

TYPE OR PRINT
IN BLACK INK
(For instructions, see
booklet: "How to File an
Application to
Appropriate Water in
California")



California Environmental Protection Agency

State Water Resources Control Board
Division of Water Rights
P.O. Box 2000, Sacramento, CA 95812-2000
Tel: (916) 341-5300 Fax: (916) 341-5400
www.waterboards.ca.gov/waterrights

APPLICATION NO. _____

APPLICATION TO APPROPRIATE WATER

1. APPLICANT/AGENT

	APPLICANT	ASSIGNED AGENT (if any)
Name	Shandon-San Juan Water District	Michael Preszler
Mailing Address	P.O. Box 150	169 Parkshore Drive, Suite 110
City, State & Zip	Shandon, CA 93461	Folsom, CA 95630
Telephone	(805) 451-0841	(916) 542-7895
Fax		
E-mail	wcunha@ssjwd.org	michael@zanjero-water.com

2. OWNERSHIP INFORMATION (Please check type of ownership.)

- Sole Owner
 - Limited Partnership*
 - Corporation
 - Limited Liability Company (LLC)
 - Business Trust
 - Joint Venture
 - General Partnership*
 - Husband/Wife Co-Ownership
 - Other California Water District
- *Please identify the names, addresses and phone numbers of all partners.

3. PROJECT DESCRIPTION (Provide a detailed description of your project, including, but not limited to, type of construction activity, area to be graded or excavated, and how the water will be used.) Add additional pages if needed and check box below and label as an attachment.

This project is being undertaken by the Shandon-San Juan Water District. The purpose of the project is to augment groundwater supplies in the Paso Robles Area Subbasin (the "Subbasin") by transporting unappropriated water in Lake Nacimiento through the existing Nacimiento Water Project Pipeline (the "Pipeline") to the Subbasin. Water would be delivered to the Subbasin by direct recharge in groundwater recharge facilities that will be constructed, owned and operated by Applicant. Water would be later recovered for agricultural use in the Subbasin by Applicant, its landowners, or their designees. The need for groundwater recharge facilities is dependent on Applicant acquiring supplemental water supplies, and such facilities have therefore not yet been designed or constructed. The project proposal involves delivery of water starting no sooner than Mid-September, when Pipeline capacity is available and after the Lake's recreation season has concluded. Consequently, the project would provide the incidental benefits of enhancing recreational and aesthetic values and recreational safety during the Lake's recreation season.

For continuation, see Attachment No. 1

6. WATER AVAILABILITY

a. Have you attached a water availability analysis for this project? YES NO

If NO, provide sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation: If needed, attach additional pages, check box below and label attachment.

Water availability analysis is under development. Findings of a preliminary investigation are attached.

See Attachment No. 4

b. Is your project located on a stream system declared to be fully appropriated by the State Water Resources Control Board (State Water Board) during your proposed season of diversion?

YES NO

c. In an average year, does the stream dry up at any point downstream of your project? YES NO If YES, during which months? Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

d. What alternate sources of water are available if a portion of your requested diversion season must be excluded because water is not available for appropriation? (e.g., percolating groundwater, purchased water, etc.) If needed, attach additional pages, check box below and label attachment

Groundwater

See Attachment No. _____

7. PLACE OF USE

a. See attached maps

USE IS WITHIN (40-acre subdivision)	SECTION*	TOWNSHIP	RANGE	BASE & MERIDIAN	IF IRRIGATED	
					Acres	Presently cultivated?
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
¼ of ¼						<input type="checkbox"/> YES <input type="checkbox"/> NO
Total Acres:						

Please indicate if section is projected with a "(P)" following the section number.

See Attachment No. 5

Please provide the Assessor's Parcel Number(s) for the place of use:

Place of use is the Shandon-San Juan Water District

8. PROJECT SCHEDULE

Project is: proposed, partially complete or complete (Year completed - _____).

Extent of completion: Project is in its planning phase.

Estimated amount of time in years it will take for construction to be completed: Seven years from issuance of permit.

Estimated amount of time in years it will take for water to be put to full beneficial use: Seven years from issuance of permit.

9. JUSTIFICATION OF AMOUNTS REQUESTED

a. IRRIGATION: Maximum area to be irrigated in any one year: 26,254 acres.

CROP	ACRES	METHOD OF IRRIGATION (sprinklers, flooding, etc.)	WATER USE (Acre-feet/Yr.)	SEASON OF WATER USE	
				Beginning date (month & day)	Ending date (month & day)
See Attachment		Drip and Sprinkler	13,915	March 1	Nov 30

See Attachment No. 6

b. DOMESTIC: Number of residences to be served: _____ Separately owned?

YES NO Number of people to be served: _____ Estimated daily use per person is: _____ gallons per day Area of domestic lawns and gardens: _____ square feet
Incidental domestic uses:

(dust control area, number and kind of domestic animals, etc.)

c. STOCKWATERING: Kind of stock: Cattle and Horses Maximum number: 5,000
Describe type of operation: Range and Horse Ranch
(feedlot, dairy, range, etc.)

d. RECREATIONAL: Type of recreation: Fishing Swimming Boating Other _____

e. MUNICIPAL:

POPULATION List for 5-year periods until use is completed		MAXIMUM MONTH		ANNUAL USE		
Period	Population	Average daily use (gallons per capita)	Rate of diversion (cfs)	Average daily use (gallons per capita)	Acre-foot (per capita)	Total (acre-feet)

See Attachment No. _____

Month of maximum use during year: _____

Month of minimum use during year: _____

f. HEAT CONTROL: Area to be heat controlled: _____ net acres

Type of crops protected: _____

Rate at which water is applied to use: _____ gpm per acre

Heat protection season will begin _____ and end _____
(month and day) (month and day)

g. FROST PROTECTION: Area to be frost protected: _____ net acres

Type of crops protected: _____

Rate at which water is applied to use: _____ gpm per acre

The frost protection season will begin _____ and end _____
(month & day) (month & day)

h. INDUSTRIAL: Type of industry: _____

Basis for determination of amount of water needed: _____

- i. MINING: Name of the claim: _____ D Patented D Unpatented
 Nature of the mine: _____ Mineral(s) to be mined: _____
 Type of _____ milling or _____ processing:
 discharged into _____ (watercourse) in
 ¼ of _____ ¼ of Section _____, T _____, R _____, B. & M.
- j. POWER: Total head to be utilized: _____ feet
 Maximum flow through the penstock: _____ cfs Maximum theoretical horsepower capable of
 being generated by the works (cfs x fall ÷ 8.8): _____
 Electrical capacity (hp x 0.746 x efficiency): _____ kilowatts at: _____ % efficiency
 After use, the water will be discharged into _____ (watercourse)
 in _____ ¼ of _____ ¼ of Section _____, T _____, R _____, _____ B&M. FERC No.: _____
- k. FISH AND WILDLIFE PRESERVATION AND/OR ENHANCEMENT: List specific species and habitat
 type that will be preserved or enhanced: _____
- l. OTHER: Describe use: _____
 Basis for determination of amount of water needed: _____

10. DIVERSION AND DISTRIBUTION METHOD

- a. Diversion will be by gravity by means of: Inflow into the Lake and subsequently into the Pipeline
 (dam, pipe in unobstructed channel, pipe through dam, siphon, weir, gate, etc.)
- b. Diversion will be by pumping from: See Attachment No. 2
 (sump, offset well, channel, reservoir, etc)
 Pump discharge rate: _____ cfs or _____ gpd Horsepower: _____
 Pump Efficiency: _____

c. Conduit from diversion point to first lateral or to offstream storage reservoir:

CONDUIT (pipe or channel)	MATERIAL (type of pipe or channel lining; indicate if pipe is buried or not)	CROSS-SECTION (pipe diameter, or ditch depth and top and bottom width) (inches or feet)	LENGTH (feet)	TOTAL LIFT OR FALL		CAPACITY (cfs, gpd or gpm)
				feet	+ or -	

 See Attachment No.

d. Storage reservoirs: (For underground storage, complete and attach underground storage form)

RESERVOIR NAME OR NUMBER	DAM				RESERVOIR		
	Vertical height from downstream toe of slope to spillway level (feet)	Construction material	Length (feet)	Freeboard: dam height above spillway crest (feet)	Surface area when full (acres)	Capacity (acre-feet)	Maximum water depth (feet)

x See Attachment No. 7

- c. List any related applications, registrations, permits, or licenses located in the proposed place of use or that utilize the same point(s) of diversion.

License No. 7543 and Permit No. 21089; Permit No. 19940

 See Attachment No.

14. OTHER SOURCES OF WATER

Are you presently using, or do you intend to use, purchased water or water supplied by contract in connection with this project? Yes x No If yes, please explain:

15. MAP REQUIREMENTS

The Division cannot process your application without accurate information showing the source of water and location of water use. You must include a map with this application form that clearly indicates the quarter/quarter, section, township, range, and meridian of (1) the proposed points of diversion and (2) the place of use. A copy of a U.S.G.S. quadrangle/topographic map of your project area is preferred, and can be obtained from sporting goods stores or through the Internet at <http://topomaps.usgs.gov>. A certified engineering map is required when (1) appropriating more than three cubic feet per second by direct diversion, (2) constructing a dam which will be under the jurisdiction of the Division of Safety of Dams, (3) creating a reservoir with a surface area in excess of ten acres or (4) appropriating more than 1,000 acre-feet per annum by underground storage.

See the instruction booklet for more information.

 x See Attachment No. 3 for Item 5

ENVIRONMENTAL INFORMATION

Note: Before a water right permit may be issued for your project, the State Water Board must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA). This form is not a CEQA document. If a CEQA document has not yet been prepared for your project, a determination must be made of who is responsible for its preparation. If the State Water Board is determined to be responsible for preparing the CEQA document, the applicant will be required to pay all costs associated with the environmental evaluation and preparation of the required documents. Please answer the following questions to the best of your ability and submit with this application any studies that have been conducted regarding the environmental evaluation of your project.

16. COUNTY PERMITS

- a. Contact your county planning or public works department and provide the following information:

Person contacted: _____ Date of contact: _____

Department: Planning and Community Development _____ Telephone: _____

County Zoning Designation: _____

Are any county permits required for your project? x YES NO If YES, check appropriate box below:

 Grading permit Use permit Watercourse Obstruction permit Change of zoning

 General plan change Other (explain): _____

Applicant is not yet aware of which permits will be necessary. Applicant will provide this information as the project proceeds through its planning phase and such information becomes available.

- b. Have you obtained any of the required permits described above? YES x NO

If YES, provide a complete copy of each permit obtained.

 See Attachment No. _____

17. STATE/FEDERAL PERMITS AND REQUIREMENTS

a. Check any additional state or federal permits required for your project:
 Federal Energy Regulatory Commission U.S. Forest Service U.S. Bureau of Land Management U.S. Corps of Engineers U.S. Natural Res. Conservation Service Calif. Dept. of Fish and Game State Lands Commission Calif. Dept. of Water Resources (Div. of Safety of Dams) Calif. Coastal Commission State Reclamation Board Other (specify) US Fish & Wildlife Service State Historic Preservation Office Regional Water Quality Control Board
None that Applicant is aware of as of the date of this Application. Applicant will provide this information as the project proceeds through its planning phase and such information becomes available.

b. For each agency from which a permit is required, provide the following information:

AGENCY	PERMIT TYPE	PERSON(S) CONTACTED	CONTACT DATE	TELEPHONE NO.

 See Attachment No.

c. Does your proposed project involve any construction or grading-related activity that has significantly altered or would significantly alter the bed, bank, or riparian habitat of any stream or lake? YES NO
 If YES, explain:

 See Attachment No.

b. Have you contacted the California Department of Fish and Game concerning your project?
 YES NO If YES, name, telephone number and date of contact:

18. ENVIRONMENTAL DOCUMENT

a. Has any California public agency prepared an environmental document for your project?
 YES NO

b. If YES, submit a copy of the latest environmental document(s) prepared, including a copy of the notice of determination adopted by the California public agency. Public agency:

c. If NO, check the appropriate box and explain below, if necessary:
 The applicant is a California public agency and will be preparing the environmental document.*
 I expect that the State Water Board will be preparing the environmental document.**
 I expect that a California public agency other than the State Water Board will be preparing the environmental document.* Public agency: _____

 See Attachment No.

* Note: When completed, submit a copy of the final environmental document (including notice of determination) or notice of exemption to the State Water Board, Division of Water Rights and proof of payment of the State Clearinghouse filing fee. Processing of your application cannot be completed until these documents are submitted.

** Note: CEQA requires that the State Water Board, as Lead Agency, prepare the environmental document. The information contained in the environmental document must be developed by the applicant and at the applicant's expense under the direction of the State Water Board, Division of Water Rights.

19. WASTE/WASTEWATER

- a. Will your project, during construction or operation, (1) generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or (2) cause erosion, turbidity or sedimentation? YES NO

If YES, or you are unsure of your answer, explain below and contact your local Regional Water Quality Control Board for the following information (See instruction booklet for address and telephone no.):

Potential for construction-related sediment might occur as a result of construction of recharge facilities.
Mitigation will be incorporated into the construction methods to reduce impacts.

See Attachment No.

- b. Will a waste discharge permit be required for your project? YES NO
Person contacted: _____ Date of contact: _____

- c. What method of treatment and disposal will be used? _____

Applicant is not aware of the methods and treatment of disposal, or what the extent of the nature of the waste will be. As the project progresses through the planning phase, Applicant will update this information.

See Attachment No.

20. ARCHEOLOGY

- a. Have any archeological reports been prepared on this project? YES NO
- b. Will you be preparing an archeological report to satisfy another public agency? YES NO
- c. Do you know of any archeological or historic sites located within the general project area?

YES NO If YES, explain:

Applicant is not aware at this time of any archaeological or historical sites located within the Project area. Applicant will prepare such reports as may be necessary if archaeological or historical sites are identified.

See Attachment No.

21. ENVIRONMENTAL SETTING

Attach **two complete sets of color photographs**, clearly dated and labeled, showing the vegetation that exists at the following three locations:

- Along the stream channel immediately downstream from the proposed point(s) of diversion.
- Along the stream channel immediately upstream from the proposed point(s) of diversion.
- At the place(s) where the water is to be used.

See Attachment No. 9

SUBMITTAL FEES

Calculate your application filing fee using the "Water Right Fee Schedule Summary" that was enclosed in the application packet. The "Water Right Fee Schedule Summary" can also be viewed at the Division of Water Rights' website (www.waterrights.ca.gov).

A check for the application filing fee, payable to the "Division of Water Rights" and an \$850 check for the Streamflow Protection Standards review fee [Pub. Resources Code § 10005(a)], payable to the "California Department of Fish and Game," must accompany this application. All applicable fees are required at the time of filing. If the application fees are not received, your application will not be accepted and will be returned to you. Please check the fee schedule for any fee changes prior to submitting the application.

Attachment No. 1 [for Item 3]

The project also includes the direct diversion of up to 2,000 acre feet annually of water available for appropriation that is periodically spilled from Lake Nacimiento during periods of high precipitation. (See Attachment No. 4.)

Attachment No. 2 [for Item 4]

Applicant acknowledges the State Board's instructions that "*Season of Collection* is the period when water actually is collected for storage in the reservoir. It is generally the period of surplus streamflow in the source, such as the winter and spring months. Indicate the collection season with a beginning and ending month and day in the appropriate columns. Note that the time when water is withdrawn from your reservoir for the irrigation of crops is not the collection season but is . . . the season of water use."

Applicant intends to store of up to 12,000 acre feet of available surplus water in the Lake for diversion at a time when such water is accruing in the Lake, and to subsequently convey the stored water through the Pipeline when capacity is available. Availability of Pipeline capacity typically coincides with the conclusion of the Lake's recreation season, about mid-September. Applicant proposes that, no sooner than September 15th of each year, it be authorized to convey the stored water through the Pipeline to the Pipeline's turnout in the Subbasin (subject to an agreement between Applicant and the Pipeline's operating entity), where Applicant would deliver the water to the Subbasin by way of direct recharge in the recharge facility. Water recharged to the Subbasin would be later recovered and put to beneficial use within Applicant's boundaries by Applicant or its landowners, or their designees.

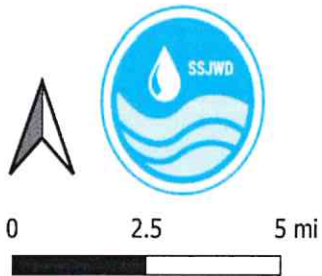
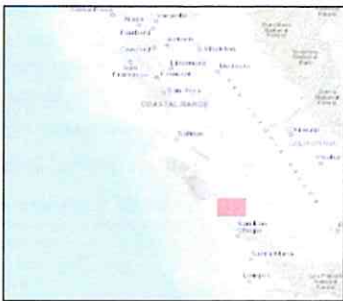
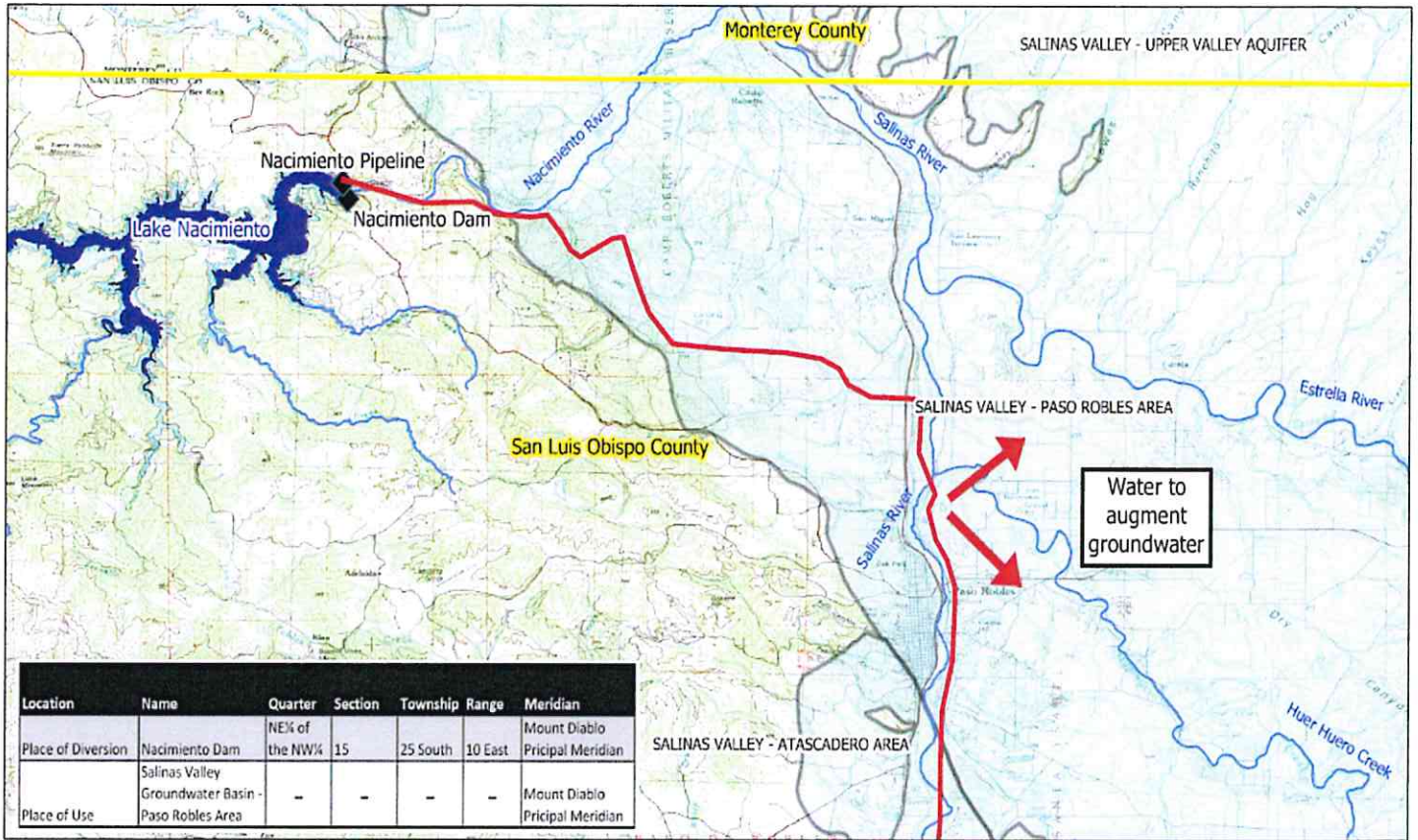
The apparent overlap between portions of the Season of Collection (Item 2) and the Season of Use (Item 9) is the result of the fact that between those two Seasons is the necessary conveyance of the stored water through the Pipeline and delivery to the Subbasin by direct recharge in the recharge facilities. Consequently, by way of illustration only, water stored in the Lake during Season of Collection "A" could conceivably be used during the Season of Use "A", and Season of Use "A" could coincide with Season of Collection "B".

Applicant might determine it will be necessary to construct conveyance and pumping facilities to transport water from the Pipeline turnout to the recharge facilities. The specifics of this portion of the project, including the size of any conveyance facilities and the capacity of any pumping facilities, is not yet known. Applicant will provide this information as this project proceeds through its planning phase and as such information becomes available.

Attachment No. 3 [for Item 5]

POD Map

Map 1: Points of Diversion from Lake Nacimiento



Legend

- Nacimiento Water Project Pipeline
 - ◆ Points of Diversion/ Rediversion
 - CA Counties
 - Streams
 - Groundwater Basins
- Basemap Source: USGS, Esri

I, Michael J. Preszler, of 169 Parkshore Drive, Suite 110, Folsom, California do hereby certify that this map was prepared by me on Jan 12, 2021 and that it correctly represents the project described in the accompanying application and shows the location of the rivers and streams in the immediate vicinity.

Michael J. Preszler

Michael J. Preszler, California Civil Engineer
Certificate No. C55133 exp 6/30/22

Attachment No. 4 [for Item 6]

The Monterey County Water Resources Agency (MCWRA) owns and operates Lake Nacimiento located in San Luis Obispo County. The reservoir is operated to provide downstream groundwater recharge, irrigation diversions, and flood protection. The reservoir has a capacity of 377,900 AF and is located on the Nacimiento River, a tributary to the Salinas River. The Nacimiento River at Lake Nacimiento is not deemed fully appropriated seasonally or year-around. However, Dip Creek, a small tributary that flows directly into Lake Nacimiento, is deemed fully appropriated and water from Dip Creek is not the subject of this Application.

A portion of the inflow to Lake Nacimiento is captured and stored (up to 377,900 acre-feet per year under License No. 7543 and Permit No. 21089) for Municipal, Domestic, Industrial, Irrigation, and Recreational uses with a maximum withdrawal from the Lake of 180,000 AF each year. This Application requests the appropriation of additional available Nacimiento River water to be diverted to storage and by direct diversion at Lake Nacimiento, both to be taken and conveyed via the Nacimiento Water Project pipeline to the Paso Subbasin. Rights sought under this Application include both storage and direct diversion rights.

Diversion to Storage: A portion of water that runs off into Lake Nacimiento passes through the lake and does not fall under the MCWRA water right License, as demonstrated by MCWRA's water rights reporting. As this water released from Lake Nacimiento is not previously stored, it does not fall under MCWRA's storage right. MCWRA does not possess a direct diversion water right at Lake Nacimiento. This Application seeks to divert this water to storage in Lake Nacimiento, and then convey it through the Nacimiento Water Project Pipeline to the Paso Robles Subbasin.

Direct Diversion: The direct diversion right sought under this Application will allow diversion of water that would otherwise spill from Lake Nacimiento to be directly diverted into the Nacimiento Water Project Pipeline. When flood releases are being made from Lake Nacimiento, water will simultaneously be directly diverted through the Nacimiento Water Project Pipeline. This will occur during high flow events where flood releases are made from Lake Nacimiento to avoid spill or when the reservoir is spilling. This unappropriated water is currently released (spilled) down the Nacimiento River in high volumes, during high flow events during periods of strong precipitation. This operation will occur during the winter time when maximum Nacimiento Water Project Pipeline capacity is more likely to be available.

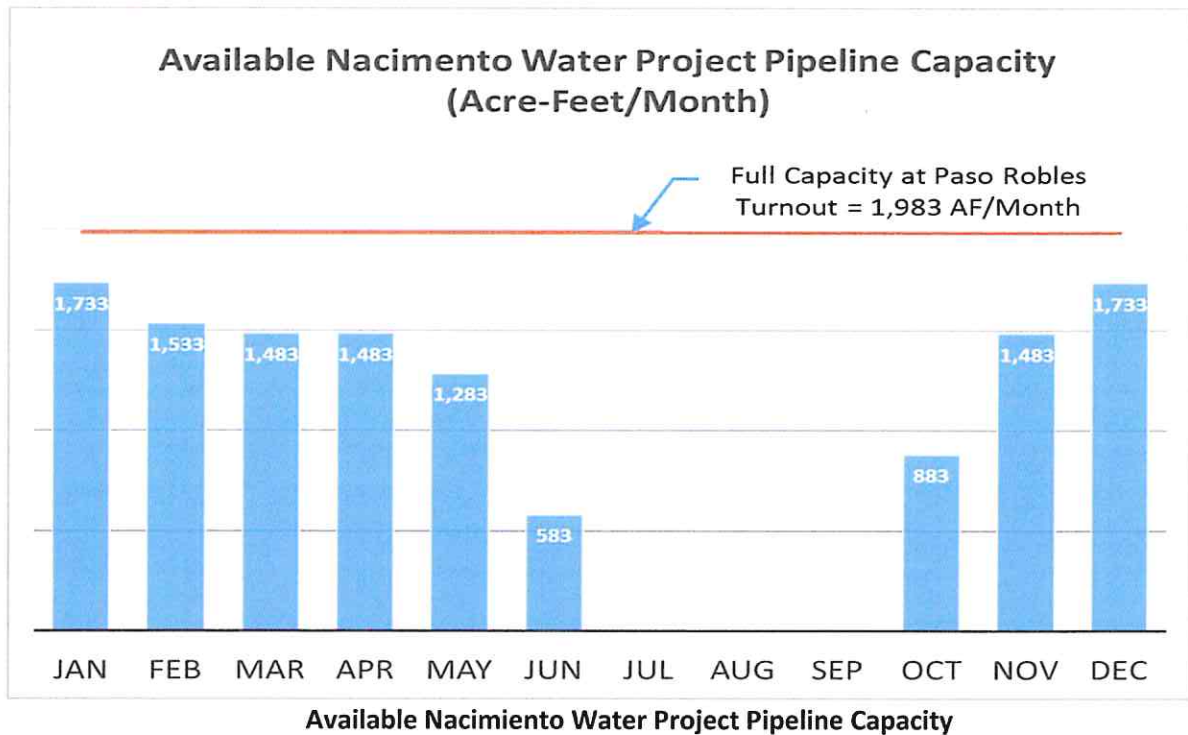
Water Availability Evaluation Approach

An analysis was carried out to identify and quantify the potential amount of water that could be available for appropriation under this Application. In order to accomplish this task, detailed review of the operation of Lake Nacimiento from 1994 through 2019 was conducted using computer modeling and review of historical data and information.

The general approach to the evaluation was as follows:

- ✓ Review detailed Lake Nacimiento operational strategies and information for the period 1994-2019.
- ✓ Quantify amount of water that passes through Lake Nacimiento that does not fall under MCWRA water right License to quantify the amount of storage available for appropriation under this Application.

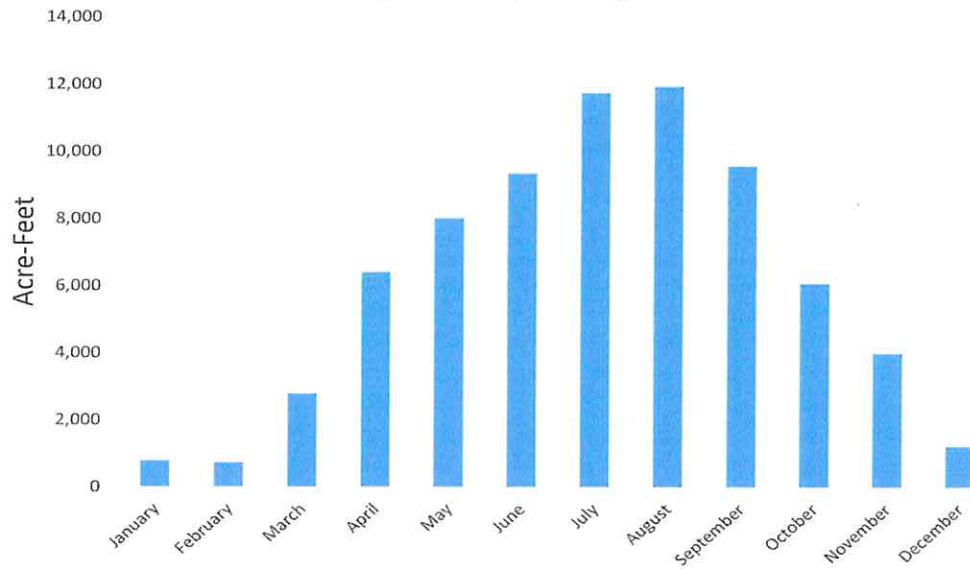
- ✓ Determine times and amounts of water that can be diverted from Lake Nacimiento (via the Nacimiento Water Project Pipeline) in high flow events when releases are being made from the reservoir during spill events or in anticipation of spill.
- ✓ Determine unused capacity in the Nacimiento Water Project Pipeline available to convey water sought under this Application. Available capacity is estimated as that available in the Pipeline when the Pipeline is running at full contract amount. The figure below shows the estimated available Nacimiento Water Project Pipeline capacity at full contract amount.



Water Availability Analysis

Downstream senior water right holders were inventoried and summarized. There are about 270 claimed riparian and Pre-1914 right holders and about 13 Appropriative water right holders included on the SWRCB Electronic Water Rights Information Management System database. Water right reports were reviewed and summarized to obtain an estimate of downstream water right claims and appropriations. The figure below shows a summary of the amount of water from the Salina River under claimed and appropriative water rights.

**Salinas River Claimed and Appropriative Water Rights
(Acre-Feet/Month)**



Summary of Water Right Claims and Appropriations on the Salinas River

Preliminary findings outlined here confirm that water is available for appropriation. A detailed evaluation to affirm that no injury to senior water right holders will occur will be included in full Water Availability Analysis to be developed in support of this Application.

Storage Right:

An estimate of the quantity of water that is released from Lake Nacimiento that does not fall under MCWRA rights was determined for the period 1994 through 2019. If the inflow to Lake Nacimiento is greater than the lake outlet, then the outlet is considered passed through the reservoir and not storage under MCWRA rights. If the reservoir outlet is greater than the inflow, then the amount of release in excess of the value of inflow is considered to be a redirection from storage and not available for appropriation (i.e., falls under MCWRA rights). This calculation was carried out on a daily basis for the study period 1994 through 2019 to estimate the quantity of water that is available for appropriation at Lake Nacimiento.

There are times when water is passing through Lake Nacimiento, and not under MCWRA's rights, during relatively low flow conditions especially during the months of June through November where downstream senior water right holders could be competing for water. To account for this condition, the evaluation assumes that water would be available from December 1 through May 31 of each year.

Estimated storage water available from Lake Nacimiento for the study period of 1994 through 2019 is shown in the table below. The annual amount of water available under the requested storage right ranges from 0 in 2014 (critically dry year) to 49,000 in 2017 (a wet year) with an average of 23,500 AF.

Amount of Unappropriated Storage Available from Lake Nacimiento

Water Year	Supplemental Water Available (AF)
1994	12,983
1995	26,380
1996	30,613
1997	23,096
1998	34,834
1999	44,556
2000	27,416
2001	25,426
2002	22,817
2003	45,273
2004	16,833
2005	29,645
2006	27,773
2007	11,590
2008	15,339
2009	10,801
2010	26,821
2011	29,188
2012	28,704
2013	13,568
2014	0
2015	6,225
2016	14,048
2017	49,002
2018	13,578
2019	25,489
Average	23,538

The available annual capacity of the Nacimiento Water Project Pipeline is about 12,000 AF. Therefore, even though water availability is greater, this Application for storage is limited to 12,000 AF per year.

Direct Diversion Right:

When considering the availability of water under high flow events, spill tends to occur during January through April from Lake Nacimiento. This tends not to be the time when downstream users are taking significant water, thereby minimizing the potential for a new appropriation to cause injury to a downstream user. Additionally, during reservoir spill conditions when direct diversion would be available, high flows along the Salinas River would likely meet demands of all downstream senior water right holders as demands would be minimized and supply would be enhanced.

A daily time-step operational simulation model was developed to identify and calculate the volume of water that could be diverted through the Nacimiento Water Project pipeline during times of spill and releases in anticipation of spill from Lake Nacimiento. In typical operation,

flood releases are initiated about 10 days prior to anticipated spill. For this analysis, water taken through the Nacimiento Water Project pipeline begins 10 days prior to modeled spill. During water years 1994 through 2019, Lake Nacimiento spilled during 8 of 26 years, or 31% of the years (see table below). Annual unappropriated water available under direction diversion during spill years ranges from 0 in many years to 4,300 AF in year 1998. The average available supplemental direct diversion water from Lake Nacimiento is 555 AF.

Water Year	Total Spill (AF)	Supplemental Water Available (AF)
1994	0	0
1995	48,884	1,486
1996	19,773	1,285
1997	133,101	2,052
1998	233,223	4,331
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	7,155	942
2006	15,856	1,231
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	14,278	1,016
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	56,073	2,092
2018	0	0
2019	0	0
Average	20,321	555

Direct Diversion Water Available from Lake Nacimiento to the Nacimiento Water Project Pipeline

Other than the single year, 1998, water available is about 2,000 AF annually or less. The direct diversion sought under this Application is 2,000 AF.

Water Available Summary

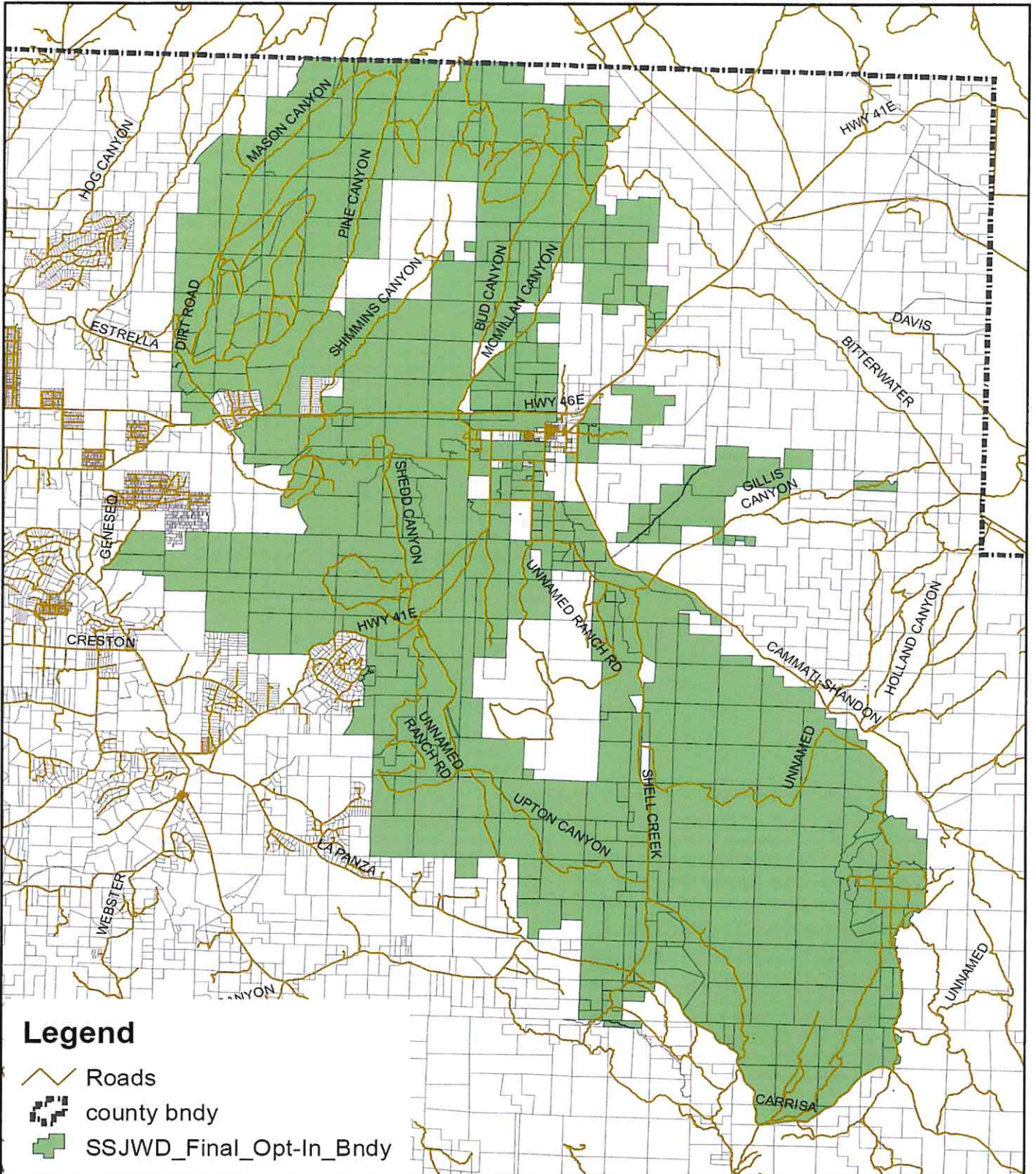
An estimate of the amount of water available for appropriation from Lake Nacimiento was evaluated. A summary of the estimated average annual water available is shown in the table below.

Source	Storage / Direct Diversion	Estimate of Water Availability (AF/Year)
Lake Nacimiento	Storage	23,500
	Direct Diversion	555

Estimated Water Available from Lake Nacimiento

POU MAP

Shandon-San Juan Water District



Attachment No. 6 [For Item 9]

Subbasin	CropDesig	Acres	Crop Duty	AF/Year	Method
<i>San Juan</i>	Alfalfa	465	4.5	2,094	Sprinkler
	Citrus	8	2.3	18	Drip
	Pasture	562	4.8	2,698	Sprinkler
	Vegetables	717	2.5	1,793	Sprinkler
	Winegrapes	3,597	1.5	5,396	Drip
San Juan Total		5,350	2.24	11,999	
<i>Shandon</i>	Alfalfa	139	4.5	628	Sprinkler
	Citrus	19	2.3	43	Drip
	Deciduous	2	3.5	6	Drip
	Nursery	44	2.5	110	Drip
	Pasture	144	4.8	690	Sprinkler
	Table Grapes	1,114	3.5	3,898	Drip
	Vegetables	796	2.5	1,991	Sprinkler
	Winegrapes	5,011	1.5	7,517	Drip
Shandon Total		7,269	1.96	14,255	
Shandon-San Juan Total		12,619	2.08	26,254	

Crop	Applied Water	Crop Detail
Alfalfa	4.5	Alfalfa
CBD Hemp	1.5	Field grown CBD Hemp
Citrus	2.3	Avocados, grapefruits, lemons, oranges, olives, kiwis, pomegranates (non-deciduous)
Deciduous	3.5	Apple, apricot, berry, peach, nectarin, plum, fig, pistachio, persimmon, pear, quince
Nursery	2.5	Christmas trees, misc. nursery plants, flowers
Pasture	4.8	Misc. grasses, mixed pastures, sod/turf, sudangrass
Strawberries	2.3	Strawberries
Table Grapes	3.5	Table Grapes
Vegetables	2.5	Artichokes, beans, misc. vegetables, mushrooms, onions, peas, peppers, tomatoes
Winegrapes	1.5	Winegrapes

Attachment No. 7 [For Item 10]

[UNDERGROUND STORAGE SUPPLEMENT FOLLOWS THIS PAGE]



Linda S. Adams
Acting Secretary for
Environmental Protection

State Water Resources Control Board

Division of Water Rights

1001 I Street • Sacramento, California 95814 • (916) 341-5300
Mailing Address: P.O. Box 2000 • Sacramento, California • 95812-2000
FAX (916) 341-5400 • <http://www.waterboards.ca.gov/waterrights>



Edmund G. Brown Jr.
Governor

APPLICATION NO. _____
(Leave blank)

UNDERGROUND STORAGE SUPPLEMENT TO APPLICATION TO APPROPRIATE WATER BY PERMIT

1. State amount of water to be diverted to underground storage from each point of diversion in item 3b of form APP.

- a. Maximum Rate of diversions (1) see attached (2) _____ (3) _____ cfs
b. Maximum Annual Amount (1) 14,000 (2) _____ (3) _____ acre-feet

2. Describe any works used to divert to offstream spreading grounds or injection wells not identified in item 7 of form APP.

The diversion from Lake Nacimiento to the Applicant's groundwater recharge facilities and, if necessary, related conveyance and pumping facilities (the "Facilities") will be by way of the Nacimiento Water Project Pipeline (the "Pipeline"). The Applicant does not intend to use injection wells in connection with this project.

3. Describe spreading grounds and identify its location and number of acres or location of upstream and downstream limits if onstream.

The Facilities will be situated at or near the Pipeline turnout in Huer Huero watershed. Applicant has not yet designed its Facilities; however, studies of the area have been conducted that confirm its suitability for groundwater recharge. See attached.

4. State depth of groundwater table in spreading grounds or immediate vicinity:
_____ feet below ground surface on _____ measured at a point located within the _____
of _____ ¼ of Section _____, T _____, R _____, _____ B&M (see attached)

5. Give any historic maximum and or minimum depths to the groundwater table in the area.

Location #1 Maximum _____ feet below ground surface on _____ (date) (see attached)
Location #2 Maximum _____ feet below ground surface on _____ (date) (see attached)

6. Describe proposed spreading operation.
See attached

7. Describe location, capacity and features of proposed pretreatment facilities and/or injected wells.

Due to the quality of the water, its intended use for irrigation, and the nature of project, Applicant does not have plans or intentions to use pretreatment facilities or injection wells.

8. Reference any available engineering reports, studies, or data on the aquifer involved.

The Paso Robles Subbasin Groundwater Sustainability Plan; Paso Robles Subbasin First Annual Report (2017-2019); Paso Robles Basin Stormwater Capture and Recharge Feasibility Study (Applicant and Estrella-El Pomar-Creston Water District); The Paso Robles Basin Recharge Siting Feasibility Study for the Huer Huero Creek (SLO County Flood Control and Water Conservation District); Department of Water Resources Bulletin 118.

9. Describe underground reservoir and attach a map or sketch of its location.

The underground reservoir is described in the sources referenced in Item 8 above.

Also, see attached map.

10. State estimated storage capacity of underground reservoir.

See attached excerpt from DWR's Bulletin 118. There is ample storage capacity to accommodate the amount of water that is the subject of this application.

11. Describe existing use of the underground storage reservoir and any proposed change in its use.

The Subbasin is heavily relied upon by municipalities for domestic and M&I use, and by agricultural users for irrigation. Because of the lack of imported water projects, in most instances groundwater is the sole source of water supplies for water users in the Subbasin. Applicant is seeking to alleviate the strain on the Subbasin, which is critically overdrafted.

12. Describe the proposed method and location of measurement of water placed into and withdrawn from underground storage.

Applicant intends to use existing gages associated with the Pipeline to determine the amount of water delivered to the Facilities, and will calculate the rate of recharge to the Subbasin using proven technological methods. Applicant will use, and require its landowners and each of their designees to use, metering devices as a condition of recovery and use of water for irrigated agriculture that is the subject of this Application.

Additional copies of this form and water right information can be obtained at www.waterrights.ca.gov.

Underground Storage Supplement Responses to Select Items

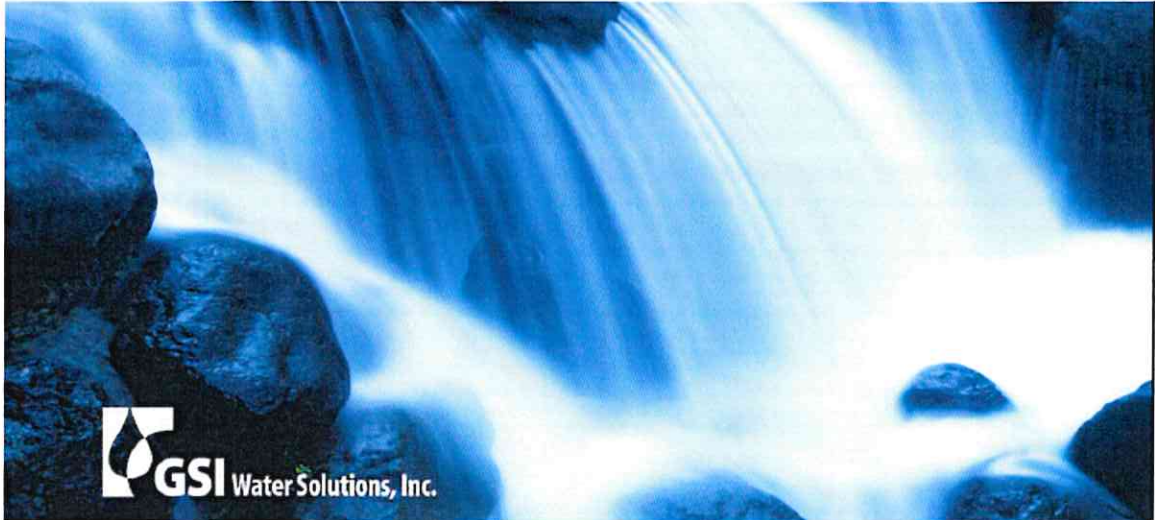
ITEM 1

- 1.a: The Applicant seeks to store 12,000 acre feet of available surplus water in Lake Nacimiento, and at the conclusion of the Lake's recreation season (generally mid-September), divert such water into the Nacimiento Water Project Pipeline for delivery to Applicant's recharge Facilities to be located in the Paso Robles Area Subbasin. The Applicant also seeks to divert a separate, additional 2,000 acre feet of surplus water by direct diversion to the Facilities between January and April. The rate of diversion for the 12,000 acre feet is 32.8 cfs, and for the 2,000 acre feet is 32.8 cfs.

ITEM 3

The area that Applicant has identified for the location of its recharge Facilities is within the Huer Huero Creek watershed. GSI Water Solutions, Inc., conducted a study (see excerpts below) for the Applicant and the Estrella-El Pomar-Creston Water District of the viability of Huer Huero as a location for recharge activity. Among the study's conclusions is the following:

The areas along the more upstream locations of Huer Huero Creek have the best physical recharge properties in the Paso Robles Subbasin but with limited stormwater flows, since most of the existing surface water percolates into permeable soils connected to the underlying Alluvial Aquifer. It is therefore better suited for recharge of imported water.



FINAL

Shandon-San Juan Water District and
Estrella-El Pomar-Creston Water District

Paso Robles Subbasin Stormwater Capture and Recharge Feasibility Study

December 30, 2020

Prepared by:
GSI Water Solutions, Inc.
5855 Capistrano Avenue, Suite C, Atascadero, CA 93422

a larger portion of the basin because it is located upgradient of the areas that are affected by chronic lowering of groundwater levels and because more water would move into the Paso Robles Formation.

Target Area 5. Target Area 5, in the upstream reaches of the Huer Huero Creek, has the best physical conditions to recharge stormwater. Because of this recharge potential, the natural flows occurring in Huer Huero Creek are already being recharged, leaving negligible additional naturally available stormwater. Although Target Area 5 is ideal for artificial recharge, the water source must be imported due to lack of natural flows. Target Area 5 has on average, for water year 2001 through 2016, an estimated surface water flow of 1,030 AFY, diversion potential of 60 AFY, streambed percolation of 1,220 AFY, and a depth to water of 70 ft bgs in 2005 (wet conditions) and 90 ft bgs in 2014 (dry conditions) (see Figures 9 and 16). The target area consists of NRCS Hydrologic Soil Group A with an estimated recharge rate 2.41 inches per hour (see Table 4) or 4.8 acre-ft/day per acre. The estimated annual potential diversions from 2001 through 2016 are shown in Figure 17, where most of the divertible flow is available during very wet years and no divertible flows are available in dry years. The HSPF modeled annual average diversion potential are 0 AFY, 630 AFY, and 0 AFY for average (2001), wet (2005), and dry (2014) hydrologic years, respectively. Inside Target Area 5 there is one active confidential private well and one active non-confidential public well. Recharge in this part of the basin would benefit a larger portion of the basin because it is located upgradient of the areas that are affected by chronic lowering of groundwater levels and because more water would move into the Paso Robles Formation. However, there is an insufficient quantity of natural stormwater flow. This area would be ideal for recharge if an imported source of water were available.

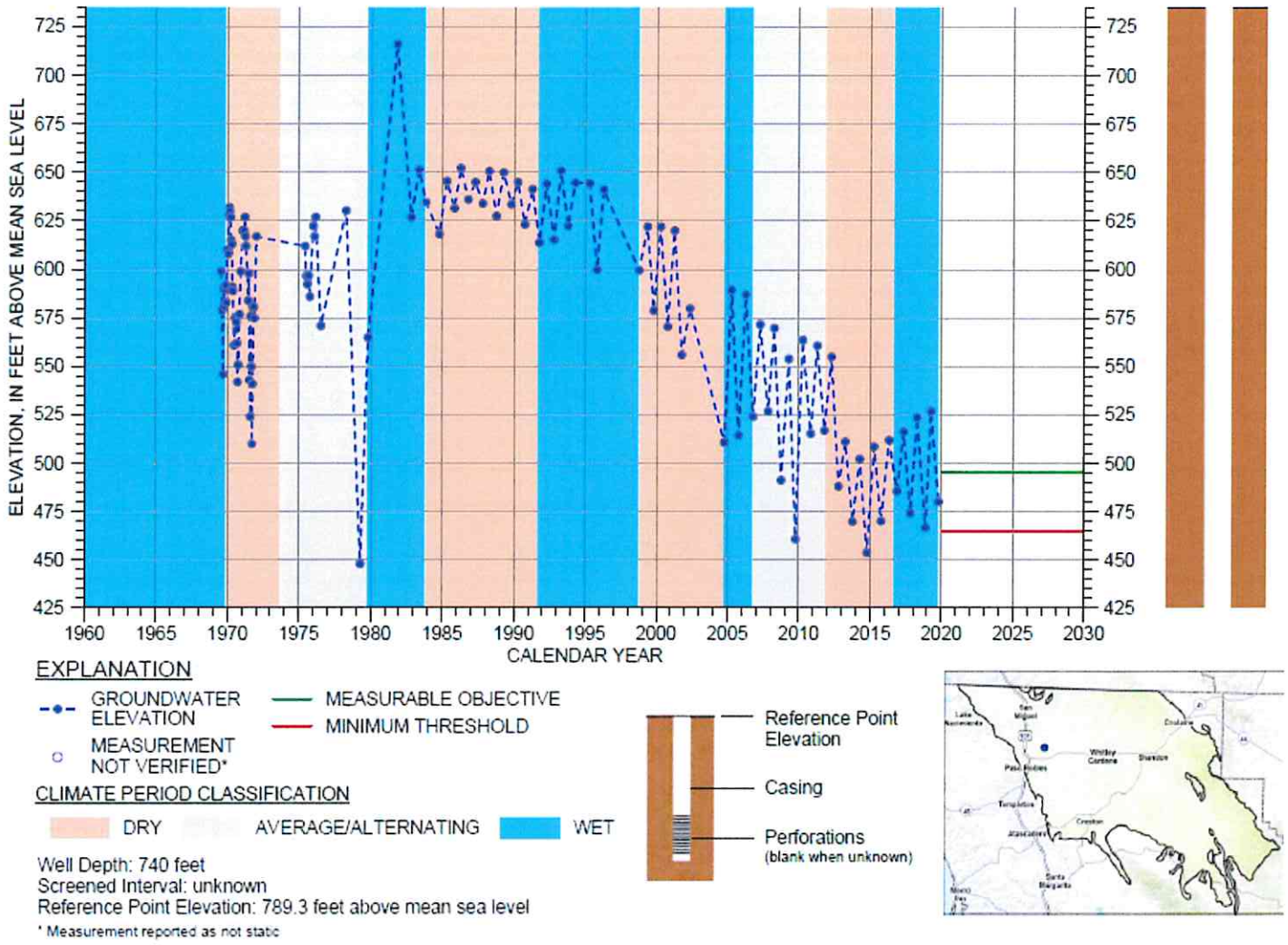
Conclusions

Based on comparative distribution modeling to determine the optimum recharge locations, considering land use, and quantifying the available stormwater in the Paso Robles Subbasin using the GSP model, the following conclusions can be drawn:

- The comparative distribution modeling of topographic slope, soil, and aquifer hydraulic conductivities, in general, delineates that the optimum recharge areas are located near river and creek drainages and toward the higher elevations in the eastern part of the basin, due to greater aquifer hydraulic conductivity.
- Based on the calibrated surface/groundwater GSP model results, capturable stormwater volumes increase in the downstream direction of the San Juan Creek and Estrella River, as the contributing watershed areas become larger. However, stormwater recharge at downgradient locations offer the least benefit to the rest of the basin.
- The areas along the more upstream locations of Huer Huero Creek have the best physical recharge properties in the Paso Robles Subbasin but with limited stormwater flows, since most of the existing surface water percolates into permeable soils connected to the underlying Alluvial Aquifer. It is therefore better suited for recharge of imported water.
- All of the five selected recharge target areas have soils classified as NRCS Hydrologic Soil Group A. NRCS A- soils are the most conducive soils for recharge with an estimated approximate infiltration rate of 2.41 inches/hour or 4.8 acre-ft/day per acre.
- Target Area 1 and 2 have the most available stormwater but lesser physical capacity to percolate water compared to the other target areas.
- Target Areas 3 and 4 have lesser available stormwater but have greater physical capacity to percolate water compared to Areas 1 and 2. The inverse is true compared to Target Area 5.

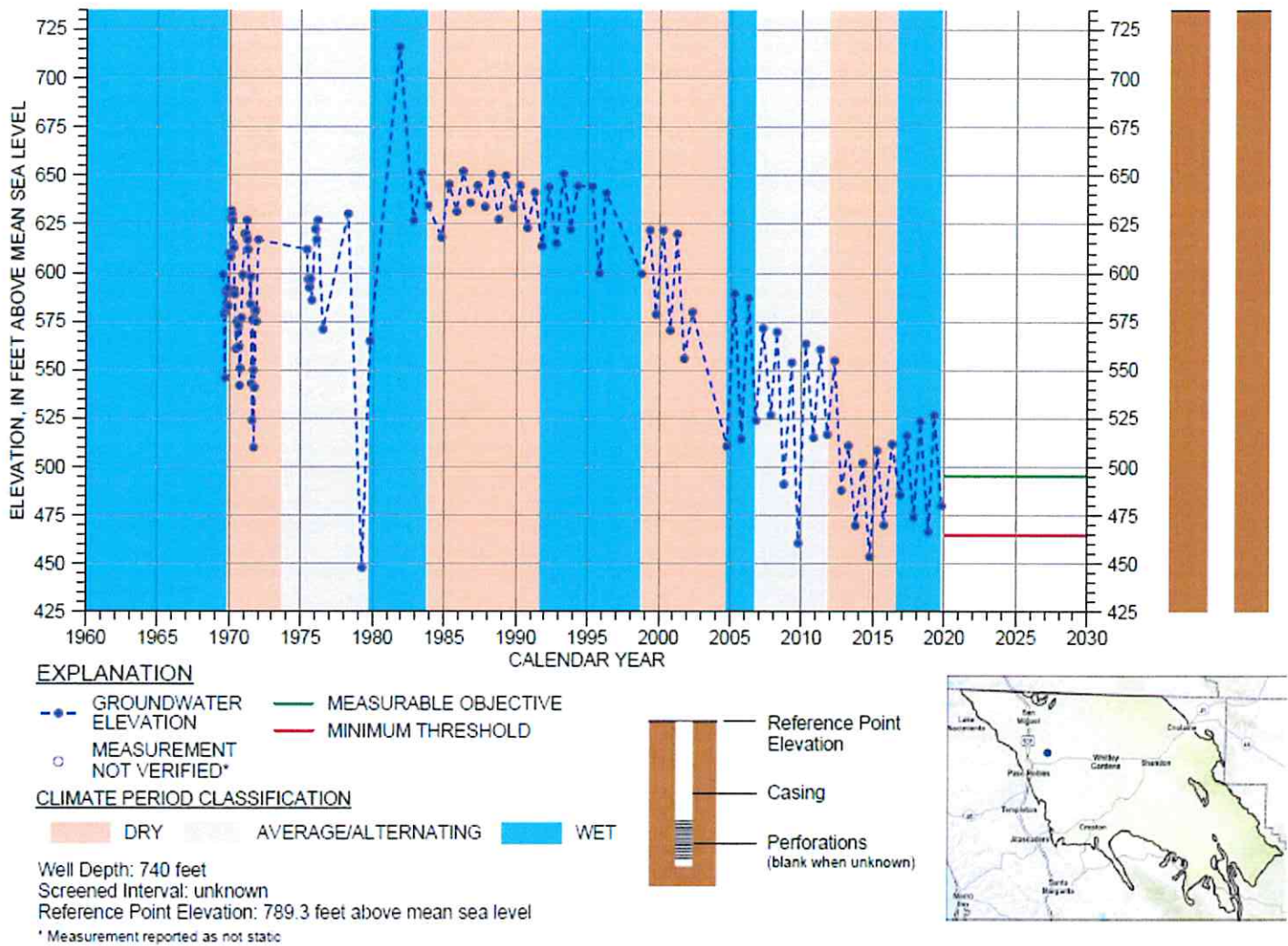
ITEM 4

The following information is from Appendix E of the *Paso Robles Subbasin First Annual Report (2017-2019)* for the Paso Basin GSP, and is derived from reports of a well located in the vicinity of the planned Facilities.



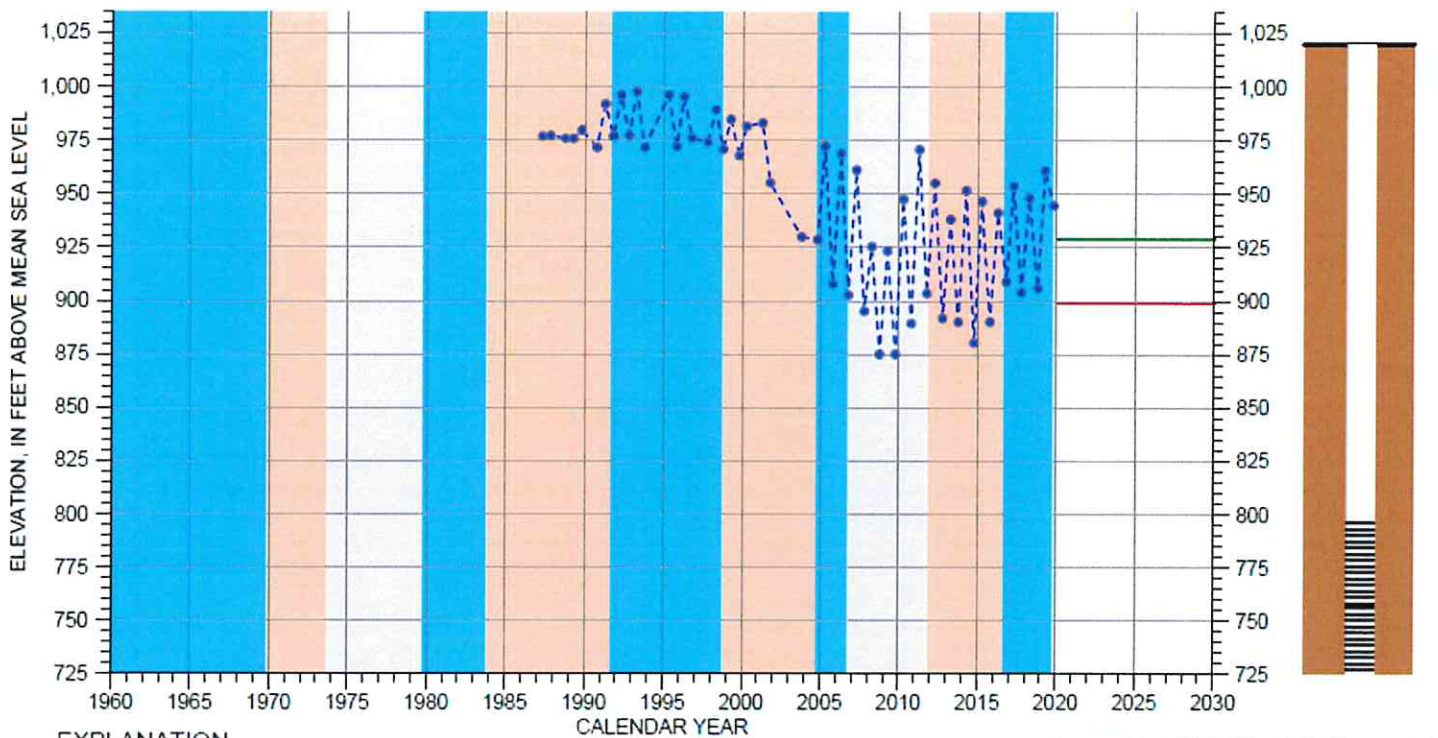
ITEM 5
[Location #1]

The following information is from Appendix E of the *Paso Robles Subbasin First Annual Report (2017-2019)* for the Paso Basin GSP. This is the same attachment as the one used for Item 4, and represents groundwater elevations in the vicinity of the planned Facilities.



ITEM 5
[Location #2]

The following information is from Appendix E of the *Paso Robles Subbasin First Annual Report (2017-2019)* for the Paso Basin GSP. It is derived from reports of a well located within the boundaries of the Shandon-San Juan Water District and is representative of groundwater elevations in a portion of the Place of Use identified in this application.



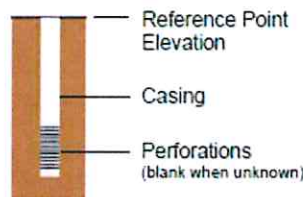
EXPLANATION

- GROUNDWATER ELEVATION
- MEASUREMENT NOT VERIFIED*
- MEASURABLE OBJECTIVE
- MINIMUM THRESHOLD

CLIMATE PERIOD CLASSIFICATION

- DRY
- AVERAGE/ALTERNATING
- WET

Well Depth: 512 feet
 Screened Interval: 223-512 feet below ground surface
 Reference Point Elevation: 1020 feet above mean sea level
 * Measurement reported as not static



HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/15E-19E01

P:\Portland\824-Paso Robles\001-GSP Annual Report\Analysis\Hydrographs\Grapher\Annual Rpt\Hydr_26S_15E-19E01.grf

Item 6

6. Applicant would deliver water stored in Lake Nacimiento to the Facility through the Pipeline, where Applicant would augment the Subbasin through direct recharge by percolation in the Facilities. Applicant, its landowners, or their designees, would later recover and use the recharged water within Applicant's boundaries on land overlying the Subbasin. Applicant intends to develop rules, regulations and policies for allocation and use of the imported water that is the subject of this application. Such policies would include (i) provisions for leave-behind to ensure that this project would not contribute to overdraft in the Subbasin, and (ii) provisions requiring the metering of recovery wells to monitor use of the water for irrigated agriculture.

Item 10

Groundwater Storage

Groundwater Storage Capacity. DWR (1958) estimated the storage capacity to be 3,000,000 af in the zone 100-feet below 1958 static levels. DWR (1975) estimated the total storage capacity at 6,800,000 af. A study by Fugro West (2001a) estimates the total capacity at more than 30,400,000 af. DWR (1975) estimated the usable capacity at 1,700,000 af.

Attachment No. 8 [For Item 12]

Applicant intends to transport water through the Pipeline to its recharge facility, where water will be delivered to the Subbasin by direct recharge. The recharged water will be subsequently extracted and put to beneficial use within District boundaries.

Applicant will need to acquire fee title interest to, or easement rights on, the lands situated at the turnout for the Pipeline where Applicant expects to construct its recharge facility and, if necessary, related conveyance and pumping facilities, together with necessary access rights. Applicant would prefer to acquire these property interests through conventional purchases, but is prepared to exercise its condemnation rights under its enabling statute and California's Eminent Domain Law if necessary. In the case of property owned by another public agency or otherwise dedicated to a public use, Applicant will endeavor to negotiate common use agreements to accommodate the proposed recharge facilities and, if necessary, related conveyance and pumping facilities.

Attachment No. 9 [For Item 21]



**Nacimiento Dam,
location of diversion
to storage.**

Nacimiento River

Photo along Nacimiento River immediately downstream from the proposed point of diversion, dated September 7, 2018.



Photo along Nacimiento River immediately upstream from the proposed point of diversion, dated September 7, 2018.

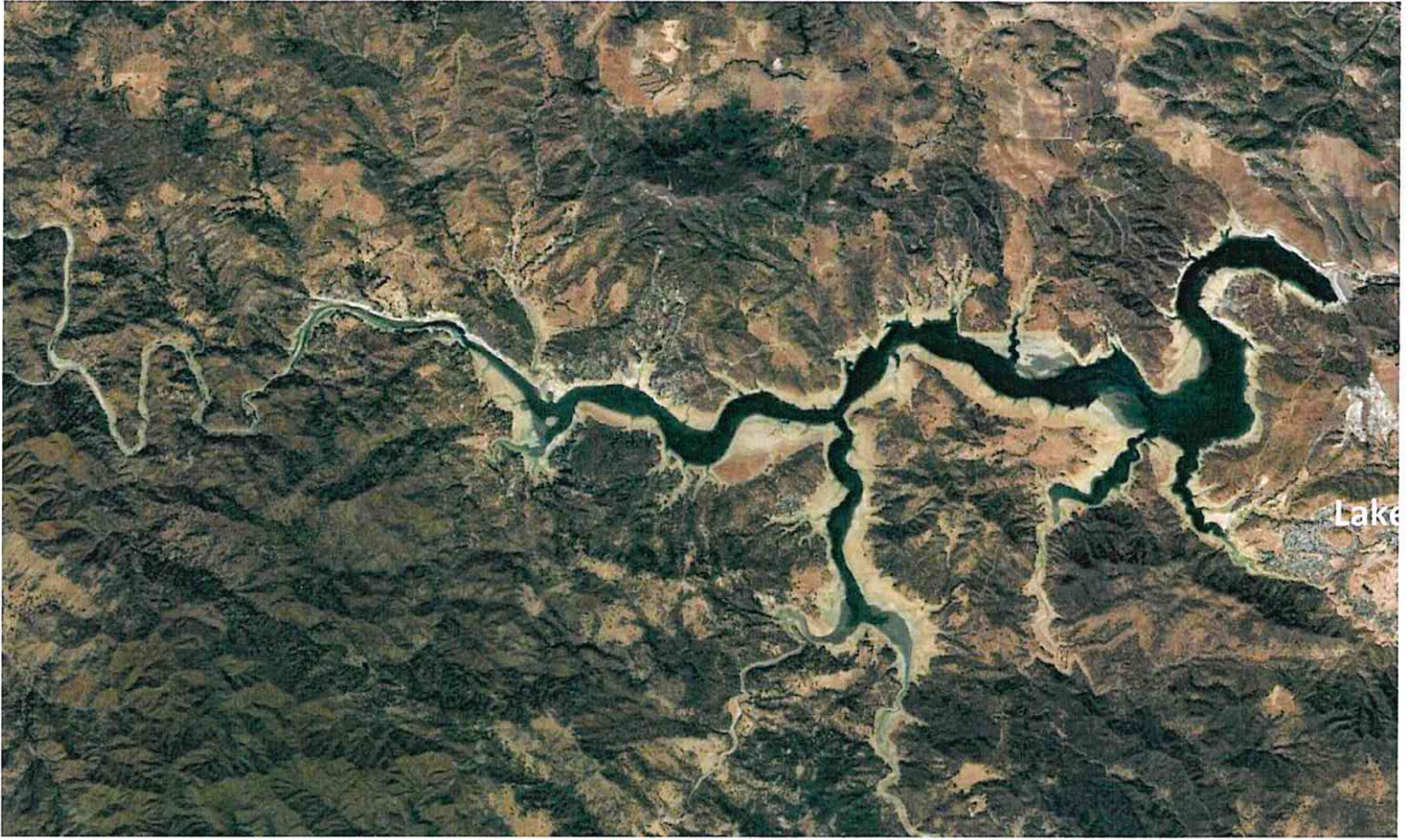


Photo of Lake Nacimiento, proposed diversion location, dated September 7, 2018.

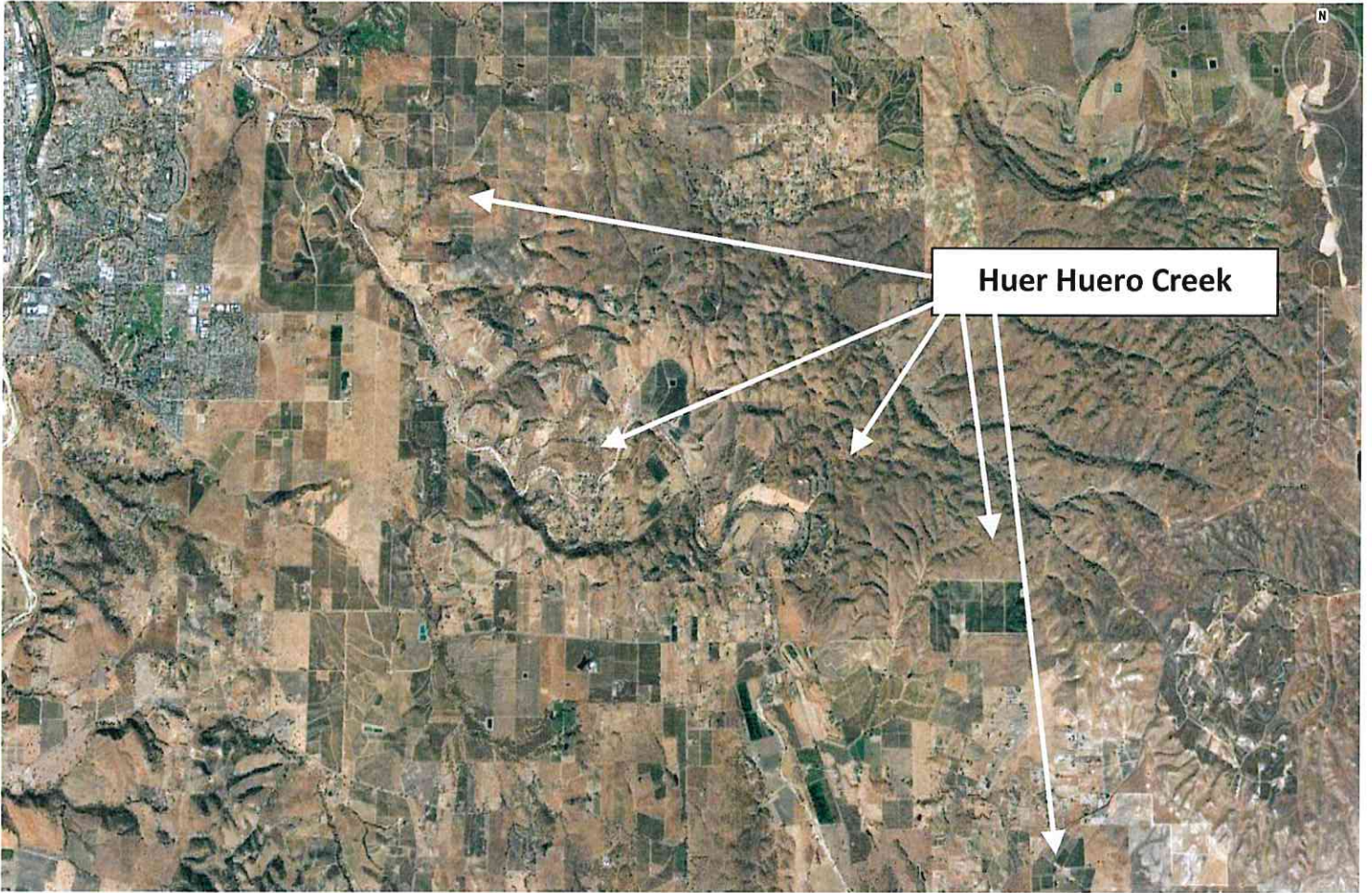


Photo along Huer Huero Creek, dated September 7, 2018.



Photo of District, proposed Place of Use.



Photo of District, proposed Place of Use.



Photo of District, proposed Place of Use.



Photo of District, proposed Place of Use.

Attachment No. 9 [For Item 21]



Photo along Nacimiento River immediately downstream from the proposed point of diversion, dated September 7, 2018.



Photo along Nacimiento River immediately upstream from the proposed point of diversion, dated September 7, 2018.



Photo of Lake Nacimiento, proposed diversion location, dated September 7, 2018.

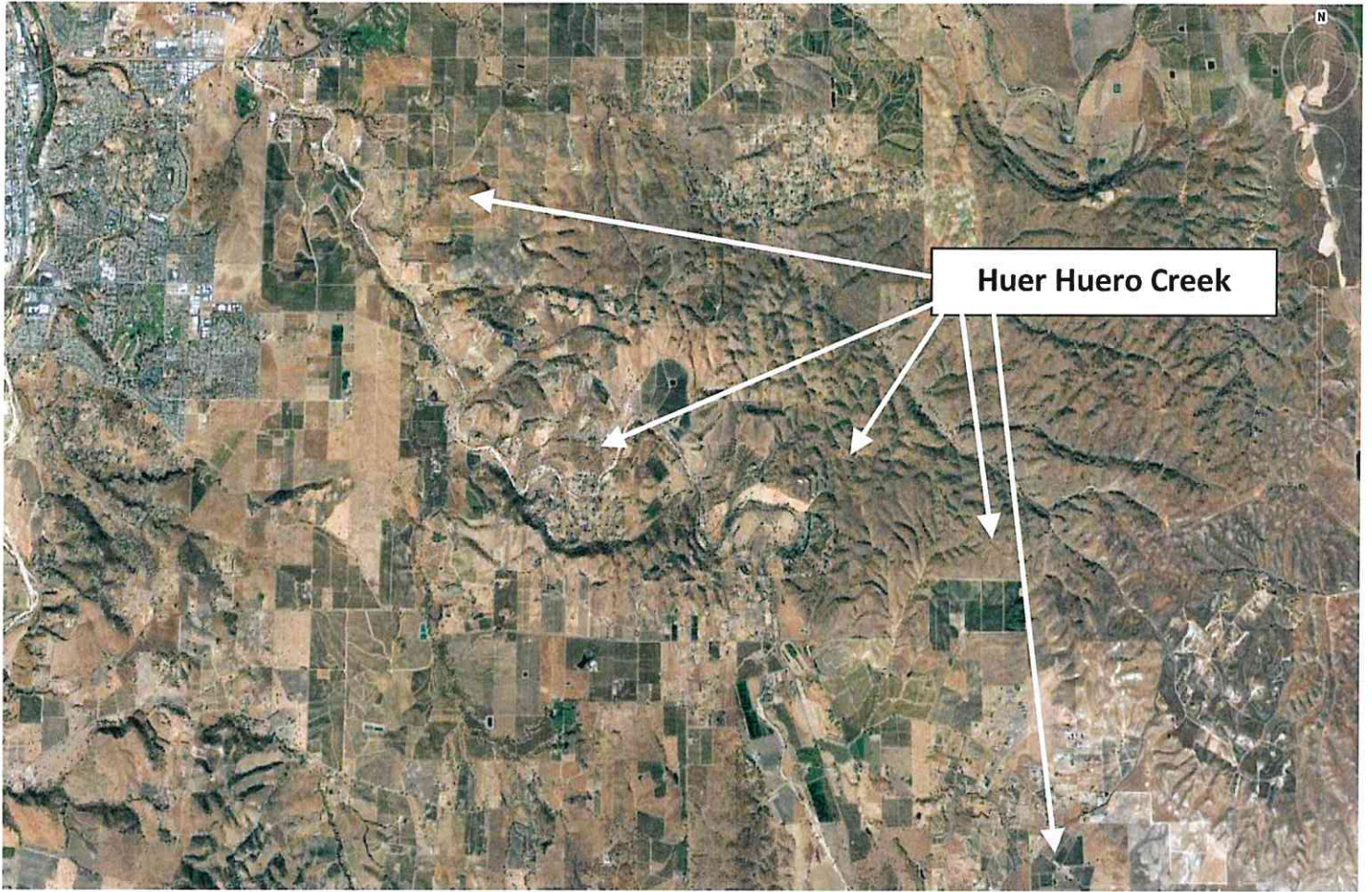


Photo along Huer Huero Creek, dated September 7, 2018.



Photo of District, proposed Place of Use.



Photo of District, proposed Place of Use.



Photo of District, proposed Place of Use.



Photo of District, proposed Place of Use.