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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.

CITY OF SAN BUENAVENTURA, etc.,

Cross-Complainant,

v.

DUNCAN ABBOTT, an individual, et al.,

Cross-Defendants.

Case No. 19STCP01176

Judge: Hon. William F. Highberger

CITY OF SAN BUENAVENTURA'S
BRIEF ON THE ISSUES OF FACT AND
LAW FOR THE PHASE 1 TRIAL

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Defendant and Cross-Complainant the City of San Buenaventura (Ventura) submits this brief on the issues of fact and law for the Phase 1 trial. This brief does the following five things: (i) it sets forth the five Phase 1 issues to be tried; (ii) it explains why the Court must determine these issues in this phase; (iii) it provides the legal issues and legal framework to determine each issue; (iv) it identifies the factual issues to determine; and (v) it briefly explains Ventura's position (and the position of the other proponents of the proposed physical solution) on each issue. At the Court's request, the brief also addresses the sequencing of these issues during and before the Phase 1 trial. Consistent with the Court's direction, the brief is an initial statement of the issues and law. Ventura will more fully develop these issues and the law in its Phase 1 trial brief.

1. ISSUE NUMBER 1: WHAT ARE THE BOUNDARIES OF THE VENTURA RIVER WATERSHED?

A. WHY THE COURT MUST DETERMINE THIS ISSUE IN PHASE 1

Water rights do not carry ownership of the corpus of a water supply; they constitute a priority right to use a shared "common" resource.¹ Fixing the boundaries of the Ventura River Watershed (Watershed) establishes the outer limits of the physical area covered by this case.² Any physical solution entered by the Court would apply to all parties and property within the Watershed over which the Court has jurisdiction because either by their position of landownership in relationship to the groundwater basin (overlying rights), a river (riparian rights), or their historical conduct (appropriative rights), they possess claims to a common shared water supply. It is typical to determine such boundary questions in the earliest phase of a water rights adjudication, if the parties cannot stipulate to the boundaries.

B. LEGAL ISSUES AND LEGAL FRAMEWORK

The word "watershed" is used in various portions of the California Water Code, but is not defined. The California Attorney General (CAG) has defined watershed as the "whole region or area contributing to the supply of a river or lake; drainage area; catchment area or basin." (25

¹ The resource or "res" may be groundwater, surface water running within bed and banks of a river, or subsurface flow that lies beneath.

² The boundaries of the "res" subject to adjudication.

Ops.Cal.Atty.Gen. 8, 19 (1955), quoting Webster’s New International Dictionary, 2d ed., unabridged, 1941, p. 2886.) “[T]he first type of area to receive protection is a watershed, i.e., the region or area which contributes to the supply of the stream in question.” (*Ibid.*) With particular relevance to the Ventura River Watershed, the CAG has opined that “in the case of rivers which flow into the ocean, the watershed is the whole region or area contributing to the supply of such a river.” (29 Ops.Cal.Atty.Gen. 136, 138 (1957).) Similar to the definition used by the CAG, the United States Geological Survey (USGS) defines a watershed as the area of land that drains all water to a common body of water or outlet point. (USGS, Watersheds and Drainage Basins, available at https://www.usgs.gov/special-topic/water-science-school/science/watersheds-and-drainage-basins?qt-science_center_objects=0#qt-science_center_objects.) Groundwater that drains into a river is routinely characterized as “tributary” to the stream, and conversely, a river may recharge a groundwater basin. Within a watershed, the stream and the basin are interconnected. If there are persons that have or may use tributary groundwater by virtue of their landownership within the Watershed under any other claim of right, they share in both the potential benefit of sustainable management and cumulative responsibility for any failure.

C. FACTUAL ISSUES

Ventura contends the boundaries of the Ventura River Watershed cannot reasonably be disputed. The National Watershed Boundary Dataset is a standardized system for organizing and updating watershed data and is utilized by the California State Water Resources Control Board (State Board), Regional Water Quality Control Boards, and other regulatory agencies as the source of the delineation of watersheds within California. Per this Dataset, the Watershed boundaries are depicted in two maps attached as Exhibit A to this brief. The Court should declare these are the boundaries of the Watershed. In the sequencing portion of this brief, Ventura suggests a mechanism for the Court to fix these boundaries prior to the Phase 1 trial date.

D. VENTURA’S POSITION

Ventura suggests that the parties should agree to the Watershed boundaries as depicted in Exhibit A using the process outlined in the sequencing section of this brief.

2. ISSUE NUMBER 2: WHAT ARE THE BOUNDARIES OF THE FOUR
GROUNDWATER BASINS IN THE VENTURA RIVER WATERSHED?

A. WHY THE COURT MUST DETERMINE THIS ISSUE IN PHASE 1

The boundaries of the four groundwater basins establish areas located within the Watershed where certain specific statutory and common law rules apply. (See Code Civ. Proc. § 836, subd. (j).) As explained in *Antelope Valley Groundwater Cases* (2020) 59 Cal.App.5th 241, 250 (*AVGC 1*), establishing the boundaries of the basins is “essential in order to determine what parties and entities with claims to the groundwater would be necessary parties in the litigation, as either overlying owners with usufructuary rights or as appropriators producing water from the aquifer, so that a comprehensive adjudication of all claims could be made *in later proceedings*.” (Emphasis added.) The boundaries of the four groundwater basins also lay the foundation for the analysis of how and where surface water in the Watershed interconnects with the groundwater in the basins, as defined, and how and where groundwater in the basins, as defined, interconnects with surface water in the Watershed.

B. LEGAL ISSUES AND LEGAL FRAMEWORK

The California Department of Water Resources (DWR) is required to investigate and identify the state’s groundwater basins. (Water Code § 12924, subd. (a).) DWR identifies basins and any amendments to basin boundaries in a report entitled “California’s Groundwater: Bulletin 118,” available at <https://water.ca.gov/programs/groundwater-management/bulletin-118>. Bulletin 118 is the legal standard for defining the groundwater basins within the Watershed.

Using Bulletin 118 to define the basin boundaries in the Watershed is consistent with the requirements of the Sustainable Groundwater Management Act (SGMA) (Water Code § 10720, *et seq.*) and the Comprehensive Adjudication Statute (Code Civ. Proc. §§ 830-852.). SGMA defines “basin” to mean “a groundwater basin or subbasin identified and defined in Bulletin 118 or as modified pursuant to Chapter 3 (commencing with section 1722).” (Water Code § 10721, subd. (b).) SGMA defines “Bulletin 118” to mean DWR’s report entitled ‘California’s Groundwater: Bulletin 118,’ as it may be subsequently updated or revised in accordance with Section 12924.” (Water Code § 10721, subd. (c).) SGMA further provides that “[u]nless other basin boundaries

1 are established pursuant to this chapter, a basin's boundaries shall be as identified in Bulletin
2 118." (Water Code § 10722.)

3 Similarly, the Comprehensive Adjudication Statute defines "basin" to have "the same
4 meaning as defined in section 10721 of the Water Code." (Code Civ. Proc. § 832, subd. (a).) The
5 boundaries in Bulletin 118 must be used for the comprehensive adjudication unless the Court
6 directs a party or other appropriate entity to submit a request to DWR to revise the basin
7 boundaries pursuant to Water Code section 10722.2. (Code Civ. Proc. § 841.) No party or other
8 entity, such as a groundwater sustainability agency established under SGMA, has submitted a
9 recent request to DWR requesting any deviation from the current boundaries established by
10 Bulletin 118 for the Watershed's four groundwater basins.

11 In California, there are certain deep underground areas that have been determined by the
12 applicable regulatory body to be "exempt aquifers" that are not underground sources of drinking
13 water or other beneficial uses. The California Department of Conservation Geologic Energy
14 Management Division (CalGEM) is the regulatory entity that regulates oil and gas wells in
15 California. In accordance with California Public Resources Code section 3131 and 40 Code of
16 Federal Regulations section 146.4, and consistent with the Safe Drinking Water Act (42 U.S.C §
17 300(f), *et seq.*), CalGEM, with oversight from the Environmental Protection Agency, may
18 determine that certain deep underground areas are "exempt aquifers" when those areas do not
19 currently serve as a source of drinking water, cannot now and will not in the future serve as a
20 source of drinking water, and meet other specified requirements. Within these "exempt aquifers,"
21 companies maintaining proper permits may extract fluids (composed of highly saline water) and
22 then reinject those fluids as part of their oil and gas operations because those oil and gas
23 production operations do not affect water with current or potential future beneficial uses in
24 California.

25 Cross-Defendant Area Energy LLC conducts such operations in an "exempt aquifer" deep
26 under the Lower Ventura River Subbasin. Ventura is working with Aera on a possible stipulation
27 that recognizes the decision of CalGEM regarding this "exempt aquifer" and confirms that this
28 "exempt aquifer" is not a part of the Phase 1 analysis related to connectivity because the

governing regulatory entity has determined that this area is an “exempt aquifer.”³

C. FACTUAL ISSUES

Ventura contends there are no factual disputes about the boundaries of the four groundwater basins in the Watershed, as defined in Bulletin 118. The four groundwater basins as described in Bulletin 118 are included as Exhibit B to this brief and are depicted in Exhibit C.⁴

D. VENTURA’S POSITION

Ventura suggests that the parties should stipulate to the Bulletin 118 boundaries of the four groundwater basins in the Watershed using the process outlined in the sequencing section of this brief.

3. ISSUE NUMBER 3: IS THERE AN INTERCONNECTION BETWEEN THE SURFACE WATER AND GROUNDWATER IN THE VENTURA RIVER WATERSHED, INCLUDING THE INTERCONNECTION BETWEEN SURFACE WATER AND THE FOUR GROUNDWATER BASINS, AND THE INTERCONNECTION BETWEEN THOSE GROUNDWATER BASINS AND THE VENTURA RIVER AND ITS TRIBUTARIES?

A. WHY THE COURT MUST DETERMINE THIS ISSUE IN PHASE 1

Interconnection between the surface water and the groundwater in the Watershed establishes that the water within the Watershed is tributary to the Ventura River and thus a common source for all off-stream (e.g., withdrawal, delivery, conveyance, consumptive use, return flow, reclaimed water) and instream (e.g., recreation, ecological, environmental) users of the water. A finding of interconnection between the surface water and the groundwater in each of

³ In its message board posting of October 15, 2021, the Court asked whether the treatment of these areas sheds any light on questions of interconnection. Because “exempt aquifers” are deep underground, involve questions specific to oil and gas operations, and involve considerations of the absence of impacts to drinking water sources or potential sources, they do not appear to Ventura to have useful application to the surface water/groundwater connections involved in this Phase 1 trial.

⁴ As reflected in the Watershed and Basin maps, a portion of the Upper Ojai Valley Groundwater Basin drains into the Santa Paula Creek within the Santa Clara River Watershed, but analyzing the entire basin is necessary to assess surface water and groundwater connection in the Watershed.

1 the basins in the Watershed therefore establishes the foundation for the future application of the
2 nine causes of action in Ventura’s Third Amended Cross-Complaint to the common water source,
3 and, more importantly, for the Court’s future consideration of the proposed physical solution.

4 Determining interconnection in Phase 1 will also help the Court apply the law of the case
5 as determined in *Santa Barbara Channelkeeper v. City of San Buenaventura* (2018) 19
6 Cal.App.5th 1176. The Court of Appeal determined that the Court must look at all users of
7 interconnected water in the Watershed to resolve the issues presented. As the Court of Appeal
8 explained, hydrological connection demonstrates that “the water that the Cross-Defendants are
9 using and which is the subject of the City’s Cross-Complaint is the same water that the City is
10 using, which is the subject of the Complaint.” (*Id.* at 1193). Therefore, including “other water
11 users as parties to the action ensures that they, too, are bound by its outcome.” (*Id.* at 1192.)

12 It is important to highlight what the Court is not deciding in Phase 1. The issue for Phase
13 1 is connectivity, not relative impact due to individual actions and potential responsibility,
14 individual or shared, for alleged harm to instream beneficial uses. At this initial stage, the only
15 question is whether there is interconnection between the Watershed’s surface water and
16 groundwater basins, as defined in Bulletin 118.⁵ Again, individual and cumulative impacts from
17 pumping and diversion is not at issue in Phase 1. An assessment of individual water rights,
18 relative impact, and priority would be considered, if at all, in future phases of the case.

19 Rejecting this approach raises a significant risk that a physical solution will not be
20 implementable, with the actions of some existing and potential users being excluded from
21 consideration and creating the prospect their actions could subsequently undermine this Court’s
22 orders. As courts have pointed out, such an approach would expose meaningful solutions to
23 common water problems to a “‘death by a thousand cuts’ because each objecting water claimant
24 could likewise claim exemption from its regulation under the ‘individual de minimus impacts’
25 argument.” (*AVGC 1*, 59 Cal.App.5th at 267.)

26 _____
27 ⁵ This surface water and groundwater connection links the entire Watershed as one common
28 source of water. For example, the Ojai and Upper Ojai Basin are fed by surface waters and also
feed both surface waters and the lower basins that are interconnected through those surface
waters. Although the Ojai and Upper Ojai Basins may not feed one another directly, they are
supported by and support the common source.

1 B. LEGAL ISSUES AND LEGAL FRAMEWORK

2 To reach a final determination on these Phase 1 issues, the Court will need an analytical
3 framework for assessing “interconnection.”⁶ Fortunately, the Court has access to the common
4 usage of the term, regulations, statutes, and over a hundred years of common law to guide it in
5 answering this legal question. Although the common law has developed the key concepts for
6 interconnected surface and groundwater, common usage and more recent regulatory and statutory
7 law help to clarify the meaning of interconnection. Therefore, this brief starts with common
8 usage and the more recent regulatory and statutory approaches to interconnection, and then
9 summarizes key common law decisions on the issue that are reflective of common usage and
10 embedded in the regulatory and statutory approaches.⁷

11 (1) COMMON USAGE

12 Most dictionaries define “interconnect” or an “interconnection” to mean “a mutual
13 connection between two or more things” or a “connection between multiple things.” (Oxford
14 Dictionary, www.yourdictionary.com, www.lexico.com). Under its common usage, people
15 would generally understand the word “interconnect” to mean to “connect,” “touch” or
16 “interrelate.” Therefore, an interconnection between surface water and groundwater would
17 commonly be understood to mean that the surface water and groundwater connect or touch at a
18 point or at certain points. For example, surface water might touch groundwater as it percolates
19 into the soil and connects with the groundwater table. Or groundwater might touch surface water
20 at a point where the boundaries of a basin terminate, forcing groundwater to discharge to a
21 stream. When groundwater basins fill, artesian conditions may develop where groundwater is
22 pushed up to and touches the surface waters. The Court may employ common usage to help

23 _____
24 ⁶ This section provides general answers to the series of questions the Court asked in its October
25 15, 2021 message board post. Ventura offers a variety of suggested answers and approaches in
26 this brief for the Court’s initial consideration and will develop them further in its trial brief and at
27 trial. At this point, the Court is not in a position to formulate any final determinations on this legal
28 question.

⁷ There are also hydrological connection cases involving other bodies of law such as the Clean
Water Act (33 U.S.C § 1251 *et seq.*) that may also provide guidance. For example, the United
States Supreme Court has recently addressed the issue of the hydraulic connection between
discharges to and through groundwater to surface waters. (*County of Maui v. Hawaii Wildlife*
Fund (2020) 140 S.Ct. 1462.) The Ninth Circuit has addressed similar questions of hydraulic
connection in *Northern California River Watch v. City of Healdsburg* (2007) 496 F.3d 993.

1 interpret the question of interconnection. (See *California v. Altus Finance* (2004) 36 Cal.4th
2 1284, 1295-1296; *People v. Loera* (1984) 159 Cal.App.3d 992, 1002 [“Where a word of common
3 usage has more than one meaning, the one which will best attain the purpose of the Legislature
4 should be adopted in construing a statute”].)

5 (2) **SGMA’S REGULATORY DEFINITIONS--23 CALIFORNIA**
6 **CODE OF REGULATIONS SECTIONS 351(O) AND (M)**

7 To implement SGMA, DWR has developed regulations to specify certain requirements for
8 the groundwater sustainability plans required under SGMA and to explain the methods and
9 criteria DWR will use to evaluate those plans. In these regulations, DWR defines “interconnected
10 surface water” to mean “surface water that is hydraulically connected *at any point* by a
11 continuous saturated zone to the underlying aquifer and the overlying surface water is not
12 completely depleted.” (23 Cal. Code Regs. § 351, subd. (o), emphasis added.) This definition
13 describes what hydrologists refer to as “gaining connected” or “losing connected” conditions—
14 i.e., situations where surface water is gaining water from the underlying aquifer or situations
15 where surface water is losing water to the underlying aquifer. These situations are depicted in
16 Exhibit D to this brief. Although it only directly applies to SGMA, DWR’s definition of
17 “interconnected surface water” might provide the Court with some guidance about how to assess
18 interconnection.

19 Also for SGMA purposes, DWR defines the term “groundwater dependent ecosystem” to
20 refer to “ecological communities or species that depend on groundwater emerging from aquifers
21 or on groundwater occurring near the ground surface.” (23 Cal. Code Regs. § 351, subd. (m).)
22 This definition might also help guide the Court regarding interconnection because the presence of
23 “groundwater dependent ecosystems” is evidence of interconnection between surface and
24 groundwater. This is why the opinion of an expert botanist is relevant to the Court’s
25 consideration of the issue of interconnection in the Watershed.

26 (3) **STATUTORY DEFINITIONS CONTAINED IN SGMA**

27 SGMA also guides the Court on this legal issue. The goal of SGMA is to achieve
28 “sustainable groundwater management,” which means the management and use of groundwater in

1 a manner that can be maintained during a defined planning and implementation period without
2 causing undesirable results. (Water Code § 10721, subd. (u).) One “undesirable result” that
3 SGMA seeks to avoid is “[d]epletions of interconnected surface water that have significant and
4 unreasonable adverse impact on beneficial uses of the surface water.” (Water Code § 10721,
5 subd. (w).) Thus, SGMA recognizes the relationship between groundwater basins and
6 interconnected surface waters and requires management of the basins to avoid significant and
7 unreasonable adverse impacts to users of the interconnected surface water.

8 SGMA preserves local control for basin management but provides for state oversight and
9 possible direct regulation of a basin. (Water Code § 10735.2.) For example, the state may place
10 a basin on probation if the local management body fails to act, including failing to address
11 significant depletions of interconnected surface waters. (Water Code § 10735.2, subd.
12 (a)(5)(B)(ii).) For this specific purpose, SGMA defines “significant depletions of interconnected
13 surface waters” to mean “reductions in flow or levels of surface water that is hydrologically
14 connected to the basin such that the reduced surface water flow or levels have a significant and
15 unreasonable adverse impact on beneficial uses of the surface water.” (Water Code § 10735,
16 subd. (d).)

17 These statutory provisions in SGMA illustrate the importance of the hydrological
18 connection between surface water and groundwater and the importance of considering how
19 actions within basins have a relationship to beneficial uses of interconnected surface water that
20 must be considered together. In Phase 1, the question is whether the surface and groundwater of
21 the Watershed are interconnected; it is not an inquiry of individual impacts or cause and effect.
22 However, these provisions of SGMA could assist the Court in its assessment of interconnection
23 during the Phase 1 trial.

24 **(4) COMMON LAW APPROACHES TO INTERCONNECTION**

25 The interconnection between surface water and groundwater has long played an important
26 role in water law and water rights adjudications. Several key common law concepts will guide
27 the Court in assessing the issue of interconnection in the Watershed. These concepts include (i)
28 the “common source” doctrine, (ii) the role of human created connections, (iii) the relationship

1 between interconnection and the reasonable use doctrine, and (iv) the relationship between
2 interconnection and the public trust doctrine.

3 (a) **THE COMMON SOURCE DOCTRINE**

4 California water law originally employed hydrologically artificial distinctions between
5 surface water, including water in subterranean streams flowing through known and definite
6 channels, on the one hand, and percolating groundwater on the other. While these distinctions
7 continue to play an important role in the regulation of California’s water, their application led to
8 absurd results that were inconsistent with the wise use of water in this arid state. Therefore,
9 through Article X, section 2 of the California Constitution, and through multiple court decisions,
10 these artificial distinctions between surface water and groundwater have been changed in
11 meaningful ways that better reflect hydrological realities and the needs of those who use the
12 interconnected water.

13 One critical example of this change is the “common source doctrine.” “[I]t has been
14 recognized by California decisions that a percolating groundwater supply, although not part of the
15 flow of a stream, may nevertheless be hydrologically connected with it, with the result that the
16 extraction of water from either source diminishes the amount of water in the other. In such a
17 situation, the percolating groundwater and the stream are regarded as one common water
18 supply” (*United States v. Fallbrook* (S.D. Cal. 1958) 165 F.Supp. 806, 847.) Where
19 groundwater and surface waters are hydrologically interconnected, the “common source” doctrine
20 applies, integrating the water rights and applying priorities without regard to whether the
21 diversion is from surface water or groundwater.” (*Hudson v. Dailey* (1909) 156 Cal. 617, 627-
22 628.)

23 Some of the earliest “common source” cases involved individual surface water and
24 groundwater rights holders disputing their individual rights to the common source. For example,
25 in the seminal water rights case of *Katz v. Walkinshaw* (1903) 141 Cal. 116, the Court considered
26 a dispute involving a defendant who diverted water from an artesian belt of percolating
27 groundwater that the plaintiff had traditionally relied on for domestic and irrigation purposes. (*Id.*
28 at 138.) Among other things, the Supreme Court in *Katz* used this dispute to minimize the

1 distinction between percolating groundwater and an underground stream. It held that this
2 distinction was inapplicable to what was really a common source, “provided the fact be
3 established that their extraction from the ground diminished to that extent, or to some substantial
4 extent, the waters flowing in the stream.” (*See also, McClintock v. Hudson* (1903) 141 Cal. 275,
5 281 (1903)(summarizing this rule as expressed in *Katz*).)

6 *City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224 provides what is
7 possibly the most relevant example of the common source doctrine. There, the Supreme Court
8 explained that “[b]ecause these basins are interconnected, some of the surface inflow to one basin
9 is outflow from another. The groundwater and surface water within the entire Mojave River
10 Basin constitute a single interrelated source.” (*Id.* at 1234.)

11 The “common source” cases thus guide the Court on the legal question of interconnection.
12 When water flows from the surface to the ground, or from the ground to the surface, in an
13 interrelated cycle, the law will treat that water as a common source, where actions in one location
14 affect actions in another location. These conditions can be natural, but they are also influenced
15 and can be measured by human actions such as groundwater pumping or surface water diversions.
16 There is no bright line test under the common law for measuring interconnection, and each case
17 will turn on its facts. In the end, the Court will need to hear all the expert testimony and legal
18 arguments, and make a reasoned decision about whether groundwater and surface water in the
19 Watershed are interconnected and thus constitute a common source.

20 The Court may note with interest that in these “common source” cases, there is often a
21 defense raised that interconnection is not present because of the existence of a “clay blanket” that
22 divides the groundwater from the surface water. For example, in *City of Los Angeles v. Hunter*
23 (1909) 156 Cal. 603, 606, the defendant asserted that “over all the San Fernando Valley extends a
24 clay blanket, impervious to water, underlying which blanket are water-bearing gravels; that the
25 waters above this blanket feed the Los Angeles River, while the waters below this blanket do
26 not” The trial court rejected this contention, and this ruling was upheld by the California
27 Supreme Court. (*Id.* at 610.) In *Hudson v. Dailey* (1909) 156 Cal. 617, the court addressed a
28 similar “clay blanket” argument. The court rejected the broad “clay blanket” assertion, noting

1 that “[i]f there was in the valley a single acre where this supposed blanket did not exist, the
2 opening would be equivalent to an immense well through which the water would pass from the
3 upper strata into the lower one, if the water in the latter were extracted, or would rise into the
4 upper strata if the water in the upper strata was diminished and there was pressure below, thus
5 depleting or replenishing, as the case might be, the upper strata from which the creek water was
6 directly obtained, and to that extent affecting the flow of the creek.” (*Id.* at 622.) In other words,
7 absent specific evidence that an asserted “clay blanket” is uniform and consistent throughout the
8 entire basin, a court should reject any contentions that a possible “clay blanket” creates a
9 complete disconnection between the entire basin and surface waters.

10 (b) HUMAN MADE INTERCONNECTIONS

11 In addition to natural hydrological conditions, courts have recognized that humans may
12 change natural conditions in a manner that should be considered when determining water
13 questions. In this Watershed, humans have made significant changes to the natural hydrological
14 conditions in the system, and the Court should consider these changes as part of its assessment of
15 interconnection.

16 In *Chowchilla Farms v. Martin* (1933) 219 Cal. 1, the California Supreme Court
17 considered the human made changes to the natural conditions of the San Joaquin River in Madera
18 and Merced Counties. The Supreme Court held that a water course “although originally
19 constructed artificially, may from the circumstances under which it originated and by long-
20 continued use and acquiescence by persons interested therein become and be held to be a natural
21 watercourse” (*Id.* at 18.) The Court quoted with approval several cases from California and
22 other states and countries that follow this rule, including the following relevant statement: “where
23 such waters did not originally collect and flow down the channel, *if through the instrumentality of*
24 *man they have been made to do so and, through years of so flowing have acquired a permanent*
25 *character as the natural drainage of the watershed, the original manner of the creation of the*
26 *stream is immaterial*; it is a ‘water-course’ with all the attributes of one wholly natural.” (*Id.* at
27 14 (citations omitted and emphasis added).) The court concluded, based on this doctrine, that
28 “the channel now connecting Kings River with Fresno Slough has all the attributes of a natural

1 channel, and for the purpose of determining the respective rights of the parties thereto the water
2 flowing therein, said channel must be regarded and treated as a natural channel.” (*Id.* at 26.)

3 Other cases have confirmed this treatment of human created conditions as natural
4 conditions. (*Smith v. East Bay Municipal Utility District* (1954) 122 Cal.App.2d 613, 623
5 (quoting *Natural Soda Products Co. v. City of Los Angeles* (1943) 23 Cal.2d 193, 197 (finding
6 that “[a] change in flow of a stream that appears to be permanent usually leads to costly
7 adjustments by those interested, as they come to regard the artificial condition as permanent. It is
8 therefore reasonable that they should receive as much protection as if the condition were
9 natural.”); *Ramada Inns, Inc. v. Salt River Valley Water Users’ Ass’n* (1974) 523 P.2d 496, 498
10 (quoting 1 *Wiel, Water Rights* 60 (3d ed., 1911)) (holding that an “artificial watercourse may
11 come to be regarded as equivalent to a natural one”); *Contra Costa County v. Pinole Point*
12 *Properties, LLC* (2015) 235 Cal.App.4th 914.)

13 Under this line of authority, the Court should consider how humans have changed the
14 hydrology in the Watershed to directly link the basins to the Ventura River and its tributaries.
15 Based on these cases, humans may create hydrologic interconnection. This is why the opinion of
16 an expert historian who will opine on the historic changes made by humans in the Watershed
17 (such as Matilija Dam, Robles Diversion and Lake Casitas) is relevant to the Court’s
18 consideration of the issue of interconnection in the Watershed.

19 (c) INTERCONNECTION AND REASONABLE USE

20 Article X, section 2 of the California Constitution requires that all water in the state be
21 used reasonably and not wasted, and that it be put to beneficial uses to the fullest extent possible,
22 in light of the importance of water to the state. The Constitution further states that rights to the
23 use of water are limited to such water as is reasonably required for the beneficial use served, and
24 does not extend to the waste, unreasonable use, unreasonable method of use, or unreasonable
25 method of diversion of the water. A court always has the obligation to consider questions of
26 reasonable use, including as it relates to interconnected surface and groundwater. (*City of*
27 *Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 1250; *Tulare Irrigation District v.*
28 *Lindsay-Strathmore Irrigation District* (1935) 3 Cal.2d 489, 524-525.)

Assessment of reasonable use requires that a court consider “all the needs of those in the particular water field.” (*Tulare Irrigation District v. Lindsay-Strathmore Irrigation District*, *supra* 3 Cal.2d at 524-525.) The Court of Appeal has already determined that this Court must consider the other users in the Watershed as part of a determination of Ventura’s reasonable use cause of action. (*Santa Barbara Channelkeeper v. City of San Buenaventura*, *supra*, 19 Cal.App.5th at 1193.) This is the law of the case. In considering the underlying Complaint and Ventura’s Cross-Complaint, the Court of Appeal reasoned that “both pleadings address the ‘reasonableness’ of water use, both concern the extent of property rights to the use of the water—the same water, namely, that which flows in the Ventura River or can be pumped from the watershed’s groundwater basins.” (*Id.* at 1194.) (Emphasis added.) Interconnection is thus a critical component of the Court’s exercise of its constitutional mandate and must be applied consistently with the law of the case so that the different uses of this interconnected water may be assessed under the reasonable use doctrine.

(d) INTERCONNECTION AND PUBLIC TRUST

The public trust doctrine should also guide the Court in considering the interconnection between surface water and groundwater. Under the public trust doctrine, the people's common heritage of streams, lakes, marshlands and tidelands are to be protected by the state for our common use. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 441.) The public trust doctrine establishes a servitude upon all navigable streams protecting navigation, recreation, and instream uses. Importantly, the public trust doctrine links groundwater and interconnected surface waters. (*Environmental Law Foundation v. State Water Resources Control Board* (2018) 26 Cal.App.5th 844, 860.) When surface water and groundwater are interconnected, a Court must consider public trust uses of the interconnected surface waters when considering activities in the basin. Here, that would include instream uses by the Southern California steelhead. This is why a fishery expert is relevant to the Phase 1 trial—not to determine individual impacts to the fishery from individual pumpers, but to describe the presence of fish in the Watershed and the importance of San Antonio Creek and its tributaries (which provide water to and receive water from the Ojai and Upper Ojai Basins) to the fishery.

1 C. FACTUAL ISSUES

2 The question of interconnection may present the most significant factual questions in the
3 Phase 1 trial, and will likely occupy the majority of the trial time. Based on the designated
4 experts, the main dispute appears to be the interconnection between surface water and
5 groundwater in the Ojai Basin. While there are certain factual areas of dispute among the parties,
6 the material factual questions may prove to be undisputed, or undisputable. Among other things,
7 the Court will need to address the factual questions of: (i) whether there are natural hydrological
8 connections between surface water and groundwater in the Watershed and in the basins; (ii)
9 whether there are human made hydrological connections between surface water and groundwater
10 in the Watershed and in the basins; (iii) whether groundwater pumping within the Watershed and
11 in the basins helps to demonstrate the hydrological connections between surface water and
12 groundwater in the Watershed and in the basins; and (iv) whether there are users (human and
13 instream) of the interconnected surface waters that must be considered when fixing rights in each
14 basin in potential future phases of trial. These factual questions are summarized below.

15 (1) **NATURAL HYDROLOGICAL CONNECTION**

16 The Court will hear expert testimony on the natural hydrological connections between
17 groundwater and surface water in the Watershed and in the basins. This expert testimony will
18 include experts designated by Ventura, the State Board, the City of Ojai, and the East Ojai Group.

19 Ventura's hydrology expert, Dr. Claire Archer, will express the opinion that the "four
20 groundwater basins within the Ventura River Watershed (Watershed) are hydrologically
21 connected to the Ventura River in a substantial and material way, and within each groundwater
22 basin surface water and groundwater are also hydrologically connected in a substantial and
23 material way." Dr. Archer will explain the hydrology of the Watershed and the general
24 mechanisms for groundwater and surface water connections. For each basin, Dr. Archer will
25 provide expert testimony on the existence of a surface water and groundwater connection that is
26 based on the language in Bulletin 118 (which recognizes that the Ojai and Upper Ojai basins
27 discharge to surface waters), the geologic and hydro-geologic structure of each basin, existing
28 studies and modeling (including studies and adopted plans of the Ojai Basin Groundwater

1 Management Agency, which regulates the basin) that demonstrate interconnection, streamflow
2 gage data, groundwater level analysis, vegetation and groundwater dependent ecosystems, and
3 her independent groundwater modeling results.

4 The Court will also hear from two experts designated by the State Board, Dr. Al Preston
5 and Dr. Gregory Schnaar. These experts have developed an independent groundwater model of
6 the Watershed. This model demonstrates that there is interconnection between surface water and
7 groundwater throughout the Watershed and in the basins. The opinions of the State Board's
8 experts and the findings of their model are consistent with the opinions that will be expressed by
9 Dr. Archer and support a finding of interconnection.

10 The Court will also hear from Jordan Kear of Kear Groundwater on behalf of the City of
11 Ojai. Mr. Kear will express an opinion that pumping in certain portions of the Ojai Basin
12 (portions that are not recognized in Bulletin 118 as separate basins or subbasins) does not
13 materially affect surface waters. As to the specific issue of interconnectedness to be addressed in
14 Phase 1, however, Mr. Kear's report acknowledges that water flows from part of the Ojai Basin,
15 as the basin is defined by Bulletin 118, to San Antonio Creek. Mr. Kear's report agrees that there
16 is a perennial discharge from the basin, as defined in Bulletin 118, to San Antonio Creek, which
17 drains to the Ventura River, and that under certain circumstances "artesian conditions" exist
18 within the basin, where groundwater is pushed up to the surface waters within the basin.

19 Similarly, the Court will hear from Anthony Brown of Aquilogic, Inc. on behalf of the
20 East Ojai Group. Mr. Brown's opinion focuses on individual pumping. He will provide an
21 opinion that the pumping and surface water diversions of the East Ojai Group members from
22 certain portions of the Ojai Basin (which are not separate basins or subbasins in Bulletin 118) do
23 not materially affect surface waters. As noted above, individual pumping is not the relevant issue
24 for this Phase 1 trial. As to the interconnectedness issue to be heard in Phase 1, however, Mr.
25 Brown's report acknowledges that portions of the Ojai Basin, as defined in Bulletin 118, are
26 connected to surface waters, that there is a perennial discharge from the basin to San Antonio
27 Creek, and that under certain circumstances, artesian conditions exist within the basin.

1 (2) **HUMAN MADE INTERCONNECTION**

2 In addition to testimony on natural hydrologic interconnections, the Court will hear
3 testimony regarding the significant changes to the hydrology in the Watershed that have
4 fundamentally altered the Watershed's hydrology. Ventura's experts Dr. Doug Littlefield and
5 Dr. Archer will testify about these changes.

6 First, the Court will hear from Ventura's water historian, Dr. Littlefield. Dr. Littlefield
7 will provide opinions regarding the history that resulted in the development of the Matilija Dam,
8 the Robles Diversion, and Lake Casitas. Dr. Littlefield will testify about how the Ojai Valley
9 pushed for these physical changes in the Watershed so that the Ventura River could be directly
10 linked to the groundwater basins. Second, Dr. Archer will testify about how these physical
11 changes have resulted in human created hydrological connections between the surface waters and
12 groundwater in the Watershed.

13 (3) **GROUNDWATER PUMPING AND SURFACE DIVERSIONS**

14 The Court will also hear testimony regarding how collective (not individual) groundwater
15 pumping and surface diversions within the basins relate to the factual question of surface water
16 and groundwater interconnection. This testimony will be through experts called by Ventura, the
17 State Board, the City of Ojai, and the East Ojai Group.

18 Ventura's expert Dr. Archer will express the opinion that "[w]ithin each basin, and within
19 the watershed as a whole, extractions from either groundwater or surface water materially
20 diminish and could adversely impact the uses of the other such that the water within the
21 Watershed constitutes one common water supply." The State Board's experts and their model
22 will similarly demonstrate that suspension of collective groundwater pumping and diversions
23 would result in a material change in surface flow at downstream locations within the Watershed.

24 Mr. Kear and Mr. Brown, on behalf of the City of Ojai and the East Ojai Group
25 respectively, will opine that within certain areas of the Ojai Basin, pumping and diversions do not
26 have a material impact on flows to San Antonio Creek. However, Mr. Kear and Mr. Brown both
27 recognize that at least portions of the basin connect directly to San Antonio Creek, and that
28 artesian conditions exist within the basin. In addition, Mr. Kear opines that pumping in the

1 “deeper aquifer” has a material impact on levels in that aquifer, and that without pumping the
2 aquifer would fill under certain conditions.

3 **(4) USERS OF THE INTERCONNECTED WATER**

4 The Court will hear testimony regarding the users of the interconnected surface water.
5 This testimony will help the Court determine the factual question of whether the users of the
6 interconnected surface water must be considered in future phases of trial to determine rights
7 within the interconnected groundwater basins. At this stage, the testimony will not relate to direct
8 cause and effect questions related to individual pumping activities of these users of
9 interconnected surface water.

10 Ventura will present expert testimony from Dr. Chuck Hanson regarding the presence of
11 Southern California steelhead in the Watershed and in particular in San Antonio Creek and its
12 tributaries. Dr. Hanson will speak to the needs of the steelhead and the importance of San
13 Antonio Creek and its tributaries to the health of the Southern California steelhead in the
14 Watershed. In addition, Ventura will present testimony regarding consumptive uses (including its
15 use) of interconnected waters. This will include prior State Board permitting actions involving
16 the San Antonio Creek Spreading Grounds and diversions from San Antonio Creek in which the
17 relationship between both the fishery and Ventura’s senior downstream water rights were
18 determined, recognized, and protected by the State Board and parties in the Ojai Basin.

19 As noted, the factual issues here will not be specific to cause and effect impacts of
20 individual pumpers/diverters on downstream water users. Rather, in this Phase 1 trial, the factual
21 question to answer is whether there are users of the interconnected waters whose rights and needs
22 must be considered when fixing rights in each basin in future phases of the case, if such a rights
23 determination becomes necessary.

24 **D. VENTURA’S POSITION**

25 Ventura contends that the surface water and groundwater in the Watershed and in the
26 basins are interconnected and serve as a common source of water to both humans and instream
27 uses. All of the basins receive surface water and subsequently discharge groundwater back to the
28 surface waters. In addition, humans have changed the hydrology in the Watershed in a way that

1 makes all of the basins reliant on water from the Ventura River. Because the Watershed is
2 interconnected, a Watershed-wide physical solution is necessary to protect consumptive uses
3 while addressing challenges faced by instream uses in the Watershed. The physical solution will
4 be tried later if the parties cannot stipulate to it. The issue of interconnection that will form the
5 basis of consideration of the physical solution will be addressed here in Phase 1.

6 4. ISSUE NUMBER 4: WHETHER THE COURT MAY COMPREHENSIVELY
7 ADJUDICATE THE FOUR VENTURA RIVER WATERSHED
8 GROUNDWATER BASINS AND INTERCONNECTED SURFACE WATERS
9 IN ONE LEGAL PROCEEDING⁸

10 A. WHY THE COURT MUST DETERMINE THIS ISSUE IN PHASE 1

11 The City of Ojai asserts that the Comprehensive Adjudication Statute (Code Civ. Proc. §§
12 830-852) that forms the basis of the Sixth Cause of Action in Ventura's Cross-Complaint may be
13 applied only to an individual groundwater basin, not multiple groundwater basins and their
14 interconnected surface waters. Although resolving this issue in Phase 1 will only address issues
15 specific to the Sixth Cause of Action, making a determination on the City of Ojai's contention in
16 Phase 1 will help clarify issues in subsequent phases. A determination of this issue will not
17 alleviate the need for the Phase 1 trial, and, therefore, this question should be considered and
18 determined at the end of Phase 1, based on the full Phase 1 testimony and argument, as discussed
19 more in the trial sequencing portion of this brief.

20 B. LEGAL ISSUES AND LEGAL FRAMEWORK

21 The City of Ojai's contention, which ignores basic concepts of statutory construction and
22 defeats the "streamlining" purpose of the Comprehensive Adjudication Statute, is that the
23 Comprehensive Adjudication Statute uses the singular "basin" and not the plural "basins," and
24

25 ⁸ Ventura and the City of Ojai do not agree on the phrasing of this question. Ojai would phrase
26 the question as follows: "A determination of whether, as a matter of law, the court may
27 comprehensively determine rights to extract groundwater among all rights holders across four
28 separate basins in one legal proceeding pursuant to Code of Civil Procedure section 830, *et seq.*"
Ventura objects to this phrasing because, among other things: (i) this question involves some
factual questions (such as interconnection) and is not a pure matter of law; (ii) Ventura is not
seeking a determination among right holders *across* different basins, as explained below; (iii) the
basins are fed by and drain to interconnected surface waters and are a common source of water in
the Watershed; (iv) the phrasing ignores interconnected surface waters.

1 therefore may only apply to one basin at a time. To assess and resolve this contention, the Court
2 should apply the following legal framework to the following legal issues.

3 (1) **BASIN MEANS BASINS BECAUSE THE SINGULAR**
4 **INCLUDES THE PLURAL**

5 In both the Code of Civil Procedure and in the Water Code, the singular includes the
6 plural. Therefore, when a statute uses the word “basin,” it means “basins” as well. The Code of
7 Civil Procedure provides that the “singular number includes the plural and the plural number
8 includes the singular.” (Code Civ. Proc. § 17, subd. (a).) Water Code section 13 similarly
9 provides that the “singular number includes the plural, and the plural, the singular.” (Water Code
10 § 13.) Thus, the term “basin” as defined in Code of Civil Procedure section 832, subdivision (a),
11 means both the singular “basin” and plural “basins.” Similarly, the term “basin” in Water Code
12 section 10721, which is incorporated into the definition in Code of Civil Procedure section 832
13 subdivision (a), means both “basin” and “basins.” Rather than always having to write “basin(s)”
14 in the Comprehensive Adjudication Statute and in SGMA, the Legislature was free to rely on the
15 provisions of Code of Civil Procedure section 17, subdivision (a) and Water Code section 13, and
16 use the term “basin” to mean both the singular and the plural, that is “basin” and “basins.” If the
17 Legislature had intended otherwise, and had intended that each basin within a watershed had to be
18 a subject of a separate lawsuit, it would have had to expressly state so given Code of Civil
19 Procedure section 17 and Water Code section 13. It did not do so.

20 (2) **THE COMPREHENSIVE ADJUDICATION STATUTE WAS**
21 **INTENDED TO AND MUST BE INTERPRETED TO PROMOTE**
22 **EFFICIENCY NOT INEFFICIENCY**

23 The Comprehensive Adjudication Statute was expressly adopted to promote efficiency
24 and reduce unnecessary delays. Code of Civil Procedure section 830 subdivision (b)(2) provides
25 that the Comprehensive Adjudication Statute “shall be applied and interpreted consistently with”
26 the goal of conducting “a comprehensive adjudication in a manner that promotes efficiency,
27 reduces unnecessary delays, and provides due process.” It is intended to establish procedures by
28 which courts may conduct comprehensive determinations of all rights and priorities to

1 groundwater in a basin or basins.

2 Interpreting the Comprehensive Adjudication Statute to require separate lawsuits
3 regarding the four groundwater basins and the interconnected surface water in the Watershed
4 would violate these interpretive provisions and result in gross inefficiency, unnecessary delays,
5 and potential due process concerns. Resolving common issues in the Watershed and the
6 interconnected groundwater basins promotes the efficient resolution of common issues on an
7 expedited basis. It promotes a more efficient resolution of issues and protects due process since
8 all parties are at the same table with the same information and opportunity to be heard and
9 address issues. In contrast, the City of Ojai's interpretation of the statute would require separate
10 lawsuits, likely followed by a motion to coordinate or consolidate, with the possibility of
11 inconsistent findings, duplicative discovery, and substantial burdens to the many parties who
12 claim rights in multiple basins or surface waters. Rather than promoting efficiency, reducing
13 unnecessary delays, and protecting due process, Ojai's approach would undermine each of these
14 stated goals of the Comprehensive Adjudication Statute and should be rejected.⁹

15 (3) **THE COMPREHENSIVE ADJUDICATION STATUTE DID NOT**
16 **CHANGE COMMON LAW**

17 An argument inherent in Ojai's narrow reading of the Comprehensive Adjudication
18 Statute is that the statute displaces the common law on groundwater and surface water
19 adjudications. Such a claim is inaccurate. Both SGMA and the Comprehensive Adjudication
20 Statute expressly preserve and incorporate the common law, which has always permitted
21 adjudications of multiple basins and surface waters. Because the Comprehensive Adjudication
22 Statute was expressly intended to streamline historical common law adjudications, the legislature
23 clearly intended it to address the adjudication of multiple basins and surface waters, as has
24 historically been done in California. (*See* (4), below.)

25 Water Code section 10720.5, subdivision (b) provides that "[n]othing in this part, or in
26 any groundwater management plan adopted pursuant to this part, determines or alters surface

27 ⁹ This is particularly true given that Ojai or others did not object to the use of the notice process
28 under the Comprehensive Adjudication Statute when the Court approved Ventura's use of that
process. It would be extremely inefficient to reconsider the use of that process at this late date.

1 water rights or groundwater rights under common law or any provision of law that determines or
2 grants surface water rights.” Similarly, Code of Civil Procedure section 830, subdivision (b)(7)
3 states that “[e]xcept as provided in this paragraph, this chapter shall not alter groundwater rights
4 or the law concerning groundwater rights.”

5 While these provisions show a clear legislative intent to preserve the common law, the
6 legislative history of the Comprehensive Adjudication Statute puts any remaining questions to
7 bed.¹⁰ For example, the legislative history provides as follows:

8 Concerns were raised by parties that questioned whether this bill
9 could . . . inappropriately bring surface water rights into the
10 groundwater arena. However, such concerns ignore that current
11 law already sets forth the ability of the court to determine water
12 right priorities; and that where groundwater and surface water are
13 interconnected, the “common source” doctrine applies, integrating
water rights and applying priorities without regard to whether the
diversion is from surface or groundwater. The author states that the
reason for including provisions acknowledging existing law is to
remove some of the unnecessary uncertainty that has been a major
obstacle to a speedy and fair resolution of groundwater claims.

14 (Assem. Com. on Water, Parks and Wildlife Assem. Floor Analysis on Assem. Bill 1391 (2015-
15 2016 Reg. Sess.) Sept. 9, 2015.)

16 The legislative history further explains that the bill “includes detailed procedures to ensure
17 that a comprehensive adjudication is truly comprehensive” (*Ibid.*) It cites with approval a
18 common law decision that emphasizes that “addressing all water rights could eliminate the
19 uncertainty that leads to recurrent, costly, and piecemeal litigation.” (*Ibid.*) It would be directly
20 contrary to these statements to separate out, rather than consolidate, the interconnected aspects of
21 this Watershed and its basins.

22 Additionally, the legislative history also reflects that “the author intends to establish a
23 process to adjudicate groundwater rights under SGMA that operates parallel to California’s
24 existing common law groundwater adjudication process” and accordingly provided the express
25 language in Code of Civil Procedure section 830, subdivision (b)(7) set forth above. (Sen. Com.
26 on Judiciary, Analysis on Sen. Bill 226 (2015-2016 Reg. Sess.) (Apr. 27, 2015).)

27
28 ¹⁰ In its message board posting of October 15, 2021, the Court expressly asked about legislative history.

1 By its express terms and in its legislative history, the Comprehensive Adjudication Statute
2 was intended to incorporate the common law, which has always permitted the adjudication of
3 multiple groundwater basins and interconnected surface waters in one comprehensive lawsuit.

4 (4) **UNDER COMMON LAW, COURTS HAVE INCLUDED**
5 **MULTIPLE BASINS AND SURFACE WATERS IN ONE**
6 **COMPREHENSIVE ADJUDICATION**

7 Courts in California have routinely permitted large, comprehensive adjudications
8 involving multiple basins and interconnected surface waters in one action. A sampling of
9 appellate and trial court cases makes this point undisputable.

10 (a) ***CITY OF BARSTOW V. MOJAVE WATER AGENCY (2000)***
11 **23 CAL.4TH 1224**

12 The Mojave case involved the adjudication of surface water and groundwater rights in the
13 Mojave River Basin and its five hydrologic subareas, covering approximately 3,600 square miles.
14 As the Court explained: “Because these basins are interconnected, some of the surface inflow to
15 one basin is outflow from another. The groundwater and surface water within the entire Mojave
16 River Basin constitute a single interrelated source.” (*City of Barstow v. Mojave Water Agency*
17 (2000) 23 Cal.4th 1224, 1234.) The physical solution in this adjudication required “each subarea
18 within the basin to provide a specific quantity of water to the adjoining downstream subarea.”

19 The *Mojave* case provides an example in the common law of a comprehensive
20 adjudication involving multiple basins or subbasins and interconnected surface water. Of course,
21 such an approach makes sense because litigating interconnected areas separately would be
22 inefficient, create unnecessary delay, and threaten due process rights. Since the Comprehensive
23 Adjudication Statute preserves common law, approaches such as the one used in *Mojave* are
24 consistent with and may be brought under that law.

25 (b) ***CENTRAL BASIN MUNICIPAL WATER DIST. V.***
26 ***FOSSETTE (1965) 235 CAL.APP.2D 689***

27 The Fossette case involved issues related to the adjudication of the entire San Gabriel
28 River water system, including surface water and groundwater in the upper and lower areas of that

1 system. The stipulated judgment in that adjudication required a base underflow through the
2 Whittier Narrows to ensure adequate water supply for basins further downstream. The San
3 Gabriel adjudication is another common law example of how a court permitted multiple basins
4 and surface waters to be adjudicated in one action. The published *Fossette* decision is instructive
5 too because the stipulated judgment and the physical solution are attached to the decision, and
6 these attachments to the decision help to illustrate how this complex, multiple basin case was
7 resolved in one legal action.

8 (c) ***CITY OF LOS ANGELES V. CITY OF SAN FERNANDO***
9 **(1975) 14 CAL.3D 199**

10 The San Fernando case involved the adjudication of rights to water underlying the Upper
11 Los Angeles River Area, including the San Fernando Subarea, the Sylmar Subarea, the Verdugo
12 Subarea, and the Eagle Rock Subarea. Once again, based on common law, courts are permitted to
13 adjudicate multiple basins and surface waters in one action and should do so in cases where the
14 basins and surface waters are interconnected.

15 (d) **THE SANTA ANA RIVER WATERSHED**
16 **ADJUDICATION**

17 The Santa Ana River Watershed Adjudication involved the adjudication of surface water
18 and groundwater rights in the stream system and in three major basins. The stipulated judgment
19 in the adjudication required maintenance of minimum flow at particular points along the Santa
20 Ana River. This matter is one of multiple trial court judgments¹¹ involving multiple basins and
21 groundwater and surface water determinations.

22 C. **FACTUAL ISSUES**

23 The questions involved with this issue of what is allowed under the Comprehensive
24 Adjudication Statutes are primarily legal in nature but not exclusively so. Although the legal
25

26 ¹¹ See Request for Judicial Notice Exhibits 1-3. (*Orange County Water District v. City of Chino,*
27 *et al.* (Sup. Ct. County of Orange, April 17, 1969, No. 117628); *Chino Basin Municipal Water*
28 *District v. City of Chino, et al.* (Sup. Ct. County of San Bernardino, January 27, 1978, No. 51010
[2012 restated version]); and *Western Municipal Water District of Riverside County, et al. v. East*
San Bernardino County Water District, et al. (Sup. Ct. County of Riverside, April 17, 1969, No.
78426).)

1 question involves interpretation of the language and intent of the Comprehensive Adjudication
2 Statute and the relationship between that new law and over a hundred years of common law, the
3 Court's assessment of these legal issues should be informed by the testimony presented at the
4 Phase 1 trial on the interconnected nature of the Watershed. These factual issues will provide a
5 basis for the Court to make a more informed decision about the need for allowing this type of
6 comprehensive Watershed approach to be addressed in one action. For this reason, Ventura
7 believes that a final decision on this issue should be made at the end of the Phase 1 trial, and not
8 before it. In addition, because this issue relates only to the Sixth Cause of Action, hearing it
9 before the Phase 1 trial would not change the need for the Phase 1 trial, and therefore does not
10 need to occur before the trial.

11 D. VENTURA'S POSITION

12 Ventura's position is that it may properly include all four basins and the interconnected
13 surface waters in one cause of action under the Comprehensive Adjudication Statute. Doing so is
14 entirely consistent with the language and purpose of the statute and achieves the explicit goal of
15 the Comprehensive Adjudication Statute to promote the efficient resolution of issues common to
16 the Watershed. Rather than litigating these common issues separately in different lawsuits, with
17 the possibility of inconsistent and conflicting results, Ventura properly included all four basins
18 and the interconnected surface waters in this one cause of action.

19 If it ever becomes necessary, individual water rights in individual basins could and would
20 be assessed separately, with due consideration of the water rights and needs of the users of
21 interconnected surface water. For each basin, the Court might ultimately establish an amount of
22 water to be discharged from the basin as necessary to protect users of interconnected waters,
23 subject to the rules of reasonableness and priority and public trust considerations, and
24 correspondingly determine rights within each separate basin in light of that downstream
25 obligation. This is why the City of Ojai's phrasing of the question is objectionable; it does not
26 accurately represent what Ventura is seeking to do with this cause of action. In no way is Ventura
27 asking the Court to compare rights *across* different basins, such as comparing rights holders in
28 the Ojai Basin with rights holders in the Upper Ojai Basin. All Ventura is seeking to do is

1 comprehensively address the common problems in the interconnected Watershed, consistent with
2 traditional water rights concepts and the rules of reasonableness and priority and public trust
3 considerations. This can and should be done in one cause action given the interconnection of this
4 common source. If necessary, the Court may sequence future phases of trial to avoid this concern
5 about cross basin rights.

6 Ventura's position on this question is also firmly rooted in the existing law of the case.
7 Although the Court of Appeal decision did not address the Comprehensive Adjudication Statute,
8 the decision allows Ventura to bring in all users of the interconnected water in the Watershed,
9 including users in the four basins, in one action through the Cross-Complaint.

10 5. ISSUE NUMBER 5: WHETHER THE COURT IS REQUIRED TO MAKE A
11 FINDING UNDER CODE OF CIVIL PROCEDURE SECTION 833(C) AND IF
12 SO, WHETHER THE EVIDENCE SUPPORTS A FINDING THAT
13 "INCLUDING AN INTERCONNECTED SURFACE WATER BODY OR
14 SUBTERRANEAN STREAM FLOWING THROUGH KNOWN AND
15 DEFINITE CHANNELS IS NECESSARY FOR THE FAIR AND EFFECTIVE
16 DETERMINATION OF THE GROUNDWATER RIGHTS IN A BASIN . . ."¹²

17 A. WHY THE COURT MUST DETERMINE THIS ISSUE IN PHASE 1

18 Multiple parties have asked whether a Code of Civil Procedure section 833, subdivision
19 (c) finding is required and can be made. Addressing this issue in Phase 1 will resolve this
20 threshold question, which again applies only to the Sixth Cause of Action. A determination of
21 this issue will not alleviate the need for the Phase 1 trial and therefore should be considered and
22 determined at the end of Phase 1, based on a full record of the Phase 1 issues.

23 B. LEGAL ISSUES AND LEGAL FRAMEWORK

24 Code of Civil Procedure section 833(c) provides that "[i]f the court finds that including an

25 ¹² Ventura and the City of Ojai could not agree on the phrasing of this question. Ojai would
26 phrase the question as follows: "A determination of whether there is sufficient evidence to
27 support the inclusion of the four groundwater basins in an adjudication of the Ventura River
28 pursuant to Code of Civil Procedure section 833(c) and any other authority." Ventura objects to
this phrasing because: (i) it does not reflect the actual language of the statute but seeks to change
it; (ii) it ignores the entire concept of interconnected surface water that is integral to the
Watershed and Section 833(c); (iii) it references but does not define "any other authority."

1 interconnected surface water body or subterranean stream flowing through known and definite
2 channels is necessary for the fair and effective determination of the groundwater rights in a basin,
3 the court may require the joinder of persons who claim rights to divert and use water from that
4 surface water body or subterranean stream in a comprehensive adjudication conducted pursuant to
5 this chapter.” This provision raises at least three legal questions—(i) is the section mandatory or
6 permissive, (ii) how should the Court interpret the term “interconnected surface water body or
7 subterranean stream,” and (iii) when are users of such an interconnected water body “necessary
8 for the fair and effective determination of the groundwater rights in a basin.”

9 Answering the first question, the statute uses the permissive “may,” and provides a vehicle
10 by which a court may be asked to force the plaintiff in an adjudication to add parties not currently
11 before the court to the existing lawsuit. Here, Ventura has already named in the Cross-
12 Complaint, including in the Sixth Cause of Action, all known users of and potential claimants to
13 interconnected surface waters. Therefore, there is nothing for the Court to do under Code of Civil
14 Procedure section 833, subdivision (c); Ventura has already done the work and accomplished the
15 goal of the statute. Certainly, nothing in Section 833, subdivision (c) suggests that a plaintiff may
16 only add parties after a court makes an 833, subdivision (c) finding or that the statute is intended
17 to bar claims against parties that would otherwise have been permitted under the common law and
18 the law of the case. For these reasons, there is no need for the Court to make a finding under
19 Section 833, subdivision (c).

20 The second legal question raises issues similar to but narrower than those previously
21 discussed under Phase 1 trial Issue 3 above (starting at page 12); to interpret the term
22 “interconnected surface water body or subterranean stream,” the Court may look to the legal
23 guidance discussed therein.

24 The third legal question addresses when a surface water user “is necessary for the fair and
25 effective determination of the groundwater rights in a basin.” Again, this legal question raises
26 issues similar to but narrower than those previously discussed under Phase 1 trial Issue 3 above.
27 When considering interconnected surface waters, a court must consider the rights of legal
28 consumptive users of those waters, as well as instream uses, when fixing rights in a basin. In

1 most cases, it will be appropriate to require a certain amount of water to be released from the
2 basin to protect the rights and needs of such interconnected surface water users. This may, in
3 turn, require particular management activities within the basin to insure such releases, which
4 would be resolved in a future phase(s), with individual rights and obligations in each basin fixed
5 accordingly, subject to priority, reasonable use, and the public trust.

6 C. FACTUAL ISSUES

7 In general, the factual issues to be resolved under Issue 5 will be similar to but narrower
8 than the factual issues under Issue 3.

9 D. VENTURA'S POSITION

10 Ventura contends that a finding under Code of Civil Procedure section 833(c) is not
11 required; Ventura has eliminated the need for any such finding because it has already joined all
12 known users of and potential claimants to interconnected surface water in the Cross-Complaint,
13 including in the Sixth Cause of Action. Of course, Ventura was expressly permitted to pursue
14 other users of interconnected surface water by the Court of Appeal in a decision that is now the
15 law of the case. If the Court determines that a Section 833, subdivision (c) finding is required,
16 Ventura's position is that the surface waters are interconnected with the basins and that assessing
17 the rights and needs of the users of those interconnected surface waters is necessary for the fair
18 and effective determination of the groundwater rights in the basins. This position is also
19 consistent with the law of the case.

20 6. SEQUENCING OF ISSUES FOR TRIAL

21 As discussed above, Ventura believes that Issues 1 and 2 are undisputed and should be
22 resolved in an expedited fashion. One option would be for the Court at the November 15, 2021
23 status conference to ask whether any party disputes the Watershed boundaries or the basin
24 boundaries as defined in Bulletin 118. If no party objects, the Court could set these two questions
25 for determination at the December status conference, with notice to all parties. At the December
26 status conference, the Court could set these boundaries or hear any objections. Assuming no
27 objections, this process would streamline the Phase 1 trial and avoid unnecessary litigation over
28 undisputed issues.

1 With regard to Issues 3, 4, and 5, Ventura believes that these issues should be determined
2 after the close of evidence and argument in the Phase 1 trial. Ventura would not agree at this time
3 to any suggestion that Issue 4 should be heard prior to the evidence and argument in the Phase 1
4 trial because it is both a legal and factual question. The evidence and argument in Phase 1 will
5 help inform the Court's interpretation of the legal questions. In addition, Issue 4 only applies to
6 the Sixth Cause of Action and therefore would not meaningfully change the Phase 1 trial. With
7 regard to Issue 5, the Court could determine that a finding under Section 833, subdivision (c) is
8 not required prior to trial. In all other cases, Issue 5 could only be decided at the end of the Phase
9 1 trial.

10
11
12
13 Dated: November 8, 2021

BEST BEST & KRIEGER LLP

14
15 By: 

16 SHAWN D. HAGERTY
17 CHRISTOPHER MARK PISANO
18 SARAH CHRISTOPHER FOLEY
19 PATRICK D. SKAHAN
20 Attorneys for Respondent and Cross-
21 Complainant
22 CITY OF SAN BUENAVENTURA
23
24
25
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EXHIBIT A

EXHIBIT A

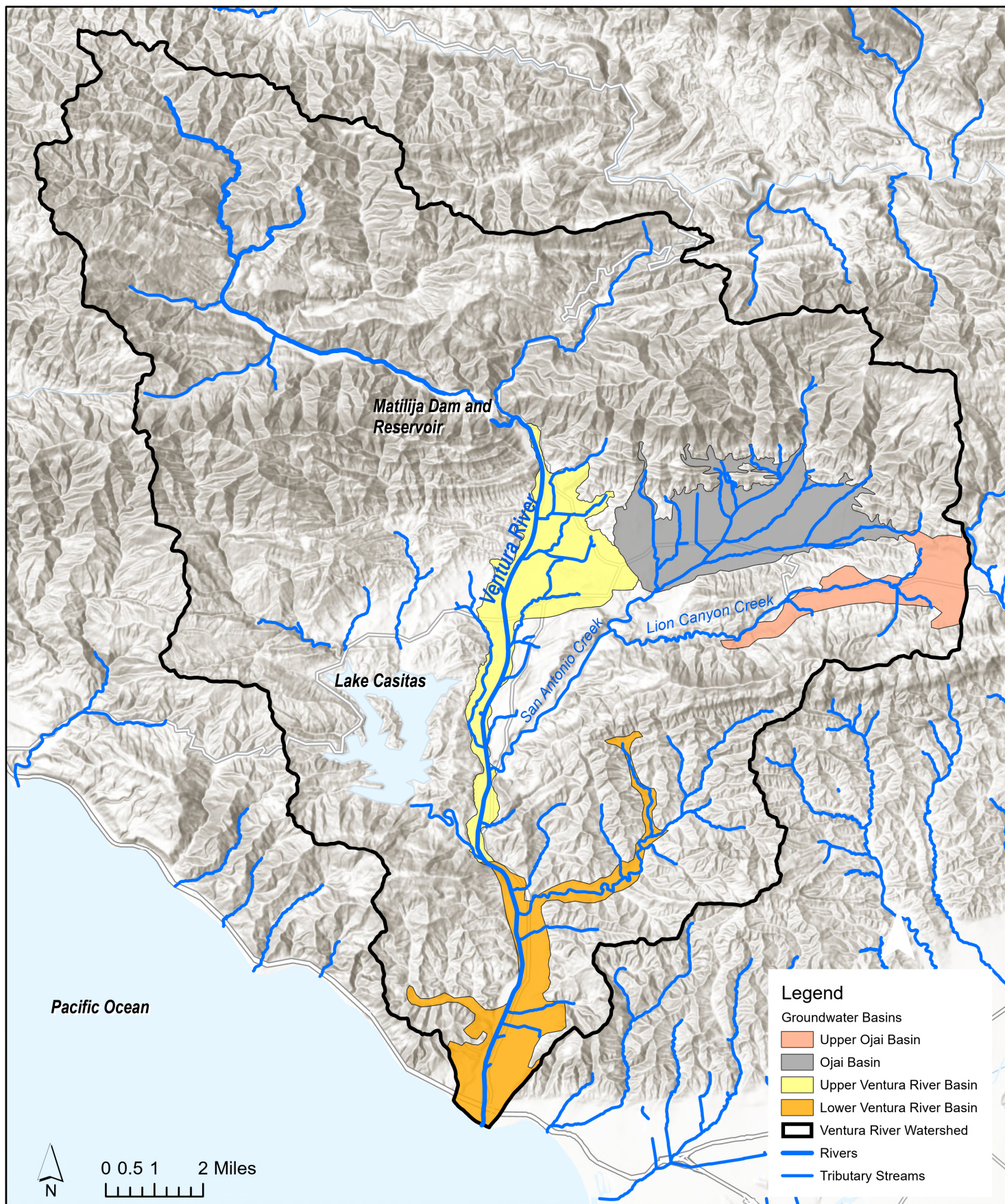


Figure 1. Location of the Groundwater Basins within the Ventura River Watershed

Data Sources: California Bulletin 118
USGS National Hydrography Dataset

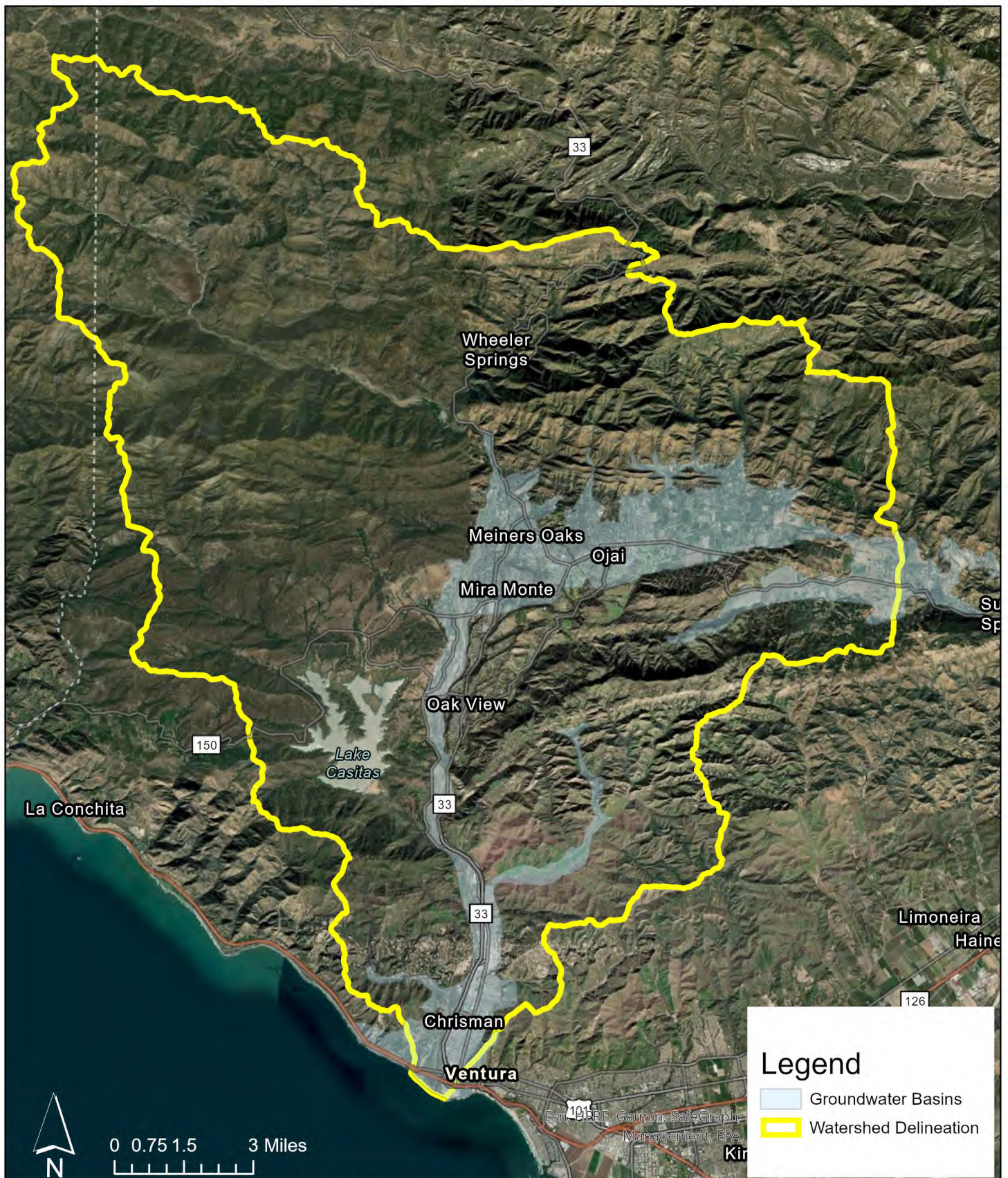


Exhibit 2. Watershed Delineation Map

The Ventura River Watershed delineated using the Hydrology Toolset in ArcGIS

Data Sources: CA DWR Bulletin 118

EXHIBIT B

EXHIBIT B

Ventura River Valley Groundwater Basin, Upper Ventura River Subbasin

- Groundwater Basin Number: 4-3.01
- County: Ventura
- Surface Area: 7,410 acres (11.6 square miles)

Basin Boundaries and Hydrology

The Upper Ventura River Subbasin is bounded on the south by the Lower Ventura River Subbasin, on the east by the Ojai Valley Groundwater Basin, and elsewhere by impermeable rocks of the Santa Ynez Mountains (DPW 1933). The surface is drained by the Coyote, Matilija, and San Antonio Creeks and the Ventura River. Average annual precipitation ranges from 14 to 24 inches.

Hydrogeologic Information

Water Bearing Formations

In the basin, groundwater is chiefly found in Holocene and Pleistocene age alluvium (DPW 1933; Panaro 2002) and is unconfined. Thickness of the alluvium ranges from 60 to 100 feet; however, it apparently is only 5 to 30 feet in the San Antonio and Coyote Creek areas, (DWR 1959). The average specific yield of the basin is estimated at 8 percent (CSWRB 1953).

Restrictive Structures

The east-trending Santa Ana fault crosses the basin, but it is not known whether or not the fault is a barrier to groundwater movement. In 1906, the City of Ventura constructed a partial subsurface barrier in the alluvium of the Ventura River near Foster Park to create rising water, which was to be diverted for domestic and irrigation uses (CSWRB 1953).

Recharge Areas

Recharge to the basin is primarily by percolation of flow in the Ventura River and, to a lesser extent, by percolation of rainfall to the valley floor and excess irrigation water. A slight amount of recharge is derived from subsurface inflow through fractures in the underlying impermeable rocks (CSWRB 1953).

Groundwater Level Trends

Groundwater moves southward through the alluvium following the surface drainage, ultimately entering Lower Ventura River Subbasin below Foster Park. Hydrographs indicate that groundwater levels have been mostly stable in this subbasin. Water levels fluctuate seasonally by 5 to 20 feet, but usually recover each year to about the previous high level. These hydrographs also show gradual decline and rise of water levels associated with dry and wet weather cycles; however, these long term cycles typically are of lower amplitude than the seasonal cycles.

Groundwater Storage

Groundwater Storage Capacity. The total storage capacity for this subbasin has been estimated to be 10,000 af (CSWRB 1953), 35,000 af (DWR 1975), and 35,118 af (Panaro 2000).

Groundwater in Storage. The subbasin is estimated to have been 90 percent full (Panaro 2000;VCWA 2002), or have about 31,600 af of groundwater in storage in 1999.

Groundwater Budget (Type C)

Recharge by underflow is estimated to be at least 3,500 af/yr.

Groundwater Quality

Characterization. Groundwater in the subbasin is calcium bicarbonate-sulfate in character. Analyses of water from 23 wells sampled in the 1950s show TDS content that ranges of 732 to 1,420 mg/L (DWR 1959). The average TDS content in the basin has been reported at 680 mg/L (VCWA 1996). Water from 18 public supply wells show TDS content ranging from 500 to 1,240 mg/L with an average of approximately 706 mg/L.

Impairments. TDS content is high in some parts of the subbasin.

Water Quality in Public Supply Wells

Constituent Group ¹	Number of wells sampled ²	Number of wells with a concentration above an MCL ³
Inorganics – Primary	17	4
Radiological	17	0
Nitrates	18	2
Pesticides	16	0
VOCs and SVOCs	16	0
Inorganics – Secondary	17	4

¹ A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).

² Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.

³ Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: - 10 to 200 gal/min (CSWRB 1953)	Average: 600 gal/min (Panaro 2000)
Total depths (ft)		
Domestic	Range:	Average:
Municipal/Irrigation	Range:	Average:

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Ventura County	Groundwater levels	17
Department of Health Services and cooperators	Title 22 water quality	18

Basin Management

Groundwater management:

Water agencies

Public	Ventura County Public Works Agency
Private	Southern California Water Company

References Cited

- California Department of Water Resources (DWR). 1959. *Water Quality and Water Quality Problems, Ventura County*. Bulletin 75. Two Volumes. 195 p.
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Errata

Changes made to the basin description will be noted here.

Ventura River Valley Groundwater Basin, Lower Ventura River Subbasin

- Groundwater Basin Number: 4-3.02
- County: Ventura
- Surface Area: 5,300 acres (8.3 square miles)

Basin Boundaries and Hydrology

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. Average annual precipitation ranges from 14 to 16 inches.

Hydrogeologic Information

Water Bearing Formations

Groundwater is found in alluvium of Holocene and Pleistocene age and the San Pedro Formation of Pleistocene age. Groundwater in the basin is unconfined (Panaro 2000). The estimated average specific yield of the basin is 8 percent (CSWRB 1953).

Alluvial Deposits. The alluvium of Holocene and Pleistocene age consists of sand, gravel, and clay. The deposits range from 60 to 100 feet thick beneath the floor of the Ventura River Valley (CSWRB 1953).

San Pedro Formation. The San Pedro Formation consists of gravel, sand, silt, and clay, which near the river mouth is at least partially hydraulically isolated from the Holocene alluvium by relatively impervious material (CSWRB 1953).

Recharge Areas

The basin is recharged by percolation of Ventura River water, precipitation to the valley floor, and irrigation return flow and by subsurface inflow from the Upper Ventura River Subbasin (Panaro 2000).

Groundwater Level Trends

Groundwater moves southward following the course of the Ventura River to the Pacific Ocean. During 1948 through 1956, groundwater levels in one well fluctuated about 25 feet and experienced flowing conditions in 1950 and 1954 (Panaro 2002).

Groundwater Storage

Groundwater Storage Capacity. The total storage capacity is estimated at 264,000 af (Panaro 2000; VCPWA 2002).

Groundwater in Storage. Unknown.

Groundwater Budget (Type A)

Estimates of recharge include underflow of 1,100 af/yr and irrigation return of less than 100 af/yr (Panaro 2000). Extractions are estimated to be less than 400 af/yr (Panaro 2000).

Groundwater Quality

Characterization. Groundwater in the basin is sodium bicarbonate in character. Water from 2 public supply wells has an average TDS content of 772 mg/L in the basin with a range from 760 to 784 mg/L. However, TDS content can range from 1,100 to 3,000 mg/L during extended dry spells (VCPWA 1996).

Impairments. Hydrogen sulfide gas has been reported in the water, particularly during periods when water levels are lowest (DWR 1959). Oil has also been found in the water (DWR 1959). High sulfate and nitrate minerals are common along the shallow alluvium drainage courses where most remaining water wells are found (VCPWA 1996).

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range:	Average: 20 gal/min (Panaro 2000)
Total depths (ft)		
Domestic	Range:	Average:
Municipal/Irrigation	Range:	Average:

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Department of Health Services and cooperators	Title 22 water quality	2

Basin Management

Groundwater management:

Water agencies

Public	Ventura County Public Works Agency
Private	Southern California Water Company

References Cited

- California Department of Public Works, Division of Water Resources (DPW). 1933. *Ventura County Investigation*. Bulletin 46.
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Errata

Changes made to the basin description will be noted here.

Upper Ojai Valley Groundwater Basin

- Groundwater Basin Number: 4-1
- County: Ventura
- Surface Area: 3,800 acres (5.9 square miles)

Basin Boundaries and Hydrology

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. Average annual precipitation ranges from 24 to 28 inches.

Hydrogeologic Information

Water Bearing Formations

Groundwater in the basin is found chiefly in Holocene and Pleistocene age alluvium that averages about 60 feet thick and reaches a maximum of about 300 feet thick near Sisar Creek (CSWRB 1953). The average specific yield of the alluvium is estimated at 8 percent (CSWRB 1953). Minor groundwater is found in fractures in the Tertiary sediments underlying the alluvium.

Restrictive Structures

A surface and groundwater divide is found in the eastern part of the basin the separates groundwater flow westward toward San Antonio Creek and eastward toward Santa Paula Creek.

Recharge Areas

The chief source of recharge in the basin is derived from percolation of precipitation (Panaro 2000). Other minor recharge contributions include irrigation return and underflow from the fractured rock beneath the basin (Panaro 2000).

Groundwater Level Trends

Hydrographs show groundwater levels that fluctuate seasonally by about 10 to 20 feet during 1992 through 1999. The groundwater levels return to about the same elevation every year, consistent with a small basin recharged chiefly by annual precipitation. Groundwater in the eastern part of the basin moves eastward toward Sisar Creek and in the western part of the basin moves westward toward Lion Canyon.

Groundwater Storage

Groundwater Storage Capacity. The total storage capacity is estimated to be 6,000 af (DWR 1975) and 5,681 af (Panaro 2000).

Groundwater in Storage. The basin is estimated to have been 70 percent full in 1999 (Panaro 2000), suggesting about 3,980 af of groundwater in storage.

Groundwater Budget (Type A)

Natural recharge into the basin is estimated to be 400 af/yr (DWR 1975). Recharge into the basin is estimated to be 320 af/yr from return irrigation flow and about 600 af/yr from underflow (Panaro 2000). Pumping in 1999 was estimated to be less than 700 af (Panaro 2000).

Groundwater Quality

Characterization. Groundwater character is calcium-sodium bicarbonate in the western part of the basin and calcium sulfate in the eastern part of the basin. Analyses of water from 12 wells sampled during 1951 and 1952 show an average TDS content of 707 mg/L with a range of 438 to 1,249 mg/L (DWR 1959). Water from one public supply well shows a TDS concentration of 500 mg/L.

Impairments. High boron concentrations are found in groundwater in the southern part of the basin (DWR 1959). Locally, sodium chloride waters with TDS concentrations ranging from 2,000 to 3,000 mg/L are found in the eastern part of the basin (DWR 1959). High nitrate, sulfate, iron, and chloride concentrations have been reported for groundwater in the basin (Panaro 2000).

Water Quality in Public Supply Wells

Constituent Group ¹	Number of wells sampled ²	Number of wells with a concentration above an MCL ³
Inorganics – Primary	1	0
Radiological	1	0
Nitrates	1	0
Pesticides	1	0
VOCs and SVOCs	1	0
Inorganics – Secondary	1	1

¹ A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).

² Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.

³ Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Production characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: 10 – 200 gal/min	Average: 50 gal/min (CSWRB 1953), 20-50 gal/min (Panaro 2000)
Total depths (ft)		
Domestic	Range:	Average:
Municipal/Irrigation	Range:	Average:

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Ventura County Water Resources Department	Groundwater levels	4
Department of Health Services and cooperators	Title 22 water quality	1

Basin Management

Groundwater management:

Water agencies

Public	Ventura County Public Works Agency
Private	Southern California Water Company

References Cited

- California Department of Water Resources (DWR). 1959. *Water Quality and Water Quality Problems, Ventura County*. Bulletin 75. Two Volumes. 195 p.
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Turner, J. M. 1971. *Ventura County Water Resources management Study, Geohydrology of the Ventura River System*. Ventura County Department of Public Works, Flood Control District: unnumbered Report.

Errata

Changes made to the basin description will be noted here.

Ojai Valley Groundwater Basin

- Groundwater Basin Number: 4-2
- County: Ventura
- Surface Area: 6,830 acres (10.7 square miles)

Basin Boundaries and Hydrology

The Ojai Valley Groundwater Basin is bounded on the west and east by nonwater-bearing Tertiary age rocks, on the south by the Santa Ana fault and the Sulphur Mountain Range, and on the north by Black Mountain and the Topatopa Mountains. The basin is drained by Thacker and San Antonio Creeks to the Ventura River. Average annual precipitation ranges from 20 to 24 inches.

Hydrogeologic Information

Water Bearing Formations

Groundwater is found in alluvium and to some extent in fractures and interstices of the underlying older Tertiary sedimentary rocks (CSWRB 1953). Groundwater in the basin is mostly unconfined, but locally confined conditions are found. The estimated average specific yield of the basin is 5.5 percent (CSWRB 1953).

Alluvial Deposits. Groundwater is found in alluvium of Holocene and Pleistocene age, which consists of sand, gravel, and clay. The alluvium is composed of about 50 to 100 feet of sediments similar to those occurring in the underlying Pleistocene alluvium though usually less weathered (CSWRB 1953). These alluvial deposits are the most productive units in the basin, with well yields that range from 100 to 600 gpm (CSWRB 1953).

Tertiary Sediments. The weathered sediments of Tertiary age are usually consolidated or cemented and typically yield minor amounts of poor quality water (CSWRB 1953; VCPWA 2002). Well yields are typically 2 to 5 gpm, reaching a maximum of about 50 gpm (CSWRB 1953).

Recharge Areas

Recharge to the basin is from infiltration of precipitation on the valley floor, and percolation of surface waters through alluvial channels, and water diverted into the Ojai spreading grounds (CSWRB 1953). Some additional recharge is provided by excess irrigation flow and a minor amount of subsurface flow (CSWRB 1953). This basin is quickly recharged during wet periods, and conversely is rapidly depleted during periods of drought (CSWRB 1953).

Groundwater Level Trends

In the western part of the basin, groundwater levels generally rose about 10 feet from 1973 to 2000, with hydrographs showing seasonal variations of 10 to 15 feet. In the central part of the basin, seasonal variation increases and some wells experienced flowing conditions. In the eastern part of the basin, seasonal variation is pronounced, with one hydrograph showing a seasonal rise of 90 feet and a typical seasonal variation at that well of about 40 feet.

Hydrographs do not indicate a long-term decline for this basin during 1973 through 2000.

Groundwater Storage

Groundwater Storage Capacity. The total storage capacity has been estimated to be 70,000 af (CSWRB 1953), 84,000 af (VCPWA 2002), and 85,000 af (DWR 1975).

Groundwater in Storage. The groundwater in storage was estimated to be 75 to 80 percent full in 1999 (Panaro 2000), or about 63,000 to 67,200 af.

Groundwater Budget (Type A)

Estimated groundwater storage depletion during the seven-year drought period from 1944 to 1951 amounted to about 28,000 af (CSWRB 1953). Total consumptive use of water on overlying lands, including precipitation, was estimated to have been about 71,000 af (CSWRB 1953). Consumptive use of applied water from 1944 to 1951 was estimated to have been about 28,200 af (SWRB 1953). Underflow into the basin is estimated to range from 800 to 2,500 af/yr (Panaro 2000). Recharge from percolation of excess irrigation is estimated to be 2,350 af/yr (Panaro 2000).

Groundwater Quality

Characterization. Groundwater in the basin is mainly calcium bicarbonate-sulfate in character (DWR 1959). Analyses of water from 19 wells sampled in 1952 show average TDS content of 640 mg/L with a range from 450 to 1,140 mg/L (DWR 1959). The average TDS content for analyses in 2000 was 665 mg/L, ranging from 568 to 790 mg/L (SCWC 2001). Analyses of water from 6 public supply wells show TDS content ranging from 568 to 790 mg/L with an average of about 703 mg/L.

Impairments. Comparison of samples collected from 9 wells in 1933 with samples collected in 1952 show that the average TDS content level increased about 150 mg/L (DWR 1959). The increase in average TDS content from 1952 (DWR 1959) and 2000 (SCWC 2001) suggests that this trend may be continuing, though at a lower rate. High nitrate and sulfate concentrations have been reported in the basin (Panaro 2000). Twenty-one wells sampled in the basin in 1994 to 1995 indicate medium to high nitrate concentrations for many parts of the basin (VCPWA 1996).

Water Quality in Public Supply Wells

Constituent Group ¹	Number of wells sampled ²	Number of wells with a concentration above an MCL ³
Inorganics – Primary	8	0
Radiological	8	1
Nitrates	8	1
Pesticides	8	0
VOCs and SVOCs	6	0
Inorganics – Secondary	8	8

¹ A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).

² Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.

³ Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Production characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: 100 – 600 gal/min (CSWRB 1953)	Average: 383 gal/min (VCWA 2002)
Total depths (ft)		
Domestic	Range:	Average:
Municipal/Irrigation	Range:	Average:

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Ventura County Department of Water Resources	Groundwater levels	24
Department of Health Services and cooperators	Title 22 water quality	22

Basin Management

Groundwater management:

Water agencies

Public	Ventura County Public Works Agency, Ojai Basin Groundwater Management Agency, Casitas Municipal Water District
Private	Southern California Water Company

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Errata

Changes made to the basin description will be noted here.

EXHIBIT C

EXHIBIT C

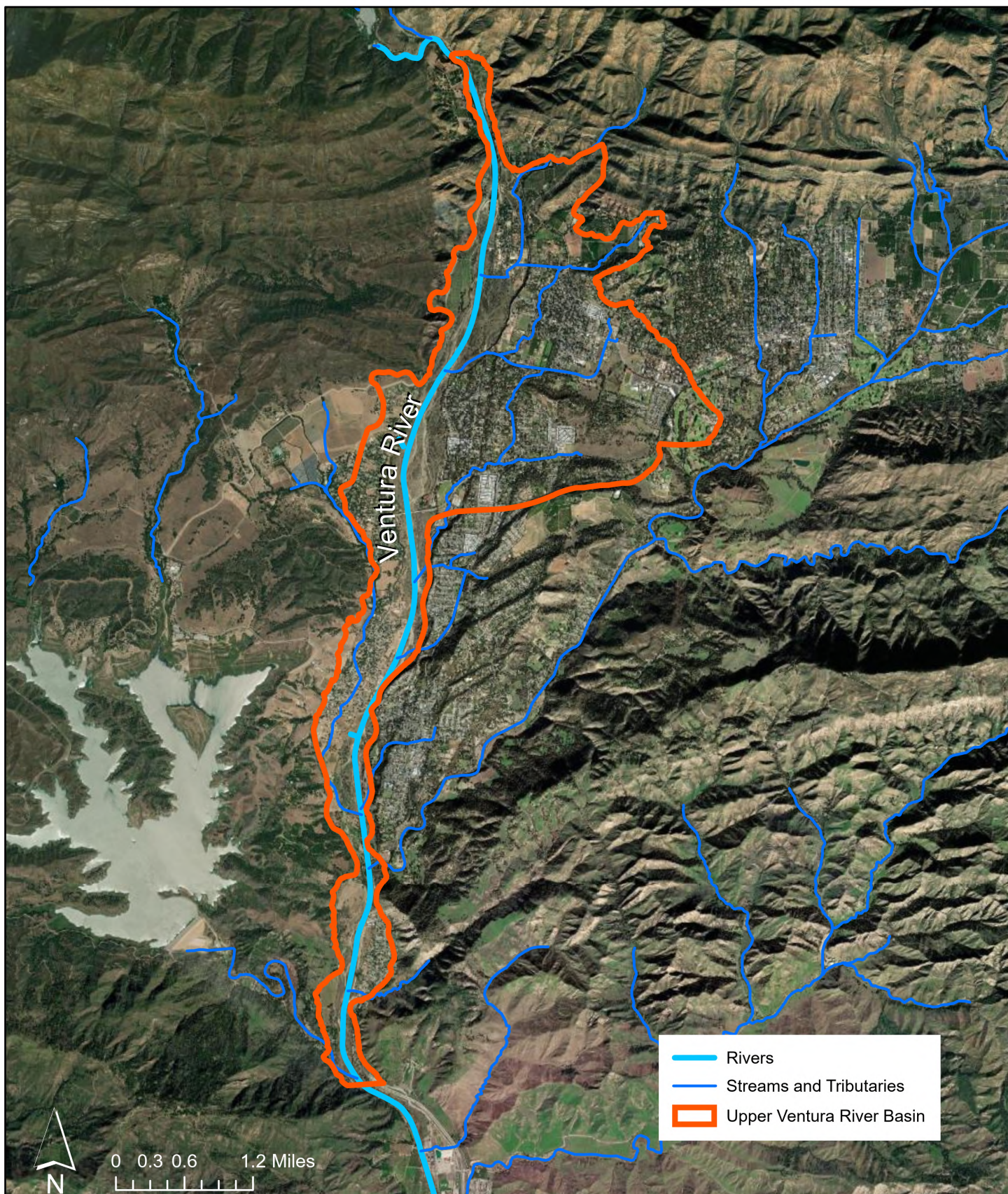


Exhibit 5. Upper Ventura River Valley Groundwater Basin Map

Data Sources: CA DWR Bulletin 118
USGS National Hydrography Dataset
National Watershed Boundary Dataset

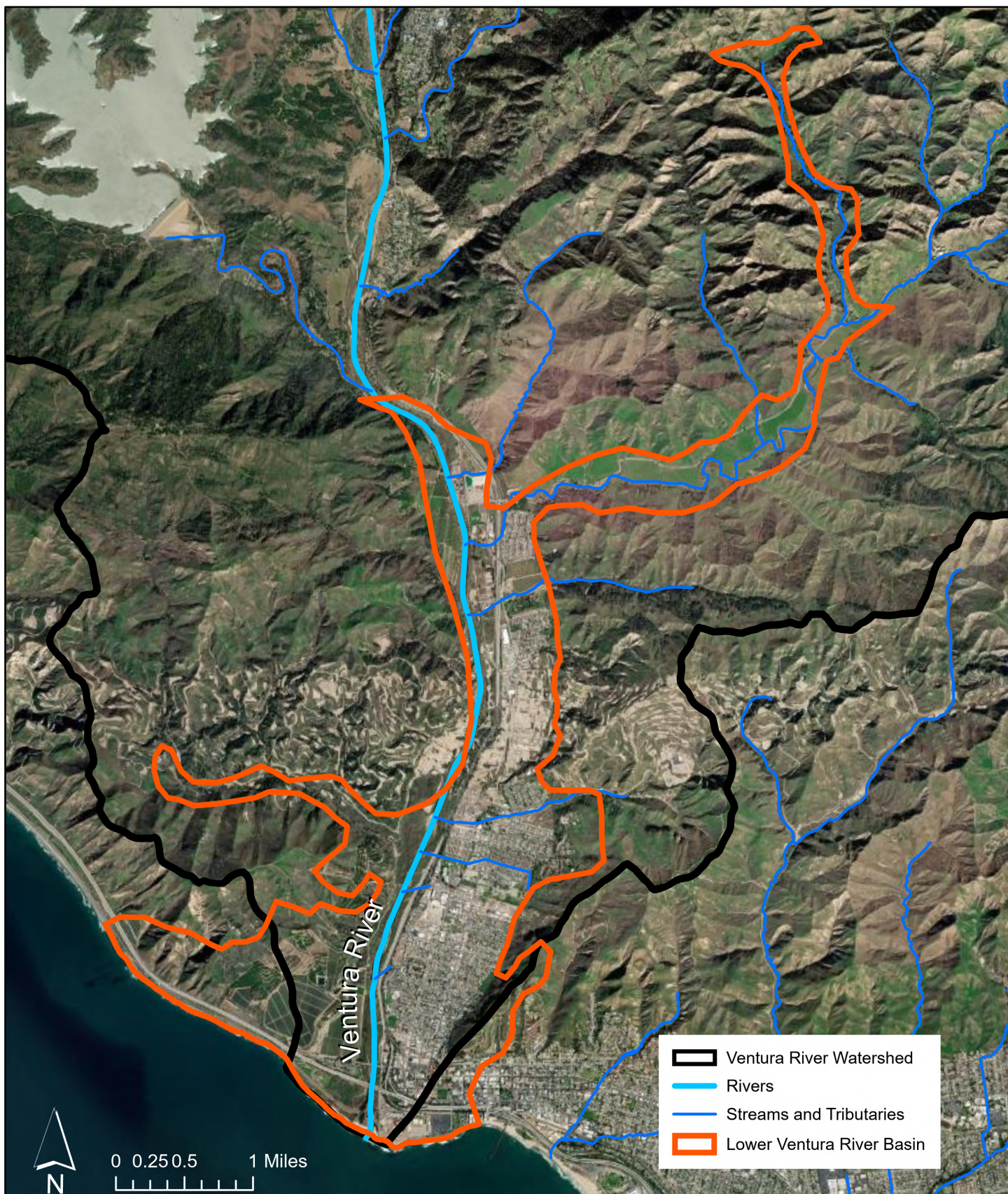


Exhibit 6. Lower Ventura River Valley Groundwater Basin Map

Data Sources: CA DWR Bulletin 118
USGS National Hydrography Dataset
National Watershed Boundary Dataset

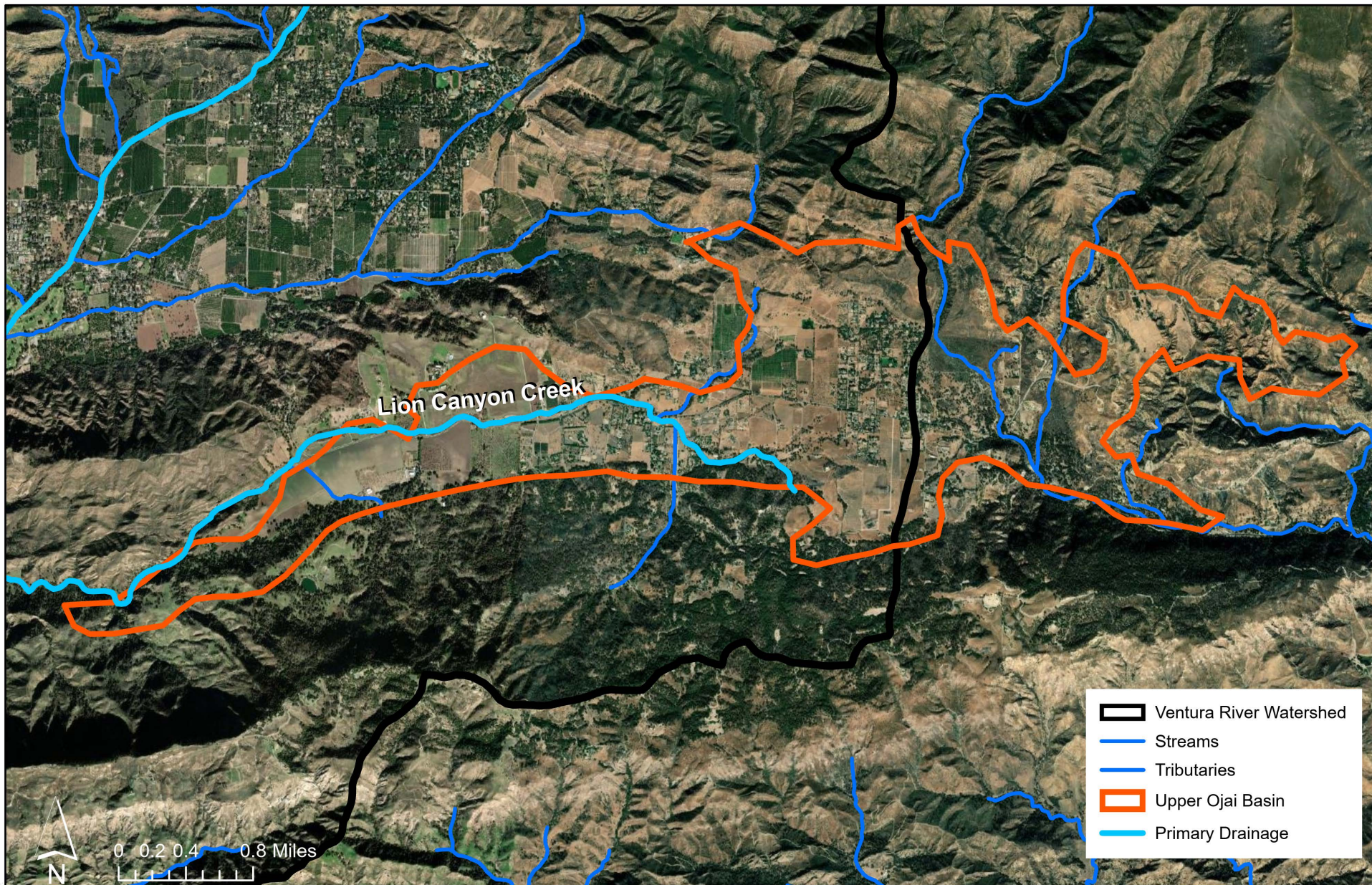


Exhibit 8a. Upper Ojai Valley Groundwater Basin Map

Data Sources: CA DWR Bulletin 118
USGS National Hydrography Dataset
National Watershed Boundary Dataset

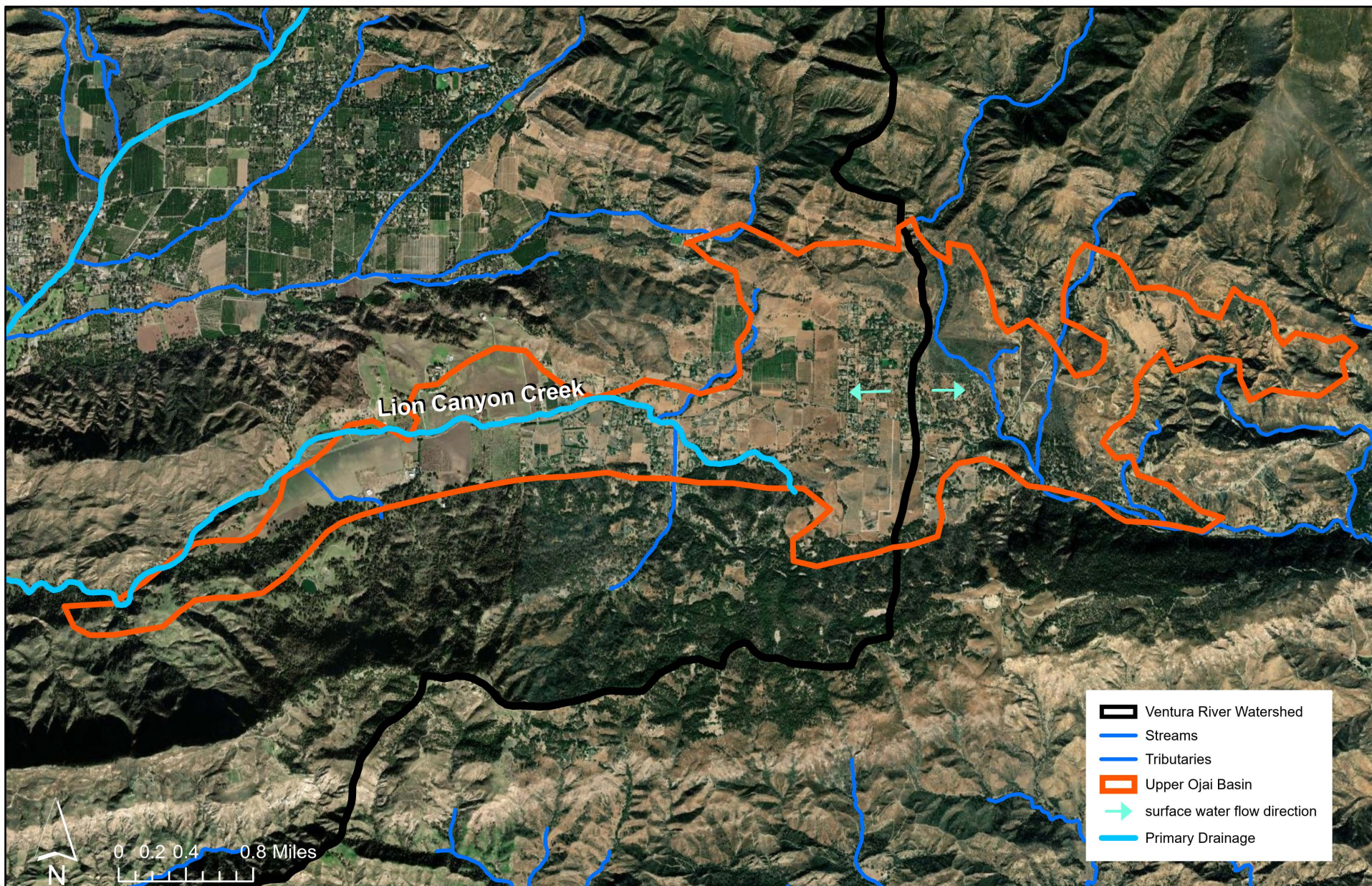


Exhibit 8b. Upper Ojai Valley Groundwater Basin Map

Data Sources: CA DWR Bulletin 118
USGS National Hydrography Dataset
National Watershed Boundary Dataset

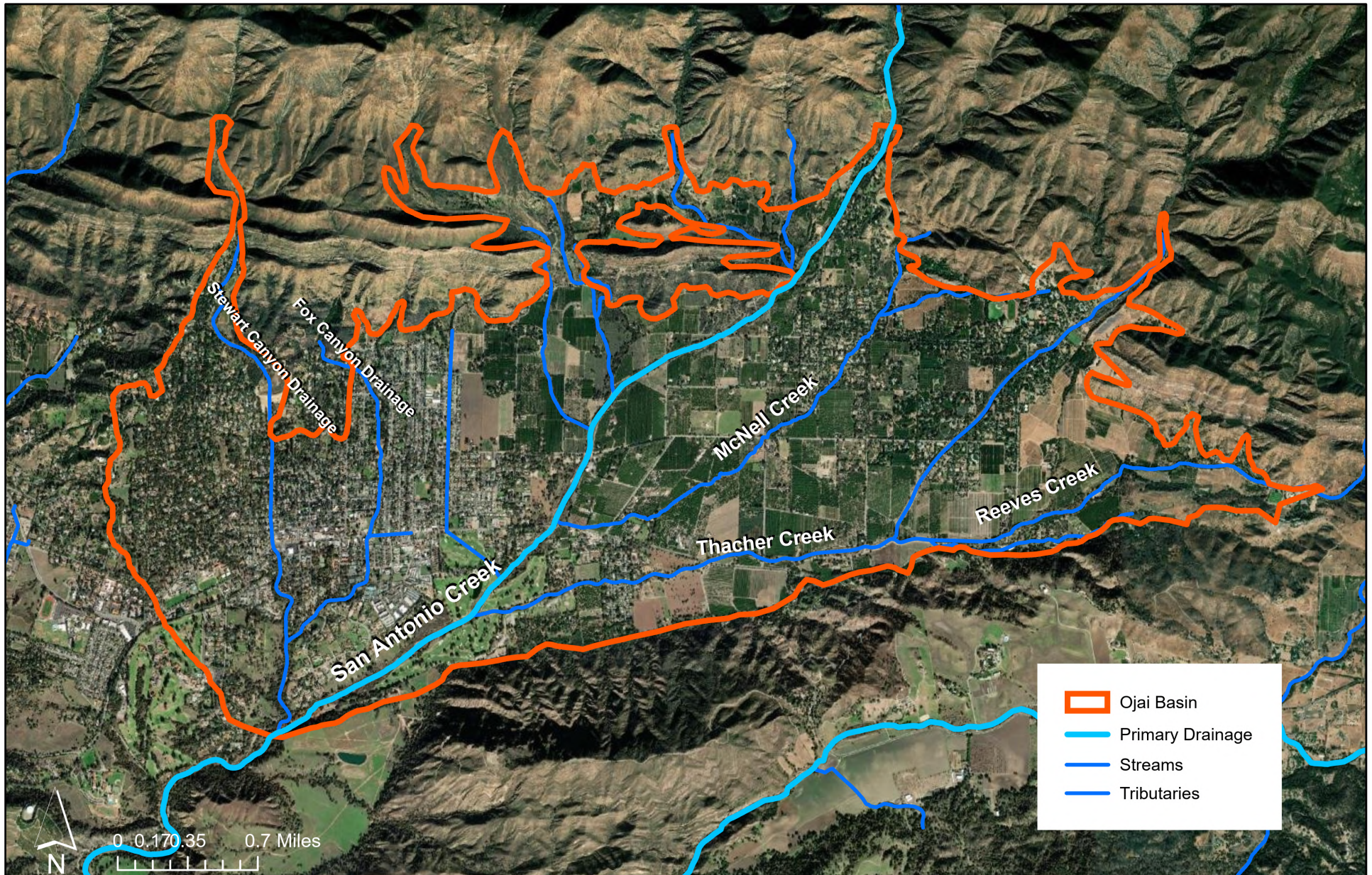


Exhibit 7. Ojai Valley Groundwater Basin Map

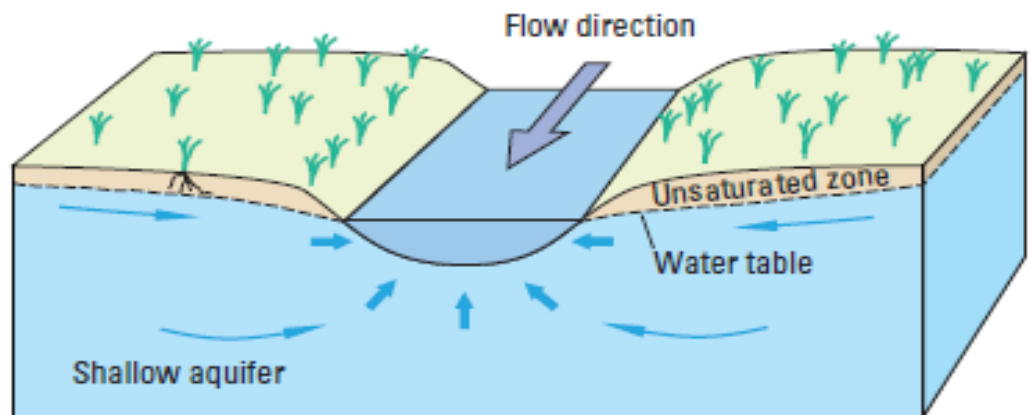
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USGS National Hydrography Dataset
National Watershed Boundary Dataset

EXHIBIT D

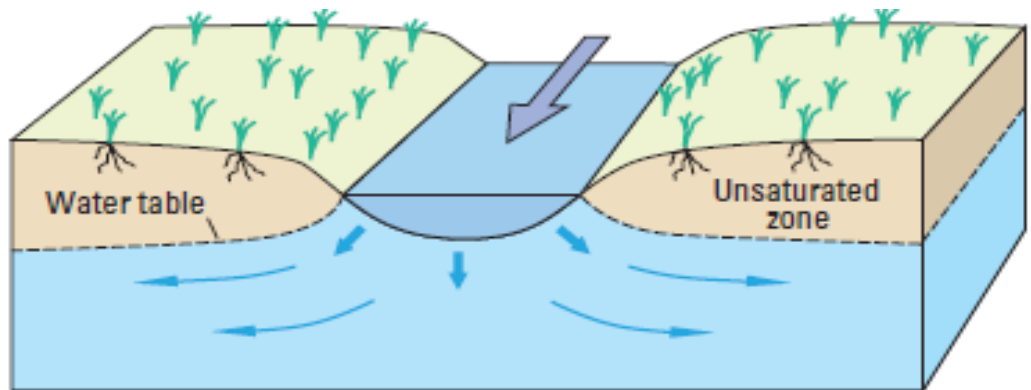
EXHIBIT D

Exhibit 11. Diagram showing the categories of groundwater-surface water interaction

Gaining river/stream



Losing river/stream



Losing disconnected, or percolating surface water

