City of Ojai, the
16 County of Ventura, and OBGMA, and the State Board and CDFW, who may designate one
17 qualified representative each to participate on the SAC TAC. The individual representatives on
18 the SAC TAC shall not also be Board Members of Casitas MWD. The designated representatives
19 from the State Board and CDFW may be different people depending on the particular area of
20 expertise needed for the particular meeting.

21 The Management Entity TAC for the Mainstem Management Entity (“**Mainstem TAC**”)
22 shall consist of at least five (5) members, but no more than seven (7) members, who shall have
23 sufficient technical expertise, as defined above, but the individual representatives on the
24 Mainstem TAC shall not also be Board Members of UVRGA. The Mainstem TAC is hereby
25 comprised of one representative from each of the following entities: the City of Ventura, Casitas
26 MWD, the County, the UVRGA Executive Director, and a self-funded local non-profit
27 representative selected by the other members of the Mainstem TAC, and the State Board and
28 CDFW, who may designate one qualified representative each to participate on the Mainstem

1 TAC. The initial self-funded local non-profit shall be the Ojai Valley Land Conservancy
2 (“OVLC”), who shall serve for a two (2) year term, subject to reappointment. The designated
3 representatives from the State Board and CDFW may be different people depending on the
4 particular area of expertise needed for the particular meeting.

5 Each Management Entity shall establish rules and procedures for their respective
6 Management Entity TACs. These rules and procedures shall encourage the TACs to seek
7 consensus and if consensus cannot be achieved shall require that the TAC reflect majority,
8 minority, or individual views of TAC representatives in their TAC’s recommendations. These
9 rules and procedures shall confirm as provided in Section VI.B of this Physical Solution that the
10 absence of consensus within a TAC is not a “dispute” subject to the dispute resolution provisions
11 of Section VI.B of this Physical Solution. These rules and procedures shall clarify the advisory
12 role of the TACs and that the TACs shall provide recommendations as directed by the
13 Management Entity or as provided in this Physical Solution. TAC recommendations should
14 include information sufficient to demonstrate that the recommendations will not substantially
15 impair the ability of the GSAs to comply with SGMA and to achieve sustainable groundwater
16 management, as applicable. The Management Entities shall have the discretion to refer any
17 technical matter to the TAC for recommendations. These rules and procedures shall clarify the
18 role that a Management Entity representative will have to manage TAC meetings, including the
19 ability to appoint a Management Entity representative as the chair for procedural purposes at
20 TAC meetings. The Management Entities are encouraged to collaborate on the development of
21 the rules and procedures to promote consistency. Members of the Management Entity TACs shall
22 be compensated by and serve at the pleasure of their respective appointing entity.

23 The Management Entity TACs may hold both formal and informal meetings to develop
24 their recommendations on the items referred to them. The Management Entity TACs shall
25 establish a regular formal meeting cycle, and regular formal time and place to conduct meetings
26 at which their recommendations are finalized, which such formal meetings shall be publicly
27 noticed and open to the public. The Management Entity TACs shall post an agenda in advance of
28 their formal meetings in substantial compliance with the Brown Act, although the Management

1 Entity TACs are not “legislative bodies” under the Brown Act. The Management Entity TACs
2 shall keep minutes of their formal meetings. In addition, the Management Entity TACs, or
3 individual members thereof, may convene informal meetings to discuss technical issues and to
4 promote a free and full discussion of technical matters. Such informal meetings will not be
5 publicly noticed and are not open to the public.

6 15. Watershed TAC

7 The two Management Entity TACs, along with a qualified designated representative of
8 WCF, shall also serve as a Watershed TAC. The members of the Watershed TAC shall therefore
9 consist of one representative from the City of Ojai, the County, OBGMA, Ventura, Casitas
10 MWD, WCF, the UVRGA Executive Director, and the self-funded local non-profit representative
11 (initially OVLC), and the State Board and CDFW, who may designate one qualified
12 representative each to participate on the Watershed TAC.

13 The Watershed TAC shall draft the initial FHEP, and updates and amendments to the
14 FHEP. The Watershed TAC shall participate in the biannual (twice a year) coordination meetings
15 and such other coordination meetings as are convened during each year. The Watershed TAC
16 shall perform other functions as called for in this Physical Solution or as directed by the
17 Management Entities.

18 The Management Entities shall jointly establish rules and procedures for the Watershed
19 TAC. These rules and procedures shall encourage the Watershed TAC to seek consensus and if
20 consensus cannot be achieved shall require that the Watershed TAC reflect majority, minority, or
21 individual views of the Watershed TAC representatives in the Watershed TAC’s
22 recommendations. These rules and procedures shall clarify the advisory role of the Watershed
23 TAC and that the Watershed TAC shall provide recommendations as directed by the Management
24 Entities or as provided in this Physical Solution. Watershed TAC recommendations should
25 include information sufficient to demonstrate that the recommendations will not substantially
26 impair the ability of the GSAs to comply with SGMA and to achieve sustainable groundwater
27 management, as applicable. These rules and procedures shall confirm as provided in Section
28 VI.B of this Physical Solution that the absence of consensus within a TAC is not a “dispute”

1 subject to the dispute resolution provisions of Section VI.B of this Physical Solution. These rules
2 and procedures shall clarify the role that a Management Entities' representative(s) will have to
3 manage Watershed TAC meetings, including appointing a Management Entities' representative(s)
4 as the chair for procedural purposes at Watershed TAC meetings.

5 The Watershed TAC may hold both formal and informal meetings to develop its
6 recommendations on the items referred to it or as required by this Physical Solution. The
7 Watershed TAC shall post an agenda in advance of its formal meetings in substantial compliance
8 with the Brown Act, although it is not a "legislative body" under the Brown Act. The Watershed
9 TAC shall keep minutes of its formal meetings. In addition, the Watershed TAC, or individual
10 members thereof, may convene informal meetings to discuss technical issues and to promote a
11 free and full discussion of technical matters. Such informal meetings will not be publicly noticed
12 and are not open to the public.

13 16. Annual Report

14 The Management Entities shall prepare, approve and file with the Court an Annual Report
15 that includes, at a minimum, the following information: (a) a summary of each Management
16 Entity's activities and actions in the prior water year, including efforts to coordinate with the
17 other Management Entity, and a report regarding the activities of the respective Management
18 Entity TACs; (b) a report on the status of implementing the Immediate Management Actions
19 described in Section IV of this Physical Solution; (c) the status of the development of the FHEP
20 by the Watershed TAC; (d) the status of implementation of the FHEP once adopted; (e) fiscal
21 report of the preceding year's operations, including revenue and expenditures; (f) the general
22 condition and trends regarding the habitat suitable for the Ventura River Steelhead as compared
23 to prior years, as prepared by the Watershed TAC; (g) production reports for the Management
24 Areas; (h) information about New Production; (i) information about public agency conservation
25 programs; and (j) any other information necessary to assess implementation of the Physical
26 Solution.

27 The Management Entities shall coordinate to file one Annual Report, although they may
28 each prepare separate portions of the Annual Report focusing on their respective Management

1 Areas. The Management Entities shall also coordinate with the WCF Management Entity to
2 include information about the WCF Management Area in the Annual Report. The Management
3 Entities shall prepare their respective portions of the Annual Report in coordination with their
4 separate Management Entity TACs.

5 The Management Entities shall adopt the Annual Report at a noticed public hearing. Prior
6 to adoption of the Annual Report, the Management Entities shall convene a meeting of the
7 Watershed TAC, shall consider any recommendations on the Annual Report made by the
8 Watershed TAC, and shall provide written responses to any material comments from the
9 Watershed TAC. The Management Entities shall also coordinate with the State Parties as
10 described below. A draft of the Annual Report shall be posted on the Management Entities'
11 websites at least thirty (30) days prior to the noticed public hearing regarding adoption of the
12 Annual Report.

13 The first Annual Report shall be filed with the Court on or before October 1 of the first
14 full calendar year following the entry of this Physical Solution, and then annually thereafter on or
15 before August 1 of each year. The Management Entities may propose a different filing date for
16 the Annual Report to the Court.

17 17. Coordination with the State Parties on Annual Report

18 Prior to the public release of the Annual Report, the Management Entities shall meet with
19 representatives of the State Board and CDFW to review the draft of the Annual Report, to discuss
20 monitoring data and to receive recommendations from the State Board and CDFW. The
21 Management Entities shall consider these recommendations as part of the adoption of the Annual
22 Report. If the Management Entities do not accept a material recommendation from the State
23 Parties, the Annual Report shall include a written explanation why the recommendation was not
24 accepted. This coordination obligation may be satisfied through the meeting with the Watershed
25 TAC required under Section III.B.16.

26 18. Coordination with State Parties on Projects

27 The Management Entities, or specific Responsible Parties implementing a specific habitat
28 or flow related project under this Physical Solution, shall provide the State Board and CDFW

1 with an opportunity to review and comment on the design, construction and assessment of
2 performance of the project, if such project was not previously reviewed by the State Board and
3 CDFW through their participation in a Management Entity TAC or the Watershed TAC. The
4 Management Entities, or specific Responsible Parties involved, shall consider any written
5 comments submitted by the State Board and CDFW on the project. For written comments not
6 accepted, the Management Entities, or specific Responsible Parties involved, shall provide a
7 written response explaining why the recommendation was not accepted. The State Board and
8 CDFW shall employ their technical knowledge in a manner supportive of achieving the
9 Management Objective.

10 19. Review of Actions of the Management Entities

11 Any final decision of a Management Entity pursuant to this Physical Solution shall be
12 subject to review by the Court on its own motion or on the timely motion of any Bound Party.
13 The Court's power to review decisions of the Management Entity extends to any decision of the
14 Management Entity made under this Physical Solution, but the Court's power under this Physical
15 Solution does not extend to decisions made by the Management Entity outside of this Physical
16 Solution and under their independent legal authority not derived from this Physical Solution. If a
17 Management Entity makes the same decision as both a Management Entity under this Physical
18 Solution and separately as a Groundwater Management Entity pursuant to SGMA, only the
19 decision undertaken as Management Entity shall be subject to review by the Court under this
20 provision. The decision undertaken pursuant to SGMA shall only be reviewed under the
21 provisions of SGMA.

22 a. Effective Date of Management Entity Decision

23 Any final decision of a Management Entity pursuant to this Physical Solution shall be
24 deemed to have occurred on the date of the written order or written decision of the Management
25 Entity made at an open and public meeting.

26 b. Time Period to Seek Review

27 A Bound Party seeking review of a Management Entity decision shall file a motion for
28 review with the Court within ninety (90) days of the final decision.

1 c. Motion for Review

2 Any Bound Party may move the Court to review a final decision of a Management Entity
3 pursuant to this Physical Solution by a noticed motion, with at least thirty (30) Days' notice. The
4 motion shall be served on all Bound Parties and the Management Entity. Unless otherwise
5 ordered by the Court on its own motion, or upon request of the moving party, any such motion
6 shall not operate to stay the effect of any final decision which is challenged. To have standing to
7 bring such a motion for review, a Bound Party shall have participated in the applicable
8 administrative proceedings of the Management Entity regarding the final decision, or a Bound
9 Party shall make an adequate showing as to why such participation was impractical. If a Bound
10 Party did not participate in the applicable administrative proceeding, the Bound Party shall be
11 limited to the record before the Management Entity regarding that decision, unless good cause is
12 shown.

13 d. Standard of Review

14 The Court's review of final decisions of a Management Entity under this Physical
15 Solution shall be de novo.

16 e. Decision

17 The decision of the Court in a proceeding to challenge a final decision of a Management
18 Entity shall be an appealable supplemental order in this Action.

19 20. Resolution of Disputes Between Management Entities

20 The Management Entities shall coordinate their activities within their respective
21 Management Areas to support a comprehensive management approach to the Watershed and
22 implementation of this Physical Solution. If there are disputes between the Management Entities,
23 they shall meet and confer in good faith to seek to resolve any such dispute. They shall also
24 convene a meeting of the Watershed TAC to receive a recommendation about how to resolve the
25 dispute. All staff level disputes between the Management Entities shall be acted on by the
26 Management Entities' Boards in an effort to resolve the dispute prior to an impasse. If, after meet
27 and confer, receiving the recommendation of the Watershed TAC and final Board consideration,
28 the dispute remains unresolved, the Management Entities shall jointly move the Court to resolve

1 the dispute.

2 21. Court Removal of Management Entities

3 The Court retains and reserves full jurisdiction, power and authority to withdraw its
4 appointment of a Management Entity, for good cause, or when the Management Entity is no
5 longer able or willing to continue performing the duties assigned herein, and to substitute a new
6 entity as Management Entity.

7 **C. WCF Property Specific Management Area**

8 WCF is the sole Party located in the WCF Property Specific Management Area and has a
9 unique role in managing the WCF Property Specific Management Area, although it is not subject
10 to the provisions of this Physical Solution applicable to the Management Entities. As depicted in
11 Exhibit “A”, the WCF property is located in the lower portion of the Watershed, upstream of the
12 estuary. WCF shall perform, at its sole expense, all required activities to implement this Physical
13 Solution within the WCF Property Specific Management Area. This work includes:

14 (a) continuation of its Arundo removal program described in Section IV.A.6; (b) continuation of
15 its trespasser notification and trash removal program on riparian lands; (c) continuation of its
16 sustainable agriculture land management practices; (d) executing and reporting habitat and flow
17 monitoring programs in the lower portions of the Watershed consistent with the monitoring
18 described in the relevant portions of Exhibit “D” of this Physical Solution as part of implementing
19 this Physical Solution or the FHEP on WCF property; and (e) performing any additional activities
20 in the WCF Property Specific Management Area required under the FHEP. WCF shall
21 coordinate with the Management Entities regarding implementation of the Physical Solution in
22 the WCF Property Specific Management Area, including attending the biannual coordination
23 meetings and providing the Management Entities with a biannual (twice a year) report of actions
24 it has taken on the property to implement the Physical Solution. These biannual reports shall be
25 posted on the Management Entities’ website or webpage and made part of the Annual Report.
26 Any final decision of WCF regarding implementation of this Physical Solution within the WCF
27 Property Specific Management Area shall be subject to review by the Court on its own motion or
28 on motion of any Bound Party within ninety (90) days of the final decision being posted on the

1 Management Entities' website or webpage or being described in an Annual Report, whichever
2 occurs first. Before bringing such a motion for review, a Bound Party must first attempt to
3 resolve the dispute with WCF informally under Section VI.B of this Physical Solution. The
4 Court's review of WCF's final decisions under this Physical Solution shall be *de novo*.

5 The Court retains and reserves full jurisdiction, power and authority to withdraw its
6 appointment of WCF to manage the WCF Property Specific Management Area, for good cause
7 and at a noticed hearing, or when WCF is no longer able or willing to continue performing the
8 duties assigned herein, in which instance the Court shall appoint a new entity to assume
9 management responsibility for the WCF Property Specific Management Area.

10 **D. Upper Ojai Valley Basin Autonomy Provisions**

11 Parties located within the Upper Ojai Basin may develop, and submit to the SAC
12 Management Entity for approval, proposed self-management provisions for the Upper Ojai
13 Valley Basin consistent with the Management Objective of this Physical Solution, Bulletin 118
14 and the hydrogeology of the Upper Ojai Basin, and SGMA. The SAC Management Entity shall
15 consider and take action on any such proposed self-management provisions at an open and public
16 meeting and shall make a written decision regarding them. If the SAC Management Entity
17 approves any proposed self-management provisions for the Upper Ojai Basin, those minimum
18 standards shall govern within the Upper Ojai Basin, subject to ongoing compliance oversight by
19 the SAC Management Entity.

20 **E. Physical Solution Phasing**

21 This Physical Solution shall be implemented in three phrases. Phase 1 shall commence
22 upon entry of the Physical Solution and shall run until the adoption of the FHEP. In Phase 1, the
23 Responsible Parties, or Management Entity, if applicable, shall implement the Immediate
24 Management Actions, as identified in Section IV, and the Monitoring Program described in
25 Exhibit "D", while the FHEP is being developed pursuant to Section V. It is anticipated that
26 Phase 1 will last eighteen (18) months from entry of the Physical Solution.

27 Phase 2 of this Physical Solution shall commence upon adoption of the FHEP and shall
28 continue until Matilija Dam removal is completed. During Phase 2, the Responsible Parties, or

1 Management Entity, if applicable, shall: (1) continue to implement the Immediate Management
2 Actions, or revised Management Actions, if revised under the FHEP; (2) continue to implement
3 the Monitoring Program described in Exhibit “D”; and (3) implement the FHEP, as described in
4 Section V.F. It is anticipated that Phase 2 will last until approximately 2035, the target date for
5 Matilija Dam removal.

6 Phase 3 of this Physical Solution shall commence upon completion of Matilija Dam
7 removal. During Phase 3, the Watershed TAC shall reevaluate the scope and content of the
8 FHEP and recommend changes to the FHEP to the Management Entities for review and approval
9 in accordance with the process in Section V of this Physical Solution. These recommended
10 changes could include: (a) a recommendation that the FHEP is no longer needed or necessary;
11 (b) a recommendation that the FHEP should continue unchanged; (c) a recommendation that the
12 FHEP should continue with changes; or (d) such other recommendations as the Watershed TAC
13 may develop. Phase 3 shall continue until the Management Objective is achieved as determined
14 by this Court, or until the Court takes other appropriate actions.

15 **IV. IMMEDIATE MANAGEMENT ACTIONS**

16 After entry of the Physical Solution, the specific Responsible Parties identified below
17 shall implement the Immediate Management Actions set forth in this Section IV within the
18 identified Management Areas or within the Watershed, on the timelines identified herein. Unless
19 otherwise stated, the Immediate Management Actions shall be undertaken by the identified
20 Responsible Party or Parties, and not by the Management Entities directly. Some of the
21 Immediate Management Actions have expressly committed funding by one or more Responsible
22 Party. Other Immediate Management Actions do not currently have funding and are subject to
23 the provisions of Section VI.D of this Physical Solution (Actions Subject to and Not Subject to
24 Funding Availability). Implementation of the Immediate Management Actions and Future
25 Management Actions are also subject to Uncontrollable Conditions, regardless of whether
26 Uncontrollable Conditions are expressly referenced in the description of the Immediate
27 Management Action or Future Management Actions.
28

1 **A. Mainstem Management Area**

2 The following Immediate Management Actions shall be undertaken within the Mainstem
3 MA by the Responsible Parties identified and as overseen by the Mainstem Management Entity.

4 1. Foster Park Protocols

5 Upon entry of the Physical Solution, Ventura shall implement the following operational
6 protocols at Foster Park. Ventura shall cease water extraction at Foster Park (including through
7 its Nye Wells and its subsurface intake) when average daily streamflow at Foster Park falls below
8 the shutoff thresholds in Table 1 for three consecutive days. Ventura shall measure average daily
9 streamflow at the USGS Ventura R Nr Ventura gage 11118500. The Management Entity may
10 consider and approve the use of a different gage located below Foster Park (but located no further
11 downstream than global positioning system (“GPS”) coordinates 34.349835, -119.302525) for
12 measuring average daily streamflow at Foster Park, but shall hold a public hearing to consider the
13 use of any different gage before approving such use.

14 **Table 1 Foster Park Protocols**

Water Month Type	Flow Threshold
Critically Dry	3 cfs
Dry	5 cfs
Below Normal	7 cfs
Above Normal	9 cfs
Wet	11 cfs

21 Ventura may resume water extraction at Foster Park once average daily streamflow at the
22 Foster Park gage exceeds the applicable water-month-type threshold for three consecutive days,
23 provided that resuming extraction will not cause the average daily streamflow to drop below the
24 applicable threshold within the next three consecutive days.

25 The water month type for implementation of the Foster Park Protocols (i.e., flow shutoff
26 thresholds) shall be determined monthly by Ventura. Water month typing shall be completed on
27 the first day of each month, unless the first of the month occurs on a weekend or holiday, in
28 which case water month typing shall be completed on the next subsequent business day. The

determined water month type shall be used until the next water month typing is completed.

Each business day, average daily streamflow of the previous day(s) shall be evaluated to determine whether shutoff thresholds were satisfied for three consecutive days. Any changes to operations, such as cessation of pumping, shall occur the following business day. As described above, extraction may resume after average daily streamflow has exceeded the applicable threshold for three consecutive days, provided that resuming extraction will not cause the average daily streamflow to drop below the applicable threshold within the next three consecutive days.

To determine the water month type for implementing the Foster Park Protocols, two steps are taken:

1. The previous 24 months of precipitation data from **Ventura County Watershed Protection District's ("VCWPD")** Ojai County Fire Station gage no. 030D are input into the Effective Precipitation Formula below, using the monthly weighted coefficients listed in Table 2 below.
2. Table 3 below is used to compare the formula's output to monthly Effective Precipitation thresholds to identify the water month type.

The effective precipitation formula used in the first step is as follows:

$$P_{\text{Effective}} = \alpha * [P_{\text{Current-WY-thru_end of month N}} + \beta * P_{\text{Prev-WY}} + \kappa * P_{\text{12-N months of preceding WY}}]$$

Where, " $P_{\text{Effective}}$ " = *Effective Precipitation*;

" α ", " β ", and " κ " = *monthly weight coefficients presented in Table 2*;

" $P_{\text{Current-WY-thru_end of month}}$ " = *Precipitation at VCWPD Gage No. 030D of the current water year through the end of the previous month (for October, this term is assumed to be zero in the calculation of the water month type)*;

" $P_{\text{Prev-WY}}$ " = *Precipitation at VCWPD Gage No. 030D of the previous water year*;

" $P_{\text{12-N months of preceding WY}}$ " = *Precipitation at VCWPD Gage No. 030D for the portion of the preceding water year, that brings the total number of months in the formula used to 24 months*;
and

" N " = *Number of the month within the water year.*

Table 2. Effective Precipitation formula month weight coefficients

WY Month	Current WY weight, α	Previous WY weight, β	Antecedent WY 24-month weight, κ
Oct	0.000	0.73	0.270
Nov	0.080	0.64	0.280
Dec	0.100	0.39	0.510
Jan	0.650	0.05	0.300
Feb	0.670	0.2	0.130
Mar	0.720	0.18	0.100
Apr	0.825	0.165	0.010
May	0.870	0.12	0.010
Jun	0.900	0.1	0.000
Jul	0.900	0.1	0.000
Aug	0.850	0.15	0.000
Sep	0.860	0.13	0.010

Table 3. Five water month type thresholds for Effective Precipitation formula output
Thresholds of Effective Precipitation Formula results
(based on 24-month antecedent conditions) for determining Water Month Type¹

Water Month Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Critically Dry	5.72	8.39	8.59	11.11	11.38	11.79	11.99	12.21	11.99	12.90	11.23	10.71
Dry	8.50	11.00	12.50	15.90	16.37	16.75	16.90	17.50	17.00	17.50	17.00	16.00
Below Normal	11.50	15.56	19.00	25.00	25.20	26.00	26.00	26.00	26.00	29.00	26.16	23.10
Above Normal	13.00	18.11	23.95	35.00	36.00	37.50	37.80	37.00	38.00	35.00	31.00	26.00
Wet ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:

¹ For each water month type, the upper thresholds of Effective Precipitation are shown by calendar month. In other words, the water month type is determined by locating the calendar month that has just been concluded (vertical column), then locating the threshold that the calculated Effective Precipitation value falls beneath (horizontal row).

² n/a = Not applicable. Threshold values are not listed for "Wet" water month type because any Effective Precipitation output value higher than the "Above Normal" threshold is categorized as "Wet".

1 2. Foster Park Pipeline Relocation or Removal Project

2 Ventura, at its sole cost, which may include grant funding, shall construct its preferred
3 alternative to relocate or remove the partially exposed pipe at Foster Park with a target
4 completion date by the end of 2026, using the construction milestones listed herein. In the event
5 Uncontrollable Conditions delay or prevent Ventura from achieving a construction milestone,
6 Ventura shall, in addition to taking other steps required by this Physical Solution in Section VI.C,
7 notify the Mainstem Management Entity, and the State Parties and SBCK of any such
8 unavoidable delays in achieving the below milestones within seven (7) days of learning of the
9 delay to allow Ventura, the Mainstem Management Entity, the State Parties to discuss and agree
10 on an amended deadline(s). The construction-related milestones include: (a) Complete final
11 design and seek bids for the work by September 1, 2026; (b) Complete environmental permitting
12 by September 30, 2026; and (c) Complete project by December 31, 2026. Ventura shall notify
13 the Mainstem Management Entity of project completion for inclusion in the Annual Report to the
14 Court.

15 3. Foster Park Fish Passage Notch Maintenance

16 Ventura shall, at its sole cost, which may include grant funding, maintain the Fish Passage
17 Notch installed at Foster Park in 2022 consistent with the Restoration Management Permit (No.
18 RMP-2025-0005-R5) issued by CDFW on August 8, 2025, including any future updates thereto.
19 The purpose of Restoration Management Permit No. RMP-2025-0005-R5 is to achieve volitional
20 fish passage under all flow conditions by maintaining and clearing sediment from upstream and
21 downstream areas directly adjacent to the Notch. Ventura shall perform maintenance as
22 necessary, but primarily after high-flow events that cause channel migration and/or sediment
23 deposition near the Notch. Ventura shall notify the Mainstem Management Entity of any
24 maintenance or other work performed under Restoration Management Permit No. RMP-2025-
25 0005-R5 for inclusion in the Management Entities' Annual Report to the Court.

26 4. Ventura's Right to Ojai Valley Sanitary District Treated Wastewater

27 Ventura has a right to the treated wastewater discharged by the **Ojai Valley Sanitary**
28 **District** ("OVSD") to the Mainstem Ventura River below Foster Park pursuant to a contract with

1 OVSD. Ventura does not own or operate the OVSD treatment plant, nor hold the **National**
2 **Pollutant Discharge Elimination System** (“NPDES”) permit for the discharge. Ventura shall
3 not exercise its rights to the treated wastewater discharged by OVSD to the Ventura River in such
4 a way that Ventura causes the discharge to cease or be reduced. Ventura makes no
5 representations and has no control over the treatment decisions of OVSD, which may,
6 independent of actions by Ventura, and in response to new obligations imposed on OVSD by the
7 State through the Los Angeles Regional Water Quality Control Board, cause the discharge to
8 cease or be reduced. The Mainstem Management Entity shall include in its Annual Reports to the
9 Court a summary of flows discharged to the Ventura River from OVSD’s facility highlighting
10 any changes in OVSD’s discharge, based on a review of OVSD’s publicly filed discharge
11 monitoring reports.

12 5. Robles Diversion Flow Protocols

13 Casitas MWD shall continue to maintain the flow protocols, summarized in Exhibit “H”
14 to this Physical Solution, in the existing 2003 National Marine Fisheries Service Biological
15 Opinion (“Biological Opinion”) issued to the United States Bureau of Reclamation for the
16 operation of the Robles Diversion and Fish Passage Facility. The technical support for these flow
17 protocols is contained in the Biological Opinion. The Biological Opinion finds that with the
18 implementation of the Robles Diversion Flow Protocols there is no jeopardy to the Southern
19 California Steelhead. Continued implementation of the Robles Diversion Flow Protocols under
20 the Biological Opinion is consistent with this Physical Solution.

21 6. WCF Arundo Removal Program

22 WCF shall continue its pre-existing Arundo removal program on its property based on
23 recommendations by the WCF financial and technical experts. The program aims to improve
24 riparian habitat quality, reduce impairment by trespassers who reside in the Arundo, and reduce
25 fire risk to the surrounding community. The goal of this program is to treat 5-10 acres of Arundo
26 annually, until Arundo is removed or, if not feasible, is controlled within the WCF Management
27 Area subject to the factors below.

28 Historically, this program has treated approximately 5-10 acres of Arundo annually since

2008, subject to limitations due to weather, permitting, access, safety, bird nesting season restrictions, density of accessible *Arundo* stands, financial resources, and the professional judgment of a qualified biologist. Because the WCF Management Area is located at the downstream end of the Watershed, the amount of removal depends upon these factors as well as *Arundo* reinfestation. Additionally, several other invasive woody plant species are opportunistically removed in accordance with applicable permits, including tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), and tamarisk (*Tamarix spp.*).

Arundo removal activities within the WCF Management Area will likely continue into Phase 3 of this Physical Solution. WCF's technical team shall continue to map *Arundo* distributions, remove *Arundo* in accordance with permit requirements, and monitor and maintain treated areas within the WCF Management Area. WCF shall describe its *Arundo* removal activities in its annual reporting to the Management Entities for inclusion in the Annual Report.

7. Additional Management Actions to Seek to Increase Flow in the Mainstem Ventura River to Support *O. mykiss*

Within ninety (90) days of entry of this Physical Solution, the Mainstem Management Entity shall coordinate the establishment of the Mainstem Flow Augmentation Committee . At a minimum, the Mainstem Flow Augmentation Committee shall include the members of the Mainstem TAC as provided for in Section III.B.14 of this Physical Solution and one qualified technical representative each from Meiners Oaks Water District (“**MOWD**”) and Ventura River Water District (“**VRWD**”). Other interested parties may designate a representative with technical expertise in flow augmentation to serve on the Mainstem Flow Augmentation Committee, subject to the Mainstem Management Entity's reasonable approval. A Mainstem Management Entity representative may chair the meetings of the Mainstem Flow Augmentation Committee and prepare its agendas.

The Mainstem Flow Augmentation Committee shall work with the Mainstem Management Entity to assess whether it is technically feasible and beneficial to *O. mykiss* to develop and implement additional flow augmentation within the Mainstem Management Area at or near the confluence of San Antonio Creek and the Mainstem Ventura River to produce a

1 material increase in flow under low-flow conditions that enhance conditions for *O. mykiss*. This
2 assessment shall be coordinated with the ongoing efforts under the UVR GSP to implement
3 SGMA, and shall not substantially impair the ability of UVRGA, the State Board, or DWR to
4 comply with SGMA and to achieve sustainable groundwater management. Each Party with a
5 representative on the Mainstem Flow Augmentation Committee shall be responsible for the costs
6 of their representative's participation.

7 The immediate goal of the flow augmentation shall be to provide for increased
8 connectivity and improved suitable habitat quality to support appropriate lifestages of *O. mykiss*
9 between the confluence of San Antonio Creek with the Mainstem Ventura River downstream
10 through Foster Park, during low-flow conditions, without causing adverse impacts to the
11 Watershed or water rights that outweigh the benefits of flow augmentation or substantially impair
12 the ability of UVRGA to achieve sustainable groundwater management (“**Immediate**
13 **Augmentation Goal**”). This Immediate Augmentation Goal may be refined and updated based
14 on the FHEP but shall remain consistent with the goal outlined above. The Mainstem Flow
15 Augmentation Committee shall complete the assessment and transmit a report (“**Assessment**
16 **Report**”) describing its conclusions regarding flow augmentation to the Mainstem Management
17 Entity within one year of formation of the Mainstem Flow Augmentation Committee. If the
18 Mainstem Flow Augmentation Committee concludes that there are flow augmentation options
19 that are technically feasible and would benefit the Ventura River Steelhead without causing
20 adverse impacts to the Watershed or water rights that outweigh the benefits of flow augmentation
21 or substantially impair the ability of UVRGA to achieve sustainable groundwater management,
22 the Assessment Report shall include a proposed pilot project or projects. Any such pilot project
23 shall specify the source of water to be used for augmentation, appropriate flow triggers for
24 augmentation, identify a willing project proponent, provide an estimated cost to implement the
25 project or projects, identify Specific Funding Sources, and explain whether the augmentation
26 project would affect water rights of Bound Parties or substantially impair the ability of UVRGA
27 to achieve sustainable groundwater management. Any such pilot project shall include a specific
28 monitoring plan to assess any potential benefits or impacts of the pilot project.

1 The Mainstem Management Entity shall have final approval authority regarding selection
2 and oversight of any Mainstem flow augmentation pilot project(s) implemented under the
3 Physical Solution. Upon receiving the Assessment Report from the Mainstem Flow
4 Augmentation Committee, the Mainstem Management Entity shall place the Assessment Report
5 and consideration of any proposed pilot project(s) on the agenda for a regularly scheduled
6 meeting of the Mainstem Management Entity within ninety (90) days of receiving the Assessment
7 Report. Within thirty (30) days of this meeting the Mainstem Management Entity shall determine
8 whether to proceed with any proposed flow augmentation pilot project(s) and issue its final
9 decision in writing. If the Mainstem Management Entity approves any flow augmentation pilot
10 project(s), and subject to obtaining funding and all necessary permits for any such pilot project(s),
11 the Mainstem Management Entity shall coordinate with the Mainstem Flow Augmentation
12 Committee and with Parties who agree to participate in the pilot project(s) to initiate flow
13 augmentation, as applicable based on the flow triggers for augmentation, within three years of
14 entry of the Physical Solution.

15 After three years from commencement of any flow augmentation pilot project, the
16 Mainstem Flow Augmentation Committee shall evaluate: (a) if flow augmentation produced a
17 material increase in flow to support connectivity in the reach between the confluence of San
18 Antonio Creek and the Mainstem downstream to Foster Park and did not cause adverse impacts to
19 the Watershed that outweigh the benefits of flow augmentation or substantially impair the ability
20 of UVRGA to achieve sustainable groundwater management; and (b) what, if any, changes in
21 flow augmentation are appropriate. The evaluation shall consider all available information,
22 including information collected through implementation of the Monitoring Program described in
23 Exhibit "D" and development and, if applicable, implementation of the FHEP. The Mainstem
24 Management Entity may determine, in consultation with the Mainstem Flow Augmentation
25 Committee, that it is appropriate to defer evaluation of the flow augmentation pilot project(s)
26 beyond three years to assess its efficacy during a broader range of hydrologic conditions. It is
27 recognized that the benefits of a flow augmentation pilot project may not manifest for years until
28 after such project is commenced.

1 If the evaluation of the pilot project demonstrates that flow augmentation is feasible and
2 beneficial, the Mainstem Management Entity will consider this information to expand the pilot
3 project and/or develop additional Management Actions. If the evaluation recommends any
4 necessary changes to the flow augmentation pilot project, the Mainstem Management Entity shall
5 consider implementing those changes. If the evaluation demonstrates that flow augmentation is
6 not feasible or beneficial, or if the Mainstem Management Entity does not approve any flow
7 augmentation pilot project, the Mainstem Management Entity shall make a written determination
8 of whether additional Management Actions should be implemented to achieve the Immediate
9 Augmentation Goal.

10 8. Other Self-Funded Projects

11 Any Party may propose a habitat improvement project for consideration by the Mainstem
12 TAC and Mainstem Management Entity. Such proposals shall be based on sound scientific
13 principles, and describe the project in detail, including required permits, project partners or
14 sponsoring entities, projected benefits, a timeline for implementation, a well-developed budget,
15 and identified potential sources of funding.

16 **B. San Antonio Creek Management Area**

17 The following Immediate Management Action shall be undertaken within the SAC MA:

18 1. Boulder Augmentation Pilot Project

19 Casitas MWD shall install and maintain boulders or other functionally equivalent material
20 to create habitat complexity features, among other benefits, at locations in San Antonio Creek to
21 enhance juvenile and adult *O. mykiss* rearing habitat, improve protection and cover from
22 predation, increase structural diversity of habitat, and increase holding habitat as a velocity refuge
23 at higher flow, and over-summer rearing at lower flows. The design and location of the habitat
24 features shall be approved in advance by CDFW and VCWPD. Casitas MWD shall implement
25 the Pilot Project using the following milestone: Design and bid project within 18 months of entry
26 of this Physical Solution. Generally, this project is considered a streambed modification and will
27 require one or more permits from regulatory agencies; it is subject to and is therefore contingent
28 on securing regulatory approvals and subject to Uncontrollable Conditions, including but not

1 limited to, the inability to obtain the necessary permits, authorization or approvals from any
2 governmental agency despite good faith and diligent efforts to secure such authorization or
3 approval.

4 Based on the performance of the Pilot Project, Casitas MWD shall consider whether
5 additional habitat enhancement projects in the San Antonio Creek Sub-Watershed are technically
6 and financially feasible and warranted.

7 2. Low Flow Survey and Coordination with CDFW

8 The San Antonio Creek Management Entity shall monitor flow in San Antonio Creek at
9 Camp Comfort, and when it appears that flows may drop below 0.5 cfs, the Management Entity
10 shall conduct a survey for stranded Steelhead and shall report the findings of the survey to CDFW
11 to assist in rescue and relocation operations.

12 3. San Antonio Creek Voluntary Flow Augmentation Efforts and Pilot
13 Project(s)

14 Some Bound Parties within the SAC MA currently perform voluntary actions, or have
15 plans to perform voluntary actions, that are designed to increase flows in San Antonio Creek.
16 These Bound Parties within the SAC MA are encouraged to continue to pursue these voluntary
17 efforts. These Bound Parties who pursue these voluntary actions shall report their voluntary
18 efforts to the SAC TAC, and the SAC TAC is directed to track and assess these voluntary efforts.
19 The SAC TAC shall provide an annual report of these voluntary efforts to the SAC Management
20 Entity and identify specific voluntary efforts that appear to be successful in increasing flows in
21 San Antonio Creek.

22 In addition, these Bound Parties have potential direct flow augmentation concepts that
23 may provide increased flows in San Antonio Creek under certain hydrological conditions. These
24 Bound Parties are encouraged to present these conceptual projects to the SAC TAC, and the SAC
25 TAC is directed to assist the Bound Party to assess the conceptual project, identify permit
26 requirements for the conceptual project, explore funding options for the conceptual project and
27 otherwise support the efforts of these Bound Parties to develop the conceptual project into a pilot
28 project that could be recommended to the SAC Management Entity for approval.

1 The SAC Management Entity shall reasonably consider all such pilot projects
2 recommended by the SAC TAC. Any such pilot project shall be based on sound science, include
3 a detailed project description, identify a specific source of water to be used for augmentation, a
4 funding source and well-developed budget, permitting requirements, willing project partners or
5 sponsors, timeline for implementation, projected benefits and a monitoring plan. Additionally,
6 the project shall not affect the water rights of any Bound Party nor violate Ordinances of the
7 OBGMA.

8 As noted on OVLC's website (<https://ovlc.org/arundo?rq=arundo>) removal of Arundo
9 may provide several benefits related to the Management Objective. These are: increase in native
10 riparian habitat, and reductions in adverse impacts otherwise caused by Arundo, including flood
11 hazards, wildfire risk, streambank erosion, and water consumption (estimated to be up to 20 Acre-
12 Feet per acre per year on a statewide basis, subject to refinement for local conditions). And as
13 reported in the 2026 Ventura County Grand Jury Report ([https://venturacounty.gov/grand-](https://venturacounty.gov/grand-jury/fiscal-year-2025-2026/#docaccess-836043d6e41dec0b81321eaca6b1c07d)
14 [jury/fiscal-year-2025-2026/#docaccess-836043d6e41dec0b81321eaca6b1c07d](https://venturacounty.gov/grand-jury/fiscal-year-2025-2026/#docaccess-836043d6e41dec0b81321eaca6b1c07d)), Arundo removal
15 may prevent waste of groundwater resources and result in flow augmentation.

16 4. Other Self-Funded Projects

17 Any Party may propose a habitat improvement project for consideration by the SAC TAC
18 and SAC Management Entity. Such proposals shall be based on sound scientific principles,
19 describe the project in detail, including required permits, project partners or sponsoring entities,
20 projected benefits, timeline for implementation, a well-developed budget and identified source of
21 funding.

22 C. Watershed-Wide Management Actions

23 The following Immediate Management Actions shall be undertaken within both
24 Management Areas, as applicable, by the Responsible Parties identified and as overseen by the
25 Management Entities within their respective Management Areas:

26 1. Arundo Removal Program

27 This Physical Solution includes an Arundo Removal Program. The Arundo Removal
28 Program has the following goal: approximately 70 acres of Arundo removal on Lion Creek, San

1 Antonio Creek, and the Ventura River at and upstream of Foster Park, including 36 acres treated
2 from September 2025 through January 2026, to occur in Phase 1; approximately 60 acres in the
3 Mainstem from Foster Park to the Pacific Ocean in Phase 2; and any remaining acres on the
4 Mainstem in Phase 3.⁵ These acreage goals do not include approximately 95 acres of Arundo
5 located in the WCF Management Area, which WCF shall separately address under Section
6 IV.A.6 of this Physical Solution.

7 The program consists of three elements: (a) assessment of the presence and distribution of
8 Arundo on properties throughout the Watershed, updating mapping that OVLC undertook in 2020
9 and 2023; (b) removal of Arundo and related invasive plants, including tree tobacco, castor bean,
10 and tamarisk; and (c) removal work, and monitoring and maintenance following such treatment.

11 OVLC shall administer the Arundo Removal Program, subject to its securing necessary
12 funding as described below, and in coordination with the Management Entities, as needed.
13 Ventura County/VCWPD shall actively cooperate in the implementation of this program. By
14 March of each year, OVLC shall report to the Management Entities on program implementation,
15 including overall progress towards the Arundo Removal Program's goal, the status of funding,
16 permits, access agreements with Bound Parties, and work performed compared to work identified
17 in workplans, for the prior calendar year.

18 Other than WCF, whose Arundo removal program is described in Section IV.A.6 above,
19 Bound Parties (including, without limitation, all Exempt Parties) shall actively cooperate in the
20 implementation of this program on their respective properties. All Bound Parties shall provide
21 access on reasonable terms to OVLC or its designee to undertake an assessment of Arundo
22 presence on their respective properties, followed by removal, monitoring and maintenance, for
23 any property where Arundo is present. In the alternative, a Bound Party may undertake such
24 work under a workplan approved by OVLC or its designee. A Bound Party that elects to
25 undertake such work may apply to OVLC for a grant of funds. Bound Parties may seek relief
26 from the Court regarding this obligation, but the Court has jurisdiction to order a Bound Party to
27 provide reasonable access to its property or to undertake (or permit OVLC or its designee to
28

⁵ These acreage estimates are based on 2023 data compiled by OVLC.

undertake) such work, subject to reasonable terms and conditions, and for good cause shown.
The Management Entities have no obligation to enforce this property access provision.

OVLC has received more than \$7 million in grants from CAL FIRE and CDFW to fund Arundo removal efforts. OVLC represents that it shall expend \$6,920,000 in remaining grant funds to support Arundo removal in the SAC MA and Mainstem MA. OVLC shall seek additional grant funds as necessary to implement the program consistent with the Arundo Removal Program's goal.

Ventura, MOWD, VRWD, and Rancho Matilija Mutual Water Company shall collectively contribute \$75,000 to OVLC to support this program in the first year following Court approval of this Physical Solution. This funding may continue for an additional two years, for a potential total of three years following entry of this Physical Solution. These Parties shall meet annually in March to consult with OVLC on funding needed for the coming year. If the work described in the prior year was completed satisfactorily, and these Parties agree that the proposed work plan is aligned with the Arundo Removal Program's goals, these Parties may commit to funding for an additional one-year term at a time. This funding is specifically designed to help OVLC build capacity to identify and obtain additional funding commensurate with the Arundo Removal Program's goal.

The Bound Parties shall support efforts to seek and secure funding, as well as permits, to implement the program consistent with the Arundo Removal Program goal. The Ventura County Resource Conservation District holds CDFW Restoration Management Permit 2025-0013-R5, which may cover Responsible Parties for such work through 2036. OVLC is seeking approval from the U.S. Fish and Wildlife Service for a proposed Habitat Conservation Plan that would provide such coverage under the Federal Endangered Species Act section 10.

2. Non-Native Fish Management

As part of the development of the FHEP, CDFW shall consider any non-native fish management plan proposed by the Parties. If such a non-native fish management plan is approved by CDFW, CDFW shall coordinate with the Management Entities and Parties to support implementation of the plan in the Ventura River Watershed. Implementation of the plan

1 shall be subject to identification of Specific Funding Sources.

2 3. Stranded Fish Rescue Plans and Procedures

3 CDFW shall use its existing authorities to evaluate rescue and relocation operations for
4 stranded *O. mykiss* in the Watershed when CDFW is notified of such stranded *O. mykiss*. Within
5 one year after entry of this Physical Solution, CDFW shall establish a procedure for parties to
6 report stranded *O. mykiss* in the Watershed for CDFW to evaluate rescue and relocation
7 operations. During development of the FHEP, the Watershed TAC shall consider whether to
8 identify and evaluate additional options to rescue and relocate stranded *O. mykiss*.

9 4. Fishing Prohibition Signage and Population Protection Proposals

10 Within one year after entry of this Physical Solution, CDFW shall develop a plan to
11 increase and replace signage in key locations in the Watershed about fishing prohibitions and to
12 better publicize existing procedures for notifying CDFW of illegal fishing via CALTIP
13 (Californians Turn in Poachers and Polluters). Implementation of the plan is subject to
14 identification of a Specific Funding Source for the increased or replacement signage. In addition,
15 within one year after adoption of the FHEP, CDFW shall consider any additional population
16 protection proposals in the FHEP, which may include additional fish relocation operations,
17 increased enforcement of current fishing regulations in the Watershed, and other similar actions
18 identified in the National Marine Fisheries Service's 2012 Southern California Steelhead
19 Recovery Plan⁶.

20 5. Human Encampments and Other Similar Anthropogenic Impacts

21 All Parties having jurisdictional authority⁷ or control over specific public or private
22 property in the Watershed shall support actions and funding to limit new human encampments,
23 remove human encampments in the Watershed that may negatively impact Watershed conditions
24 affecting Steelhead, and address other similar anthropogenic impacts. All interested parties that
25 have jurisdictional authority or control over specific private or public properties in the Watershed
26

27 ⁶ See <https://www.fisheries.noaa.gov/resource/document/southern-california-steelhead-recovery-plan>.

28 ⁷ Such parties include those with specific statutory or police power authority to address encampments, including, but not limited to Ventura, Ventura County/VCWPD, and CDFW.

1 shall meet to discuss methods for achieving this objective and develop a plan for a coordinated
2 approach to abate human encampments that are negatively impacting Watershed conditions
3 related to Steelhead recovery. This initial meeting shall be held within ninety (90) days after
4 entry of this Physical Solution. A plan for a coordinated approach shall be developed within 18
5 months after entry of this Physical Solution, submitted to the Court for approval and implemented
6 thereafter. Implementation shall occur within 18 months of final plan approval by the Court. The
7 plan shall be assessed and updated as appropriate as part of updates to the FHEP and adaptive
8 management under this Physical Solution. As part of its WCF Management Entity commitments,
9 WCF shall also continue a trespasser and trash removal program within WCF Management Area.
10 This program consists of periodic removal of trespassers, illegal encampments, and trash from
11 WCF property, subject to limitations due to weather, safety, access and availability of City and
12 Ventura County law enforcement. Effective abatement will require coordination among property
13 owners and public safety officials.

14 6. Conservation Efforts

15 Each Bound Party to this Physical Solution shall implement all legally required water
16 conservation measures. For public agency Bound Parties, the water conservation measures shall
17 be no less than those required by existing laws, ordinances and agreements applicable to them.
18 Public agency Bound Parties shall provide their applicable Management Entities with an annual
19 update on their water conservation programs, and the Management Entities shall include a
20 summary of this information in the Annual Report. Agricultural Bound Parties shall implement
21 industry standard agricultural water conservation measures. Other Bound Parties shall comply
22 with all applicable mandatory water conservation measures, and should consider taking other
23 voluntary water conservation measures as appropriate to their situation. This provision does not
24 address nor impair in any manner the water rights claims of the Bound Parties and does not
25 specify a specific water consumption amount for Bound Parties. This provision also does not bar
26 any Bound Party from voluntarily implementing additional water conservation measures beyond
27 what is legally required or beyond industry standards.
28

1 7. Fish Passage Barrier Assessment and Remediation

2 Within ninety (90) days of entry of this Physical Solution, CDFW shall coordinate the
3 establishment of a voluntary committee (“**Fish Passage Barrier Committee**”) of interested
4 Parties to perform an assessment of existing complete, partial, and temporal barriers to *O. mykiss*
5 passage in the Watershed. Any interested Party may designate a representative with technical
6 expertise in fish passage issues to serve on the Fish Passage Barrier Committee, subject to
7 CDFW’s reasonable approval. The Fish Passage Barrier Committee shall use existing surveys
8 and professional judgment to prepare a list of existing barriers describing the following for each
9 barrier:

- 10 • Whether the barrier is complete, partial, temporal, or does not constitute a fish
11 passage barrier. The report shall specify the nature of each complete, partial, and temporal
12 barrier; if the Fish Passage Barrier Committee determines no barrier exists in a particular location
13 that was previously identified as containing or potentially containing a barrier in an existing
14 survey, it shall explain the basis for this determination. The report should also note whether the
15 barrier is identified in the UVR GSP or the Ojai Valley GSP and, if so, shall describe how the
16 GSP treats the barrier.
- 17 • The options for and feasibility of barrier remediation, including anticipated
18 eligibility for streamlined permitting (e.g., the Statutory Exemption for Restoration Projects
19 (“**SERP**”) and Statewide Restoration General Order (“**SRGO**”) and the estimated timeline for
20 barrier remediation.
- 21 • Estimated costs and funding options for barrier remediation.
- 22 • Environmental benefits of barrier remediation, including the amount of habitat that
23 will be provided by remediation of the barrier for specific *O. mykiss* life stages.
- 24 • Environmental and community impacts of barrier remediation. The assessment of
25 community impact requires an assessment of current community benefit associated with the
26 improvement in question (such as flood/debris control, water supply or transportation) and means
27 of mitigating any community impact.

28 The Fish Passage Barrier Committee shall complete a written report of its work (the “**Fish**

1 **Passage Barrier Assessment Report” or “Report”**), including a prioritization list, within one
2 year of entry of this Physical Solution. Prioritization shall be based on consideration of the bullet
3 points listed above. Based upon the prioritization list in the Report, the Fish Passage Barrier
4 Committee shall (a) recommend at least two barriers to be remediated within eight years of entry
5 of this Physical Solution (these may not be the two highest priority barriers), and (b) identify
6 Specific Funding Sources for remediation of the two recommended barriers. The Fish Passage
7 Barrier Committee shall seek to achieve consensus on the findings and recommendations in its
8 Report. If consensus is not achieved, the Report should reflect majority, minority, or individual
9 views of Committee members.

10 The Fish Passage Barrier Committee shall present the findings of its Report and the
11 barrier recommended for remediation at the next regularly scheduled coordination meeting of the
12 Management Entities following completion of the Report. The Management Entities shall have
13 final approval authority regarding implementation of the selected barrier remediation projects.
14 Subject to obtaining funding and all necessary permits for the projects, the Fish Passage Barrier
15 Committee, the Management Entities, the owners of the barriers, and any other Parties who seek
16 to support barrier remediation, shall work to complete the two recommended remediation projects
17 within eight (8) years of the Court’s entry of this Physical Solution.

18 8. Matilija Dam Ecosystem Restoration Project

19 The Bound Parties generally recognize that removal of Matilija Dam is an important step
20 toward *O. mykiss* habitat restoration and a significant feature of MDERP. MDERP, however, is
21 not currently fully-defined, will require years of planning and permitting and is estimated to cost
22 tens of millions of dollars. For these and other reasons, MDERP is a standalone project separate
23 from this Physical Solution and is not a compliance requirement under this Physical Solution.
24 Because MDERP is a standalone project separate from this Physical Solution, this Physical
25 Solution does not change the legal rights of Bound Parties as to MDERP. VCWPD shall provide
26 bi-annual updates on the status of MDERP planning, permitting and financing efforts on a public
27 website and to the Management Entities.

28 Subject to the provisions of Section VI.U of this Physical Solution, Parties having

1 permitting authority over the reconstruction of water infrastructure in the Watershed that may be
2 damaged by Matilija Dam removal shall prioritize the issuance of permits supporting the timely
3 reconstruction of the water-related infrastructure.

4 9. Optional Development of Flow Analysis by the State Parties and Annual
5 Assessment by the Management Entities

6 Within one year of entry of this Physical Solution, the State Parties may develop, in
7 coordination with the Management Entity TACs, and transmit to the Management Entities flow
8 analysis describing key flows for different life stages of *O. mykiss* (“**Flows**”) at: (a) the Mainstem
9 at Foster Park (as measured at USGS Gage no. 11118500) and (b) San Antonio Creek near its
10 confluence with the Ventura River (as measured at VCWPD Gage no. 605A). The State Parties
11 shall provide a technical memorandum explaining the basis for the State’s Flows including the
12 science-based facts specifically relevant to the Ventura River Watershed. The Management
13 Entities shall review and assess the scientific validity of the States flow analysis, consider and
14 assess as part of the Annual Report. Once validated, the Management Entity shall consider the
15 Flows as part of the adaptive management process and in connection with the selection of Future
16 Management Actions in coordination with the FHEP. The State Parties may update their Flows
17 in coordination with the Management Entity TACs, and transmit revised Flows to the
18 Management Entity, with a revised technical memorandum, based on new information. The State
19 Parties’ Flows shall not be enforceable flow criteria and shall not be treated as such. Neither the
20 State Parties’ Flows nor the Management Entities’ consideration and assessment of the Flows
21 shall be used to determine whether any Bound Party is complying with this Physical Solution.

22 **V. FISH HABITAT ENHANCEMENT PLAN**

23 **A. Purpose and Need for the FHEP**

24 The Ventura River Steelhead and their habitat needs have been studied for decades by
25 multiple local, state and federal entities, including, without limitation, by Casitas MWD through
26 its implementation of the Biological Opinion for the Robles Fish Passage Facility Project, by
27 CDFW through its ongoing Coastal Monitoring Program and previous Habitat and Instream Flow
28 Evaluation for Steelhead in the Ventura River, Ventura County, and by the National Marine

1 Fisheries Service through the listing, critical habitat and recovery plan process under the federal
2 Endangered Species Act. As reflected in Exhibit “I” to this Physical Solution, the habitats needs
3 of the Ventura River Steelhead are generally understood. However, a plan that identifies and
4 assesses this existing body of information related to the Ventura River Steelhead is needed for
5 this Physical Solution. To create this document from these existing sources and other relevant
6 information, the Parties shall develop and implement the FHEP as described in this Section V of
7 this Physical Solution.

8 The FHEP shall initially focus on the period between entry of this Physical Solution and
9 the completion of Matilija Dam removal (i.e., Phase 2). The FHEP shall be reviewed annually as
10 part of the Annual Report process and the adaptive management process. The FHEP may also be
11 amended and updated on a cycle to be specified in the FHEP. During Phase 3, the Watershed
12 TAC shall reevaluate the scope and content of the FHEP and recommend changes to the FHEP to
13 the Management Entities for review and approval in accordance with the process in Section V of
14 this Physical Solution. These recommended changes could include: (a) a recommendation that
15 the FHEP is no longer needed or necessary; (b) a recommendation that the FHEP should continue
16 unchanged; (c) a recommendation that the FHEP should continue with changes; or (d) such other
17 recommendations as the Watershed TAC may develop.

18 **B. Contents of the FHEP**

19 The specific contents of and guidelines for preparing the FHEP are set forth in Exhibit “J”
20 to this Physical Solution. As described in Exhibit “J”, the FHEP shall be prepared using the
21 existing body of information related to Watershed Conditions and the Ventura River Steelhead
22 and shall include: goals and objectives; assessment of existing information; prioritized
23 recommended Future Management Actions; recommendations regarding current and potential
24 future monitoring; adaptive management; and a proposed budget and timeline for the
25 recommended Future Management Actions.

26 **C. FHEP Preparation**

27 The FHEP shall be prepared by the Watershed TAC. The cost of each member of the
28 Watershed TAC to participate in drafting the FHEP shall be borne by each entity appointing a

1 member to the Watershed TAC. Each entity appointing a member to the Watershed TAC may
2 also retain consultants, at their sole cost, to support the effort to prepare the FHEP. In addition,
3 the Watershed TAC may collectively retain consultants to support the effort to prepare the FHEP
4 if the Watershed TAC concludes that retaining consultants will be more cost effective or will
5 cause the timely completion of the FHEP. The entities appointing members to the Watershed
6 TAC may pool their collective resources to fund the cost of such consultants or may work with
7 the Management Entities and Bound Parties to seek funding for such consultants. The Watershed
8 TAC shall discuss its progress in developing the FHEP and appropriate specific elements of the
9 FHEP at its regularly scheduled public meetings. Upon completion of the draft FHEP, the
10 Watershed TAC shall submit the draft FHEP to the Management Entities for consideration and
11 recommended approval.

12 **D. Schedule for Completion of the draft FHEP**

13 The draft FHEP shall be prepared and submitted to the Management Entities for
14 recommended approval within 18 months of the entry of this Physical Solution.

15 **E. Management Entity Consideration and Action on the FHEP**

16 Upon receipt of the draft FHEP from the Watershed TAC, the Management Entities shall
17 have thirty (30) days to conduct a staff level review of the FHEP. Based on this staff level
18 review, the Management Entities may request clarifications or corrections to the draft FHEP from
19 the Watershed TAC. The Watershed TAC shall have thirty (30) days to consider these requests
20 for clarifications or corrections and return the draft FHEP to the Management Entities. If the staff
21 level review does not result in requested clarifications or corrections to the draft FHEP, or upon
22 the return of the draft FHEP to the Management Entities after consideration of the requested
23 clarifications or corrections, the Management Entities shall promptly post the draft FHEP on their
24 websites, provide notice of the draft FHEP to their notice lists and solicit public comments on the
25 draft FHEP to be submitted within forty-five (45) Days of the notice. At the end of the 45-Day
26 comment period, and unless extended for good cause by the Management Entities, the Watershed
27 TAC shall prepare and submit to the Management Entities written responses to comments
28 received on the draft FHEP, including any recommended revisions to the draft FHEP based on the

1 comments, within sixty (60) Days of the close of the comment period. After receiving the
2 Watershed TAC's written responses, the Management Entities shall schedule open and public
3 meetings to consider the draft FHEP. After the open and public meetings, the Management
4 Entities shall, in writing: (a) approve the FHEP; (b) approve the FHEP with specified conditions;
5 or (c) disapprove the FHEP. If the FHEP is approved by the Management Entities, the decision
6 of the Management Entities may be subject to Court review as provided in this Physical Solution.
7 If the FHEP is approved with specified revisions or conditions that require further evaluation, or
8 is disapproved, the Watershed TAC shall have sixty (60) Days to seek to address any revisions or
9 conditions requiring further evaluation, or deficiencies noted by the Management Entities, and
10 resubmit the revised FHEP for consideration by the Management Entities. If the Watershed TAC
11 timely resubmits a draft FHEP to the Management Entities, the same process and timelines as
12 described above for initial consideration of the FHEP shall be repeated. If the Watershed TAC
13 does not timely resubmit the draft FHEP, or if the Management Entities do not approve the
14 resubmitted proposed FHEP, the actions of the Management Entities may be subject to Court
15 review as provided in this Physical Solution. Future amendments or updates to the FHEP,
16 including the Final FHEP, shall follow this same process and timeline.

17 In their written approval of the FHEP, the Management Entities shall select Future
18 Management Actions from the prioritized list in the FHEP to initially implement or describe why
19 no Management Actions are selected for initial implementation. The Management Entities shall
20 annually review the recommended Future Management Actions from the current prioritized list in
21 the FHEP and consider additional Management Actions to implement in subsequent years, as
22 needed to achieve the Management Objective of the Physical Solution and Goal of the FHEP.
23 Progress towards implementation of the selected Management Action(s) and the selection of any
24 additional Management Actions shall be reported at least annually at public meetings of the
25 Management Entities and in the Annual Reports. A Management Entity's decision to select or
26 not select any of the recommended Future Management Actions on the FHEP's prioritized list for
27 implementation is subject to Court review as provided in this Physical Solution.

1 **F. Implementation of the FHEP**

2 Once approved, the Management Entities shall consider actions to implement the FHEP as
3 part of their actions to implement this Physical Solution. The Management Entities shall at least
4 annually consider the selection of recommended Future Management Actions from the current
5 prioritized list in the FHEP as part of the Master Plan and budget process in Section III.B.8 of this
6 Physical Solution.

7 **G. Updates and Amendments to the FHEP**

8 The Management Entities shall annually review the FHEP as part of developing their
9 Annual Report and consistent with the adaptive management process in the FHEP. The FHEP
10 shall also establish cycles for other periodic updates to the FHEP by the Watershed TAC. If the
11 Matilija Dam removal is delayed beyond the schedule contemplated in this Physical Solution, the
12 FHEP may need to be updated prior to Dam removal. During Phase 3, the Watershed TAC shall
13 reevaluate the scope and content of the FHEP and recommend changes to the FHEP to the
14 Management Entities for review and approval in accordance with the process in Section V of this
15 Physical Solution. These recommended changes could include: (a) a recommendation that the
16 FHEP is no longer needed or necessary; (b) a recommendation that the FHEP should continue
17 unchanged; (c) a recommendation that the FHEP should continue with changes; or (d) such other
18 recommendations as the Watershed TAC may develop.

19 **VI. GENERAL PROVISIONS**

20 **A. Continuing Jurisdiction**

21 The Court retains and reserves full jurisdiction, power and authority, upon motion of a
22 Bound Party, to make such further or supplemental order as may be necessary or appropriate to
23 interpret, enforce, administer, or carry out this Physical Solution, and to provide for such other
24 matters that are not addressed by this Physical Solution, which might occur in the future, and
25 which if not provided for would defeat the purpose of this Physical Solution. The quantification
26 of individual water rights and the declaration of relative priorities among the Bound Parties is
27 expressly reserved, without prejudice, for future determination as may be required by the Court at
28 a later date, as necessary to maintain and implement this Physical Solution.

1 **B. Dispute Resolution Process**

2 Except as otherwise expressly provided in this Physical Solution, the Bound Parties shall
3 attempt to resolve all disputes arising under this Physical Solution through informal negotiations.
4 The dispute shall be considered to have arisen when a Bound Party sends a written **Notice of**
5 **Dispute** to another Bound Party or Management Entity. Such Notice of Dispute shall state
6 clearly the factual and legal basis of the dispute. The period of informal negotiations shall not
7 exceed thirty (30) Days from the date of receipt of the Notice of Dispute to the Bound Party or
8 Management Entity, unless that period is modified by written agreement of all Parties
9 participating in the informal negotiations. If a dispute cannot be resolved through informal
10 negotiations, the Bound Party that initiated the dispute may file a written request with the
11 applicable Management Entity or Entities to consider a disputed issue through an open and public
12 process.

13 Upon receipt of the written request to consider a disputed issue, the applicable
14 Management Entity or Entities shall cause the disputed item to be placed on the agenda for the
15 next regularly scheduled meeting of the Management Entity occurring within sixty (60) Days, or,
16 if requested by the party initiating the dispute, consider calling a special meeting for the purpose
17 of providing a full consideration of the dispute, and providing interested Bound Parties with
18 notice and an opportunity to be heard. However, a Management Entity shall not consider any
19 dispute unless and until informal negotiations under the above paragraph have occurred and have
20 been unsuccessful at resolving the dispute. No later than forty-five (45) Days following the
21 conclusion of the Management Entity or Entities meeting at which the dispute is considered, the
22 Management Entity or Entities shall issue a written decision that is dispositive of the dispute and
23 that is supported by written findings. Any Bound Party may seek review of a decision of the
24 Management Entity or Entities on a disputed issue in accordance with the provisions of this
25 Physical Solution in Section III.B.19 (Review of Actions of the Management Entities).

26 This section does not apply to any dispute wherein a Party seeks a determination of any
27 matter resolved by the Judgment and Physical Solution, including, without limitation, the rights
28 and relative priority rights to Water in the Watershed or to establish a comprehensive adjudication

1 of Water rights in the Watershed, which shall be resolved by the Court. This Physical Solution
2 does not determine water rights and does not grant the Management Entities any authority to do
3 so.

4 This section also does not apply to the TACs or committees created in this Physical
5 Solution. The absence of consensus within a TAC or committee is not a “dispute” within the
6 meaning of this section.

7 This section also does not apply when the State Board or CDFW contends that there is an
8 immediate and irreparable risk of injury to Ventura River Steelhead in the Watershed.

9 The Management Entities may coordinate to develop additional processes designed to
10 resolve written requests prior to the consideration and final decision of the Management Entity or
11 Entities.

12 **C. Uncontrollable Conditions Process**

13 If a Bound Party determines that an Uncontrollable Condition has arisen that will delay or
14 prevent achievement of an action required by this Physical Solution, the Bound Party shall notify
15 the applicable Management Entity of the Uncontrollable Condition within thirty (30) Days of the
16 date the Bound Party first knew of the Uncontrollable Condition, unless the Uncontrollable
17 Condition prevents the Bound Party from providing such notice within thirty (30) Days, in which
18 case the Bound Party shall provide the notice as soon as feasible thereafter. The Bound Party’s
19 notice shall include: (a) an explanation and description of the alleged Uncontrollable Condition
20 and its effect on the Bound Party’s performance of its obligation(s) under this Physical Solution;
21 (b) a description and schedule of all actions taken or to be taken to prevent or minimize the delay
22 and/or other adverse effects of the alleged Uncontrollable Condition; (c) if applicable, a proposed
23 extension of time for the Bound Party to complete a requirement under this Physical Solution;
24 (d) the Bound Party’s rationale for attributing such delay to the alleged Uncontrollable Condition;
25 and (e) any available evidence supporting the claim that the delay was attributable to the alleged
26 Uncontrollable Condition.

27 The applicable Management Entity shall hold a noticed and public hearing regarding the
28 Uncontrollable Condition within sixty (60) Days of notice from the Responsible Party, or as soon

1 as feasible thereafter given the nature of the Uncontrollable Condition. The applicable
2 Management Entity may confirm the Bound Party's determination, reject it or modify or adjust
3 the required action in question to preserve as feasible the original intent of the action.
4 Modifications or adjustments may include, but are not limited to, revised compliance timelines or
5 modifications of the obligation in question. During the pendency of the Management Entity's
6 review, the obligation or timeline is stayed. The Management Entity's decision is subject to
7 Court review as provided in this Physical Solution.

8 If the Uncontrollable Condition prevents or delays the Management Entity's ability to
9 perform an obligation under this Physical Solution, the Management Entity shall hold a noticed
10 and public hearing within sixty (60) Days of the date it knew or should have known of the
11 Uncontrollable Condition, and shall make a determination regarding the existence of the
12 Uncontrollable Condition and any required modifications of the applicable requirement. If the
13 Uncontrollable Condition prevents the Management Entity from holding the noticed and public
14 hearing within the sixty (60) Day period, the Management Entity shall hold the hearing as soon as
15 feasible thereafter. The decision of the Management Entity is subject to review by the Court as
16 provided in this Physical Solution.

17 **D. Actions Subject to and Not Subject to Funding Availability**

18 This Physical Solution identifies specific actions that shall be taken by specific
19 Responsible Parties under the direction of the Management Entities. Some of the specific actions
20 include express funding commitments by specific identified Responsible Parties. For example,
21 the following specific actions required by specific Responsible Parties contain express funding
22 commitments by one or more Responsible Parties:

- 23 • Foster Park Protocols (Section IV.A.1);
- 24 • Foster Park Pipeline Relocation or Removal Project (Section IV.A.2);
- 25 • Foster Park Notch Project (Section IV.A.3);
- 26 • Robles Diversion Flow Protocols (Section IV.A.5);
- 27 • WCF Arundo Removal Program (Section IV.A.6);
- 28 • Participation in the Mainstem Flow Augmentation Committee Process (but not

- 1 implementation of augmentation) (Section IV.A.7)
- 2 • Design and Permitting of the San Antonio Creek Boulder Augmentation Pilot
- 3 Project (Section IV.B.1);
- 4 • Low Flow Survey and Coordination with CDFW (Section IV.B.2);
- 5 • Initial portions of the Watershed Arundo Removal Program (Section IV.C.1);
- 6 • Stranded Fish Rescue Plans and Procedures (Section IV.C.3); and
- 7 • Water Conservation Efforts (Section IV.C.6).

8 While still subject to the Uncontrollable Conditions provisions, performance of these

9 actions shall be funded and undertaken by the specific identified Responsible Parties.

10 Similarly, this Physical Solution identifies specific actions to be taken and directly funded

11 by the Management Entities, including the administrative tasks set forth in Sections III.B.1-7,

12 9, 11-18 and 20, as well as the monitoring required by Section III.B.10 of this Physical Solution

13 (these funded actions do not include funding for the development of work product that is the sole

14 responsibility of the Watershed TAC, the Management Entity TACs or the committees

15 established under this Physical Solution, or the cost to perform modeling by UVRGA). The

16 respective Management Entities shall fund these actions, with the San Antonio Creek

17 Management Entity funding its obligations through Casitas MWD's water rates and the Mainstem

18 Management Entity funding its obligations through charges, fixed contributions or a combination

19 of funding sources to be developed and adopted by the Mainstem Management Entity. While

20 subject to the Uncontrollable Conditions provisions, performance of these specific actions by the

21 Management Entities shall be funded and undertaken by the Management Entities. Nothing in

22 this provision prohibits the Management Entities from agreeing to fund other activities beyond

23 the administrative and monitoring tasks addressed herein. The Management Entities shall make

24 good-faith, reasonable efforts to obtain additional funding to implement Future Management

25 Actions selected by the Management Entities through the FHEP implementation process or

26 through the recommendations of the TACs or other committees established in this Physical

27 Solution. Specifically, the Mainstem ME shall make reasonable efforts to obtain such additional

28 funding through available funding options, including grant funding or, if financially feasible,

1 through the funding mechanisms provided in the funding plan. Similarly, the SAC ME shall
2 make reasonable efforts to seek such additional funding outside of Casitas MWD's rates and fees.
3 Any such additional funding shall be reflected and implemented through their Annual Budgets.
4 However, the only express funding obligation of the Management Entities is as specified herein.

5 All other actions of this Physical Solution are subject to and contingent on obtaining a
6 Specific Funding Source to pay for their implementation, in addition to being subject to the
7 Uncontrollable Conditions provisions. To assist in obtaining such needed funding, all Bound
8 Parties shall reasonably support efforts to obtain Specific Funding Sources to implement the
9 unfunded actions in this Physical Solution, including by applying for grants when eligible and
10 appropriate. However, unless and until a Specific Funding Source is obtained for an unfunded
11 project, no Bound Party is obligated to implement the unfunded project.

12 **E. Actions Subject to and Not Subject to CEQA**

13 All individual projects called for in this Physical Solution or implemented under the
14 FHEP, which have not already complied with CEQA as of the date the Court enters this Physical
15 Solution and that shall be implemented by one or more Responsible Parties who are subject to
16 CEQA, shall be reviewed for required CEQA compliance. However, nothing related to the
17 procedural implementation of this Physical Solution (including development of the FHEP), nor
18 the decisions of any entity acting under the authority of this Physical Solution, including the
19 Management Entities, shall be deemed a "project" subject to CEQA. (See e.g., *California*
20 *American Water v. City of Seaside* (2010) 183 Cal.App.4th 471, and *Hillside Memorial Park &*
21 *Mortuary v. Golden State Water Co.* (2011) 205 Cal.App.4th 534). No Management Entity,
22 board, or committee formed under this Physical Solution shall be deemed a "public agency"
23 subject to CEQA. (See Public Resources Code § 21063.)

24 **F. Designation for Notice and Service**

25 Each Bound Party shall designate a name, address, and email address to be used for
26 purposes of all subsequent notices and service herein, either by its endorsement on this Physical
27 Solution or by a separate designation to be filed within thirty (30) days after entry of this Physical
28 Solution. A Bound Party may change its designation by filing a written notice of such change

1 with the appropriate Management Entity. If no designation is made, a Bound Party's designee
2 shall be deemed to be, in order of priority: (a) the Bound Party's attorney of record; (b) if the
3 Bound Party does not have an attorney of record, the Bound Party itself at the address specified
4 on the appropriate Management Entities' list.

5 **G. Transfer of Real Property**

6 Any Bound Party transferring any real property or water rights subject to this Physical
7 Solution shall notify the transferee of the existence of this Physical Solution and its binding effect
8 on the real property; provide grantee with a copy of this Physical Solution; and notify the
9 appropriate Management Entity of the transfer and file a written notice of transfer within ten (10)
10 days after the transfer of the real property, stating the name, address, email address, and other
11 contact information of the transferee. Transferee shall become a Bound Party, and if necessary,
12 Ventura shall substitute the transferee as Cross-Defendant pursuant to Code of Civil Procedure
13 section 368.5.

14 **H. Service of Documents**

15 Unless otherwise ordered by the Court, delivery to or service to any Bound Party by the
16 Court or any Bound Party of any document required to be served upon or delivered to any Bound
17 Party, or notice required to be given by the Management Entities or any Bound Party, pursuant to
18 this Physical Solution shall be deemed made if by electronic service using the Notice List
19 maintained by the Management Entities. All notices or service of documents pursuant to this
20 Physical Solution by Management Entities or any Bound Party shall be made by electronic mail
21 to the greatest extent feasible. Email service shall be deemed complete when sent using the
22 current notice lists of the MEs, as if such notice or document were personally served.

23 **I. No Abandonment of Rights; Reservation of Rights**

24 In the interest of the Watershed, and consistent with the Constitutional principles of
25 reasonable and beneficial use, no Bound Party shall use more water than is reasonably required.
26 Failure to use all of the water from the Watershed to which a Bound Party is entitled shall not, in
27 and of itself, be deemed or constitute an abandonment of such Bound Party's right, in whole or in
28 part. All Bound Parties reserve all of their respective water rights claims and all defenses of any

1 nature. This Physical Solution does not determine water rights, priority, or allocate water, and the
2 Bound Parties reserve all such claims and defenses related thereto. Because this Physical
3 Solution does not determine water rights, priority, or allocate water, this Physical Solution does
4 not determine the interconnectivity issue that was originally set as the topic for the Phase 1 trial,
5 and all Parties to the Cross-Complaint reserve the right to request that the Court adjudicate water
6 rights priority, including the interconnectivity issue that was set as the topic for the Phase 1 trial
7 at a later date, if necessary to achieve the Management Objective.

8 Although all Bound Parties reserve all of their respective water rights claims and defenses
9 of any nature, Ventura agrees to one express restriction on the potential future affirmative
10 assertion against any Bound Party of the water rights alleged in its Third Cause of Action in the
11 Third Amended Cross-Complaint (Declaratory Relief—Pueblo and/or Treaty Water Rights).
12 With regard to this alleged water rights claim only, Ventura agrees that it shall not assert this
13 claim affirmatively and unilaterally against any Bound Party. However, if a Bound Party seeks to
14 affirmatively attack, curtail, subvert or eliminate Ventura’s water rights claims, Ventura reserves
15 the right to assert the claims alleged in the Third Cause of Action, in addition to any others,
16 against the specific party challenging Ventura’s water rights claims. This defense shall not be
17 extended to any party that has not affirmatively sought to attack, curtail, subvert or eliminate
18 Ventura’s water rights claims. As an example, should a party on the Ventura Mainstem ever
19 attack Ventura’s water rights claims, Ventura shall not assert pueblo or treaty rights claims
20 against any party in the SAC MA.

21 **J. Default Judgment**

22 As more fully explained in the Statement of Decision, this Physical Solution constitutes a
23 Default Judgment against all Defaulted Parties.

24 **K. Intervention after Entry of Physical Solution**

25 Any Person who is not a Bound Party or successor to a Bound Party and who proposes to
26 Produce Water from the Watershed, other than the federal government, is required to seek to
27 become a Party subject to this Physical Solution through a noticed motion to intervene in this
28 Physical Solution prior to commencing any Production. Thereafter, if approved by the Court,

1 such intervener shall be a Bound Party in this Physical Solution. At its election, the federal
2 government may become a Bound Party to this Physical Solution through a noticed motion to
3 intervene in this Physical Solution.

4 **L. Physical Solution Binding on Successors**

5 Subject to the specific provisions contained in this Physical Solution, this Physical
6 Solution applies to, and is binding upon, and inures to the benefit of the Bound Parties to this
7 Action and all their respective heirs, successors-in-interest, and assigns.

8 **M. Costs and Fees**

9 Except subject to any existing court orders, each Bound Party shall bear its own costs and
10 attorney's fees arising from the Action.

11 **N. Heading and Section References**

12 Headings and section references appearing in this Physical Solution are inserted solely as
13 reference aids for ease and convenience; they shall not be deemed to define or limit the scope or
14 substance of the provisions they introduce, nor shall they be used in construing the intent or effect
15 of such provisions.

16 **O. No Third Party Beneficiaries**

17 There are no intended third-party beneficiaries of any right or obligation of the Bound
18 Parties.

19 **P. Severability**

20 Except as specifically provided herein, the provisions of this Physical Solution are not
21 severable.

22 **Q. Cooperation and Further Acts**

23 The Bound Parties shall fully cooperate with one another and shall take any additional
24 acts or sign any additional documents as may be necessary, appropriate or convenient to attain the
25 purposes of this Physical Solution.

26 **R. Limited Exception for Certain Aera Energy Oil and Gas Wells**

27 This Physical Solution does not apply to Aera Energy's⁸ oil production-related wells that
28

⁸ Including successors or affiliates of Aera Energy.

1 extract waters that have been determined not to be underground sources of drinking water in
2 accordance with the Safe Drinking Water Act, or are otherwise exempted from protection
3 pursuant to 40 Code of Federal Regulations section 146.4 and the California Public Resources
4 Code section 3131, or are otherwise regulated by the California Department of Conservation,
5 Geologic Energy Division, including under a Permit to Conduct Well Operations and a Notice of
6 Intent. This limited exception does not relieve Aera Energy from compliance with other
7 applicable terms of this Physical Solution.

8 **S. Compliance with Physical Solution**

9 Each and every Bound Party, its officers, directors, agents, employees, successors, and
10 assigns is enjoined and restrained from violating the terms of this Physical Solution and shall
11 comply with all provisions of this Physical Solution, and with all final rules and decisions of the
12 Management Entities under this Physical Solution.

13 **T. Exhibits and Other Writings**

14 Any and all exhibits, documents, instruments, certificates or other writing attached hereto
15 or required or provided for by this Physical Solution, shall be part of this Physical Solution and
16 shall be considered set forth in full at each reference thereto in this Physical Solution.

17 **U. No Limitation on Constitutional, Statutory, or Regulatory Authority.**

18 This Physical Solution is not a permit, or a modification of any permit, under any federal,
19 State or local laws or regulations. The Bound Parties remain responsible for compliance with all
20 applicable federal, State, and local laws, regulations, and permits. Except as expressly provided
21 in this Physical Solution, this Physical Solution does not affect or limit the authority of any
22 Bound Party to fulfill its constitutional, statutory, regulatory, or contractual responsibilities under
23 applicable law, including, but not limited to, the exercise of statutory or regulatory authority by
24 the State Board under the Water Code, by CDFW under the Fish and Game Code (including
25 without limitation, the California Endangered Species Act and Fish and Game Code section 1600,
26 et. seq.), by the Ventura County Watershed Protection District in implementing Ordinance No.
27 WP-2, and by any public agency under SGMA or its implementing regulations; provided,
28 however, that no Bound Party shall use its authorities to violate this Physical Solution.

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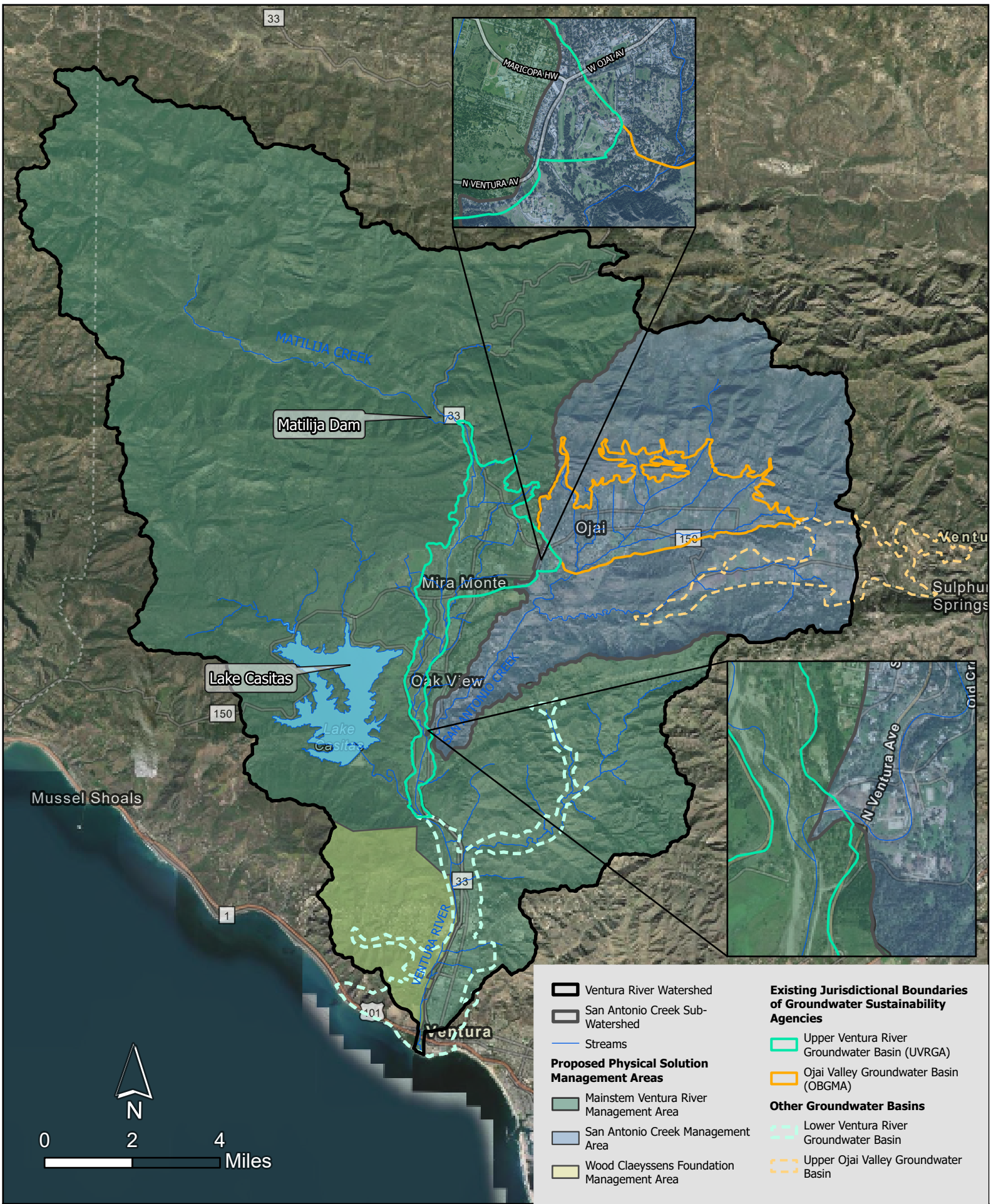
V. Resolution of Disputed Claims

The Court finds that this Physical Solution sufficiently resolves all of the current competing claims among the Bound Parties, and that it is not necessary at this time for the Court to determine the relative priority of rights to Water in the Watershed or to establish a comprehensive adjudication of water rights in the Watershed.

Dated: _____, 2026 BY: _____
JUDGE OF THE SUPERIOR COURT

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Exhibit A – Map of Watershed and Management Areas



Ventura River Watershed Proposed Management Areas

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Exhibit B – Order Establishing Watershed and Basin Boundaries

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FILED
Superior Court of California
County of Los Angeles
01/13/2022

Sherri R. Carter, Executive Officer / Clerk of Court

By: _____ A. Lim Deputy

Attorneys for Respondent and Cross-Complainant
CITY OF SAN BUENAVENTURA

SUPERIOR COURT OF THE STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

SANTA BARBARA CHANNELKEEPER, a
California non-profit corporation,

Petitioner,

v.

STATE WATER RESOURCES CONTROL
BOARD, etc., et al.,

Respondents.

Case No. 19STCP01176

Judge: Honorable William F. Highberger

~~PROPOSED~~ ORDER ESTABLISHING
WATERSHED AND BASIN BOUNDARIES

Dates: December 9, 2021 and
December 13, 2021

Times: 2:30 p.m. and 4:00 p.m.

Dept: 10

CITY OF SAN BUENAVENTURA, etc.,

Cross-Complainant

v.

DUNCAN ABBOTT, an individual, et al.

Cross-Defendants.

Action Filed: Sept. 19, 2014

Trial Date: Feb. 14, 2022

~~PROPOSED~~ ORDER

PLEASE TAKE NOTICE that on December 9, 2021 at 2:30 p.m. and on December 13, 2021 at 4:00 p.m., in Department S10 of the Los Angeles County Superior Court, this Court held Order to Show Cause hearings as to why the Court should not issue an order establishing (1) the boundaries of the Ventura River Watershed (Watershed), as defined by the U.S. Geological Survey (USGS) National Hydrography Dataset and Watershed Boundary Dataset and (2) the boundaries of the Watershed's four groundwater basins, as defined by the California's Department of Water Resources (DWR) in Bulletin 118, in advance of the Phase 1 Trial.

THIS COURT ORDERS as follows:

1. Watershed Boundaries. The boundaries of the Ventura River Watershed (Watershed) are the boundaries defined by the U.S. Geological Survey (USGS) National Hydrography Dataset and Watershed Boundary Dataset as 10-digit Hydrologic Unit Code (HUC) 1807010101 – Ventura River Watershed as of the date of this order. USGS may adjust these boundaries from time to time, and the Court may amend this order in the future to adjust the Watershed boundaries based on new or additional information, as necessary. This order is without prejudice to any party arguing that the Court needs to consider the adjacent Santa Clara River Watershed before making any final determination in Phase 1 Trial.
2. Groundwater Basin Boundaries. There are four DWR-defined groundwater basins and subbasins (basin numbers 4-1, 4-2, 4-3.01, and 4-3.02) located wholly or partially within the Watershed, and their lateral boundaries are defined by DWR's Bulletin 118 as of the date of this order and as more fully set forth below. DWR may adjust these boundaries from time to time through updates to Bulletin 118 or through the process set forth in Code of Civil Procedure section 841. This order is without prejudice to any party arguing that the Court needs to consider the adjacent Santa Clara River Watershed before making any final determination in Phase 1 Trial.

- 1 a. The boundaries of basin 4-1 the Upper Ojai Valley Groundwater Basin
2 (Upper Ojai Basin) are the boundaries defined by DWR in Bulletin 118.
3 The Bulletin 118 – Update 2020 basin boundaries description, including a
4 map, for the Upper Ojai Basin is attached hereto as Exhibit 1.
- 5 b. The boundaries of basin 4-2, the Ojai Valley Groundwater Basin (Ojai
6 Basin) are the boundaries defined by DWR in Bulletin 118. The Bulletin
7 118 – Update 2020 basin boundaries description, including a map, for the
8 Ojai Basin is attached hereto as Exhibit 2.
- 9 c. The boundaries of basin 4-3.01, the Ventura River Valley – Upper
10 Ventura River Subbasin (Upper Ventura Basin) are the boundaries
11 defined by DWR in Bulletin 118. The Bulletin 118 – Update 2020 basin
12 boundaries description, including a map, for the Upper Ventura Basin is
13 attached hereto as Exhibit 3.
- 14 d. The boundaries of basin 4-3.02, the Ventura River Valley – Lower
15 Ventura River Subbasin (Lower Ventura Basin) are the boundaries
16 defined by DWR in Bulletin 118.¹ The Bulletin 118 – Update 2020 basin
17 boundaries description, including a map, for the Lower Ventura Basin is
18 attached hereto as Exhibit 4.

19
20 IT IS SO ORDERED.
21
22
23

24 ¹ The Court is only making a determination as to the lateral boundaries of the groundwater basins as defined in
25 Bulletin 118 and is not making any specific determination as to the definition in Bulletin 118 regarding the depth or
26 definable bottom, if any, of the Lower Ventura Basin. The Court is expressly reserving issues raised by Cross-
27 Defendant Aera Energy LLC regarding the connectivity of the Lower Ventura Basin with geologic formations
28 employed for oil and gas-related operations and the “exempt aquifer” below the Lower Ventura Basin as defined by
the California Department of Conservation Geologic Energy Management Division and the U.S. Environmental
Protection Agency under the federal Safe Drinking Water Act. Such questions shall be reserved for future phases of
the trial, if not otherwise addressed by stipulation of the parties.

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Dated: 01/13/2022



W. F. Highberger

William F. Highberger, Judge
JUDGE OF THE SUPERIOR COURT

EXHIBIT 1

EXHIBIT 1

4-001 UPPER OJAI VALLEY

Basin Boundaries Description

2003

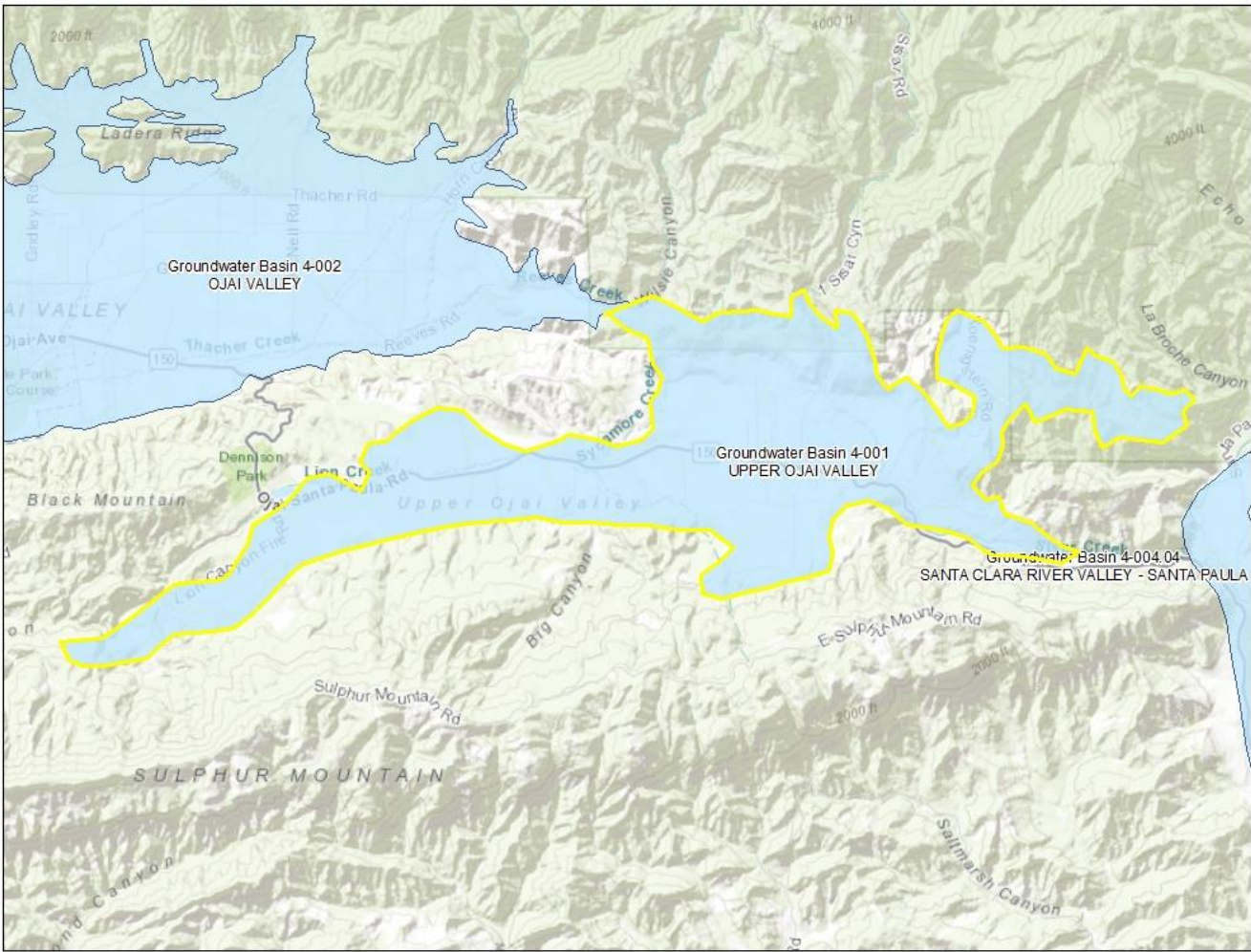
- County: Ventura
- Surface Area: 3,800 acres (5.9 square miles)

Summary

The Upper Ojai Valley Groundwater basin is bounded by the Ojai Valley Groundwater Basin on the north, the Topatopa Mountains on the east, Sulfur Mountain on the south, and near impermeable rocks of the Santa Ynez Mountains elsewhere. The valley is drained westward by Lion Canyon into San Antonio Creek and eastward by Sisar Creek to Santa Paula Creek.

Map

4-001 – OJAI VALLEY



[Map Link](#)

References

This table contains the reference listings for the citations noted in the Summary. Each reference contains the name of the reference and the publication date. For more information, email sgmps@water.ca.gov.

Citation	Pub Date

EXHIBIT 2

EXHIBIT 2

4-002 OJAI VALLEY

Basin Boundaries Description

2016

Summary

The Ojai Valley groundwater basin is located in the central-western portion of Ventura County. The basin is bound on the north by consolidated rocks of the Topatopa Mountains. The easternmost portion of the basin is separated from the adjacent Upper Ojai Valley groundwater basin by the San Cayetano fault. The basin is bound on the south by the Santa Ana fault and the consolidated rocks of Black Mountain. A surface water divide and a subsurface bedrock ridge that forms a groundwater divide separates the basin from the adjoining Upper Ventura River subbasin to the west. South of the Santa Ana fault, thin terrace deposits underlain by bedrock and lacking direct subsurface hydraulic connection with the basin are excluded from the basin. These alluvial terrace deposits have little to no significant groundwater storage capacity. The boundary is defined by 13 segments detailed in the descriptions below.

Segment Descriptions

This table describes each line segment composing the basin boundary polygon for this basin. It includes fields describing the segment label, segment type, segment description, and cited reference. For more information, email sgmps@water.ca.gov.

<u>Segment Label</u>	<u>Segment Type</u>	<u>Description</u>	<u>Ref</u>
1-2	- Alluvial	Begins from point (1) and crosses the Quaternary alluvium to point (2).	{a}
2-3	E Alluvial	Continues from point (2) and follows the contact of Quaternary alluvium with various Tertiary sedimentary rocks to point (3).	{b}
3-4	- Alluvial	Continues from point (3) and crosses Quaternary alluvium to point (4).	{a}
4-5	E Alluvial	Continues from point (4) and follows the contact of Quaternary alluvium with Tertiary Cozy Dell Shale to point (5).	{b}
5-6	- Alluvial	Continues from point (6) and follows the contact of Quaternary alluvium with various Tertiary sedimentary rocks to point (7).	{b}
6-7	E Alluvial	Continues from point (5) and crosses Quaternary alluvium to point (6).	{a}
7-8	- Fault	Continues from point (7) and follows the San Cayetano fault to point (8).	{c}
8-9	E Alluvial	Continues from point (8) and follows the contact of Quaternary alluvium with various Tertiary sedimentary rocks to point (9).	{b}
9-10	- Fault	Continues from point (9) and follows the Santa Ana fault to point (10).	{a}

10-11	E Alluvial	Continues from point (10) and follows the contact of Quaternary alluvium with Sespe Formation to point (11).	{d}
11-12	I Groundwater Divide	Continues from point (11) and follows a subsurface bedrock ridge and a surface divide to point (12).	{a}
12-1	E Alluvial	Continues from point (12) and follows the contact of Quaternary alluvium with various Tertiary sedimentary rocks and ends at point (1).	{d}
13-13	E Alluvial	Island within the basin boundary: begins from point (13) and follows the contact of the Quaternary alluvium with Coldwater Sandstone and Cozy Dell Shale and ends at point (13).	{b}

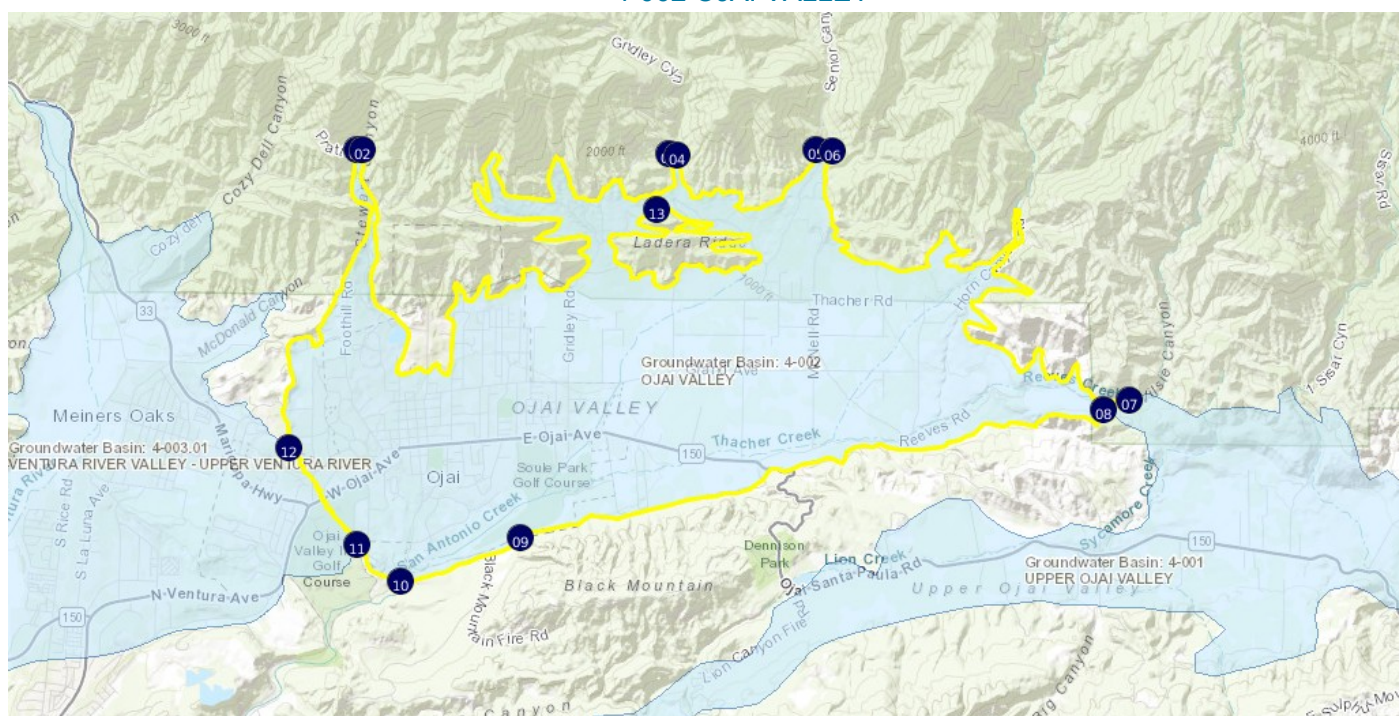
Significant Coordinates

This table contains the latitudes and longitudes of all the beginning and ending points of each segment comprising the basin boundary polygon for this basin. For more information, email sgmps@water.ca.gov.

<u>Point</u>	<u>Latitude</u>	<u>Longitude</u>	
1	34.478450793	-119.254761878	
2	34.478452261	-119.253960199	
3	34.478005123	-119.215409106	
4	34.477954846	-119.214341855	
5	34.478460727	-119.196917412	
6	34.478300258	-119.19480887	
7	34.452385212	-119.157425748	
8	34.451419976	-119.160576289	
9	34.438199307	-119.234069884	
10	34.433549061	-119.249251927	
11	34.437432018	-119.254670854	
12	34.44740611	-119.263274675	
13	34.472303032	-119.216908514	

Map

4-002 OJAI VALLEY



[Map Link](#)

References

This table contains the reference listings for the citations noted in the segment description table. Each reference contains the name of the reference, in addition to the publication date. For more information, email sgmps@water.ca.gov.

<u>Ref</u>	<u>Citation</u>	<u>Pub Date</u>	<u>Global ID</u>
{a}	BBMRS	varies	45
{b}	California Department of Conservation, California Geologic Society (CGS), Geologic Map of the Ojai 7.5' Quadrangle, Ventura County, California: A Digital Database, Version 1.0, 1:24,000, S.S. Tan, P.J. Irvine, C.I. Gutierrez. ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Ojai_prelim.pdf	2005	78
{c}	California Geological Survey (CGS), Geologic Atlas of California Map No. 008, Los Angeles Sheet, , 1:250,000, Charles W. Jennings and Rudolph G. Strand. URL: http://www.quake.ca.gov/gmaps/GAM/losangeles/losangeles.html	1969	33
{d}	California Geological Survey (CGS), Geologic Map of the Matilija Quadrangle, 1:24,000, S.S. Tan and T.A. Jones. URL: http://www.conservation.ca.gov/cgs/rghm/rgm/Pages/preliminary_geologic_maps.aspx	2006	51

Footnotes

- I: Internal
- E: External

EXHIBIT 3

EXHIBIT 3

4-003.01 VENTURA RIVER VALLEY – UPPER VENTURA RIVER

Basin Boundaries Description

2016

Summary

The Upper Ventura River groundwater subbasin is located in central-western Ventura County. The subbasin is bound on the north by impermeable rocks of the Santa Ynez Mountains. A subsurface bedrock ridge and groundwater divide separates the subbasin from the adjacent Ojai Valley groundwater basin to the east. The subbasin is bound on the southeast and the west by consolidated Tertiary sediments. The subbasin extends south in the Ventura River Valley to where it meets the Lower Ventura River subbasin at a narrow portion of the valley and at the approximate location of the Red Mountain fault. The subbasin boundary is defined by eleven (11) segments detailed in the descriptions below.

Segment Descriptions

This table describes each line segment composing the basin boundary polygon for this basin. It includes fields describing the segment label, segment type, segment description, and cited reference. For more information, email sgmps@water.ca.gov.

<u>Segment Label</u>	<u>Segment Type</u>	<u>Description</u>	<u>Ref</u>
1-2	E Alluvial	Begins at point (1) and generally follows the contact of Quaternary alluvium with various Tertiary sedimentary rocks to point (2).	{a}
2-3	I Groundwater Divide	Continues from point (2) and follows a subsurface bedrock ridge, a groundwater divide, and a surface divide to point (3).	{b}
3-4	E Alluvial	Continues from point (3) and follows the contact of Quaternary alluvium with Sespe Formation to point (4).	{a}
4-5	- Fault	Continues from point (4) and follows an unnamed fault to point (5).	{c}
5-6	E Alluvial	Continues from point (5) and follows the contact of active alluvium and colluvium with lower permeability older alluvium to point (6).	{b}
6-7	- Fault	Continues from point (6) and follows the Santa Ana Fault to point (7).	{a}
7-8	E Alluvial	Continues from point (7) and follows the contact of active alluvium with older alluvium and various Tertiary sedimentary rocks to point (8).	{d}
8-9	I Alluvial	Continues from point (8) and crosses the alluvium of the Ventura River valley at the Casitas Vista bridge to point (9).	{b}

9-10	E Alluvial	Continues from point (9) and generally follows the contact of Quaternary alluvium with various Tertiary sedimentary rocks to point (10).	{d}
10-11	E Alluvial	Continues from point (10) and crosses the older alluvium, excluding an area of thin alluvium and Sespe Formation in the west and including areas of thick alluvium in the east, to point (11).	{b}
11-1	E Alluvial	Continues from point (11) and generally follows the contact of Quaternary alluvium with various Tertiary sedimentary rocks and ends at point (1).	{d}

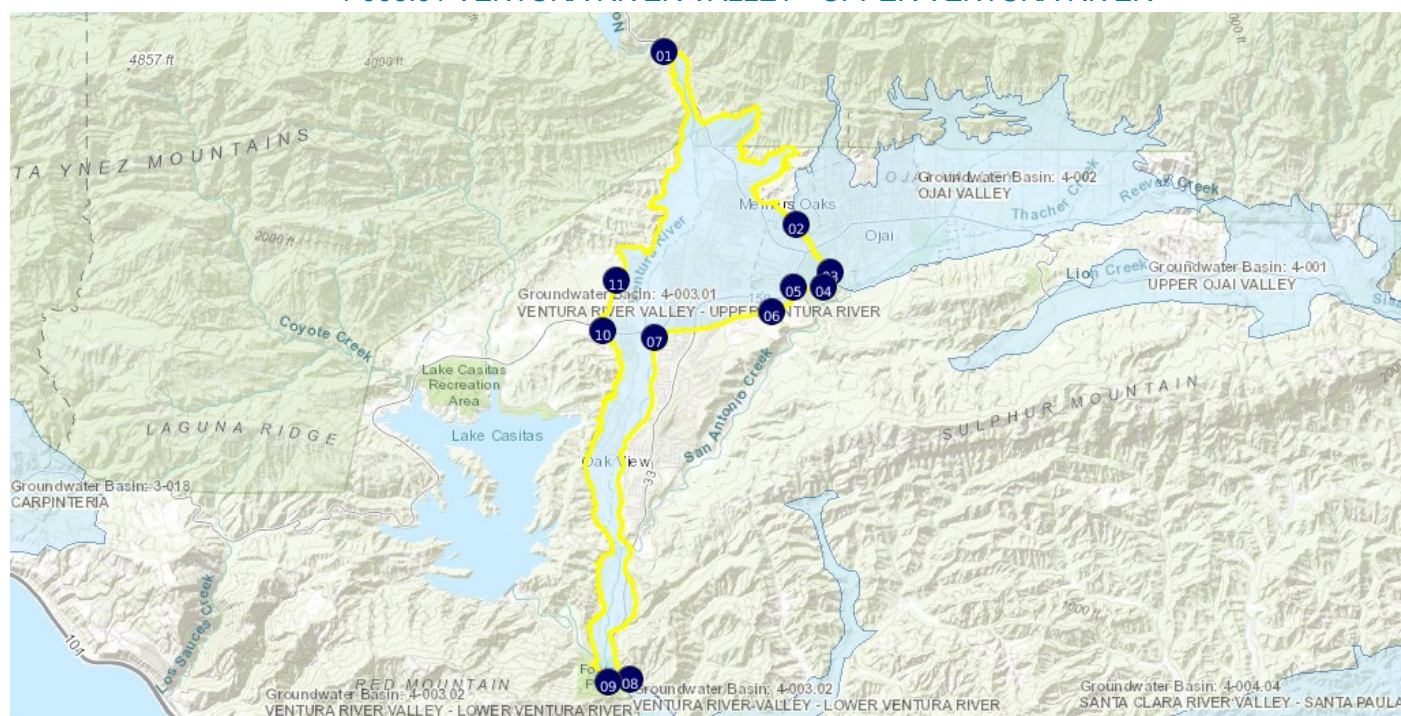
Significant Coordinates

This table contains the latitudes and longitudes of all the beginning and ending points of each segment comprising the basin boundary polygon for this basin. For more information, email sgmps@water.ca.gov.

<u>Point</u>	<u>Latitude</u>	<u>Longitude</u>	
1	34.483285737	-119.296538818	
2	34.44740611	-119.263274675	
3	34.437432018	-119.254670854	
4	34.434436555	-119.256415077	
5	34.434229067	-119.263895252	
6	34.429193615	-119.26953361	
7	34.423808356	-119.299086585	
8	34.352634947	-119.30500381	
9	34.352287913	-119.310520285	
10	34.425195196	-119.311964195	
11	34.435726436	-119.308534536	

Map

4-003.01 VENTURA RIVER VALLEY - UPPER VENTURA RIVER



[Map Link](#)

References

This table contains the reference listings for the citations noted in the segment description table. Each reference contains the name of the reference, in addition to the publication date. For more information, email sgmps@water.ca.gov.

Ref	Citation	Pub Date	Global ID
{a}	California Geological Survey (CGS), Geologic Map of the Matilija Quadrangle, 1:24,000, S.S. Tan and T.A. Jones.URL: http://www.conservation.ca.gov/cgs/rghm/rgm/Pages/preliminary_geologic_maps.aspx	2006	51
{b}	BBMRS	varies	45
{c}	Minor, S.A., and Brandt, T.R., 2015, Geologic map of the southern White Ledge Peak and Matilija quadrangles, Santa Barbara and Ventura Counties, California: U.S. Geological Survey Scientific Investigations Map 3321, 34 p., 1 sheet, 1:24,000, https://dx.doi.org/10.3133/sim3321 .	5/26/2015	96
{d}	California Geological Survey (CGS), Geologic Compilation of Quaternary Surficial Deposits in Southern California, T.L. Bedrossian, P. Roffers, C.A. Hayhurst, J.T. Lancaster, and W.R. Short.URL: http://www.conservation.ca.gov/cgs/fwgp/Pages/sr217.aspx	2012	50

Footnotes

- I: Internal
- E: External

EXHIBIT 4

EXHIBIT 4

4-003.02 VENTURA RIVER VALLEY – LOWER VENTURA RIVER

Basin Boundaries Description

2003

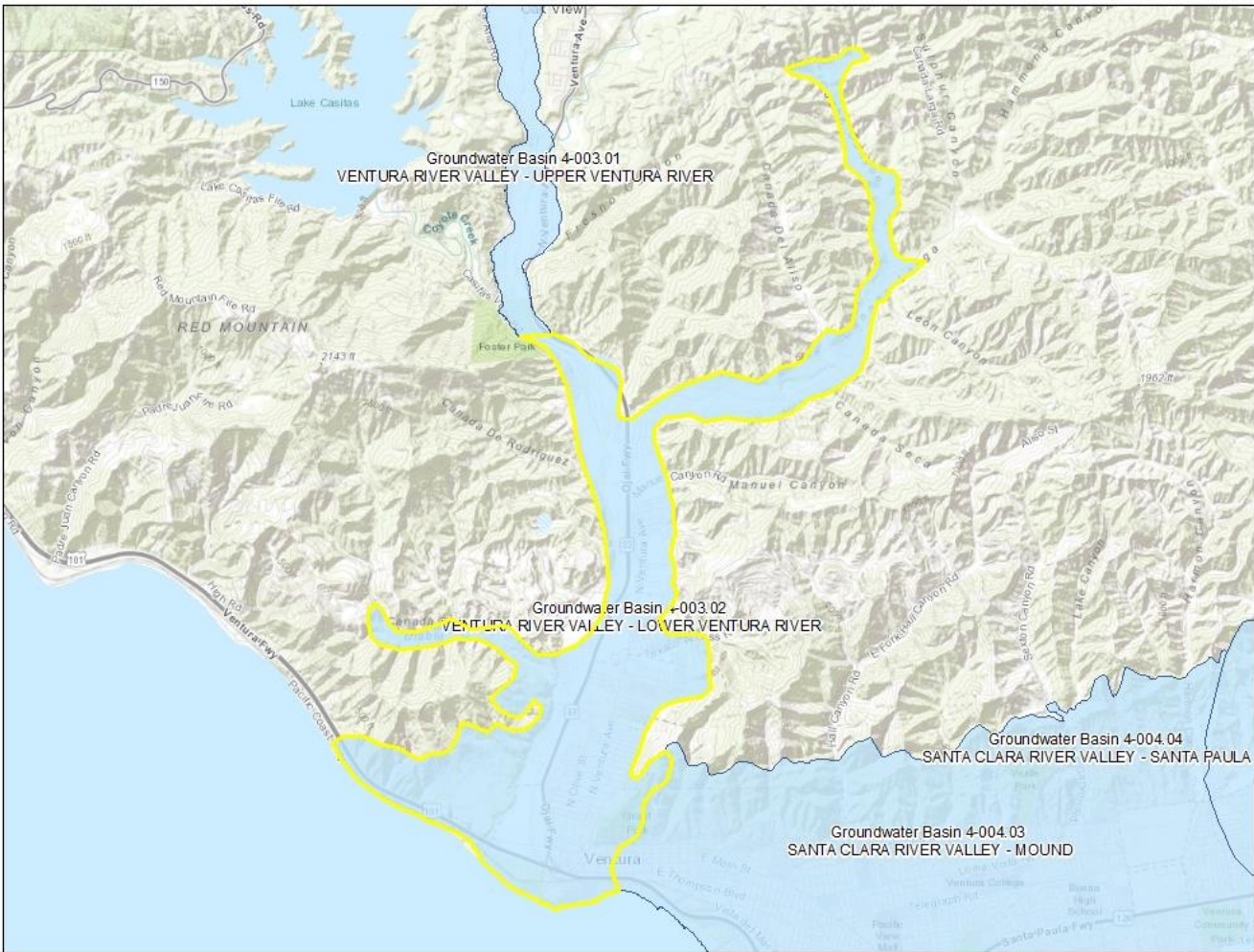
- County: Ventura
- Surface Area: 5,300 acres (8.3 square miles)

Summary

The Lower Ventura River Subbasin is bounded on the north by the Upper Ventura River Subbasin, on the south by the Pacific Ocean and Mound Subbasin of the Santa Clara River Valley Groundwater Basin, and elsewhere by near impervious rocks of the Santa Ynez Mountains (DPW 1933; Panaro 2000). The valley is drained by Canada Larga and the Ventura River.

Map

4-003.02 – VENTURA RIVER VALLEY – LOWER VENTURA RIVER



[Map Link](#)

References

This table contains the reference listings for the citations noted in the Summary. Each reference contains the name of the reference and the publication date. For more information, email sgmps@water.ca.gov.

Citation	Pub Date
California Department of Public Works, Division of Water Resources (DPW). 1933. <i>Ventura County Investigation</i> . Bulletin 46.	1933
Panaro, D. 2000. Fox Canyon Groundwater Management Agency: Written Communication to R.R. Davis (DWR), March 21, 2000.	2000

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Exhibit C—Interim Order Confirming An Exempt Cross-Defendant Class

Electronically Received 09/30/2022 02:58 PM

10/07/2022

Sherry R. Carter, Executive Officer / Clerk of Court

By: A. Lim Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

SANTA BARBARA CHANNELKEEPER, a
California non-profit corporation,

Petitioner,

v.

STATE WATER RESOURCES CONTROL
BOARD, et al,

Respondents.

CITY OF SAN BUENAVENTURA, et al.,

Cross-Complainant,

v.

DUNCAN ABBOTT, an individual, et al.,

Cross-Defendants.

Case No. 19STCP01176

Judge: Hon. William F. Highberger

~~[PROPOSED]~~ INTERIM ORDER
CONFIRMING AN EXEMPT CROSS-
DEFENDANT CLASS

Action Filed: Sept. 19, 2014

Trial Date: Not Set

[PROPOSED] ORDER

The Court, having considered the request of Defendant and Cross-Complainant the City of San Buenaventura (Ventura), and Cross-Defendants the Casitas Municipal Water District (Casitas), the City of Ojai (Ojai), and the East Ojai Group (East Ojai Group) (collectively Initial Mediating Parties or IMPs), for an interim order confirming an exempt Cross-Defendant class consisting of Cross-Defendants who currently self-identify as diverting or extracting less than five (5) acre-feet per year (AFY) of water from the Ventura River Watershed, and hearing no objections thereto, FINDS AND ORDERS AS FOLLOWS:

1. The request is GRANTED on the terms and conditions set forth in this Order. Subject to the Court's continuing jurisdiction to address changed circumstances and enforce the terms and objectives of any final judgment entered, and subject to the other terms and conditions set forth in this Order, the Court confirms the existence of an exempt Cross-Defendant class consisting of Cross-Defendants who currently self-identify as diverting or extracting less than five (5) acre-feet per year (AFY) of water from the Ventura River Watershed (Exempt Cross-Defendant Class).

2. ~~This Court has broad authority to confirm the Exempt Cross-Defendant Class pursuant to its powers under Article X, section 2 of the California Constitution. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 442; *Environmental Defense Fund v. East Bay Municipal Water Dist.* (1980) 26 Cal.3d 183, 200; Code Civ. Proc., § 849.) In accordance with the Court's authority under Article X, section 2 of the California Constitution, the Court confirms the Exempt Cross-Defendant Class because it will protect the claimed rights of the Exempt Cross-Defendant Class without impairing the claimed rights of the non-exempt parties. It will relieve the Exempt Cross-Defendant Class from future obligations in the litigation but will allow the Court to maintain continuing jurisdiction over them to address changed circumstances. In confirming the Exempt Cross-Defendant Class, the Court is not making a finding regarding the consistency of~~

1 ~~any individual water use with the requirements of Article X, section 2 of the~~
2 ~~California Constitution.~~

3 3. This Court also has specific authority to grant the request under applicable statutes
4 and Rules of Court. (See Code of Civil Procedure sections 830 *et seq.*; Water
5 Code sections 2500 *et seq.*, and California Rules of Court, Rule 3.400(a).) Code of
6 Civil Procedure section 833, subdivision (d) provides as follows: “If the court
7 finds that claims of right to extract or divert only minor quantities of water, not to
8 exceed five acre-feet of water per year, would not have a material effect on the
9 groundwater rights of other parties, the court may exempt those claimants with
10 respect to those claims of only minor quantities of water, but a person who is
11 exempted may elect to continue as a party to the comprehensive adjudication.” In
12 accordance with Code of Civil Procedure section 833, subdivision (d), the Court
13 hereby finds, based on the representation of IMPs and without objection, that
14 confirming the Exempt Cross-Defendant Class “would not have a material effect
15 on the groundwater rights of the other parties” and, therefore, the Court elects to
16 use its discretion under Section 833, subdivision (d) to exempt the claims of the
17 Exempt Cross-Defendant Class as provided in this Order, but any member of the
18 Exempt Cross-Defendant Class may nevertheless elect to participate as a party in
19 future proceedings associated with this comprehensive adjudication.

20 4. This case has been designated as complex pursuant to California Rules of Court,
21 3.400(a). Consistent with that designation and the powers of this Court associated
22 with complex cases, the Court finds that confirming the Exempt Cross-Defendant
23 Class will promote the efficient processing of this complex case by limiting the
24 number of active parties while protecting the rights of all parties, subject to the
25 continuing jurisdiction of this Court to address changed circumstances.

26 5. The Court’s confirmation of the Exempt Cross-Defendant Class is subject to the
27 following specific terms and conditions:
28

- 1 a. The Exempt Cross-Defendant Class consists of any Cross-Defendant who
2 currently self-identifies as directly diverting or extracting a total of less
3 than five (5) acre-feet per year (AFY) of water from the Ventura River
4 Watershed. At this time, Cross-Defendants are not required to file
5 evidence of self-certification with the Court, but may elect to do so if
6 desired. A Cross-Defendant who self-identifies as a member of the
7 Exempt Cross-Defendant Class may continue extraction or diversion
8 activities consistent with the criteria for class members, subject to the
9 Court's continuing jurisdiction and subject to other applicable law and
10 regulations, including, but not limited to, requirements, restrictions or
11 prohibitions of applicable public entities, including but not limited to,
12 groundwater sustainability agencies. As part of a final judgment, Cross-
13 Defendants will be required to file a certification with the Court or the
14 Court's designee confirming their qualifications for membership in the
15 Exempt Cross-Defendant Class and will have an obligation to report
16 changes in their diversions or extractions to the Court or the Court's
17 designee.
- 18 b. Persons who have been served in this case through the notice process and
19 who have not appeared will be presumptively placed in the Exempt Cross-
20 Defendant Class, subject to the Court's continuing jurisdiction and future
21 evidence regarding any extraction or diversion activities of these Cross-
22 Defendants.
- 23 c. To protect public safety, water extracted or diverted for use in active fire
24 suppression will not count toward the five AFY limit for membership in
25 the Exempt Cross-Defendant Class. As used herein, active fire suppression
26 means direct use to extinguish a fire or its embers.
- 27 d. Cross-Defendants who self-identify as being in the Exempt Cross-
28 Defendant Class are relieved of any further obligation to file papers, make

1 appearances or otherwise participate in this case until further notice from
2 the Court, but may elect to file papers, make appearances, and/or otherwise
3 participate in this case. All Cross-Defendants, including members of the
4 Exempt Cross-Defendant Class, will continue to receive notices of all
5 rulings in the action.

- 6 e. As part of this Order, and as part of any final judgment, the Court retains
7 and will retain continuing jurisdiction over members in the Exempt Cross-
8 Defendant Class to address changed circumstances and effectuate the terms
9 and obligations of any final judgment entered in this case.
- 10 f. The Exempt Cross-Defendant Class shall be incorporated into any final
11 judgment in this case, whether that judgment occurs through settlement or
12 after trial. The final judgment will contain more detail on the reporting
13 obligations of the Exempt Cross-Defendant Class consistent with the terms
14 and conditions of this interim order of the Court. The final judgment, or a
15 future interim order, will, for example, require members of the class to
16 identify themselves as members of the class, and will provide a process for
17 doing so.

18 10/07/2022

19 
20 JUDGE WILLIAM F. HIGHBERGER
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1 **Exhibit D – Monitoring Program**

2 **Exhibit D1 – Mainstem Monitoring Plan**

3
4 Monitoring is an essential, science-based, element of evaluating the performance of the
5 proposed Physical Solution and adaptive management program, enabling managers to test
6 assumptions, measure effectiveness, and refine strategies as the program is being implemented.
7 The monitoring program is designed to track progress towards achieving the implementation and
8 measurable objectives outlined in the Physical Solution and has been organized into three
9 categories: compliance, validation, and long-term trend assessment. These categories are adapted
10 from the CDFW Ecosystem Performance Measures website and can be further explained as
11 follows:

- 12 • Compliance monitoring includes administrative metrics from the Physical Solution such
13 as compliance with the schedule for implementing a particular program element (e.g., site-
14 specific passage impediment remediation project), or progress on planning or feasibility
15 studies.
- 16 • Validation monitoring includes physical monitoring of instream flows, depth, velocity,
17 water temperatures, area of enhanced habitat, jump height and pool depth for passage
18 impediments, habitat mapping to assess suitability for various lifestages of *O. mykiss*,
19 validating flow-habitat relationships per the habitat suitability indices (HIS) metrics, and
20 other elements of the program.
- 21 • Long-term trend monitoring includes evaluation of ecosystem responses to management
22 actions and/or natural drivers, including monitoring adult fish abundance, juvenile fish
23 density/migration, genetics, and species composition.

24
25 Monitoring data provides the scientific foundation for adapting and refining management
26 to changing and uncertain circumstances. Primary objectives of the Monitoring and Reporting
27 Program are:
28

1 Mainstem and tributaries will be used to characterize and assess long-term seasonal trends in
2 water temperature and instream flows. Water quality monitoring activities will be modified and
3 expanded upon, as needed, to address specific management-oriented hypotheses. For example,
4 vertical arrays (multiple loggers deployed evenly to depth) may be deployed to assess vertical
5 stratification of water temperature and dissolved oxygen concentration in selected pool habitats.

6 The purpose of the water quality and hydrologic monitoring program is to characterize
7 instream flows, temperature, and dissolved oxygen conditions necessary to assess habitat
8 suitability and the health of the Ventura River *O. mykiss* population. Monitoring includes
9 measurement of both air and water temperature, conductivity, and where relevant, dissolved
10 oxygen concentration at or near locations where either sensitive habitat exists or where habitat
11 enhancement projects associated with the Physical Solution are being planned or implemented.

12 **Task 1: Instream Flow Monitoring**

13 Instream flow monitoring is divided into two portions: a regional monitoring effort and a
14 site-specific monitoring effort. A regional monitoring effort will involve downloading data from
15 active USGS, City of Ventura, Casitas MWD, UVRGA, or other public entity gages to evaluate
16 the larger scale flows in the Watershed. Currently, there are two permanent gages on the
17 Mainstem that monitor and report average daily flows: the USGS gage at Foster Park (USGS
18 gage 11118500) and the City of Ventura's gage above Foster Park (City of Ventura gage VR-1).
19 There are four active gages on Ventura River tributaries that record daily flows and are operated
20 by the VCWPD: gage 605A on San Antonio Creek, gage 603A on Matilija Creek, gage 616 on
21 San Antonio Creek at Camp Comfort, and gage 604 on North Fork Matilija Creek. Although
22 USGS and VCWPD data is collected automatically on a 15-minute delay basis, and is available
23 online, the 15-minute and daily data are considered preliminary for extended periods of time after
24 collection. Rating curves are updated on an ongoing basis, so values are subject to change, and
25 the final approved data are typically not available for three to four months after collection.
26 Preliminary data may be used and identified as such. Once final data are acquired, they will be
27 reviewed for completeness, and the flow data will be aggregated on a monthly and annual basis.

28 In addition to the regional instream flow monitoring, a site-specific instream flow

1 monitoring program is proposed for areas where critical habitat elements are located and/or at
2 locations where Physical Solution conservation measures with flow components are proposed or
3 implemented, if existing permanent stream gages are insufficient to monitor such areas. The
4 intent of these seasonal gages is to provide detailed site-specific streamflow data during lower
5 flow seasons and to characterize flows at or near locations of implemented habitat enhancement
6 actions. The site-specific program may involve establishing a gaging station early in each post-
7 storm season, ideally one in each reach where conditions permit. These gaging stations will allow
8 for the collection of continuous water level and water temperature data, such as from a removable
9 stilling well installed in the river channel outfitted with a recording temperature and pressure
10 transducer.

11 Once installed, transect surveys will be performed perpendicular to the river to collect
12 surface-water velocity and water depth data that will be used to develop a rating curve. Using
13 this rating curve, discharge values can be calculated for any period of time that depth data was
14 recorded by the transducers. The transducers will be programmed to collect depth and
15 temperature data on an hourly basis with data downloaded monthly. Supplemental depth and
16 velocity surveys to update the rating curve would also be conducted as needed. Each season will
17 typically conclude in late fall or while dry and low flow conditions persist. At the conclusion of
18 each season, the data will be tabulated and classified and compared to the seasonal biological
19 observations.

20 Currently, seasonal stream gage deployments are conducted by UVRGA using pressure
21 transducers at five sites in the Mainstem (1) upstream and (2) downstream ends of Foster Park,
22 (3) upstream and (4) downstream ends of San Antonio Creek Confluence area, and (5) at Camino
23 Cielo Bridge. UVRGA conducts monthly transect surveys for rating curve development and gage
24 calibration. Data from these five Mainstem seasonal gages may be used for the Mainstem
25 monitoring program.

26 Instream flow (discharge) data will be synthesized for use in environmental analyses of
27 production, survival, and migration as well as validating various flow-habitat metrics such as
28 water depths suitable for juvenile rearing.

Task 2: Water Temperature Monitoring

Water temperature is a primary habitat consideration for the successful over-summering and rearing of juvenile *O. mykiss*. Water temperature in the Watershed is known to vary with season, streamflow, pool depth, shade cover, ambient air temperature, variations in solar radiation (cloudiness), and inputs by both surface water and groundwater accretions. Instrumentation for monitoring water temperature is readily available either as standalone programmable temperature recorders (e.g., Onset temperature data loggers) or as multiparameter data sondes to measure water temperature, dissolved oxygen concentration, electrical conductivity, and other water quality parameters. This instrumentation would be deployed to monitor conditions in the Mainstem and appropriate portions of the tributaries. Units will be accessed for performance checks and data downloads on a periodic basis, typically monthly or quarterly, depending on instrumentation specifics and site factors (e.g., potential for tampering). Depending on durability and logistical considerations of specific equipment, deployments may target low-flow periods when there is a lower risk of damage from high flows. All instrumentation will be tested for accuracy annually before deployment, as recommended by manufacturer specifications, and recalibrated as needed.

Water quality monitoring sites will be located at areas potentially supporting *O. mykiss* over-summering and where management actions relating to instream flow or other habitat enhancements are expected to improve conditions. Mainstem monitoring sites for water temperature will be focused on Foster Park and the San Antonio Creek confluence areas, with additional water temperature sites in the upper Mainstem (below the Matilija Creek confluence) and in North Fork Matilija Creek.

Currently, UVRGA monitors water temperature at the upstream and downstream ends of Foster Park and the San Antonio Creek confluence areas, and UVRGA has planned to implement additional targeted continuous water quality monitoring within refuge pools of the Foster Park and SAC Confluence Mainstem areas during low-flow conditions. Casitas also conducts water temperature monitoring at sites in the Mainstem and North Fork Matilija Creek. These UVRGA and/or Casitas data will be used for the Mainstem monitoring program.

Task 3: Dissolved Oxygen Concentration and pH Monitoring

Dissolved oxygen (DO) concentration is a critical measure of the suitability of surface waters for fish habitat. DO measurements are routinely made during fishery and habitat surveys to assess habitat suitability instantaneously using handheld meters (e.g., grab sampling), and continuously (e.g., with loggers or multiparameter data sondes) to evaluate long-term trends and diel variation (e.g., changes between night and day) at critical spawning/rearing and refuge habitat locations. Handheld portable multiparameter water quality monitoring units are available for use in making instantaneous water quality measurements (grab sample measurements) associated with snorkel surveys and other *O. mykiss* population and habitat monitoring efforts. Sondes continuously record multiple parameters, such as water temperature, DO, pH, turbidity, total dissolved solids/total suspended solids, and specific conductance, among others.

As described above, water quality monitoring sites will be located at areas potentially supporting *O. mykiss* over-summering and where management actions relating to instream flow or other habitat enhancements are expected to improve conditions. Mainstem monitoring sites for DO concentration and pH will be located at Foster Park and the San Antonio Creek confluence area. Currently, UVRGA monitors DO concentration and pH upstream and downstream of Foster Park and the San Antonio Creek confluence area, and UVRGA has planned to implement additional targeted continuous water quality monitoring within refuge pools of the Foster Park and SAC Confluence Mainstem areas during low-flow conditions. These UVRGA continuous water quality monitoring data may be used for the Mainstem monitoring program.

Water quality monitoring equipment will be deployed seasonally during the late spring or summer through early fall when stream flows are typically low and do not threaten loss of equipment. In shallow habitats, sondes or thermographs are deployed on the streambed. In deeper pools, vertical arrays of sondes or thermographs can be deployed to record measurements of vertical stratification between bottom, mid-column, and surface waters. Sondes and thermographs are typically programmed to record measurements hourly or more frequently, depending on the duration between data downloads and objectives of monitoring at a specific location. Units are

downloaded approximately monthly. All instrumentation will be tested for accuracy annually before deployment, as recommended by manufacturer specifications, and recalibrated as needed.

2. Biological (Fishes and Non-Native Species) Monitoring

A. Core *O. mykiss* Population Monitoring

The Ventura River *O. mykiss* monitoring program has been developed to document habitat conditions, abundance, lifestages and fish condition, and distribution of Southern California *O. mykiss* in the Ventura River Mainstem below Matilija Dam and in North Fork Matilija Creek. The primary objective of the monitoring program is to develop technical information on the *O. mykiss* population and habitat in the lower Ventura River Watershed for use in managing habitat conditions and evaluating the performance of management actions identified in the Physical Solution for the benefit of *O. mykiss*. The purposes of the monitoring program are to:

- Detect and evaluate the effects of implementing the proposed Physical Solution and document other factors that may affect the *O. mykiss* population;
- Determine the effectiveness and benefits to *O. mykiss* of the instream flows, passage impediment improvements, and other conservation actions described in the proposed Physical Solution; and
- Assess trends in the health and condition of individual *O. mykiss*, the *O. mykiss* population, and the community of fish inhabiting the Watershed.

To accomplish these objectives, a multifaceted monitoring program has been developed that includes biologically based monitoring of the status and trends in juvenile *O. mykiss* abundance, distribution, survival, and adult abundance. The monitoring protocols follow those identified and described in several California Department of Fish and Wildlife (CDFW) documents, including *California Salmonid Stream Habitat Restoration Manual* (Flosi et al. 2002; 2010 updated Fourth Edition), and as later reflected in CDFW California *Fish Bulletin 180*, *California Coastal Salmonid Population Monitoring: Strategy, Design and Methods* (Adams et al. 2011) which has recently been updated by Boughton et al. (2022: Fish. Bulletin 182). The monitoring plan also includes consideration of factors that affect *O. mykiss* production and

1 survival, including monitoring changes in habitat conditions, instream flow, water quality (with
2 the primary focus on water temperature as a limiting factor), and lagoon and estuary breaching,
3 which affects both juvenile and adult *O. mykiss* migration opportunities.

4 Task 4: Snorkel Surveys

5 Snorkel surveys were selected as the preferred monitoring method to eliminate incidental
6 take of juvenile *O. mykiss*. Snorkel surveys will be used to:

- 7 • Characterize the size and geographic distribution of juvenile and adult *O. mykiss*;
- 8 • Develop estimates of juvenile production (number of juveniles per spawning adult),
9 density (number of juveniles per 100 square meters [m²]) for each reach surveyed, and an
10 index of *O. mykiss* abundance for each study reach;
- 11 • Annually monitor the geographic distribution, health and condition, and size classes of *O.*
12 *mykiss* in North Fork Matilija Creek and the Mainstem;
- 13 • Assess changes in juvenile abundance and distribution between the spring and fall (a
14 rough estimate of reproductive success and over-summering survival) and changes in size
15 distribution (a rough estimate of juvenile growth); and
- 16 • Annually monitor the species compositions, abundance, geographic distribution, and size
17 classes of native and non-native fish observed in the snorkel surveys in the tributaries and
18 the Ventura River Mainstem .

19 Snorkeling (direct observation) is an effective monitoring method when depths are
20 sufficient for divers to efficiently navigate through the entire sampling unit (e.g., pools and most
21 flatwater habitat). Snorkel surveys generally progress from downstream study sites to upstream
22 sites with the majority of surveys occurring during the low-flow period in spring and again in the
23 fall. The species composition, abundance, geographic distribution, and size classes (e.g., 0-3, 3-6,
24 6-9 inches, etc.) of *O. mykiss* and all other fish species (e.g., bass, catfish, carp, etc.) observed will
25 be recorded during snorkel surveys.

26 Surveys will be conducted in designated survey reaches where access is permitted and will
27 include pool, riffle, and run habitats. Snorkel surveys will primarily be conducted during the
28 spring to assess over-wintering success and fall to assess over-summering success. Survey

1 reaches will be selected based on habitat conditions and functions (e.g., spawning, juvenile
2 rearing), locations where management actions are being implemented or habitat enhancement
3 measures are being developed (baseline surveys) and after construction, and control reaches for
4 comparison to reaches where habitat enhancement measures have been implemented. Survey
5 locations and frequency will initially be based on results of prior snorkel surveys by Allen (2015),
6 UVRGA and Casitas.

7 Currently, UVRGA conducts routine snorkel surveys in the Mainstem at Foster Park and
8 the SAC confluence areas. Originally, snorkel surveys were planned to occur at least four times
9 per year (once during winter and at least three times during summer/fall); however, to better aim
10 limited resources at evaluating low-flow conditions, the seasonal timing of snorkel surveys has
11 been revised to occur once in the winter, and then again after flows receded below 12.7 cfs,
12 between 5.0 to 7.0 cfs, and between 3.0 to 5.0 cfs. Casitas also conducts snorkel surveys at *O.*
13 *mykiss* presence/absence index sites in the Mainstem and North Fork Matilija Creek. These
14 UVRGA and/or Casitas snorkel survey data may be used for the Mainstem monitoring program.
15 Existing snorkel survey efforts may be supplemented by additional sites for wider spatial
16 coverage in the Mainstem and North Fork Matilija Creek, and/or by additional surveys to address
17 both spring and fall seasons, if needed.

18 Additional snorkel surveys may be performed prior to, and after, completion of fish
19 passage and habitat enhancement projects to provide data for evaluation of site-specific habitat
20 enhancement project performance.

21 Task 5: Adult Migration Monitoring

22 Adult steelhead monitoring will be conducted using the existing Vaki RiverWatcher
23 employed by Casitas Municipal Water District located in the Robles Diversion fish ladder. Adult
24 monitoring will follow the same methods and protocols as currently used by Casitas Municipal
25 Water District.

26 Task 6: Redd Surveys

27 *O. mykiss* redd surveys will be conducted to document the presence, numbers, timing and
28 geographic location of *O. mykiss* spawning sites. Redd surveys will be conducted with a focus on

1 identifying spawning nests (redds), particularly in suitable portions of the Mainstem and in
2 tributaries like North Matilla Creek, following winter rains. Biologists use snorkeling, walking
3 surveys, and drone photography during the winter/early spring spawning season to locate and
4 count redds and assess fish passage. The redd surveys will be done on an opportunistic schedule
5 when instream flows and turbidity allow safe and effective surveys. When water clarity is
6 suitable for visual observations, redd surveys will focus on areas with suitable gravel and tail-outs
7 of pools. Sites where adult steelhead/rainbow trout spawning activity (e.g., adult fish showing
8 mating behavior, redd construction as indicated by removal of algae and substrate disturbance)
9 will be identified, then flagged and a GPS location recorded so that the site can be documented
10 and revisited with a snorkel survey later in the season. Data recorded during each redd survey will
11 include: survey date, stream reach, redd location, redd length, redd width, water depth, substrate
12 size and composition, associated cover and habitat conditions, fish observations, water quality,
13 and photographs of the site.

14 Casitas conducts redd surveys in the Mainstem and North Fork Matilija Creek at spawning
15 index sites, specifically at representative locations where suitable spawning gravels have been
16 observed. Surveys are conducted biweekly from January through June. These Casitas redd survey
17 data may be used by the Mainstem monitoring program. Additional spawning survey sites may be
18 implemented to supplement Casitas' spawning index survey sites in the Mainstem and North Fork
19 Matilija Creek.

20 **3. Physical Habitat Monitoring**

22 **Task 7: Wet-Dry Mapping**

23 Mapping of the presence and continuity of surface water (i.e., "wet-dry mapping")
24 through the Mainstem of the Ventura River will be performed at least monthly between May–
25 October, or seasonally longer when during low-flow flow conditions persist. Casitas and UVRGA
26 regularly conduct wet-dry mapping (also called "visual stream monitoring") of the Ventura River
27 Mainstem approximately monthly during low-flow conditions to track progression of intermittent
28 conditions. Reported results from Casitas and/or UVRGA will be incorporated into the Mainstem

1 monitoring program.

2 **Task 8: Habitat Monitoring and Mapping for Inventory Surveys**

3 Habitat monitoring and mapping for inventory surveys will be conducted in order to:

- 4 • Periodically (e.g., 5-year interval or following channel altering bank full flood flows)
- 5 conduct habitat inventories within study sub-reaches of North Fork Matilija Creek and the
- 6 Mainstem river to characterize changes in river and tributary conditions; and
- 7 • Synthesize data on daily flows and hourly water temperatures (collected as part of the
- 8 water quality and hydrologic monitoring program) within North Fork Matilija Creek and
- 9 the Mainstem for use in environmental analyses of wild *O. mykiss* production, survival,
- 10 and migration.

11 Habitat suitability of a stream reach for various life stages of *O. mykiss* is determined, in

12 part, by the distribution, abundance, and quality of mesohabitats (i.e., pool, riffle, and run), and

13 how these are utilized by the various age classes of *O. mykiss*.

14 Quantitative habitat inventories (i.e. “habitat mapping” as commonly used in fisheries

15 studies) will be conducted periodically in study sub-reaches of the Mainstem and North Fork

16 Matilija Creek after substantial channel-altering flow events (bank full flood flows), or at

17 approximately 5-year intervals. Habitat conditions and suitability for *O. mykiss* will be

18 documented so that changes over time may be monitored. CDFW habitat inventory methodology

19 will be followed per CDFW’s 2010 Stream Habitat Restoration Manual, Section III.

20 CDFW has determined that subsampling 10 percent of the length of a stream reach is

21 sufficient to accurately describe stream habitat. The Mainstem from the mouth of Matilija

22 Creek/North Fork Matilija Creek confluence and North Fork Matilija Creek will be initially

23 habitat typed using Level 2 data collection following CDFW methods (e.g., riffle, pool, and

24 flatwater categories). Selected Mainstem and tributary stream sections will be subsampled

25 following CDFW methods for data collection at Level 4, which classifies habitat units into 24

26 specific habitat types within the riffle, flatwater, and pool categories. Subsampling for Level 4

27 data collection will focus on Mainstem reaches expected to benefit from flow-related

28 management actions (e.g., Foster Park and San Antonio Creek confluence), any other specific

1 habitat enhancement project sites, and additional sites necessary to reach 10 percent of the stream
2 reach. Subsequent repeat surveys will be conducted after channel-altering flood events or at least
3 once every 5 years at Level 2 data collection of the entire Mainstem and North Fork Matilija
4 Creek, and at Level 4 data collection at the subsampled sites.

5 UVRGA completed initial habitat mapping (following CDFW habitat inventory methods)
6 within Foster Park and SAC confluence Mainstem areas and conducts subsequent habitat
7 mapping following channel-altering events. The initial mapping was completed in Fall 2022, and
8 then re-surveyed in summer 2023 following the January flood event that year. UVRGA's habitat
9 mapping data could be used for portions of the Mainstem monitoring program, supplemented by
10 additional portions of the Mainstem and North Fork Matilija Creek in the initial habitat mapping
11 effort.

12 **Task 9: Habitat Quality - Photo Points**

13 Photo points will be established at habitat enhancement sites and where passage barriers
14 and impediments have been remediated in addition to control sites. In addition to photos taken
15 during habitat surveys and to document habitat enhancement projects, general reference photos
16 will be taken annually from specific locations throughout the Watershed to document visible
17 habitat changes over time. This effort will occur annually in the fall prior to the adult migration
18 and spawning period. Photos may be taken within and from outside of stream channels,
19 depending on the photo point location and the subject of interest (e.g., stream channel or reach,
20 passage impediment/project, developing riparian corridor).

21 UVRGA implements "repeat ground photography" and Casitas implements "photographic
22 monitoring sites" as part of their ongoing monitoring programs, with at least biannual photo point
23 collections. Existing photo point data collection by UVRGA and Casitas in the Mainstem and
24 North Fork Matilija Creek may be used for the Mainstem monitoring program, and these data
25 may be supplemented by additional monitoring locations.

26
27 Additionally, UVRGA, OVLC, and other public entities conduct regular (e.g., quarterly
28 and annual) drone-based high resolution aerial imagery collection of portions of the Mainstem.

1 These datasets may be used by the Mainstem monitoring program to inform changes in habitat,
2 such as following large-scale disturbances (e.g., flood and drought).

3 **Task 10: Lagoon and Estuary Breaching**

4 Monitoring of the lagoon and estuary sand bar status will be used to determine migratory
5 access between the river and ocean. Monitoring of lagoon and estuary passage conditions and
6 breaching of the sand bar includes periodic biweekly visual observations from November 1
7 through June 30 each year following the methods currently used by Casitas Municipal Water
8 District to determine dates of sandbar breach and lagoon and estuary closure.

9 In addition to periodic visual observations a self-contained water depth recorder may be
10 located in the lagoon to provide a continuous record of when the sand bar is breached and when it
11 re-closes, if determined to be feasible and not at high risk of tampering or loss due to high stream
12 flows. Based on the date of berm breaching, data on the tide levels and wave and swell height and
13 period for the preceding 24 hours can be obtained from National Oceanic and Atmospheric
14 Administration marine weather data. Estuary inflow from the USGS streamflow gage
15 downstream of Foster Park data and water surface elevation measurements will be used in
16 conjunction with ocean condition data to develop a better understanding of estuary-ocean
17 connectivity dynamics.

18 **Task 11: Performance Assessment Monitoring for Habitat Enhancement Actions**

19 Performance monitoring will be conducted in North Fork Matilija Creek and the Ventura
20 River Mainstem wherever habitat enhancement features are installed. In general, monitoring will
21 be conducted using snorkel surveys for fish distribution, species composition, relative abundance,
22 size distribution, and observations of fish condition. The fish surveys will be complemented by
23 periodic habitat mapping, visual surveys, photo-documentation, and GPS methods for evaluating
24 habitat enhancement actions, such as gravel augmentation, all of which will be assessed through
25 adaptive management techniques. Performance assessments will also include habitat suitability
26 metrics such as water depth, velocity, substrate, cover, passage criteria at impediments, and water
27 quality. Comparisons will be made of the *O. mykiss* densities within an enhanced habitat area and
28

adjacent areas where enhancement has not been made to assess habitat utilization.

4. Reporting

Task 12: Annual Reporting

Annual monitoring reports will present a tabular and graphic summary of monitoring results of each year's activities. The annual report format will be standardized. The aquatic monitoring report would serve as input, and may be included as an attachment, to the annual Management Entity report on overall program performance.

Exhibit D2 — San Antonio Creek Monitoring Plan

The Physical Solution includes management actions that will enhance the quality and quantity of suitable habitat for Steelhead migration, spawning and egg incubation, and juvenile rearing within the San Antonio Creek Sub-Watershed including this Monitoring and Reporting Program (**SAC Monitoring Plan**). Information developed through the San Antonio Creek Monitoring Plan serves as a fundamental element in the evaluation, implementation and success of the Physical Solution. The general metrics, monitoring methods, and reporting included in the Monitoring Plan follow, when applicable to the San Antonio Creek Sub-Watershed, guidance from:

- California Coastal Monitoring Plan (CMP; Adams et al. 2011) for salmon and Steelhead developed by CDFW and NMFS (available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=30284&inline>)
- Integration of Steelhead Viability Monitoring, Recovery Plans and Fisheries Management in the Southern Coastal Area (Boughton et al. 2022: available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=199225&inline>)
- Allen 2015. Steelhead Population and Habitat Assessment in the Ventura River / Matilija Creek Basin 2006-2012 FINAL REPORT (available at: [\[TITLE\]](#) (matilijadam.org))
- Many other similar habitat restoration and enhancement efforts to benefit *O. mykiss* in California and the Pacific Northwest.

Baseline information on existing habitat conditions and their function for different lifestages of *O. mykiss* within San Antonio Creek, species composition and geographic distribution of native fish, and limiting factors affecting habitat quality, availability, and access, as well as variation in species abundance, is a critical foundational element of this Physical Solution. Baseline information is available from prior habitat and fish surveys such as those by Allen (2015) and Casitas MWD (2008-present). The baseline habitat surveys proposed as part of this Monitoring Plan are based on a census survey design focused on those stream reaches accessible by Steelhead. This SAC Monitoring Plan is based on methods and results of prior surveys that have proven to be successful in San Antonio Creek. Consideration in developing this

1 SAC Monitoring Plan was also given to the monitoring methods proposed by CDFW and NMFS
2 by Adams et al. (2011) and Boughton et al. (2022), where feasible and applicable to the San
3 Antonio Creek conditions, for steelhead populations. The SAC Monitoring Plan will be
4 responsive to management actions implemented under the Physical Solution, as well as
5 environmental conditions like seasonal hydrologic conditions, changes in land use, and floods or
6 droughts, that can impact habitat conditions and fish populations on a regional scale. The SAC
7 Monitoring Plan design and data will be periodically reviewed and may be refined, if appropriate,
8 as new reliable and relevant information becomes available.

9 The Physical Solution includes a multi-element Monitoring Plan that will be conducted
10 each year. The SAC Monitoring Plan includes three basic categories, similar to the 3-stage
11 monitoring program identified by Boughton et al. (2022), that are (1) compliance monitoring, (2)
12 validation monitoring, and (3) long-term trend monitoring. These monitoring categories are
13 adapted from the CDFW Ecosystem Performance Measures website and can be further explained
14 as follows:

- 15 • Compliance monitoring includes administrative metrics from the Physical Solution
16 such as compliance with the schedule for implementing a particular program element
17 (e.g., a site-specific habitat improvement project, preparation of the annual technical
18 documentation reports, etc.), budget expenditures, progress on planning or feasibility
19 studies, and other similar administrative elements.
- 20 • Validation monitoring includes physical monitoring such as instream flows, water
21 depth and velocity, water temperatures, area of enhanced habitat, jump height and pool
22 depth for potential passage impediments, habitat mapping to assess suitability for various
23 lifestages of *O. mykiss*, and validating flow-habitat relationships.
- 24 • Long-term trend monitoring includes evaluation of ecosystem responses to
25 management actions and/or natural drivers, including monitoring adult *O. mykiss*
26 abundance, juvenile fish density and geographic distribution, and species composition
27 (e.g., fish community characteristics, fish species composition, relative abundance, size
28 distribution, and condition). This monitoring will provide trend data over an extended

1 period of time. It should be noted that depending on the numbers of juvenile and adult *O.*
2 *mykiss* detected each year, uncertainties exist for detecting and evaluating these metrics.
3 As a result of the large natural population cycles and difficulties in determining causal
4 mechanisms, population metrics will not be used as the only basis to determine overall
5 performance of the Physical Solution.

6
7 Developing, permitting, implementing, and reporting on the Monitoring Plan activities
8 will be the responsibility of the Management Entity.

9 The SAC Monitoring Plan will build on existing experience and monitoring infrastructure
10 (such as the USGS hydrologic monitoring network and standard methods), water quality
11 monitoring (e.g., water temperature monitoring network), habitat monitoring (e.g., habitat
12 surveys), and fish monitoring (e.g., snorkel surveys) implemented by Casitas MWD, CDFW,
13 GSAs, and others (Allen 2015) over the past two decades.

14 The SAC Monitoring Plan includes a variety of collection and analysis methods such as
15 habitat surveys, streamflow measurements, and *O. mykiss* snorkel surveys. The proposed SAC
16 Monitoring Plan also includes, but is not limited to, water temperature monitoring and direct
17 observations of fish health and condition. The SAC Monitoring Plan also includes status and
18 trends monitoring of the *O. mykiss* population, periodic habitat surveys, and the biological
19 response or expected habitat function (e.g., habitat use by target species, physical habitat
20 suitability, etc.) for *O. mykiss*. Observations of adult passage and juvenile rearing provide insight
21 into habitat function.

22 **F.1 Water Quality and Hydrology Monitoring**

23 The purpose of the water quality and hydrology elements of the SAC Monitoring Plan is
24 to assess habitat suitability for steelhead/rainbow trout population in San Antonio
25 Creek. Monitoring includes measurement of both air and water temperature, conductivity, and,
26 where relevant, dissolved oxygen at representative locations of key habitat or where habitat
27 enhancement projects associated with the Physical Solution are being implemented.

1 **1. Water Temperature**

2 Water temperature is a primary habitat consideration for the successful over-summering
3 and rearing of *O. mykiss*. Water temperatures in the Watershed naturally vary with season,
4 streamflow, pool depth, shade cover, ambient air temperature, variations in solar radiation
5 (cloudiness and fog), and inputs by both surface water and groundwater. Instrumentation for
6 monitoring water temperatures is readily available, either as standalone programmable
7 temperature recorders (e.g., Onset temperature data loggers or similar temperature monitoring
8 units) or as multiparameter data sondes to measure water temperature, electrical conductivity, and
9 other water quality parameters. This instrumentation would be deployed to monitor conditions in
10 representative portions of San Antonio Creek.

11 **2. Dissolved Oxygen**

12 Dissolved oxygen (DO) is a critical measure of habitat suitability for *O. mykiss*. Dissolved
13 oxygen measurements will be made during biological and habitat surveys to assess habitat
14 suitability. DO data may also be acquired to assess diel variation between night and day at
15 critical rearing and refuge habitat locations over periods of time long enough to characterize the
16 habitat. All instrumentation will be tested for accuracy and calibrated as recommended by
17 manufacturer specifications.

18 **3. Flow Monitoring**

19 The instream flow monitoring for San Antonio Creek will be divided into two portions. A
20 regional monitoring effort will involve downloading data from active VCWPD or other gages to
21 evaluate flows in the Watershed. Currently, there are two active gages on San Antonio Creek that
22 record daily flows and are operated by the VCWPD: gage 605A located just upstream of the
23 confluence with the Ventura River and gage 616 located at Camp Comfort. Although VCWPD
24 data are collected automatically on a 15-minute delay basis and available from the VCWPD
25 website, the instantaneous and daily data are considered preliminary for extended periods of time
26 after collection. Rating curves are updated on an ongoing basis, so values are subject to change
27 and the final approved data are typically not available for three to four months after collection.
28 Once final data are acquired, they will be reviewed for completeness, and the flow data will be

1 aggregated on a monthly and annual basis.

2 In addition to the regional instream flow monitoring, a site-specific instream flow
3 Monitoring Plan is proposed for areas where critical habitat elements are located and/or at
4 locations where Physical Solution conservation measures are proposed or implemented. The
5 intent of these gages is to provide detailed site-specific streamflow data during lower flow
6 seasons, and to characterize flows at or near locations of implemented habitat enhancement
7 actions. The site-specific streamflow monitoring will involve establishing temporary gaging
8 stations early in each post-storm season. These gaging stations, or similar instrumentation, will
9 allow for the collection of water level data from a removable stilling well, installed in the river
10 channel, outfitted with a recording pressure transducer.

11 Once the supplemental streamflow measurement locations are identified and installed,
12 periodic transect surveys will be performed following standard protocols, oriented perpendicular
13 to the river to collect surface-water velocity and water depth data that will be used to develop a
14 site-specific stage-discharge rating curve for each of the flow monitoring locations. Using the
15 rating curves, discharge values can be calculated for any period of time that depth data was
16 recorded by the transducers. The transducers will be programmed to collect depth data on an
17 hourly or more frequent basis with data downloaded monthly or quarterly during the lower-flow
18 spring, summer, and fall months. Supplemental depth and velocity surveys to update the rating
19 curve would also be conducted on a periodic basis, as needed. Supplemental instream flow
20 measurement equipment will be removed from San Antonio Creek prior to the high-flow winter
21 period. Instream flow data collected each year will be analyzed, summarized, and compared to
22 the biological observations for each annual technical documentation report.

23 **F.2 Fish and Habitat Monitoring**

24 This SAC Monitoring Plan has been developed to document habitat conditions,
25 abundance, life history stages, fish condition, and distribution of *O. mykiss* and other fish in San
26 Antonio Creek. The monitoring efforts will be used to develop technical information on the *O.*
27 *mykiss* population and habitat in San Antonio Creek for use in managing habitat conditions and
28 evaluating the performance of management actions for the benefit of *O. mykiss*. The SAC

Monitoring Plan objectives include:

- Detect and evaluate the effects of implementing the Physical Solution and document other factors that may affect the *O. mykiss* population.
- Determine the effectiveness and benefits to *O. mykiss* (of or from) the restoration/enhancement actions described in the Physical Solution.
- Refine and develop monitoring efforts and management actions based on the best available scientific data.

To accomplish these objectives, this multifaceted SAC Monitoring Plan includes biologically based monitoring of status and trends for *O. mykiss* life history stage abundance and distribution. The monitoring protocols follow, where applicable and feasible, those identified and described in several CDFW documents, including *California Salmonid Stream Habitat Restoration Manual* (Flosi et al. 2002; 2010 updated Fourth Edition), and as later reflected in CDFW *California Fish Bulletin 180, California Coastal Salmonid Population Monitoring: Strategy, Design and Methods* (Adams et al. 2011) which has recently been updated by Boughton et al. (2022: Fish. Bulletin 1821). The fish monitoring activities also include consideration of factors that affect and limit *O. mykiss* production and survival, including monitoring changes in habitat conditions, instream flow, water quality, and lagoon and estuary breaching, which affects both smolt and steelhead migration opportunities. As discussed below, fish monitoring includes juvenile *O. mykiss* snorkel surveys, adult *O. mykiss* monitoring, *O. mykiss* population genetic evaluation, and periodic assessment of the quality and availability of habitat suitable for migration by adult and juvenile *O. mykiss*, spawning and egg incubation, and juvenile rearing.

1. *O. mykiss* Monitoring

Snorkel surveys were selected as the preferred monitoring method to eliminate incidental take of *O. mykiss* during the early phases of Physical Solution implementation. As the Physical Solution improves habitat conditions, and the *O. mykiss* population becomes more robust, refinements or additions to the SAC Monitoring Plan, such as the addition of electrofishing as recommended by Boughton et al. (2022), may be considered. Snorkel and redd surveys will be used to:

- 1 • Characterize the abundance, life history stages, geographic distribution of *O.*
2 *mykiss* population in San Antonio Creek.
- 3 • Develop estimates of production (e.g., number of juveniles per spawning adult),
4 density (e.g., number of juveniles per 100 square meters [m²]) for each reach surveyed,
5 and an index of *O. mykiss* abundance for each study reach.
- 6 • Annually monitor the species compositions, abundance, geographic distribution,
7 and size classes of native and non-native fish observed in the snorkel surveys in San
8 Antonio Creek.

9 Snorkeling (i.e., direct observation) is an effective monitoring method when depths are
10 sufficient to observe enough of a sample habitat unit (e.g., pool, glide, and riffle habitat) that
11 statistical estimates can be calculated. For application to the Physical Solution at this time,
12 sampling of *O. mykiss* by direct observation is the preferred methodology. Sampling will
13 generally progress from downstream study sites to upstream sites with the majority of surveys
14 occurring during the critical low-flow periods, and supplemental sampling as needed to
15 characterize the *O. mykiss* population in relation to the Physical Solution.

16 Snorkel surveys will be conducted in reaches of San Antonio Creek that are legally
17 accessible and have a reasonable potential to support, or recently quantified, rearing of *O. mykiss*
18 Survey reaches will be selected based on habitat conditions and functions (e.g., spawning and
19 rearing), locations where habitat enhancement measures are being developed (baseline surveys
20 for pre/post evaluations), and control reaches for comparison to reaches where habitat
21 enhancement measures have been implemented. Survey locations and frequency will initially be
22 based on results of prior snorkel surveys by Allen (2015) and Casitas MWD (2008 to present).

23 The species composition, abundance, geographic distribution, and life history stage
24 categories of *O. mykiss* and all other fish species (e.g., bass, chub, carp, stickleback, etc.)
25 observed will be recorded during snorkel surveys. Surveys will be conducted in designated survey
26 reaches where access is permitted and will include representative habitat units identified during
27 baseline surveys (e.g., pool, riffle, and glide habitats). Additional snorkel surveys may be
28 performed prior to, and after, completion of habitat enhancement projects to provide data for

evaluating site-specific habitat enhancement project performance.

- ***O. mykiss* Population Genetic Evaluation**

As part of the baseline evaluations, a comprehensive *O. mykiss* genetic evaluation will be performed that includes basin-wide population genetic structure, adaptive genetic analysis, and riverscape genetic analysis. These components will be used to inform current and future actions with respect to the resident and anadromous life history strategies of *O. mykiss*.

- **Habitat Monitoring**

Periodic habitat monitoring will be conducted as part of implementing and evaluating the Physical Solution in order to:

- Periodically (e.g., 5-year interval) conduct habitat surveys within San Antonio Creek to characterize significant changes; and
- Quantify the enhancement (e.g., change in suitable area) in habitat quality, spawning and rearing habitat before and after site-specific habitat enhancement projects are completed. Measurements of water depths, velocities, substrate characteristics, availability of instream and over-head cover, and other habitat attributes will be made before and after site-specific projects have been implemented as part of the Physical Solution. Snorkel surveys will also be used to document habitat usage before and after habitat enhancement actions have been completed and to compare relative densities and species composition between enhancement sites and control sites where habitat enhancement actions have not been implemented.

Habitat suitability of a stream reach for various lifestages of *O. mykiss* can be determined, in part, by the distribution, abundance, and quality of mesohabitats (e.g., pool, riffle, and glide), and how these are utilized by the various lifestages of *O. mykiss*. Quantitative habitat surveys will be conducted periodically in San Antonio creek, after substantial channel-altering flow events, or at approximately 5-year intervals. Habitat conditions and suitability for *O. mykiss* will be documented so that changes over time may be monitored. The standard CDFW habitat inventory methodology will be followed per CDFW's 2010 Stream Habitat Restoration Manual, Section III.

Information on habitat conditions and functions for *O. mykiss* collected following implementation of Physical Solution actions, in addition to baseline habitat surveys of currently existing habitat conditions conducted as part of this Monitoring Plan, will be used to select representative reaches for subsequent water quality, habitat, and fish distribution and abundance monitoring. Data will be collected at Level 4, which classifies habitat units into 24 specific habitat types within the riffle, flatwater, and pool categories.

- **Photo Points**

Photo points will be established at habitat enhancement sites and control sites. In addition to photos taken during habitat surveys and to document habitat enhancement projects, general reference photos will be taken annually from specific locations in San Antonio Creek to document visible habitat changes over time. This effort would occur at least annually depending on specific project objectives. Photos may be taken within or outside of stream channels, depending on the photo point location and the subject of interest (e.g., stream channel or reach, developing riparian corridor).

- **Lagoon and Estuary Breaching**

Monitoring lagoon and estuary sandbar status may be used to determine migratory access between the river and ocean. Monitoring lagoon and estuary passage conditions and breaching of the sandbar would include periodic visual observations from November 1 through June 30 each year following the methods currently used by Casitas MWD to determine dates of sandbar breach and lagoon and estuary closure.

F.3 Performance Assessment Monitoring for Habitat Enhancement Features

Site-specific performance monitoring will be conducted in San Antonio Creek wherever habitat enhancement features are installed. In general, monitoring will be conducted using snorkel surveys for fish micro-habitat distribution, species composition, relative abundance, size distribution, and observations of fish condition. The fish surveys will be complemented by periodic habitat surveys, visual surveys, and photo-documentation, for restoration/enhancement feature installations. Performance assessments will also include habitat suitability metrics such as water depth, velocity, substrate, cover, and water quality during pre- and post-project surveys.

1 Comparisons will be made of the pre- and post-project *O. mykiss* densities within an enhanced
2 habitat area and control areas where enhancement has not been made to assess habitat utilization.

3 **F.4 Reporting**

4 Annual technical monitoring reports documenting hydrologic, water quality, fish, and
5 habitat monitoring and enhancement results will be prepared in draft form and made available for
6 public review and comment at least thirty (30) days before being approved in final at a meeting of
7 the Casitas MWD Board of Directors. The annual technical reports will present a summary of
8 monitoring results of each year's activities. The annual report format will be standardized.

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Exhibit E—SAC ME Initial Budget

Casitas Municipal Water District
FY 2025-2026 Budget Worksheet
Fisheries

Labor			Hourly Rate		Amount
Position		Regular Hours	Regular	Overtime	Total Annual Salary
Total		9320			\$490,715.40

Account #	Account Description	Department		
		Total	Capital Project Total	Total
5001	Regular Salary	\$414,802	\$0	\$414,802
5003	Overtime Pay	15,000	-	15,000
5005	Stand-by	3,000	-	3,000
5006	Vacation Pay	35,603	-	35,603
5007	Jury Duty Pay	390	-	390
5008	Sick Pay	16,875	-	16,875
5009	Holiday Pay	20,045	-	20,045
5010	Seasonal Pay	-	-	-
5079	CalPERS Pension PEPPRA	14,064	-	14,064
5081	CalPERS Pension CLASSIC	132,103	-	132,103
5082	Social Security	31,354	-	31,354
5083	Medicare	7,333	-	7,333
5078	Insurance-Employee Assistance Program	119	-	119
5084	Insurance-Group Life	1,997	-	1,997
5085	Insurance-Group Health	55,950	-	55,950
5086	Insurance-Group Dental	1,996	-	1,996
5087	Insurance-Group Vision	891	-	891
5089	Insurance- Long Term Disability	-	-	-
Subtotal Salary & Benefits		\$751,523	\$0	\$751,523

Account #	Account Description			
5011	District Equipment	\$4,600	\$0	\$4,600
5012	Service & Supplies	15,000	-	15,000
5028	Computer Upgrades - Hardware	5,000	-	5,000
5029	Computer Upgrades - Software	1,000	-	1,000
5040	Outside Services	20,000	-	20,000
5041	Clothing & Personal Supplies	1,500	-	1,500
5042	Comm. - Radio & Telephones	3,000	-	3,000
5044	Memberships & Dues	250	-	250
5045	Printing & Binding	250	-	250
5046	Books & Publications	300	-	300
5048	Postage	1,000	-	1,000
5050	Licenses & Permits	500	-	500
5051	Advertising & Legal Notice	-	-	-
5055	Private Vehicle Mileage	1,000	-	1,000
5056	Travel Expense	10,000	-	10,000
5059	Education & Training Safety	60	-	60
5060	Education & Training/Seminars	3,000	-	3,000
5062	Pre-Employment Screening	100	-	100
5066	OPEB Expense	-	-	-
5067	GASB 68 Pension Exp	-	-	-
Sub Total Other Costs		\$66,560	\$0	\$66,560
TOTAL		\$818,083	\$0	\$818,083

Total by Object

Account Code	Subprogram	Total Hours	Total Amount
2800	General Department	9320	\$818,083
		9320	\$818,083

Exhibit F—Mainstem ME Initial Budget

Expenses	Estimated ME Costs	
	Year 1	Years 2 and 3*
Management Entity Meetings	\$10,896	\$5,616
Technical Advisory Committee Meetings	\$10,896	\$7,488
Review Party Implementation Progress	\$5,448	\$7,488
Annual Parcel Database Updates	\$3,632	\$3,744
Tracking Production	\$7,264	\$5,616
Annual Budgeting	\$14,528	\$5,616
Annual Reporting	\$10,896	\$11,232
New Production Review and Approval	\$7,264	\$7,488
Procedures and Policy Development	\$10,896	-
Contracted Legal Services	\$45,000	\$25,000
Contracted Accounting Services	\$20,000	\$20,000
Monitoring Costs	\$210,000	\$210,000
TOTAL	\$356,720	\$309,288

*includes 3% increase for estimated labor rate

Exhibit G—Mainstem ME Funding Plan

The Initial Funding Plan is based on the Mainstem Management Entity (ME) implementing a combination of Fixed Contributions from several parties and Production Assessments from remaining parties in the Mainstem Management Area (and The Wood Claeysens Foundation). Fixed Contributions are as follows:

<u>Party</u>	<u>Amount</u>
City of San Buenaventura	\$170,500
Casitas Municipal Water District	\$50,000
Ventura River Water District	\$55,000
Meiners Oaks Water District	\$35,000
Rancho Matilija Mutual Water Company	\$10,000
The Wood-Claeysens Foundation	\$5,000
Aera Energy ⁹	\$7,500
Ventura County Watershed Protection District	\$10,000
Total	\$343,000

For other parties in the Mainstem Management Area not listed above, it is anticipated there will be a Production Assessment on any groundwater and/or surface water produced (groundwater extractions and surface water diversions) from the Mainstem Management Area at a rate of \$60 per acre-foot. With estimated production of 297 acre-feet per year, this would amount to \$17,820 in revenue.

This brings the total revenue to **\$360,820**.

As shown in the Mainstem ME Budget, estimated ME costs for Year 1 are \$356,720, which means approximately **\$4,100** in net revenue. Additionally, in Year 1 it will take time to issue the Monitoring Program contract and begin incurring monitoring costs, so additional net revenue is anticipated in Year 1. For Future Years after Year 1, estimated ME costs are \$309,288, which means approximately **\$51,532** in net revenue. Any net revenue remaining after any year will be carried over in a reserve account to be available for any unanticipated expenses and to build up to serve as a potential matching funds for project grant applications.

This Funding Plan establishes adequate funding for administration of the Physical

⁹ Aera Energy's fixed contribution is voluntary and will be reflected in a written agreement with the Mainstem Management Entity. The written agreement will provide for a ten (10) year term for the contribution, subject to renewal.

1 Solution, Mainstem Monitoring costs, and reserve funding for unanticipated expenses and
2 potential matching funds for project grant applications.
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1 **Exhibit H — Summary of Robles Diversion and Fish Passage Facility Protocols**

2 The 2003 Casitas Biological Opinion consists of lengthy and complicated flow operating
3 criteria, as provided and described extensively in that document. In general, the Robles Diversion
4 Dam has a required minimum bypass flow of 30 cubic feet per second (cfs) once a peak occurs
5 and requires bypass flows of 30-171 cfs for 10-12 days within the fish passage season (January 1
6 – June 30).

7 Operational criteria outside the fish passage season revert back to the historic Trial
8 Operating Criteria (Casitas Municipal Water District, 1959), meaning that flows up to 20 cfs are
9 generally released downstream to protect prior rights of downstream users. The 2003 Biological
10 Opinion also provides for critical drought protection measures involving modified fish flow
11 operations “to ensure that fish operations at the Robles Facility minimize effects on Lake Casitas
12 water storage during a critical long-term drought period”.

Exhibit I – Steelhead Habitat Needs

The FHEP shall consider the following general habitat needs of the Southern California Steelhead (*Oncorhynchus mykiss* or *O. mykiss*) Distinct Population Segment (DPS).

- Anadromous adult steelhead require sufficient water depth for a sufficient duration of time and frequency to safely migrate from the ocean to spawning habitat.
- Successful spawning, egg incubation, and emergence from eggs requires adequate quantity and quality of water, suitable water temperatures, and spawning substrate.
- Smolts migrating downstream require sufficient water depth and surface flow for a sufficient duration of time to safely migrate to the estuary and eventually the ocean.
- Rearing juvenile *O. mykiss* need access to habitat refugia to survive and grow through the dry season. Habitat refugia consists of adequate quantity (i.e., water depth, water volume) and quality (i.e., water temperature, dissolved oxygen, food sources, instream cover). Southern California *O. mykiss* populations have evolved and adapted to highly variable hydrologic and water temperature conditions within the region which is important when assessing habitat suitability in systems such as the Ventura River Watershed.
- The expression of the steelhead life cycle is tied to seasonal and interannual variations in precipitation, climate, and instream flow. Therefore, habitat requirements of the population also vary seasonally and interannually. Many of these factors, such as seasonal precipitation, oceanic conditions, and climate change cannot be controlled in the Ventura River Watershed.
- In addition to instream flow, other environmental factors impact habitat suitability and *O. mykiss* population dynamics such as impediments to access suitable upstream spawning and rearing habitat, predation and competition by other native and non-native species, sediment dynamics within the Watershed, smolt-to-adult survival in the ocean, and many others.
- A viable population of steelhead requires a sufficient number of spawners per generation to preserve population diversity and protect against extreme environmental variation.

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Stock-recruitment relationships are an important factor impacting the production of juveniles and the species population dynamics.

- Life history diversity, including resident *O. mykiss* population, is important to maintain population resiliency and the ability to recover from adverse environmental conditions.
- Population response (and eventual recovery) of the Southern California Steelhead DPS is expected to take place over many steelhead generations. The population will likely fluctuate over time and the overall trend of steelhead population and life stage dynamics in the Ventura River Watershed will need to be assessed long-term.

Exhibit J – Contents of FHEP

**COMPONENTS OF A VENTURA RIVER WATERSHED
FISH HABITAT ENHANCEMENT PLAN**

This Exhibit provides an overview of the purpose of the **Fish Habitat Enhancement Plan** (“**FHEP**”) and its key components to inform the development of the FHEP under the Physical Solution. Capitalized terms not defined in this Exhibit are defined in the Physical Solution.

The FHEP shall develop a watershed-specific approach to attain its goal of maintaining and enhancing suitable habitat within the Ventura River Watershed (Watershed) to support the recovery of and contribute to the long-term persistence of a viable, self-sustaining population of Southern California steelhead/rainbow trout (*Oncorhynchus mykiss* or *O. mykiss*) in the Watershed. This will be done based on guidance provided by the National Marine Fisheries Service’s (“**NMFS**”) *Southern California Steelhead Recovery Plan* (NMFS 2012), other peer-reviewed scientific literature, and relevant studies and monitoring data collected in the Watershed. Development of the FHEP shall be a collaborative process.

The FHEP is intended to be implemented through the adaptive management process. The FHEP’s initial focus shall be on the period between entry of the Physical Solution and completion of the removal of Matilija Dam (i.e., Phases 1 and 2 of the Physical Solution). During Phase 3 of the Physical Solution, the Watershed Technical Advisory Committee (Watershed TAC) shall reevaluate the scope and content of the FHEP and recommend changes to the FHEP to the Management Entities for review and approval in accordance with the process in Section V of the Physical Solution. These recommended changes could include: (a) a recommendation that the FHEP is no longer needed or necessary; (b) a recommendation that the FHEP should continue unchanged; (c) a recommendation that the FHEP should continue with changes; or (d) such other recommendations as the Watershed TAC may develop.

The Parties recognize that there are actions within their control that may cause or contribute to rebuilding a viable, self-sustaining *O. mykiss* population in the Watershed, such as enhancing the quality and increasing the quantity and availability of suitable habitat within the Watershed. The Parties also recognize that this is a long-term process (expected to take decades) that may not be possible without actions that are being performed separate from the Physical Solution, such as removal of Matilija Dam. The unique meteorological, geological, topographical, and hydrological characteristics of the Watershed present significant limitations to achieving the goal of the FHEP. As discussed more fully below, many factors will influence the recovery and long-term persistence of a viable, self-sustaining *O. mykiss* population in the Watershed. Not all of these factors, such as inter-annual variability in precipitation, survival of *O. mykiss* in the ocean, and natural catastrophic events like wildfires, are controllable by the Parties. The FHEP will therefore focus on evaluating existing conditions and *O. mykiss* habitat requirements, defining objectives, assessing effects of Immediate Management Actions, and identifying Future Management Actions if needed for implementation in the Watershed to address factors within the Parties’ control.

A. FISH HABITAT ENHANCEMENT PLAN: GOAL AND PROGRAM OVERVIEW

The **FHEP’s Goal** (“**Goal**”) is to maintain and enhance suitable habitat within the Watershed to support the recovery of and contribute to the long-term persistence of a viable, self-sustaining population of *O. mykiss* within the Watershed. The FHEP shall inform and guide the selection and implementation of Management Actions, and required evaluation and monitoring, as part of ongoing adaptive management under the Physical Solution.

To do so, the FHEP shall establish quantitative and qualitative objectives and response metrics, decision thresholds, and implementation requirements sufficient to develop, implement, monitor, and evaluate Management Actions that contribute to the measurable environmental and biological

1 outcomes identified in the FHEP. The FHEP shall identify the expected environmental and
2 biological responses of each recommended Management Action and describe how that response
3 contributes to achieving corresponding environmental and biological objectives. The FHEP shall
4 describe the necessary monitoring to determine whether environmental and biological responses
5 occur as anticipated and, ultimately, whether biological and environmental objectives are
6 achieved. The FHEP shall include an adaptive management program designed to evaluate habitat
7 changes and population-level responses, and to adjust Management Actions as needed.

8 More specifically, the FHEP shall include the following components:

- 9 • Objectives: The FHEP shall define “**Specific, Measurable, Achievable, Reasonable, and**
10 **Timebound**” (“SMART”) biological and environmental objectives, with specific
11 performance thresholds, timelines, and evaluation criteria that will be used to assess
12 progress toward attainment of the FHEP’s Goal.
- 13 • Assessment: The FHEP shall identify and assess existing information related to *O. mykiss*
14 in the Watershed, including population dynamics, stressors, and limiting factors. The
15 FHEP shall identify information gaps and uncertainties and describe how such gaps and
16 uncertainties will be addressed through monitoring and other tools. The FHEP shall also
17 describe the science needed to improve understanding of *O. mykiss* ecology and stressors
18 in the Watershed, to provide for evaluation of environmental and biological responses to
19 Management Actions.
- 20 • Management Actions: The FHEP shall identify and recommend additional Management
21 Actions beyond the Immediate Management Actions in the Physical Solution to be
22 implemented toward attaining the Goal. Each recommended Management Action shall
23 include expected environmental responses and associated biological outcomes, as well as
24 an initial cost estimate for implementation and any additional monitoring/evaluation.
- 25 • Monitoring: The FHEP shall identify short- and long-term monitoring needed to evaluate
26 the effectiveness of Management Actions under the Physical Solution, support the
27 information needs identified in the FHEP, inform adaptive management under the
28 Physical Solution, and recommend any necessary changes to the Monitoring Program in
Exhibit “D” to the Physical Solution. This includes monitoring to evaluate the
effectiveness of Management Actions in achieving the biological and environmental
objectives and progress toward attainment of the Goal.
- Adaptive Management: The FHEP shall describe a long-term Adaptive Management
Program through which the Parties shall monitor, assess, and if needed, adjust the FHEP
based on substantive, new scientific information that materially affects the scientific
strategy decisions and implementation of the Physical Solution, and after key
developments in the Watershed (e.g., after the removal of Matilija Dam, in response to a
major wildfire, etc.).

29 **B. BACKGROUND**

30 Across the species’ range, *O. mykiss* may express various life histories. Anadromous *O. mykiss*
31 (known as steelhead) migrate to the ocean as smolts, and adults return to freshwater to spawn.
32 Juveniles rear in freshwater for one to three years until they transition to smolts and migrate to the
33 ocean to mature (NMFS 2012). They remain in the ocean for one to four years before returning to
34 freshwater to spawn. *O. mykiss* are iteroparous, meaning they may spawn in multiple years,

1 potentially returning to the same watershed to spawn and then migrating back to the ocean
2 between spawning seasons as kelts (NMFS 2012). Other life histories of *O. mykiss* include
3 resident rainbow trout, which complete their entire life cycle in freshwater, and lagoon-
4 anadromous fish, which complete partial migrations to lagoons or estuaries to grow and mature
5 before returning upstream to spawn. All life histories can and do interbreed, and are recognized as
6 the same species, and offspring can express different life histories than their parents (NMFS
7 2012). Expression of various life histories in *O. mykiss* is dynamic and complex and is considered
8 plastic because life histories expression is subject to a combination of genetic and environmental
9 factors (Ohms et al. 2014). This complex (plastic) life history provides a wide variety of
10 behavioral and physiological expressions to enhance life history diversity and adapt to highly
11 variable and uncertain environmental conditions (e.g., extended drought, flooding, etc.)
12 characteristic of Southern California.

13 The endangered Southern California Steelhead **Distinct Population Segment (“DPS”)**¹ inhabits
14 coastal streams from the Santa Maria River south to the United States-Mexico border (NMFS
15 2023). This makes the Southern California Steelhead DPS the southernmost anadromous *O.*
16 *mykiss* in the United States (NMFS 2012). For recovery purposes, the Southern California
17 Steelhead DPS was divided into five Biogeographic Populations Groups (“BPGs”) (Boughton et
18 al. 2007; NMFS 2023). All four watersheds within the Monte Arido BPG still support populations
19 of the Southern California Steelhead DPS: the Ventura River, Santa Maria River, Santa Ynez
20 River, and Santa Clara River watersheds (Boughton et al. 2007; NMFS 2023).

21 Anadromous *O. mykiss* adults are primarily dependent on rains for seasonal passage up estuaries
22 and rivers to spawn. Seasonal timing of adult and juvenile migration and spawning in the Ventura
23 River varies based on the timing of rainfall and runoff. Results of site-specific monitoring within
24 the Ventura River (e.g., adult monitoring within the Robles fish ladder, redd surveys, and juvenile
25 snorkel surveys) can improve the understanding of seasonal migration patterns and response to
26 environmental cues within the Watershed. In the Watershed, anadromous *O. mykiss* exhibit the
27 following general periodicity each year, although the seasonal timing of life history may vary
28 within and among years:

¹ NMFS originally listed the Southern California Steelhead **Evolutionary Significant Unit (“ESU”)** (which only includes anadromous *O. mykiss* or steelhead) as endangered under the ESU policy in 1997 (Endangered and Threatened Species: Listing of Several Evolutionary Significant Units (ESUs) of West Coast Steelhead, 62 Fed. Reg. 43937 (Aug. 18, 1997)) and extended the listing to cover the populations southward from the Santa Monica Mountains to the United States-Mexico border in 2002 (Endangered and Threatened Species: Range Extension for Endangered Steelhead in Southern California, 67 Fed. Reg. 21586 (May 1, 2002)). In 2006, NMFS decided to use the joint U.S. Fish and Wildlife Service/NMFS DPS policy (Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4722 (Feb. 7, 1996)) to identify DPSs of steelhead rather than the ESU policy and listed the Southern California Steelhead DPS as endangered (Endangered and Threatened Species: Final Listing Determinations for 10 Distinct Population Segments of West Coast Steelhead, 71 Fed. Reg. 834 (Jan. 5, 2006)). NMFS nonetheless “presume[s] that all juvenile *O. mykiss* in streams where listed steelhead occur are listed juvenile steelhead.” (71 Fed. Reg. at 841.) In 2022, the California Fish and Game Commission determined that Southern California *O. mykiss* (including both anadromous steelhead and resident rainbow trout) was a candidate for listing as endangered under the **California Endangered Species Act (“CESA”)** (Fish & G. Code, § 2050 et seq.) and, in 2025, listed *O. mykiss* as endangered, using the same geographic administrative boundary as the federal DPS.

Life History Stage	General Periodicity ¹
Adult immigration	December through May
Spawning	December through May
Incubation and emergence	January through June
Juvenile rearing	Year-round where perennial habitats persist
Smolt emigration	December through May
¹ General periodicities of <i>O. mykiss</i> life history stages are not meant for compliance under the Physical Solution.	

Streamflow creates habitat and provides connectivity between aquatic organisms and their riverine habitats. Loss of streamflow and subsequent stream connectivity can affect the flow of nutrients, energy, and materials, as well as the movement and viability of biota in a system. Flow magnitude, duration, and timing influence *O. mykiss* access to spawning grounds, rearing habitats, and lagoon refuge within the Watershed. *O. mykiss* require adequate flow to migrate upstream to spawning habitat, avoid redd desiccation or scour, support fry emergence and juvenile rearing, provide over-summer refuge, support smolt emigration, and allow for complete life stage transitions. Therefore, enough habitat must activate at the right time and duration to allow each life stage to successfully transition to the next life stage to support the successful recovery of the *O. mykiss* population.

Passage for adult *O. mykiss* must occur during the period when upstream migration naturally takes place (generally December through May based, in part, on the timing of rainfall and runoff events within the Watershed and reproductive condition of adult *O. mykiss*). When high flows naturally occur, they must occur long enough and at the appropriate frequency for anadromous adult *O. mykiss* to enter the Ventura River estuary and migrate to upstream reaches that contain suitable spawning or holding habitat. Successful passage requires that water quality, depth, velocity, and jump heights over potential impediments or barriers to passage remain within the swimming and physiological capabilities of adult *O. mykiss* expected in each reach. A passage barrier is any artificial or natural structure that hinders, restricts, or prevents fish from migrating upstream or downstream, potentially limiting access to spawning and rearing habitat and food. These impediments can be complete, partial, and/or temporal, often causing high water velocities, shallow depths, or physical blocks that may disrupt the life cycle of aquatic species.

Various *O. mykiss* life stages require enough suitable habitat to meet their specific environmental needs. Adult *O. mykiss* require sufficient water depths over suitable spawning substrates to construct and defend redds, as well as adjacent pools deep enough to provide holding cover during the spawning period. Juvenile *O. mykiss* rear year-round in perennial reaches of the Watershed and over-summer in pools, the extent of which may vary with hydrologic conditions (e.g., precipitation-driven streamflow). Therefore, baseflows must be sufficient to maintain microhabitat diversity, instream cover (e.g., wood, boulders, and undercut banks), riparian habitat, and thermal refugia. During spawning, incubation, and rearing, *O. mykiss* may be limited by resources such as food and cover. Predation and competition by non-native species present additional stressors, potentially affecting individual fish as well as habitat quality. Adequate habitat and resources are necessary to ensure a self-sustaining population can overcome density-dependent stressors, including disease, oxygen depletion, redd superimposition, and predation and competition by non-native species, and to avoid unnecessary aggression.

The NMFS Southern California Steelhead Recovery Plan (2012) provides general guidance on habitat needs for *O. mykiss* known as **Primary Constituent Elements** (“PCEs”). Generally, NMFS identifies the following PCEs as essential for the conservation of the Southern California Steelhead DPS: sites and habitats that support one or more life stages and contain physical or biological features essential to survival, growth, and reproduction. Although this guidance is not limited to the Ventura River, it and other relevant scientific sources of information (e.g., Allen 2015), in addition to best available science shall be considered when developing the FHEP and as part of the adaptive management process. Best available science includes peer-reviewed scientific

literature, relevant studies, and monitoring data collected within the Watershed and for Southern California Steelhead.

The FHEP shall also consider the following mutually shared perspectives and recommendations about *O. mykiss* habitat needs of the Southern California Steelhead DPS attached as Exhibit I to the Physical Solution.

C. BIOLOGICAL AND ENVIRONMENTAL OBJECTIVES

Biological and Environmental Objectives Framework

The FHEP shall include integrated **Biological Objectives** (“**Biological Objectives**”) and **Environmental Objectives** (“**Environmental Objectives**”) designed to attain the Goal. The Biological and Environmental objectives shall be SMART and grounded in the best available science. The FHEP shall identify and guide implementation of Management Actions designed to produce measurable environmental responses, which in turn create measurable biological responses that should contribute to achieving the Biological Objectives. The FHEP shall use the following Biological and Environmental Objectives framework through an adaptive management process that tests hypotheses through action, evaluates outcomes, and adjusts actions as needed over time. To ensure that the selection and implementation of Management Actions translate into positive biological outcomes, the FHEP shall define quantitative and qualitative measurable objectives, performance measures, and evaluation criteria linking environmental conditions to biological outcomes.

The FHEP shall develop and include a viable population criterion to guide development of Biological and Environmental Objectives. The viable population criterion shall be based on population dynamic data from the Watershed using **Viable Salmonid Population (“VSP”)** metrics (abundance, productivity, spatial structure, and diversity; McElhany et al. 2000). Based on a lack of specific data pertaining to the South-Central and Southern California DPSs, NMFS has identified a precautionary mean annual run size viable population criterion for any individual population within the recovery domain, which includes the Watershed (Boughton et al. 2007; NMFS 2023). The FHEP shall develop and include a viable population criterion for application to the *O. mykiss* population in the Watershed based on the NMFS methodology (Boughton et al. 2007, *Appendix A: Derivation of the prescriptive size criterion*) or an alternative methodology, considering any new information or methodologies specific to the Watershed (e.g., updated population-specific data sufficient for a watershed-specific performance-based criterion using the methodology in Lindley et al. 2007, etc.).

The Biological Objectives in the FHEP shall address the desired condition of the *O. mykiss* population to contribute to population viability in the Watershed. The Biological Objectives shall be linked to spawning and rearing success and survival, spatial distribution, and age-class diversity within the Watershed at levels necessary to achieve sufficient abundance, genetic integrity, and life history diversity.

In developing the FHEP and implementing the Physical Solution, it is important to recognize the uncertainties and many challenges affecting the *O. mykiss* population in the Watershed. Factors beyond the control of the Parties complicate the inherently imprecise nature of biological responses to Management Actions and could even inhibit the desired biological response. Such factors may include ocean conditions and marine survival, variation in precipitation within and among years, anthropogenic influences (e.g., encampments, poaching, stream diversion, and water quality degradation, etc.), habitat destruction or modification (e.g., floods, sedimentation from removal of Matilija Dam, etc.), wildfires, predation, non-native species, pollution, and diseases and parasites.

The Environmental Objectives in the FHEP shall address the physical and chemical habitat conditions, including water quality, necessary to achieve the Biological Objectives in the

Watershed, recognizing that not all of those conditions are under the control of the Parties. The Environmental Objectives shall be linked to quantifiable flow, habitat, and water quality metrics that can be evaluated through monitoring. The Environmental Objectives shall address the following:

- Amount, quality, and distribution of suitable *O. mykiss* spawning and rearing habitat, including habitat that is currently accessible or inaccessible due to the presence of fish passage barriers.
- Flow conditions that provide seasonal connectivity and passage (including estuary connection), including flow timing, depth, magnitude, duration, and frequency necessary to support migration.
- Suitable temperature, dissolved oxygen, and water quality conditions to support all *O. mykiss* life stages.
- Habitat diversity, complexity, and availability across the Watershed and its persistence through variable hydrologic and hydraulic conditions.

The Future Management Actions recommended in the FHEP shall be designed to achieve the Environmental Objectives and the Biological Objectives, and shall include both flow and non-flow actions, such as:

- Voluntary flow Management Actions such as flow augmentation, pumping reductions, and instream flow dedications.
- Riparian habitat restoration and enhancement (e.g., repairing degraded riverbanks, planting native vegetation, livestock exclusion, and floodplain reconnection).
- Stream channel enhancement (e.g., gravel augmentation, wood addition, and road crossing improvements).
- Removal or remediation of fish passage barriers and completion of fish passage improvements.
- Non-native species management.

While *O. mykiss* is the focal species, the FHEP shall also consider broader ecological functions and native fish assemblages, including representative native species (e.g., tidewater goby) or simple assemblage-level indicators, to evaluate whether Management Actions support overall Watershed health.

Biological Objectives

The Biological Objectives shall support achieving the FHEP's viable population criterion. This will require increasing the number of returning ocean-run adult fish and the spatial distribution of *O. mykiss* throughout the Watershed. Because recovery may take many years to show progress, and, recognizing the uncertainty of biological responses to Management Actions, such as due to uncontrollable factors (e.g., ocean conditions, inter-annual variability in precipitation, and natural catastrophic events like wildfires and extreme, multi-year droughts), Biological Objectives should focus on potential biological responses that can be affected by the Parties through implementation of Management Actions that, among other actions, maintain and enhance suitable habitat for *O. mykiss* in the Watershed.

The FHEP shall establish SMART Biological Objectives directly related to SMART Environmental Objectives. These SMART Biological Objectives shall increase the likelihood of achieving the Goal while allowing for improvements to be monitored, quantified, and adaptively managed over shorter timeframes. The Biological Objectives shall reflect limiting factors affecting the Ventura River population of *O. mykiss* and the opportunities to address them.

At a minimum, the FHEP shall develop SMART Biological Objectives related to each of the following Biological Objectives:

Biological Objective 1 (BO1): Increase adult *O. mykiss* spawning success.

Biological Objective 2 (BO2): Increase juvenile *O. mykiss* rearing and survival.

Biological Objective 3 (BO3): Increase *O. mykiss* spatial distribution and age-class diversity.

The FHEP's Biological Objectives (as well as the Environmental Objectives described below) shall not be used to evaluate any Bound Party's compliance under the Physical Solution but may inform adaptive management.

Environmental Objectives

As described above in Section B, sufficient suitable habitat is necessary to support a viable, self-sustaining *O. mykiss* population. The FHEP shall evaluate the Watershed's existing conditions, consider life stage-specific *O. mykiss* habitat requirements, and establish SMART Environmental Objectives designed to achieve the Biological Objectives. At a minimum, the FHEP shall develop SMART Environmental Objectives related to each of the following Environmental Objectives:

Environmental Objective 1 (EO1): Sufficient seasonal and interannual habitat connectivity suitable for key life stages (e.g., adult migration, smolt emigration, and inter-habitat movement for rearing juveniles).

Environmental Objective 2 (EO2): Sufficient spatial distribution of suitable habitat and microhabitat diversity for key life stages (e.g., spawning, rearing, and over-summering).

Environmental Objective 3 (EO3): Sufficient suitable habitat amounts and quality to levels that support *O. mykiss* at key life stages.

D. ASSESSMENT

The recovery and persistence of a viable, self-sustaining *O. mykiss* population may be shaped by interacting factors including flow timing and magnitude, water quality parameters (e.g., temperature and dissolved oxygen), sediment supply, channel complexity, migration barriers, passage hydraulics, non-native species stressors, ocean conditions, both flow and non-flow actions, and large-scale disturbances like wildfire. To attain the Goal within the Watershed, the FHEP shall focus on life stage-specific habitat requirements (e.g., adult and juvenile migration, spawning, egg incubation and fry production, and juvenile rearing and over-summering), evaluate existing habitat conditions, evaluate the Immediate Management Actions, and recommend changes and/or additional Management Actions designed to achieve the Environmental and Biological Objectives.

To implement a life-cycle approach, the FHEP's assessment of existing conditions in the Watershed shall include, but not be limited to, the following components:

1. Compile basic *O. mykiss* life history information, including observations with identification of life stage and habitat associations (general demographics).

2. Characterize the availability of present and potential suitable habitat within the Watershed for key life stages such as adult spawning and juvenile rearing.
3. Identify and describe immigration and emigration conditions and constraints throughout the Watershed.
4. Identify and describe egg incubation and fry emergence requirements, existing conditions, and constraints within the Watershed.
5. Identify key stressors that limit the distribution, abundance, and reproductive success of *O. mykiss* in the Watershed.

E. MANAGEMENT ACTIONS

As described in the Physical Solution at Section IV, *Immediate Management Actions*, the Parties shall begin implementing the Immediate Management Actions upon entry of the Physical Solution. These Immediate Management Actions are intended to help decrease physical stressors to *O. mykiss* in the Watershed by providing localized habitat benefits (e.g., improved access to spawning and rearing habitats, habitat complexity, and water quality). The FHEP shall consider information gained through implementation and monitoring of the Immediate Management Actions, along with other available information, to identify, evaluate the feasibility of and prioritize, recommend, and guide implementation of Future Management Actions designed to achieve the Goal.

Prioritized List of Future Management Actions

The FHEP shall build on the Immediate Management Actions and include a prioritized list of recommended Future Management Actions designed to achieve the SMART Environmental and Biological Objectives, along with a planning and implementation schedule, feasibility analysis, and an initial cost estimate for implementation and additional monitoring/evaluations. The Management Entities shall use this prioritized list to select Future Management Actions, direct monitoring efforts, and identify response metrics to evaluate contributions toward achieving the Environmental and Biological Objectives.

Response Metrics

The FHEP shall describe the metrics that will be used to evaluate environmental and biological responses for each recommended Future Management Action. These environmental and biological response metrics shall be used to evaluate whether each recommended Management Action ultimately contributes to achieving the Environmental and Biological Objectives. Response metrics shall be identified to allow evaluation of both the Environmental and Biological Objectives identified in the FHEP, with relevant monitoring included in the Monitoring Program.

Examples of environmental response metrics pertinent to the Environmental Objectives EO1, EO2, and EO3 include, but are not limited to:

- The amount (river miles) of and duration (days) that stream channels remained wetted within the Watershed (EO1, EO2, EO3).
- The amounts and types of habitat complexity (e.g., amount of large woody material, instream and overhead cover habitat such as boulders and riparian vegetation, or spawning gravel) in key locations within the Watershed (EO2).
- The duration of habitat persistence (e.g., number of days with available habitat for a given life stage) (EO1, EO2, EO3).

1 Examples of biological response metrics pertinent to the Biological Objectives BO1, BO2, and
2 BO3 include, but are not limited to:

- 3 • The number of redds counted within the Watershed over an identified adaptive-
4 management period considering hydrologic conditions (BO1).
- 5 • The number and spatial distribution of juveniles observed to be using rearing habitat
6 within the Watershed over an identified adaptive-management period considering
7 hydrologic conditions (BO2 and BO3).

8 **F. MONITORING**

9 The FHEP shall review, and, if needed, recommend revisions to the Monitoring Program attached
10 as Exhibit D to the Physical Solution (which includes the Mainstem Monitoring Plan and the San
11 Antonio Creek Monitoring Plan). The FHEP shall ensure that the Monitoring Program identifies
12 short- and long-term monitoring needed to support the information needs identified in the FHEP,
13 and that it informs adaptive management under the Physical Solution. This includes monitoring to
14 evaluate the effectiveness of Management Actions in achieving the Biological and Environmental
15 Objectives and progress towards attainment of the Goal of the FHEP.

16 Monitoring shall follow standardized operating procedures for the type of monitoring (e.g.,
17 hydraulic surveys/2D modeling, riffle transects, redd surveys, snorkel surveys, fixed-point
18 counting stations, and dissolved oxygen/temperature monitoring) with sufficient detection
19 probability targets for key events (e.g., adult passage). The Monitoring Program shall specify data
20 continuity requirements (e.g., sensor uptime and revisit intervals) and quality assurance/quality
21 control (QA/QC) protocols (e.g., calibration, drift checks, and outlier rules).

22 The monitoring shall be designed to meet the data and information needs described above.
23 Examples of data that shall be collected under the Monitoring Program include, but are not
24 limited to:

- 25 • Data necessary to inform and evaluate response metrics, for assessment of Management
26 Actions' contributions toward achieving Environmental and Biological Objectives, as well
27 as the Goal.
- 28 • Data necessary to characterize (1) changes in habitat conditions, and (2) changes in the
distribution and abundance of *O. mykiss* within the Watershed.

The FHEP shall identify and integrate various modeling and standard data collection methods,
including statistically based subsampling, and consider emerging monitoring methods, depending
on the specific management objective(s) and data gap(s) to be addressed. The FHEP shall
consider these and other data needs and analytical tools during development and implementation.

The Monitoring Program shall describe methods that will be used to collect and report data in a
consistent and standardized manner, how such data will be made available to the public, and how
such data will support adaptive management. Guidance for monitoring *O. mykiss* using the VSP
framework in Southern California watersheds are described in Fish Bulletin 182 (Boughton et al.
2022), and guidance for monitoring in coastal California are described in Fish Bulletin 180
(Adams et al. 2011).

The information and data that result from the Monitoring Program, along with other available
data and information, shall be used to evaluate the effectiveness of Immediate Management
Actions and Future Management Actions in contributing to achievement of Environmental and
Biological Objectives to inform adaptive management. The Monitoring Program shall provide for

1 evaluation of each Management Action's biological and environmental response metrics, as well
2 as the ability of conditions in the Watershed to support the recovery of and contribute to the long-
term persistence of a viable, self-sustaining *O. mykiss* population.

3 The Monitoring Program may be updated as information is gained through modeling, monitoring,
4 or other information sources over time.

5 **G. ADAPTIVE MANAGEMENT**

6 The FHEP shall include an Adaptive Management Program that clearly identifies parties,
7 decision-making processes, and implementation timelines for evaluating whether environmental
8 and biological objectives are being achieved. The Program shall compare observed conditions and
outcomes against defined performance metrics, objectives, and scientific hypotheses, and track
the effectiveness of Management Actions over time. If any Biological or Environmental
Objectives reasonably cannot be achieved, revised objectives shall be developed using the best
available science.

9 The Adaptive Management Program shall incorporate the best available science at the time of
10 implementation and be updated as new scientific information, monitoring data, and technical
analyses become available. The Program shall also specify how, and to what extent, the FHEP
11 and all associated plans (including, but not limited to, the Monitoring Program) will be reviewed
and updated to incorporate lessons learned, consistent with agreed upon timelines and the
Physical Solution.

12 ***Purpose and Intent***

13 Adaptive management provides a flexible framework for decision making under uncertainty,
14 which is particularly important in the Watershed where episodic flows, drought, wildfire,
sediment pulses, lagoon mouth dynamics, and competing water uses influence habitat availability
and *O. mykiss* life history expression. Adaptive management emphasizes learning while doing to
15 refine and improve Management Actions over time. It measures how well Management Actions
help meet ecological, social, and operational goals; meet biological and environmental objectives;
16 and increase scientific knowledge.

17 Adaptive management involves evaluating existing actions, exploring alternative and/or
18 additional actions, predicting outcomes, implementing selected actions, monitoring the results,
and adjusting management actions and predictions accordingly over time to achieve the goals and
objectives. This cycle continues as new information becomes available.

19 To be effective for the Watershed, the Adaptive Management Program shall include the following
20 components:

21 **1. Management Decision Framework**

22 The Adaptive Management Program shall identify processes and criteria for
recommending and implementing Future Management Actions, consistent with processes
23 and criteria in the Physical Solution.

24 **2. Public and Agency Engagement**

25 The Adaptive Management Program shall identify procedures for engagement with
interested parties and relevant agencies to support coordination, transparency, and
information exchange, consistent with procedures in the Physical Solution.

26 **3. Adjustable Objectives**

27 The Adaptive Management Program shall provide clear Biological and Environmental
Objectives, that support achieving the Goal, and which can be refined or adjusted as new
28 information is obtained through monitoring and evaluation. The Adaptive Management

Program shall document the basis for any decision to refine or adjust Biological or Environmental Objectives in response to new information.

4. Resource Relationship Characterization

The Adaptive Management Program shall include processes and procedures to refine the descriptions of biological and environmental relationships and potential management effects, as informed by monitoring data, applicable analytical tools, and other available information.

5. Monitoring Program

The Adaptive Management Program shall recommend any necessary changes to the Monitoring Program to generate high quality, reliable data using verified, scientifically sound methods, and provide timely data sharing among parties to support informed adaptive decision making.

6. Performance Evaluation

The Adaptive Management Program shall include quantifiable response metrics for assessing progress toward the Biological and Environmental Objectives and determining whether Management Actions are moving conditions in the desired direction. The Adaptive Management Program shall identify predefined decision triggers tied to expected effects of individual Management Actions to support timely adjustment of those actions (e.g., “if-then” response frameworks). The Adaptive Management Program shall document the basis for any recommendation to maintain, modify, or defer changes to Management Actions in response to observed outcomes.

7. Regulatory Consistency

The Adaptive Management Program’s processes and procedures shall be consistent with, and operate within, existing legal and regulatory frameworks, be compliant with the federal and California Endangered Species Acts, and support recovery planning. Under Code of Civil Procedure section 850(a), the Physical Solution shall be consistent with Section 2 of Article X of the California Constitution and under section 850(b), the Physical Solution shall not substantially impair the ability of a groundwater sustainability agency, the State Board, or DWR to comply with SGMA and to achieve sustainable groundwater management.

Implementation

The Adaptive Management Program shall provide flexibility for the Management Entities and Watershed TAC to evaluate the effects of each Management Action on environmental and biological responses that contribute toward achieving the Environmental and Biological Objectives and the Goal.

At a minimum, the Watershed TAC shall each convene annually to:

- **Review the Monitoring Program** to confirm that the selected monitoring parameters, indicators, sampling designs, and analytical methods are scientifically appropriate and sufficient to evaluate Management Actions and environmental and biological responses relative to the FHEP’s Goal. During the annual meeting, the Watershed TAC shall identify any revisions to the Monitoring Program needed to improve data quality and monitoring efficiency in the upcoming year and to provide recommendations to the Management Entities. The Management Entities shall consider the recommendations at an open and public meeting in connection with the Annual Report.

- 1 • **Review Ongoing Management Actions** to determine and recommend any necessary
2 changes to existing Management Actions based on information gained in the prior year.
3 During their annual meetings, the Watershed TAC shall discuss whether new information
4 supports changes to the implementation of existing Management Actions to improve their
5 effectiveness in the following year. Based on those discussions, the Watershed TAC shall
6 provide recommendations to the Management Entities. The Management Entities shall
7 consider the recommendations at an open and public meeting in connection with the
8 Annual Report.
- 9 • **Evaluate the prior year's monitoring results and all other relevant scientific**
10 **information** to assess trends, evaluate progress toward the Environmental and Biological
11 Objectives, and determine whether observed conditions support, contradict, or refine
12 existing hypotheses.
- 13 • **Review the prioritized list of recommended Future Management Actions** based on
14 emerging data, new scientific findings, completed actions, and observed environmental
15 and biological responses. During their annual meetings, the Watershed TAC shall discuss
16 whether new information supports changes to the priority, timing, or design of Future
17 Management Actions to improve the effectiveness of adaptive management in the
18 following year. Based on those discussions, the Watershed TAC shall provide
19 recommendations to the Management Entities. The Management Entities shall consider
20 the recommendations at an open and public meeting in connection with the Annual
21 Report.

22 The Adaptive Management Program shall be updated after Matilija Dam is removed or within
23 10 years of entry of the Physical Solution, whichever occurs first, and then thereafter on a
24 seven-year cycle to accommodate two generations of *O. mykiss* (averaging 3 and 4 years per
25 generation). The Program will identify new or adapted Management Actions and, if
26 necessary, adjusted objectives, to be considered for implementation, consistent with the
27 Physical Solution, that incorporate lessons learned.

28 During Phase 3 of the Physical Solution, the Watershed TAC shall reevaluate the scope and
content of the FHEP and recommend changes to the FHEP to the Management Entities for
review and approval in accordance with the process in Section V of the Physical Solution.
These recommended changes could include: (a) a recommendation that the FHEP is no longer
needed or necessary; (b) a recommendation that the FHEP should continue unchanged; (c) a
recommendation that the FHEP should continue with changes; or (d) such other
recommendations as the Watershed TAC may develop.

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