May 10, 2022

Mr. Erik Ekdahl, Deputy Director
Division of Water Rights
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812-2000

Subject: Sites Project Authority Application to Appropriate Water and Petitions for Partial Assignment and Releases from Priority

Dear Mr. Ekdahl:

The Sites Project Authority is pleased to submit the enclosed documents to complete its Application to Appropriate Water (Application) for the Sites Reservoir Project (Project). The Application form was prepared and submitted to the State Water Resources Control Board (State Board), Division of Water Rights via the Water Rights Online Forms (WROF) portal. In addition to the Application form submitted via WROF, enclosed are the following:

1. Signed Notice of Submittal;
2. Maps illustrating the place of use, points of diversion, points of rediversion, and other Project features (one original and one copy);
3. Maps showing Sites Reservoir, including contour intervals and an area-capacity table (one original and one copy);
4. Petition for Partial Assignment of State Filed Application A025517;
5. Petitions for Releases of Priority of State Filed Applications A025513, A025514, A025517 (Remaining), A022235, A023780, and A023781 in Favor of the Portion of State Filed Application A025517 Assigned to Sites Project Authority;
6. Checks in the amount of $599,952 and $15,000 to cover the Application fee, Petition for Assignment fee, and Petitions for Releases from Priority fees payable to the Division of Water Rights, State Water Resources Control Board; and
7. Check in the amount of $850 to cover the fee payable to the California Department of Fish and Wildlife.

With the submittal of this cover letter, and accompanying documents, the Authority hereby requests partial assignment of State Filed Application A025517. Pursuant to Water Code Section 10504.01, the completed Application submitted via WROF, and the enclosed documents, are incorporated into the Petition for Assignment as the Authority's proposed completed Application.

P.O. Box 517
Maxwell, CA 95955
530.438.2309

The Application constitutes a responsible, balanced approach by demonstrating water is available while avoiding injury to other water right holders, avoiding unreasonable harm to the environment, and establishing that the Project protects public trust resources and otherwise is in the public interest as described below.

- Avoiding Injury to Other Water Right Holders – The Project includes numerous measures to avoid injury to other water right holders. A few of these include only diverting water when it is available over and above the amount required to satisfy senior demands and selected in-basin winter water rights, the Delta is in "Excess" conditions as defined in the Coordinated Operations Agreement of the Central Valley Project and State Water Project, and flows are available in excess of those needed to meet all applicable laws, regulations, biological opinions and court orders in place at the time of diversion.

- Avoiding Unreasonable Harm to the Environment – The Project includes several measures to avoid unreasonable harm to the environment and protect public trust resources. These include the Project's revised diversion criteria, which are consistent with the California Department of Fish and Wildlife's comments on the Project's Revised Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement. In addition, the Authority is also proposing to include Term 96, which recognizes the State Board's reserved jurisdiction to amend the Authority's water right to implement an updated Bay-Delta Plan.

- Protects Public Trust Resources and Otherwise is in the Public Interest – In addition to assisting our State in continuing to adapt to the realities of climate change, the Project protects public trust resources and otherwise is in the public interest because a significant portion of the Project's storage space and annual water supplies will be used for the benefit of the environment. These supplies will help improve conditions for delta smelt, preserve the cold-water pool in Shasta, Oroville, and Folsom Reservoirs later into the summer months to support salmon development, spawning, and rearing, and improve Pacific Flyway habitat for migratory birds and other native species. Sites Reservoir provides a revolutionary water storage and management asset for the environment – allowing resources agency managers flexibility to decide how, and when, this water will be used for environmental purposes.

The Authority has completed a robust water availability analysis using three different analytical methods with varying levels of conservatism, and all methods show a reasonable likelihood of water available for the Project. The water availability analysis is not only a key component of the Application and water right permitting process, but also a key consideration of those entities and organizations investing in the Project. The three methods

demonstrate an annual average of approximately 871,000 acre-feet to 1,174,000 acre-feet of water available for the Project. Two of the analyses include environmental needs (the third is a theoretical analysis for which it is not possible to layer in environmental needs). The robust water availability analysis provides a baseline demonstration that there is water available for the Project.

Through its 2020 Strategic Plan, the Authority identified the values of trust and integrity, environmental stewardship, and proactive innovation. Based on these core values, the Authority has reached out to water agencies, regulatory agencies, and non-governmental organizations to discuss the Project's Application approach, identify concerns, and attempt to address those concerns proactively. As a result of the concerns raised during numerous meetings with various entities and organizations, the Authority's Application includes three project-specific terms and four standard terms. These are described in Section 5, Attachment 2 of the Application. By including these terms in its Application, the Authority is consenting to the State Board including these terms in the Project's water right permit. The Authority will continue to proactively understand and address concerns of interested parties with the intent to collaboratively develop mutually agreeable solutions.

Our State must move quickly to diversify our toolbox of water management measures in the face of our changing climate and the increasing frequency of vastly different weather conditions. Bold, transformative action is necessary to replace the decline in storage of our largest reservoir – the snowpack that our current water management system is largely built around. Sites Reservoir is a generational opportunity to effectuate this change for the benefit of all of California.

We appreciate the Division's consideration of the Application and encourage the Division to accept the Application based on the information provided. We look forward to the public noticing of the Application and are prepared to continue our efforts to work collaboratively to address concerns and resolve protests. We also look forward to working with the State Board as the Board processes the application and has any additional information requests in preparation for its final decision. If you have any questions, please contact me at (925) 260-7417 or jbrown@sitesproject.com or Alicia Forsythe at (916) 880-0676 or aforsythe@sitesproject.org.

Sincerely,

Jerry Brown
Executive Director

P.O. Box 517
Maxwell, CA 95955
530.438.2309

Enclosures

cc: Amanda Montgomery, Division of Water Rights
Justine Herrig, Division of Water Rights
Kristal Davis-Fadtke, California Department of Fish and Wildlife

P.O. Box 517
Maxwell, CA 95955
530.438.2309

SWRCB - DWR
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California Environmental Protection Agency

State Water Resources Control Board

Water Rights Online Form (WROF) System

NOTICE OF SUBMITTAL

APPLICATION TO APPROPRIATE WATER BY PERMIT

Form Number: 442543
Applicant Name: Sites Project Authority
Mailing Address: PO Box 517, Maxwell, CA 95955
Email Address: aforsythe@sitesproject.org
Phone Number: (916) 880-0676

Your Application to Appropriate Water by Permit has been submitted to the State Water Resources Control Board (State Water Board). The purpose of this notice is to inform you that your application will not be accepted for initial review unless the following three items are received by the State Water Board's Division of Water Rights by 06/10/2022:

1. **Completed Notice of Submittal**: Applications to appropriate water must be signed by the applicant or the applicant's authorized agent (Cal. Code Regs., tit. 23, §710.)
2. **Application Filing Fee or Proof of Payment**: Applications to appropriate water by permit must be accompanied by a filing fee determined by regulation (Cal. Code Regs., tit 23, §1062.) Based on your review of the current fee schedule, the State Water Board filing fee for this application is $ 579952. For information on available payment methods, please visit https://www.waterboards.ca.gov/make_a_payment.
3. **Streamflow Protection Standards Fee**: With limited exceptions, a filing fee of $850.00 made payable to the California Department of Fish and Wildlife is due upon application for any permit, transfer, extension, or change of point of diversion, place of use, or purpose of use. The fee is required to defray the costs of identifying streams and providing studies to support the development of Streamflow Protection Standards (Pub. Resources Code, § 10005.) Under certain circumstances, payment of this fee may be waived by the State Water Board or the California Department of Fish and Wildlife.

You may submit the required items **by mail** (State Water Resources Control Board, Division of Water Rights, Attn: Applications, PO Box 2000, Sacramento, CA 95812-2000); or **by hand delivery** (Division of Water Rights Records Room located in the Joe Serna Jr. CalEPA Headquarters Building at 1001 I Street in Sacramento).

If the three items listed above are received by 06/10/2022, your application will be accepted for initial review and the Division of Water Rights will determine whether the application conforms to the rules and regulations of the State Water Board and to the law within 30 days of receipt. If the three items listed above are not received within the specified timeframe, your application will expire and you will need to submit a new application.

If you have any questions, please call the Division of Water Rights at (916) 341-5300 or email dwr-applications@waterboards.ca.gov. For additional information on water rights and the application process, please refer to the Division of Water Rights Permitting web page: https://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/

By signing below, I certify under penalty of perjury under the laws of the State of California that the information provided in Application Form ID 442643 is true and correct to the best of my knowledge and belief.

Jerry Brown — Signature

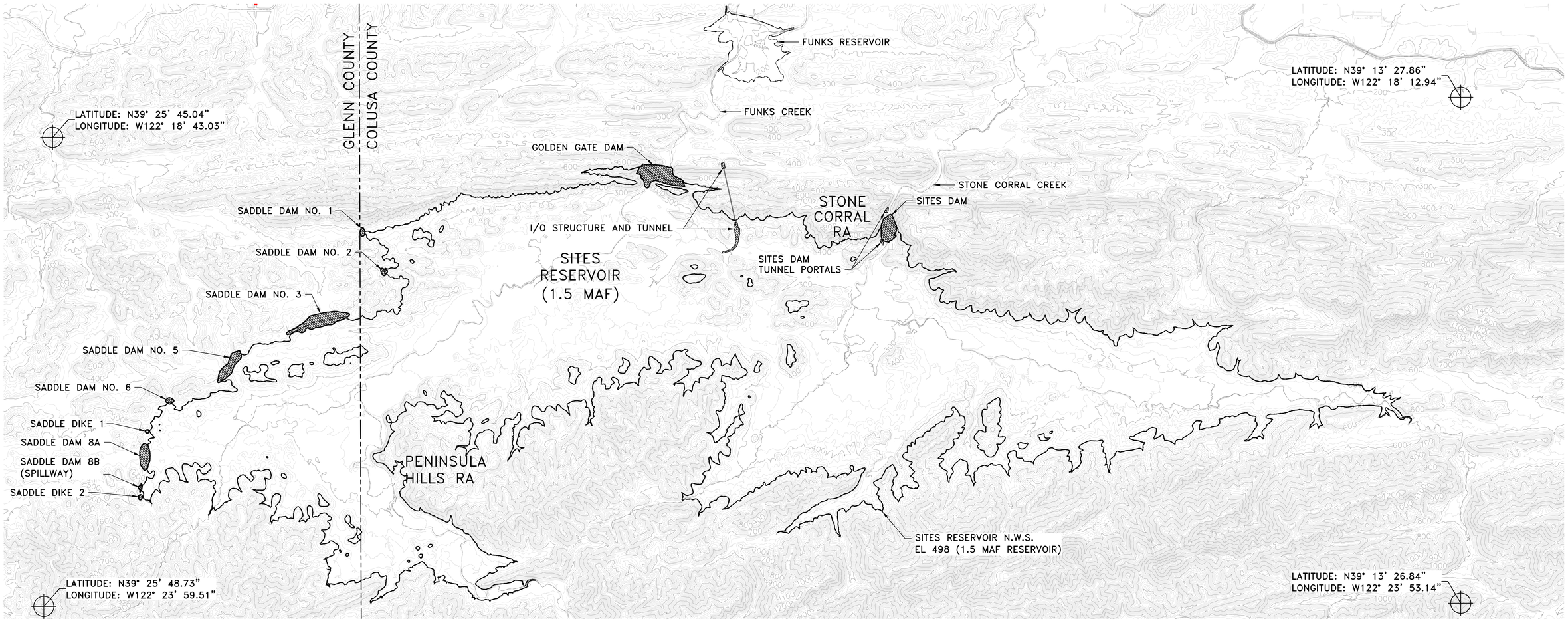
May 11, 2022 — Date

JERRY BROWN — Print Name

SWES PROJECT AUTHORITY — Company/Organization (if applicable)

I am the X Applicant __ Authorized Agent for this application.

THIS SECTION FOR USE BY DIVISION OF WATER RIGHTS STAFF ONLY				
Review of Filing Fees				
Fees	Payment Amount	Payment Method	Payment Date	Staff Initials/Date
Application Filing Fee	599,952.00 15,000.00	CHECK # 2457/5116	5/11/22	JCH
Streamflow Protection Standards Fee	850	CHECK # 5117	5/11/22	JCH
eWRIMS Record Creation				
Staff Assigned		Record ID		Staff Initials/Date



NORTH

0 1/2 1

1" = 1/2 MILE

RESERVOIR AREA–CAPACITY DATA

ELEVATION (ft)	AREA (acre)	CAPACITY (acre–ft)
320	2,390	50,100
340	3,830	112,400
360	5,260	200,600
380	6,510	320,800
400	7,700	462,100
420	9,120	631,500
440	1,060	824,000
460	11,320	1,040,400
480	12,330	1,276,900
498	13,158	1,507,930

NOTES

1. MAP PROJECTION: NAD 1983 STATE PLANE ZONE II
2. RESERVOIR AREA–CAPACITY DATA FROM THE 2004 DWR SITES RESERVOIR PMF ANALYSIS REPORT

CERTIFICATE OF ENGINEER

I, Michael Smith, of AECOM do hereby certify that this map was prepared under my immediate supervision using the U.S. Geological 2018–2019 LiDAR: Northern California Wildfire – QL1 survey and that it correctly represents the project described in the accompanying application consistent with the 10% design as of November 8, 2021 and shows the location of streams in the immediate vicinity.

Michael Smith_____

(November 8, 2021)

California Civil Engineer Certificate No.42978

I/R	DATE	BY	CHK	APPR	DESCRIPTION

DESIGNED BY:
DRAWN BY:
CHECKED BY:
IN CHARGE:
DATE: 11/8/2021

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
TEL: (916) 414–5800
FAX: (916) 414–5850

Sites

SITES RESERVOIR
SITES RESERVOIR DAMS
GENERAL
MAIN DAMS AND SADDLE DAMS – LOCATION PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALE FOR REDUCED PLOTS
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DRAWING NO.
STS-315-C-2001

DRAFT – PROJECT FEASIBILITY STUDY – NOT FOR CONSTRUCTION

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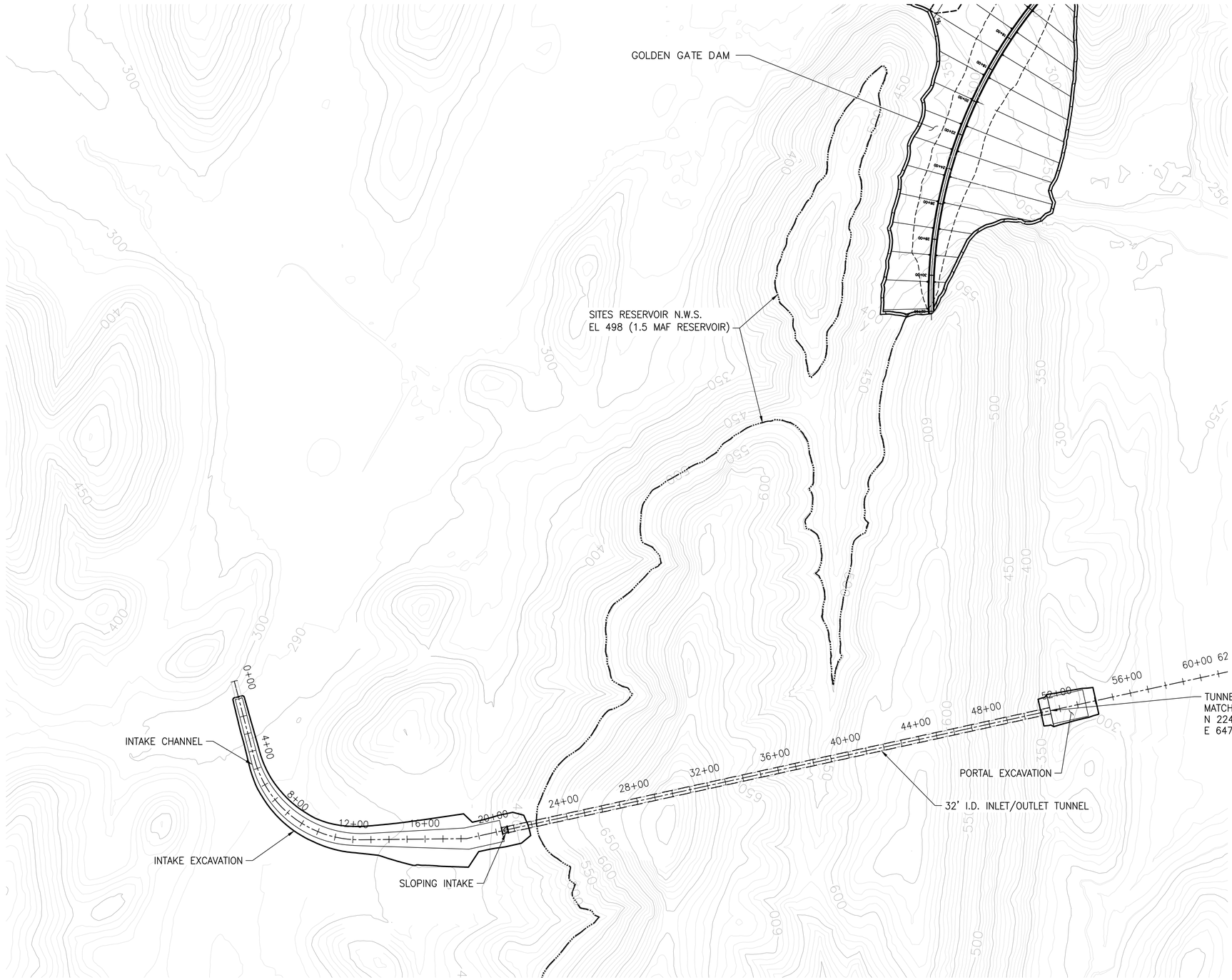

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Michael Smith_____

(November 8, 2021)

California Civil Engineer Certificate No.42978

NORTH

400 200 0 400 800 1200
SCALE IN FEET

DRAFT – PROJECT FEASIBILITY STUDY – NOT FOR CONSTRUCTION

I/R	DATE	BY	CHK	APPR	DESCRIPTION

DESIGNED BY:
DRAWN BY:
CHECKED BY:
IN CHARGE:
DATE: 11/8/2021

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
TEL: (916) 414-5800
FAX: (916) 414-5850

Sites

SITES RESERVOIR
INLET OUTLET FACILITIES
GENERAL ARRANGEMENT
PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALE FOR REDUCED PLOTS
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DRAWING NO.
STS-370-C-2601

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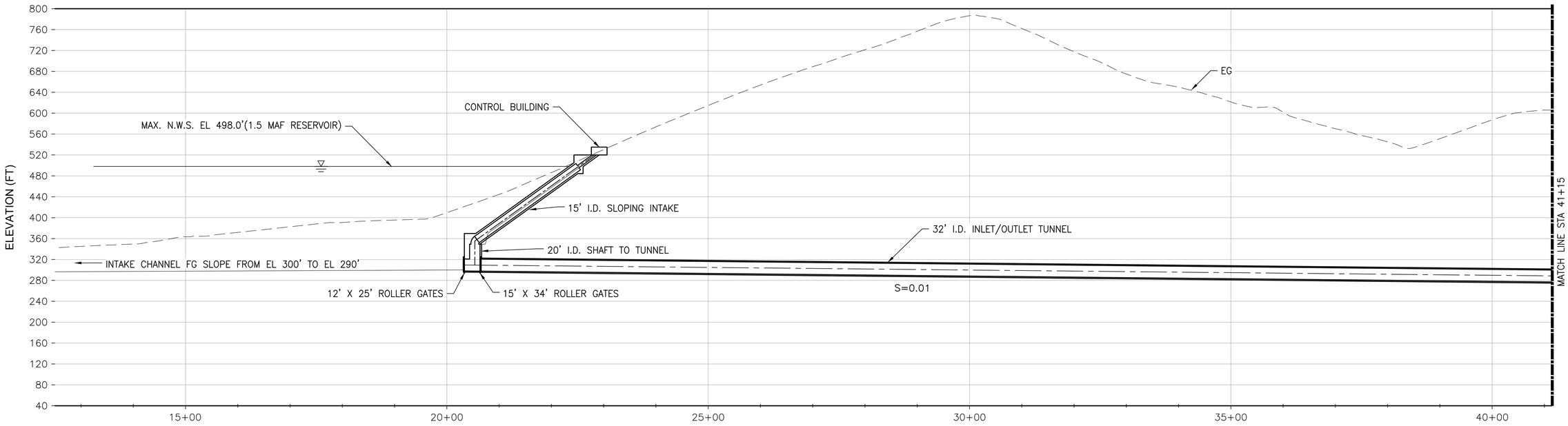
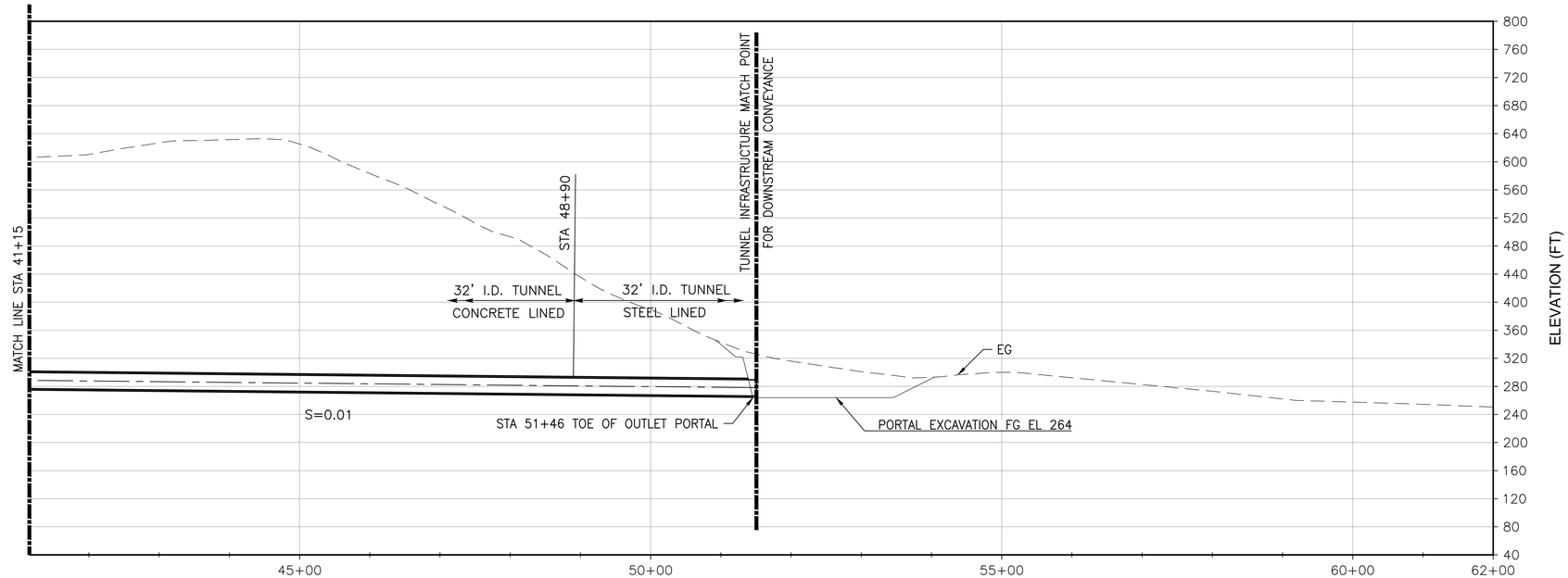


PROFILE STA 14+50 TO STA 40+20
SCALE: 1" = 100'



PROFILE STA 40+20 TO 62+00
SCALE: 1" = 100'

CERTIFICATE OF ENGINEER

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Michael Smith_____

(November 8, 2021)

California Civil Engineer Certificate No.42978

100 200 0 100 200 300
HORIZ AND VERT SCALE IN FEET

I/R	DATE	BY	CHK	APPR	DESCRIPTION

DESIGNED BY:
DRAWN BY:
CHECKED BY:
IN CHARGE:
DATE: 11/8/2021

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
TEL: (916) 414-5800
FAX: (916) 414-5850

Sites

SITES RESERVOIR
INLET OUTLET FACILITIES
GENERAL ARRANGEMENT
PROFILE

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALE FOR REDUCED PLOTS
0 1"

DRAWING NO.
STS-370-C-3601

DRAFT – PROJECT FEASIBILITY STUDY – NOT FOR CONSTRUCTION

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Petition for Partial Assignment of State Filed Application A025517

The Sites Project Authority (Authority) seeks assignment of a portion of State Filed Application A025517 for the Sites Reservoir Project (Sites Reservoir or Project). The proposed Project complies with the Water Code requirements for the State Water Resources Control Board (State Board) to partially assign A025517 to the Authority because: (1) the Project does not conflict with a general or coordinated plan of the state or with water quality objectives; and (2) the Project will not deprive a county in which water covered by the application originates of water necessary for development. (Wat. Code, §§ 10500, 10504, 10504.01, 10505.)

1. Overview of State Filed Application A025517

A025517 describes the State of California's proposed water rights for Colusa Reservoir to be used in the service area of the State Water Resources Development System, as shown in State Water Project (SWP) maps[1][2]. A025517 identifies a September 30, 1977, priority date. The application provides for diversion for irrigation, domestic, municipal, industrial, recreation, incidental power, water quality control, and fish and wildlife enhancement purposes from Willow Creek, Funks Creek, Stone Corral Creek, and the Sacramento River. The application provides for a year-round diversion rate of 4,200 cubic feet per second (cfs) and a total combined diversion to storage of 3,164,000 acre-feet per year (af/yr). The points of diversion are within Tehama, Glenn, and Colusa Counties at Willow Dam, Funks Dam, Sites Dam, Tehama-Colusa Canal, and Glenn Colusa Canal.

2. Project Background

The Authority requests a water right for the Project that would authorize diversion of up to 1.5 million af/yr of unappropriated water to storage through Project components in Tehama, Glenn, and Colusa Counties. The right would also authorize a maximum diversion rate of 4,200 cfs and a diversion season of September 1 – June 14. The Authority will release previously stored water for use by local entities in Colusa and Yolo Counties[3]. Release of previously stored water can be conveyed through the Colusa Basin Drain and returned to the Sacramento River through the Knights Landing Outfall Gates or

[1] The relevant SWP maps delineating the place of use were submitted with Application Nos. 5630, 14443, 14445A, 17512, and 17514A. These applications/permits contain as a place of use the "Service Area of the State Water Project," as well as various power plants and water district service areas.

[2] The State Water Resources Development System is comprised of "the State Water Facilities as defined in Section 12934(d) hereof and such additional facilities as may now or hereafter be authorized by the Legislature as part of (1) the Central Valley Project or (2) the California Water Plan, and such other additional facilities as the department deems necessary and desirable to meet local needs …." (Wat. Code, § 12931.) The "State Water Facilities" are part of what are now known as the SWP facilities and places of use. (*Id.*, § 12934(d).) The "Central Valley Project", as defined in the Water Code, includes numerous units in the Sacramento and San Joaquin Valleys, many of which now exist as part of the SWP and federal Central Valley Project (CVP). (*Id*, §§ 11201 et seq.)

[3] Through exchanges of Sites water for other supplies in the Sacramento River watershed, the Project will facilitate potential deliveries in other Sacramento Valley counties (e.g., Glenn and Sacramento Counties).

downstream in the Delta after channeling flow through the Yolo Bypass for use by entities within the Project place of use (which is generally consistent with the SWP and CVP places of use). Water released from Sites Reservoir will provide year-round benefits to local, state, and federal water use needs, including public water agencies, anadromous fish species in the Sacramento River watershed, wildlife refuges and habitats, and the Yolo Bypass to help supply food for delta smelt (*Hypomesus transpacificus*).

Project facilities would include improvements to and use of the existing Red Bluff Pumping Plant, Tehama-Colusa Canal, Glenn-Colusa Irrigation District's (GCID) Hamilton City Pump Station and Main Canal, and Funks Reservoir and the Terminal Regulating Reservoir. The Project reservoir area, which is proposed to hold 1.5 million acre-feet, will be in rural, unincorporated areas of Glenn and Colusa Counties and include the construction of two main dams, the Golden Gate Dam on Funks Creek and the Sites Dam on Stone Corral Creek. The Project reservoir area would provide recreational opportunities dependent on water stored in the Reservoir.

3. The Proposed Partial Assignment is Not in Conflict with the California Water Plan or with Water Quality Objectives

Water Code section 10504 authorizes the State Board to "assign any portion of any [State] application . . . when the . . . assignment is for the purpose of development not in conflict with such general or coordinated plan or with water quality objectives established pursuant to law." (See also Wat. Code, § 10500.) As discussed below, Sites Reservoir does not interfere with or prevent the development of a coordinated plan and is not in conflict with established water quality objectives.

3a. General/Coordinated Plan Analysis

Water Code sections 10500 and 10504 "require that . . . assignment be for a development not in conflict with a general or coordinated plan looking towards the development, utilization, or conservation of the water resources of the State. . . ." (28 Ops.Cal.Atty.Gen. 307, 307 (1956), citing Wat. Code, §§ 10500, 10504.) The statewide strategic plan for sustainably managing and developing water resources in California is the State Water Plan (State Water Plan or Plan). The Plan, published in accordance with Water Code sections 10004 and 10005, "guides the orderly and coordinated control, protection, conservation, development, management and efficient utilization of the water resources of the state." (Wat. Code, § 10005; DWR, Bulletin No. 3, The California Water Plan (May 1957).) Assignment of a State Filed Application is appropriate where the proposed project is "substantially in accord" with a State application that is part of a coordinated plan, including the State Water Plan. (28 Ops.Cal.Atty.Gen. 307, 313 (1956).)

The need for Northern California reservoir storage supplied by a diversion from the Sacramento River has been identified repeatedly through updates of the State Water Plan, related studies, and statewide policy. The Bureau of Reclamation (Reclamation) evaluated a predecessor to the Sites Reservoir as early as 1957, when DWR Bulletin No. 3 identified new facilities to provide flood control and water supplies in California, including a 48,000 acre-foot reservoir on Stone Corral and Funks Creeks.

In 1964, the State considered a "Sites Reservoir" project with a planned capacity of 1.2 million acre-feet of storage to be filled seasonally from the Tehama-Colusa Canal, an existing feature of the CVP. (DWR Bulletin No. 76 (1981), pp. 119, 127, citing Reclamation Proposed Feasibility Report, "West Sacramento Canal Unit, Central Valley Project", Dec. 1964.)

DWR Bulletin No. 76, published in 1981, evaluated several offstream reservoirs to provide additional water supplies to the SWP and CVP, as well as local flood control, irrigation water supplies, recreation, and fish enhancement benefits. One such project, the "Colusa Reservoir" in Colusa and Glenn Counties, was proposed as a modification and enlargement of the previously proposed Sites Reservoir. The 3.2 million acre-foot Colusa Reservoir was proposed with dams on Willow, Logan, Hunters, Funks, and Stone Corral Creeks for the diversion of water from the Sacramento River to be conveyed to the reservoir in the existing Tehama-Colusa and GCID Main canals. (DWR bulletin No. 76 (1981), pp. 119, 127.) The Colusa Reservoir would be filled with winter and spring flows and would provide releases to augment the Delta water supply.

In the CALFED Record of Decision in 2000, a "North-of-the-Delta Offstream Storage" project, which included the Sites Reservoir, was investigated as one of a suite of storage projects in a statewide water resource planning effort to improve water supply reliability, environmental flows, water quality maintenance, and flood flow management. The Sites Reservoir was also specifically identified as a viable surface storage management strategy for the achievement of State Water Plan goals again in 2016. (Surface Storage – CALFED, A Resource Management Strategy of the California Water Plan (July 29, 2016), pp. 1-5.)

The most recent update to the Plan, issued in 2018, reflects the adoption of substantive policies by the Newsom Administration in pursuit of a "water resilience portfolio," including for building climate-resilient water infrastructure. (DWR, California Water Plan Update 2018 (June 2019) p. 1-2.)[4] Specifically, Governor Newsom signed Executive Order N-10-19 requiring a collaborative effort between state agencies to prepare a water resilience portfolio that meets the needs of California's communities, economy, and environment through the 21st century. The 2020 Water Resilience Portfolio (Portfolio) was completed in July 2020 and identifies the need to expand smart surface water storage where it can benefit water supply reliability and the environment. In furtherance of that goal, the Portfolio proposes the acceleration of State permitting for projects selected under the Water Storage Investment Program (WSIP)—a program administered by the California Water Commission for the distribution of water supply infrastructure funding—that protect and enhance fish and wildlife resources and water supply reliability. The Portfolio specifically identifies the Sites Reservoir as one of the water storage projects that should qualify for such expedited permitting.

Sites Reservoir does not interfere with or prevent the development of a coordinated plan because it is "substantially in accord" with the project described in A025517 and is part of the State Water Plan and related water planning efforts. Iterations of North-of-the-Delta offstream storage projects—such as the Colusa Reservoir and the similarly-located Sites Reservoir—have remained a relevant and integral element of the State Water Plan and related water resource planning priorities for decades to provide additional water supplies to the SWP, CVP, and other users for water supply and fish enhancement benefits, among other uses. Additionally, Sites Reservoir was a predecessor to—and an oft-cited alternative to—the Colusa Reservoir, for which A025517 was reserved. The proposed place of use for the Project includes the majority of the place of use identified in A025517. Further, water diverted for the Project will be released to members for irrigation, municipal, and fish and wildlife purposes, among others. In this regard, the Sites Reservoir is "substantially in accord" with A025517. Accordingly, the

[4] Available at https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2018/Final/California-Water-Plan-Update-2018.pdf.

Sites Reservoir, as designed and proposed for operation, would advance the State Water Plan and statewide water resource planning efforts and implements the project identified in A025517.

3b. Water Quality Objectives Analysis

The Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Central Valley Basin Plan) and the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan), which establish water quality control objectives for the reasonable protection of beneficial uses for the protection of water quality, apply to the Project area. The beneficial uses and water quality objectives contained in the basin plans constitute State water quality standards. In addition, the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Water Quality Control Plan) provides fish tissue methylmercury objectives applicable to the Project.

The assignment of a portion of a State Filed Application does not conflict with water quality objectives where the project is operated to assure water quality objectives are met. (See *El Dorado Irrigation Dist. v. State Water Resources Control Bd.* (2006) 142 Cal.App.4th 937, 972.) Sufficient evidence is contained in the Sites Reservoir Project RDEIR/SDEIS to support the conclusion that the Project is "not in conflict with" water quality standards or applicable waste discharge requirements. Although the Sites Reservoir Project RDEIR/SDEIS concludes that the Project may degrade surface water quality during construction and operation leading to temporary increases in aqueous and fish tissue methylmercury concentrations, this conclusion is based on the uncertainty of the effectiveness of mitigation measures in reducing concentrations of methylmercury such that the releases do not cause exceedances. The construction and operation of the Project, including implementation of necessary mitigation, are otherwise planned to assure water quality objectives are met.

The Project itself does not alter the net mercury discharge to the environment, but it may alter how much methylmercury is present as a source within the reservoir or to downstream waterways, and the timing of these discharges. (Sites Reservoir Project RDEIR/SDEIS, Appendix 6F: Mercury and Methylmercury (Nov. 2021), p. 16.) During construction, the Project may temporarily increase aqueous and fish tissue methylmercury concentrations in the Colusa Basin Drain, Funks Creek, Stone Corral Creek, and the north Delta that may lead to temporary exceedances of the sport fish objective in the Water Quality Control Plan. (Sites Reservoir Project RDEIR/SDEIS, Chapter 6: Surface Water Quality (Nov. 2021), p. 6-58.) Because the Colusa Basin Drain and Funks and Stone Corral Creeks do not support sport fish, it is unlikely that anglers would be fishing these waterbodies and, importantly, any potential exceedances of the sport fish objective at these locations would not be expected to affect the public. (*Id.*) Depending on methylmercury concentrations in Sites Reservoir releases and the water year type, operation of the Project may result in methylmercury bioaccumulation in fish. (*Id.* at p. 6-81.) However, even under worst-case long-term scenarios, any such increases in fish tissue methylmercury concentrations in the north Delta would likely not be measurable. (*Id.*)

The Authority will monitor methylmercury concentrations and implement reduction actions as part of Project construction and operation with the implementation of Mitigation Measure WQ-1.1. Current research has not confirmed the effectiveness of applicable aqueous and fish tissue methylmercury minimization actions to ensure reduction of measurable increases in such concentrations. Because of the uncertainty of the effectiveness of such measures in reducing concentrations of methylmercury such that releases do not cause exceedances of the sport fish methylmercury tissue and methylmercury Total Maximum Daily Load fish tissue objectives, the Authority has reported the effect as substantially

adverse under the National Environmental Policy Act and significant and unavoidable under the California Environmental Quality Act.

Notably, there are also highly protective operating conditions, including diversion criteria, to minimize diversions during critical periods of fish movement and state-of-the-art fish screens at the points of diversion on the Sacramento River. Additionally, Reclamation and DWR operate the CVP and SWP, respectively, ensuring the achievement of water quality objectives in the Sacramento-San Joaquin River Delta. (See State Board Decision 1641; see also State Board Decision 1648, p. 10.) Further, Project operations will be subject to State Board Permit Term 91[5], which will restrict Sites Reservoir's diversions when the CVP or SWP are releasing "supplemental Project water" to meet "Inbasin entitlements," including "flows required by the State Water Resources Control Board for maintenance of water quality and fish and wildlife." These conditions and facilities will help ensure that the Project meets water quality objectives for the protection of fish and wildlife.

The Project could result in an improvement in water quality in parts of the Project area. Such improvements could assist with Delta outflow and seawater intrusion, aid in achieving cold-water benefits in the upper Sacramento River, provide flows to move fish food into the Sacramento River and Delta, and create in-reservoir habitat for warm-water fish species. In fact, the net effect of the Project is intended to enhance beneficial uses of water (see existing beneficial uses stated in Appendix 6A of the Sites Reservoir Project RDEIR/SDEIS), and these improvements in water quality would also support and increase water supply reliability for other beneficial uses designated by the water quality control plans including recreation, municipal, and agricultural supplies. (Sites Reservoir Project RDEIR/SDEIS, Chapter 6: Surface Water Quality (Nov. 2021), p. 6-100.)

In summary, the Sites Reservoir Project will not conflict with water quality objectives as its operations are intended to assure water quality objectives are met. The Authority will monitor and mitigate for any temporary degradation in water quality due to methylmercury concentrations to the best ability of current practices and research.

4. The Project Will Not Deprive A County of Origin of Water Needed for Development

The State Board may assign any portion of a State Filed Application if water covered by the application is not necessary for the development of the counties in which the water originates. (Wat. Code, § 10505.) The purpose of this provision is "to reserve for use in each county where water originates such amount of the water originating there . . . as necessary now and in the future for development of that county." (25 Ops.Cal.Atty.Gen. 32, 35 (1955).) The county of origin is defined as the county in which the water "falls in the form of precipitation," or in other words, the water that falls within the county's watershed. (25 Ops.Cal.Atty.Gen.8, 17 (1955).) In making this determination, the State Board must consider whether the assignment will not negatively impact the county of origin, which requires consideration of the probable water needs in the county and the resources available to fill them. (*Id.* at p. 36.)

[5] The Authority is coordinating with the Department of Water Resources and the Bureau of Reclamation to develop a mutually-agreeable, Sites-specific term as a replacement for Standard Permit Term 91. This replacement is expected to be equally protective of the SWP and CVP, if not more protective than Standard Permit Term 91.

4a. Sacramento River Diversions

Available Sacramento River flows that would fill the Sites Reservoir would originate primarily from tributaries to the Sacramento River downstream from Keswick Dam in Shasta and Tehama Counties and above the Project diversions at the Red Bluff Pumping Plant and Hamilton City Pump Station, in Tehama and Glenn Counties, respectively[6]. (Sites Reservoir Project RDEIR/SDEIS, Chapter 2: Project Description and Alternatives (Nov. 2021), p. 2-30.) The Hamilton City Pump Station is just south of the Tehama/Glenn County line and there are no tributaries to the Sacramento River between the Tehama/Glenn County line and the Hamilton City Pump Station. Thus, the development needs of Glenn County are not analyzed in this section.

The primary water demands for Shasta and Tehama Counties—including agriculture, municipal and industrial (M&I) and the environment—are supplied by surface water from the Sacramento River or its tributaries. (Northern Sacramento Valley Integrated Regional Water Management Plan (IRWMP) (March 2014), pp. 1-38 – 1-39.) Agricultural water demands are expected to remain static in Shasta County and increase in Tehama County by 10 percent by or around the year 2035. (*Id.* at p. 1-41.) M&I water demands are expected to increase in Shasta and Tehama Counties in the same period due to a projected increase in population; however, a portion of the M&I water use in these counties becomes wastewater that is treated and discharged back into surface waters, thereby potentially offsetting the amount of surface water diverted. (*Id.* at p. 1-42.) The environmental water demands in these watersheds have not been fully identified for all environmental uses, but primarily consist of demands for fish and wildlife habitat and water quality objectives (see discussion below). (*Id.* at p. 1-46.) In summary, the projected agricultural and M&I demands in Shasta and Tehama Counties are shown in the following table. (*Id.*, pp. 1-41—1-42, Tables 1-14, 1-15.)

	M&I Demand (af/yr)			Agricultural Demand (af/yr)		
	~2014	~2035	Difference	~2014	~2035	Difference
Shasta County	51,415	67,571	16,156	101,120	101,100	-20
Tehama County	23,100	33,370	10,270	308,600	339,460	30,860

The total estimated annual demand increase by 2035 in Shasta and Tehama Counties is about 57,300 af/yr.

There is little information on regional water supply projections for these counties (IRWMP at p. 1-39), but multiple water availability analysis approaches performed in support of Sites Reservoir substantiate a reasonable likelihood of sufficient water for appropriation for the Project. Specifically, review of historical flow and demand data, CalSim II modeling, and a review of unimpaired flow compared to the face value of water rights in the watershed each report availability of water for Project diversions. Importantly, these analyses show water available in the Sacramento River in excess of Project diversions. The Water Availability Analysis (WAA) calculates water available for appropriation from the Sacramento River for the Project, and also includes estimates of potential diversions from the Sacramento River, both of which are based on Project-specific flow requirements. Based on the WAA, it is estimated that an annual average of approximately 550,000 to 900,000 af/yr (from the Historical Analysis and CalSim II Analysis, respectively) is available after Project diversions. (WAA, pp. 25, Table 7,

[6] The principal tributaries in this reach are Antelope, Battle, Cottonwood, Cow, Deer, Elder, Lower Clear, Mill, Paynes/Sevenmile, and Thomes Creeks.

35, Table 12, 60, 78.) This amount of water available after Project diversions demonstrates water is available for local development in Tehama and Shasta Counties.

Moreover, the Project would not compete for water that the counties of origin currently rely on because Project diversions would occur between September 1 and June 14, which corresponds with the period that the Sacramento River is not fully appropriated. The Project would operate so that diversions would occur only when specified diversion criteria are met, thereby protecting environmental demands for instream flows in Tehama County downstream of the Red Bluff Pumping Plant. The Authority would hold water in storage in Sites Reservoir until requested for release by agencies, water organizations, and others that have funded and received a storage allocation in the Sites Reservoir, including numerous entities in the Sacramento Valley.

Accordingly, the Project will not deprive either Shasta or Tehama County of water needed for development.

4b. Funks and Stone Corral Creek Diversions

The Project proposes construction of two main dams, the Golden Gate Dam on Funks Creek and the Sites Dam on Stone Corral Creek, to impound water in the new reservoir. Portions of both Funks and Stone Corral Creeks are within the inundation area of the Project. Funks Creek flows naturally from Glenn County into Colusa County, while Stone Corral Creek flows only through Colusa County. These creeks originate at elevations below the snow line and do not receive cold snowmelt water; rather, they respond rapidly to significant rainfall events, flash flooding, and substantial overland flow. Sites Reservoir will include outlet facilities to maintain flows in the creeks downstream of the dams to protect downstream water right holders and existing ecological functions consistent with Fish and Game Code section 5937.

Stone Corral Creek has a drainage area of 38 square miles and crosses over siphons in the Tehama-Colusa Canal and in the GCID Main Canal. Below the GCID Main Canal, Funks Creek joins Stone Corral Creek. The United States Geological Survey collected 27 years of discharge measurements in Stone Corral Creek near the community of Sites from 1958 through 1985. The data demonstrate high variability of flow over the period of record, but the long-term annual average discharge through the creek is approximately 6,700 af/yr. (Sites Reservoir Project RDEIR/SDEIS, Chapter 5: Surface Water Resources (Nov. 2021), p. 5-4.)

Funks Creek has a drainage area of 43 square miles and drains into Funks Reservoir. Below Funks Dam, Funks Creek travels through agricultural fields in a combination of natural and straightened channels and crosses the GCID Main Canal before joining Stone Corral Creek. There is no flow record for Funks Creek, but given the comparable size, geology, and topography of the two watersheds and their proximity to each other, Funks Creek hydrology is likely similar to Stone Corral Creek in terms of the amount and seasonality of flow. Because the Funks Creek drainage area is greater than the drainage area of Stone Corral Creek, the Authority assumes that runoff from the Funks Creek watershed is greater than that for Stone Corral Creek runoff. Therefore, the estimated long-term annual volume of flow for Funks Creek is 7,600 af/yr. (Sites Reservoir Project RDEIR/SDEIS, Chapter 5: Surface Water Resources (Nov. 2021), p. 5-5.)

As shown in the following table, agricultural water demands are expected to increase by about 2035 for Glenn County, and they are expected to decrease slightly (less than 1%) in Colusa County. These watersheds also have existing and projected increases in M&I demands. (*Id.* at pp. 1-42, 1-46.)

	M&I Demand (af/yr)			Agricultural Demand (af/yr)		
	~2014	~2035	Difference	~2014	~2035	Difference
Glenn County	8,709	10,760	2,051	723,000	806,000	83,000
Colusa County	3,736	11,295	7,559	1,066,000	1,066,000	0

The Authority has already agreed to protect Colusa County's needs by executing a Memorandum of Understanding (MOU) with Colusa County for coordination and collaboration in determining and measuring the amount of available water from Funks Creek and Stone Corral Creek to help ensure the County receives its full storage allocation in the proposed Sites Reservoir without compromising downstream conditions pursuant to the Authority's expected water right permit. The MOU also acknowledges similar efforts with Glenn County in support of the Authority's water right application. Regardless of the increase in demand in Colusa and Glenn Counties, by ensuring water available in these creeks for diversion by Sites Reservoir is available to Colusa (and possibly Glenn) County, the Project will not deprive these counties of water needed from these creeks for development.

Also, to protect fish and wildlife downstream of Sites and Golden Gate Dams, before completing final designs for Sites and Golden Gate Dams, field studies are planned to determine:

- Existing fish assemblage in these creeks, including fish species presence and habitat use;
- Characterization of habitats available (e.g., spawning, rearing, foraging, and sheltering habitats) at varying flow levels;
- Characterization of flows, including assessing the base flow during the summer months;
- Conducting a fluvial geomorphologic study to characterize bed load and flow levels necessary for mobilization;
- Surface Water Ambient Monitoring Program technical study (i.e., bioassessment) that focuses on relationships between physical habitat, water quality, and benthic macroinvertebrates; and
- Hydrological studies to define flow temperature relationships.

Using information from these field studies, along with currently available information, the Authority will prepare a Funks and Stone Corral Creeks flow schedule and will incorporate it into the Reservoir Operations Plan. The Reservoir Operations Plan will identify the approach for releases, including release schedules and volumes, a monitoring plan, and an adaptive management plan to maintain fish in good condition consistent with California Fish and Game Code section 5937 and to ensure Project diversions do not disrupt senior downstream water rights and other more senior flow priorities. This flow schedule will ensure that the Project does not deprive environmental demands of water needed in the creeks. (Sites Reservoir Project RDEIR/SDEIS, Chapter 2: Project Description and Alternatives (Nov. 2021), p. 2-38.)

Accordingly, impounding water at Sites Reservoir on these creeks will not deprive either Glenn or Colusa Counties of water needed for development or environmental demands.

Petitions for Releases of Priority of State Filed Applications A025513, A025514, A025517 (Remaining), A022235, A023780, and A023781 in Favor of the Portion of State Filed Application A025517 Assigned to Sites Project Authority

The Sites Project Authority (Authority) requests that the State Water Resources Control Board (State Board) release priority of State Filed Applications A025513, A025514, A022235, A023780, A023781, and any portion of A025517 remaining following assignment to the Authority, in favor of the portion of State Filed Application A025517 assigned to the Authority[1]. A release of priority would benefit the Authority's Petition for Assignment of State Filed Application A025517 to supply water to the Authority's proposed Sites Reservoir Project (Sites Reservoir or Project) members by ensuring sufficient water remains available for the Project. The State Board should release the above-listed State Filed Applications from priority in favor of the portion of A025517 assigned to the Authority because: (1) the releases are "for the purpose of development not in conflict with such general or coordinated plan or with water quality objectives established pursuant to law"; and (2) the releases will not "deprive the county in which the water covered by the application originates of any such water necessary for the development of the county." (Wat. Code, §§ 10504, 10505).

1. Overview of State Filed Applications

1.a. A025513 and A025514

A025514 describes the State of California's proposed water rights for direct diversion from Thomes Creek, North Fork Stony Creek, Stony Creek, and the Sacramento River at 10,000 cubic feet per second (cfs) year-round, with diversion to storage of up to 9,117,000 acre-feet per year (af/yr).[2] A025514 identifies a September 30, 1977, priority date. The application provides for diversion for irrigation, domestic, municipal, industrial, recreation, fish and wildlife enhancement, water quality control, and flood control purposes within Glenn and Tehama Counties and the service area of the State Water Resources Development System, as shown on State Water Project (SWP) maps[3][4]. The sister application A025513 describes the same facilities and quantities and is for non-consumptive power use.

[1] By separate petition, the Authority seeks partial assignment of A025517.

[2] For reference, Attachment 1 contains a map that identifies the water sources and points of diversion associated with the state-filed applications discussed in this set of petitions.

[3] The relevant SWP maps delineating the place of use were submitted with Application Nos. 5630, 14443, 14445A, and 17512. These applications/permits contain as a place of use the "Service Area of the State Water Project," as well as various power plants and water district service areas.

[4] The State Water Resources Development System is comprised of "the State Water Facilities as defined in Section 12934(d) hereof and such additional facilities as may now or hereafter be authorized by the Legislature as part of

1.b. A025517

A025517 describes the State of California's proposed water rights for Colusa Reservoir to be used in the service area of the State Water Resources Development System, as shown in SWP maps[5]. A025517 identifies a September 30, 1977, priority date. The application provides for diversion for irrigation, domestic, municipal, industrial, recreation, incidental power, water quality control, and fish and wildlife enhancement purposes from Willow Creek, Funks Creek, Stone Corral Creek, and the Sacramento River. The application provides for a year-round diversion rate of 4,200 cfs and a diversion to storage of 3,164,000 af/yr. The points of diversion are within Tehama, Glenn, and Colusa Counties at Willow Dam, Funks Dam, Sites Dam, Tehama-Colusa Canal, and Glenn Colusa Canal.

1.c. A022235

A022235 describes the State of California's proposed water rights for year-round diversion from Thomes Creek for storage of up to 456,000 af/yr in the Glenn Reservoir Complex, which includes Paskenta, Newville, and Rancheria Reservoirs. A022235 identifies a July 20, 1965, priority date. The application provides for diversion for domestic, irrigation, municipal, industrial, and incidental recreation, and fish and wildlife enhancement purposes within Glenn and Tehama Counties and all service areas of the State Water Resources Development System. The point of diversion for A022235 is located at Paskenta Dam in Tehama County and releases are to be conveyed through aqueducts of the State Water Resources Development System. A supplement attached to the application states that water appropriated under the application will be rediverted at Newville Dam on North Fork Stony Creek and Rancheria Dam on Stony Creek, which indicates that water diverted at Paskenta Dam on Thomes Creek would reach Newville or Rancheria Reservoirs through a new conveyance. In any event, the water diverted at Paskenta Dam would originate in Tehama County.

1.d. A023780

A023780 describes the State of California's proposed year-round diversion from Cottonwood Creek for storage of up to 1,100,000 af/yr in Dutch Gulch Reservoir. A023780 states a May 10, 1971, priority date. The application provides for domestic, municipal, industrial, irrigation, recreational, water quality control, and fish and wildlife enhancement purposes in Shasta and Tehama Counties within the Cottonwood Creek watershed, the areas immediately adjacent thereto, and the service area of the State Water Resources Development System. The point of diversion is located at Dutch Gulch Dam in Shasta and Tehama Counties.

1.e. A023781

A023781 describes the State of California's proposed year-round diversion from South Fork Cottonwood Creek for storage of up to 900,000 af/yr in Tehama Reservoir. A023781 states a May 10, 1971, priority

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(1) the Central Valley Project or (2) the California Water Plan, and such other additional facilities as the department deems necessary and desirable to meet local needs …." (Wat. Code, § 12931.) The "State Water Facilities" are part of what are now known as the State Water Project (SWP) facilities and places of use. (*Id.*, § 12934(d).) The "Central Valley Project", as defined in the Water Code, includes numerous units in the Sacramento and San Joaquin Valleys, many of which now exist as part of the SWP and federal Central Valley Project (CVP). (*Id*, §§ 11201 et seq.)

[5] The relevant SWP maps delineating the place of use were submitted with Application Nos. 5630, 14443, 14445A, 17512, and 17514A. These applications/permits contain as a place of use the "Service Area of the State Water Project," as well as various power plants and water district service areas.

date. The application provides for domestic, municipal, industrial, irrigation, recreational, water quality control, and fish and wildlife enhancement purposes in Tehama County within the Cottonwood Creek watershed, the areas immediately adjacent thereto, and the service area of the State Water Resources Development System. The point of diversion is located at Tehama Dam in Tehama County.

2. Project Background

The Authority requests a water right for the Project that would authorize diversion of up to 1.5 million af/yr of unappropriated water to storage through Project components in Tehama, Glenn, and Colusa Counties. The right would also authorize a maximum diversion rate of 4,200 cfs and a diversion season of September 1 – June 14. The Authority will release previously stored water for use by local entities in Colusa and Yolo Counties[6]. Release of previously stored water will be conveyed through the Colusa Basin Drain and returned to the Sacramento River through the Knights Landing Outfall Gates or downstream in the Delta after channeling flow through the Yolo Bypass for use by entities within the Project place of use (which is generally consistent with the SWP and CVP places of use). Water released from Sites Reservoir is intended to provide year-round benefits to local, state, and federal water use needs, including public water agencies, anadromous fish species in the Sacramento River watershed, wildlife refuges and habitats, and the Yolo Bypass to help supply food for delta smelt (*Hypomesus transpacificus*).

Project facilities would include improvements to and use of the existing Red Bluff Pumping Plant, the Tehama-Colusa Canal, Glenn-Colusa Irrigation District's (GCID) Hamilton City Pump Station and Main Canal, and Funks Reservoir and the Terminal Regulating Reservoir. The Project reservoir area, which is proposed to hold 1.5 million acre-feet, would be in rural, unincorporated areas of Glenn and Colusa Counties and include the construction of two main dams, the Golden Gate Dam on Funks Creek and the Sites Dam on Stone Corral Creek. The Project reservoir area would provide recreational opportunities dependent on water stored in the reservoir.

3. The Requested Releases are Not in Conflict with the California Water Plan or with Established Water Quality Objectives

Water Code section 10504 authorizes the State Board to "release from priority . . . any portion of any [State] application . . . when the release . . . is for the purpose of development not in conflict with such general or coordinated plan or with water quality objectives established pursuant to law." (See also Wat. Code, § 10500.) The State Board has concluded it "should look favorably upon petitions for release of priority . . . of state filed applications so long as the petition seeks to appropriate water for purposes of use and places of use consistent with the state filed application." (State Board Decision 1648 (2009).)

3.a. General/Coordinated Plan Analysis

Water Code section 10504 "require[s] that release from priority . . . be for a development not in conflict with a general or coordinated plan looking towards the development, utilization, or conservation of the water resources of the State. . . ." (28 Ops.Cal.Atty.Gen. 307, 307 (1956), citing Wat. Code, § 10504.) The statewide strategic plan for sustainably managing and developing water resources in California is the State Water Plan (State Water Plan or Plan). The Plan, published in accordance with Water Code

[6] Through exchanges of Sites Reservoir water for other supplies in the Sacramento River watershed, the Project will facilitate potential deliveries in other Sacramento Valley counties (e.g., Glenn and Sacramento Counties).

sections 10004 and 10005, “guides the orderly and coordinated control, protection, conservation, development, management and efficient utilization of the water resources of the state.” (Wat. Code, § 10005; DWR, Bulletin No. 3, The California Water Plan (May 1957).)

The 1957 California Water Plan, issued as DWR Bulletin No. 3, identified potential facilities for construction to provide flood control and water supply benefits in Northern California. (DWR, Bulletin No. 3, The California Water Plan (May 1957).) Proposed reservoirs included Newville Reservoir on North Fork Stony Creek and Paskenta Reservoir on Thomes Creek as well as potential operations of these reservoirs and others in an integrated manner. (*Id.*)

The 1964 DWR Bulletin No. 136, North Coastal Area Investigation, further evaluated the Paskenta and Newville Reservoirs in conjunction with the Rancheria Reservoir to be operated in an interconnected manner to comprise the Glenn Reservoir Complex. (DWR, Bulletin No. 136, North Coastal Area Investigation (Sept. 1964).) The Glenn Reservoir Complex was proposed to capture water in the Eel River Basin in excess of local needs to be conveyed to the Sacramento River Basin, in part, to provide additional surface water supplies to the SWP, particularly during critically dry periods. (*Id.*)

DWR planning studies, including a 1975 progress report prepared by DWR, entitled Major Surface Water Development Opportunities in the Sacramento Valley, and the DWR Bulletin No. 76—which evaluated several offstream reservoirs to provide additional water supplies to the SWP and the CVP and provide local flood control, irrigation water supplies, recreation, and fish enhancement benefits—also considered construction of Glenn Reservoir as an expansion of the proposed development on North Fork Stony Creek and Thomes Creek for increased water supplies in Shasta, Tehama, Glenn, Colusa, Solano, and Yolo Counties and the SWP. (DWR, Bulletin No. 76, Delta Water Facilities (July 1978); DWR, Bulletin No. 76-81, State Water Project – Status of Water Conservation and Water Supply Augmentation Plans, (Nov. 1981); CALFED Bay-Delta Program, 2000a.) The proposed Glenn Reservoir would store water diverted from the Sacramento River via the Tehama-Colusa Canal and Thomes Creek.

The 1975 report and Bulletin No. 76 also considered a 3.2 million acre-foot Colusa Reservoir with dams on Willow, Logan, Hunters, Funks, and Stone Corral Creeks, and diversions from the Sacramento River conveyed to the reservoir in existing Tehama-Colusa and GCID Main canals. The Colusa Reservoir was proposed as a modification and expansion of a previously proposed “Sites Reservoir,” which had a planned capacity of 1.2 million acre-feet to be filled seasonally from the Tehama-Colusa Canal, an existing feature of the CVP, and would provide releases for local deliveries and to augment the Delta water supply.

Other reservoirs evaluated under the 1975 report and Bulletin No. 76 included Dutch Gulch Reservoir on Cottonwood Creek and Tehama Reservoir on South Fork Cottonwood Creek to capture additional water from Sacramento River tributaries in Shasta and Tehama Counties to serve future demands for municipal and industrial water supplies. (DWR, Bulletin No. 76, Delta Water Facilities (July 1978); DWR, Bulletin No. 76-81, State Water Project – Status of Water Conservation and Water Supply Augmentation Plans, (Nov. 1981).) State and federal agencies began investigating reservoir sites in the Cottonwood Creek Basin following World War II and the U.S. Army Corps of Engineers began a comprehensive study of the Cottonwood Creek Basin in 1965. DWR, Bulletin No. 76-81, State Water Project – Status of Water Conservation and Water Supply Augmentation Plans, (Nov. 1981).)

In the CALFED Record of Decision in 2000, a “North-of-the-Delta Offstream Storage” storage project included consideration of the Colusa Reservoir Complex and, separately, the Sites Reservoir project as part of a suite of projects in a statewide water resource planning effort to improve water supply

reliability, environmental flows, water quality maintenance, and flood flow management. The Sites Reservoir was also specifically identified as a viable surface storage management strategy for the achievement of State Water Plan goals again in 2016. (Surface Storage – CALFED, A Resource Management Strategy of the California Water Plan (July 29, 2016), pp. 1-5.)

The most recent update to the State Water Plan, issued in 2018, reflects the adoption of substantive policies by the Newsom Administration in pursuit of a "water resilience portfolio," including for building climate-resilient water infrastructure. (DWR, California Water Plan Update 2018 (June 2019) p. 1-2.)[7] Specifically, Governor Newsom signed Executive Order N-10-19 requiring a collaborative effort between state agencies to prepare a water resilience portfolio that meets the needs of California's communities, economy, and environment through the 21st century. The 2020 Water Resilience Portfolio (Portfolio) was completed in July 2020 and identifies the need to expand smart surface water storage where it can benefit water supply reliability and the environment. In furtherance of that goal, the Portfolio proposes the acceleration of State permitting for projects selected under the Water Storage Investment Program (WSIP)—a program administered by the California Water Commission for the distribution of water supply infrastructure funding—that protect and enhance fish and wildlife resources and water supply reliability. The Portfolio specifically identifies the Sites Reservoir as one of the water storage projects that should qualify for such expedited permitting.

Release of A025513, A025514, A022235, A023780, A023781, and any portion of A025517 remaining following assignment to the Authority, in favor of the portion of A025517 assigned to the Authority, would not interfere with a general or coordinated plan. As an element of the Colusa Reservoir design, planning documents have identified the Sites Reservoir as a relevant alternative to the Glenn Reservoir (and its predecessor projects) identified in Applications A025513, A025514 and A022235. Iterations of North-of-the-Delta offstream storage projects for water supply and fish enhancement benefits—such as the Glenn Reservoir and the similarly-located Sites Reservoir—have remained relevant and integral elements of the State Water Plan and related water resource planning priorities for decades to provide additional water supplies to the SWP and CVP, among other uses. Release of A023780, A023781, and any portion of A025517 remaining following assignment to the Authority, would similarly not interfere with a general or coordinated plan because the release would help secure water for the Project and thereby advance the State Water Plan and related water resource planning priorities.

All of the applications herein requested for release of priority seek to further elements of the State's plans to provide additional water supplies to places of use of the SWP or CVP, and meet demands in the Sacramento Valley. Specifically, they share Sacramento Valley and SWP places of use, and purposes of use. While A025513, A025514 and A025517 all identify the Sacramento River as a source of supply, there would be no less water available for the same State Water Plan and related resource planning efforts if the releases were granted than if the releases were not granted. Without the releases from priority, all three applications have the same priority date and would equally split the available water supply. With the releases from priority, A025513, A025514, and any remaining portion of A025517 would be the next rights in order of priority behind the portion of A025517 assigned to the Authority. In either case, the available water advances the State Water Plan and related resource planning efforts. Similarly, while A022235, A023780, and A023781 identify tributaries to the Sacramento River as a source of supply that Sites will depend upon, there would be no less water available for the State Water Plan or

[7] Available at https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2018/Final/California-Water-Plan-Update-2018.pdf.

related resources planning efforts because these rights would be next in priority behind the portion of A025517 assigned to the Authority.

Releasing the priority of A025513, A025514, A022235, A023780, A023781, and any portion of A025517 remaining following assignment to the Authority, will help ensure the success of the Project by avoiding future conflicts if assignment of these state filings are pursued. Such a conflict could result in a loss of yield for Sites Reservoir after significant investment. In this regard, the releases would advance Sites Reservoir, a key element of the State Water Plan, as considered and refined in the historic record of statewide water resource planning efforts.

3.b. Water Quality Objectives Analysis

The Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Central Valley Basin Plan) and the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan), which establish water quality control objectives for the reasonable protection of beneficial uses for the protection of water quality, apply to the Project area. The beneficial uses and water quality objectives contained in the basin plans constitute State water quality standards. In addition, the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Water Quality Control Plan) provides fish tissue methylmercury objectives applicable to the Project.

The assignment of a portion of a State Filed Application does not conflict with water quality objectives where the project is operated to assure water quality objectives are met. (See El Dorado Irrigation Dist. v. State Water Resources Control Bd. (2006) 142 Cal.App.4th 937, 972.) Sufficient evidence is contained in the Sites Reservoir Project RDEIR/SDEIS to support the conclusion that the Project is "not in conflict with" water quality standards or applicable waste discharge requirements. Although the Sites Reservoir Project RDEIR/SDEIS concludes that the Project may degrade surface water quality during construction and operation leading to temporary increases in aqueous and fish tissue methylmercury concentrations, this conclusion is based on the uncertainty of the effectiveness of mitigation measures in reducing concentrations of methylmercury such that the releases do not cause exceedances. The construction and operation of the Project, including implementation of necessary mitigation, are otherwise planned to assure water quality objectives are met.

The Project itself does not alter the net mercury discharge to the environment, but it may alter the quantity of methylmercury present as a source within the reservoir or to downstream waterways, and the timing of these discharges. (Sites Reservoir Project RDEIR/SDEIS, Appendix 6F: Mercury and Methylmercury (Nov. 2021), p. 16.) During construction, the Project may temporarily increase aqueous and fish tissue methylmercury concentrations in the Colusa Basin Drain, Funks Creek, Stone Corral Creek, and the north Delta that may lead to temporary exceedances of the sport fish objective in the Water Quality Control Plan. (Sites Reservoir Project RDEIR/SDEIS, Chapter 6: Surface Water Quality (Nov. 2021), p. 6-58.) Because the Colusa Basin Drain and Funks and Stone Corral Creeks do not support sport fish, it is unlikely that anglers would be fishing these waterbodies and, importantly, any potential exceedances of the sport fish objective at these locations would not be expected to affect the public. (*Id.*) Depending on methylmercury concentrations in Sites Reservoir releases and the water year type, operation of the Project may result in methylmercury bioaccumulation in fish. (*Id.* at p. 6-81.) However, even under worst-case long-term scenarios, any such increases in fish tissue methylmercury concentrations in the north Delta would likely not be measurable. (*Id.*)

The Authority will monitor methylmercury concentrations and implement reduction actions as part of Project construction and operation with the implementation of Mitigation Measure WQ-1.1. Current research has not confirmed the effectiveness of applicable aqueous and fish tissue methylmercury minimization actions to ensure reduction of measurable increases in such concentrations. Because of the uncertainty of the effectiveness of such measures in reducing concentrations of methylmercury such that releases do not cause exceedances of the sport fish methylmercury tissue and methylmercury Total Maximum Daily Load fish tissue objectives, the Authority has reported the effect as substantially adverse under the National Environmental Policy Act and significant and unavoidable under the California Environmental Quality Act.

Notably, there are also highly protective operating conditions, including diversion criteria, to minimize diversions during critical periods of fish movement, and state-of-the-art fish screens at the points of diversion on the Sacramento River. Additionally, Reclamation and DWR operate the CVP and SWP, ensuring the achievement of water quality objectives in the Sacramento-San Joaquin River Delta. (See State Board Decision 1641; see also State Board Decision 1648, p. 10.) Further, Project operations will be subject to State Board Permit Term 91[8], which will restrict Sites Reservoir's diversions when the CVP or SWP are releasing "supplemental Project water" to meet "Inbasin entitlements," including "flows required by the State Water Resources Control Board for maintenance of water quality and fish and wildlife." These conditions and facilities will help ensure that the Project meets water quality objectives for the protection of fish and wildlife.

The Project could result in an improvement in water quality in parts of the Project area. Such improvements could assist with Delta outflow and seawater intrusion, aid in achieving cold-water benefits in the upper Sacramento River, provide flows to move fish food into the Sacramento River and Delta, and create in-reservoir habitat for warm-water fish species. In fact, the net effect of the Project is intended to enhance beneficial uses of water (see existing beneficial uses stated in Appendix 6A of the Sites Reservoir Project RDEIR/SDEIS), and these improvements in water quality would also support and increase water supply reliability for other beneficial uses designated by the water quality control plans including recreation, municipal, and agricultural supplies. (Sites Reservoir Project RDEIR/SDEIS, Chapter 6: Surface Water Quality (Nov. 2021), p. 6-100.)

In summary, the Sites Reservoir Project will not conflict with water quality objectives as its operations are intended to assure water quality objectives are met. The Authority will monitor and mitigate for any temporary degradation in water quality due to methylmercury concentrations to the best ability of current practices and research. In this regard, the requested releases would not conflict with established water quality objectives.

4. The Releases Will Not Deprive A County of Origin of Water Needed for Development

The State Board may release priority of a State Filed Application if such release will not deprive the county in which the water originates of any water necessary for the development of the county. (Wat. Code, § 10505.) The purpose of this provision is "to reserve for use in each county where water originates such amount of the water originating there . . . as necessary now and in the future for

[8] The Authority is coordinating with the Department of Water Resources and the Bureau of Reclamation to develop a mutually-agreeable, Sites-specific term as a replacement for Standard Permit Term 91. This replacement is expected to be equally protective of the SWP and CVP, if not more protective than Standard Permit Term 91.

development of that county." (25 Ops.Cal.Atty.Gen. 32, 35 (1955).) The county of origin is defined as the county in which the water "falls in the form of precipitation," or in other words, the water that falls within the county's watershed. (25 Ops.Cal.Atty.Gen. 8, 17 (1955).) The applications requested for release of priority herein identify diversions of water originating within Glenn, Tehama, Shasta, and Colusa Counties. As demonstrated in this section, the requested releases will not deprive these counties of water needed for development.

4.a. Sacramento River Diversions

Sites Reservoir's diversions from the Sacramento River would potentially compete for water from sources identified in A025513, A025514, A022235, A023780, A023781, and any portion of A025517 remaining following assignment of A025517 to the Authority.

4.a.i. A025513 and A025514

Again, A025513 and A025514 identify Stony Creek, Thomes Creek, and the Sacramento River as sources of water. Water diverted from Stony Creek—if any—under A025513 and A025514 would originate in Glenn County. Sites Reservoir will not divert water from Stony Creek or rely on Stony Creek as a source for its Sacramento River diversions, as Stony Creek enters the Sacramento River downstream of GCID's Hamilton City Pump Station. So, Sites Reservoir will not rely on flows from Stony Creek or its tributaries and would not deprive Glenn County of Stony Creek flow flows necessary for development.

Diversions from Thomes Creek under A025513 and A025514 would occur in Tehama County. Thomes Creek enters the Sacramento River between the Red Bluff Pumping Plant and Hamilton City Pump Station. Thus, Sites' diversions at the Hamilton City Pump Station will rely, in part, on water from Thomes Creek. So, the projects described in A025513 and A025514 and Sites Reservoir would both seek to divert water from Thomes Creek, and thereby compete for water originating in Tehama County.

Similar to Sites Reservoir, water diverted from the Sacramento River at the Red Bluff Pumping Plant under A025513 and A025514 would most likely originate from tributaries to the Sacramento River downstream from Keswick Dam in Shasta County and above the diversion point at the Red Bluff Pumping Plant in Tehama County. (See Sites Reservoir Project RDEIR/SDEIS, Chapter 2: Project Description and Alternatives (Nov. 2021), p. 2-30.) The tributaries to the Sacramento River in this reach are located in both Shasta and Tehama Counties[9]. Thus, Sites Reservoir and any potential diversion under A025513 or A025514 would compete for water originating in Shasta and Tehama Counties.

4.a.ii. A022235

Thomes Creek is the source of water for A022235. Diversions from Thomes Creek under A022235 would occur in Tehama County[10]. As noted above, Sites Reservoir will rely on water originating from Thomes Creek. So, the project described in A022235 and Sites Reservoir would both seek to divert water from Thomes Creek, and thereby compete for water originating in Tehama County.

[9] The principal tributaries in this reach are Battle, Cottonwood, Cow, Lower Clear, and Paynes/Sevenmile Creeks.
[10] Any water diverted under A022235 from Thomes Creek at Paskenta Dam and conveyed to Newville or Rancheria Reservoirs would originate in Tehama County.

4.a.iii. A023780 and A023781

Diversions from Cottonwood Creek under A023780 would occur at Dutch Gulch Dam in Shasta and Tehama Counties. Cottonwood Creek is a westside tributary to the upper Sacramento River and runs along the boundary of Shasta and Tehama Counties in an eastward direction before draining to the Sacramento River. Diversion under A023781 would occur in Tehama County from South Fork Cottonwood Creek, which flows eastward and drains to Cottonwood Creek before it joins the Sacramento River above the Red Bluff Pumping Plant and Hamilton City Pump Station. As noted above, Sites Reservoir will rely on water from Cottonwood Creek. Thus, the projects described in A023780 and A023781 and Sites Reservoir would both seek to divert water from Cottonwood Creek, and thereby compete for water originating in Shasta and Tehama Counties.

4.a.iv. A025517

Any portion of A025517 remaining following assignment of A025517 to the Authority may include the Sacramento River as a source of supply. As noted above, the Authority's diversions from the Sacramento River will rely on water originating in Shasta and Tehama Counties. Thus, the diversions of water from the Sacramento River under any portion remaining of A025517 and Sites Reservoir may compete for water originating from Shasta and Tehama Counties.

In summary, Sites Reservoir's diversions from the Sacramento River would compete with A025513, A025514, A022235, A023780, and A023781, and any remaining portion of A025517 for water from Shasta and Tehama Counties.

4.b. Funks and Stone Corral Creek Diversions

4.b.i. A025517

Any portion of A025517 remaining following assignment of A025517 to the Authority may include the same sources of water as the portion assigned to the Authority. Any Authority diversions from Funks Creek will rely on water originating from Glenn and Colusa Counties, and any diversions from Stone Corral Creek will rely on water originating from Colusa County. Thus, diversions from Funks or Stone Corral Creek under either portion may compete for water originating from Glenn and Colusa Counties.

4.c. Water Needed for Development

The primary water demands for Glenn, Tehama, Shasta, and Colusa Counties—including agriculture, municipal and industrial (M&I) and the environment—are supplied by surface water from the Sacramento River or its tributaries. (Northern Sacramento Valley Integrated Regional Water Management Plan (IRWMP) (March 2014), pp. 1-38 – 1-39.) Agricultural water demands by or around the year 2035 are expected to remain relatively static in Shasta and Colusa Counties and increase in Glenn and Tehama Counties by approximately 10 percent each. (*Id.* at p. 1-41.) M&I water demands are expected to increase in all four counties in the same period due to a projected increase in population; however, a portion of the M&I water use in these counties becomes wastewater that is treated and discharged back into surface waters. (*Id.* at p. 1-42.) The environmental water demands in these watersheds have not been fully identified for all environmental uses, but primarily consist of demands for fish and wildlife habitat and water quality objectives. (*Id.* at p. 1-46.) In summary, the projected agricultural and M&I demands in the four counties are shown in the following table. (IRWMP, pp. 1-41—1-42, Tables 1-14, 1-15.)

	M&I Demand (af/yr)			Agricultural Demand (af/yr)		
	~2014	~2035	Difference	~2014	~2035	Difference
Tehama County	23,100	33,370	10,270	308,600	339,460	30,860
Shasta County	51,415	67,571	16,156	101,120	101,100	-10
Glenn County	8,709	10,760	2,051	723,000	806,000	83,000
Colusa County	3,736	11,295	7,559	1,066,000	1,066,000	0

4.c.i. Sites Reservoir Will Not Deprive Shasta or Tehama County of Water Needed for Development

The total estimated annual demand increase by about 2035 in Tehama and Shasta Counties is about 26,426 af/year for M&I purposes and 30,850 af for agricultural purposes, for a total increase of approximately 57,276 af/yr.

There is little information on regional water supply projections for these counties (IRWMP at p. 1-39), but multiple water availability analysis approaches performed in support of the Sites Reservoir substantiate a reasonable likelihood of sufficient water for appropriation for the Project. Specifically, review of historical flow and demand data, CalSim II modeling, and a review of annual supply compared to the face value of water rights in the watershed each demonstrate availability of water for Project diversions. Importantly, these analyses show water available in the Sacramento River in excess of diversions for the Project. The Water Availability Analysis (WAA) calculates water available for appropriation from the Sacramento River for the Project, and also includes estimates of potential diversions from the Sacramento River, both of which are based on Project-specific flow requirements. Based on the WAA, it is estimated that an annual average of approximately 550,000 to 900,000 af/yr (from the Historical Analysis and CalSim II Analysis, respectively) is available after Project diversions. (WAA, pp. 25, Table 7, 35, Table 12, 60, 78.) This amount of water available after Project diversions demonstrates water is available for local development in Tehama and Shasta Counties. In the future, if a party were to seek assignment any of the above-listed State Filed applications, it could rely on this additional water available to serve the development demands in these counties.

4.c.ii. Sites Reservoir Will Not Deprive Glenn or Colusa County of Water Needed for Development

The total estimated annual demand increase by about 2035 in Glenn and Colusa Counties is about 9,610 af/yr for M&I purposes and 83,000 af/yr for agricultural purposes, for a total increase of approximately 92,610 af/yr.

The Authority has already agreed to protect Colusa County's needs by executing a Memorandum of Understanding (MOU) with Colusa County for coordination and collaboration in determining and measuring the amount of available water from Funks Creek and Stone Corral Creek to help ensure the County receives its full storage allocation in the proposed Sites Reservoir without compromising downstream conditions pursuant to the Authority's expected water right permit. The MOU also acknowledges similar efforts with Glenn County in support of the Authority's water right application. Regardless of the increase in demand in Colusa and Glenn Counties, by ensuring water available in these creeks for diversion by Sites Reservoir is available to Colusa (and possibly Glenn) County, the Project will not deprive these counties of water needed from these creeks for development.

4.d. Funks and Stone Corral Creek Fish and Wildlife

To protect fish and wildlife downstream of Sites and Golden Gate Dams, before completing final designs for Sites and Golden Gate Dams, field studies are planned to determine:

- Existing fish assemblage in these creeks, including fish species presence and habitat use;
- Characterization of habitats available (e.g., spawning, rearing, foraging, and sheltering habitats) at varying flow levels;
- Characterization of flows, including assessing the base flow during the summer months;
- Conducting a fluvial geomorphologic study to characterize bed load and flow levels necessary for mobilization;
- Surface Water Ambient Monitoring Program technical study (i.e., bioassessment) that focuses on relationships between physical habitat, water quality, and benthic macroinvertebrates; and
- Hydrological studies to define flow temperature relationships.

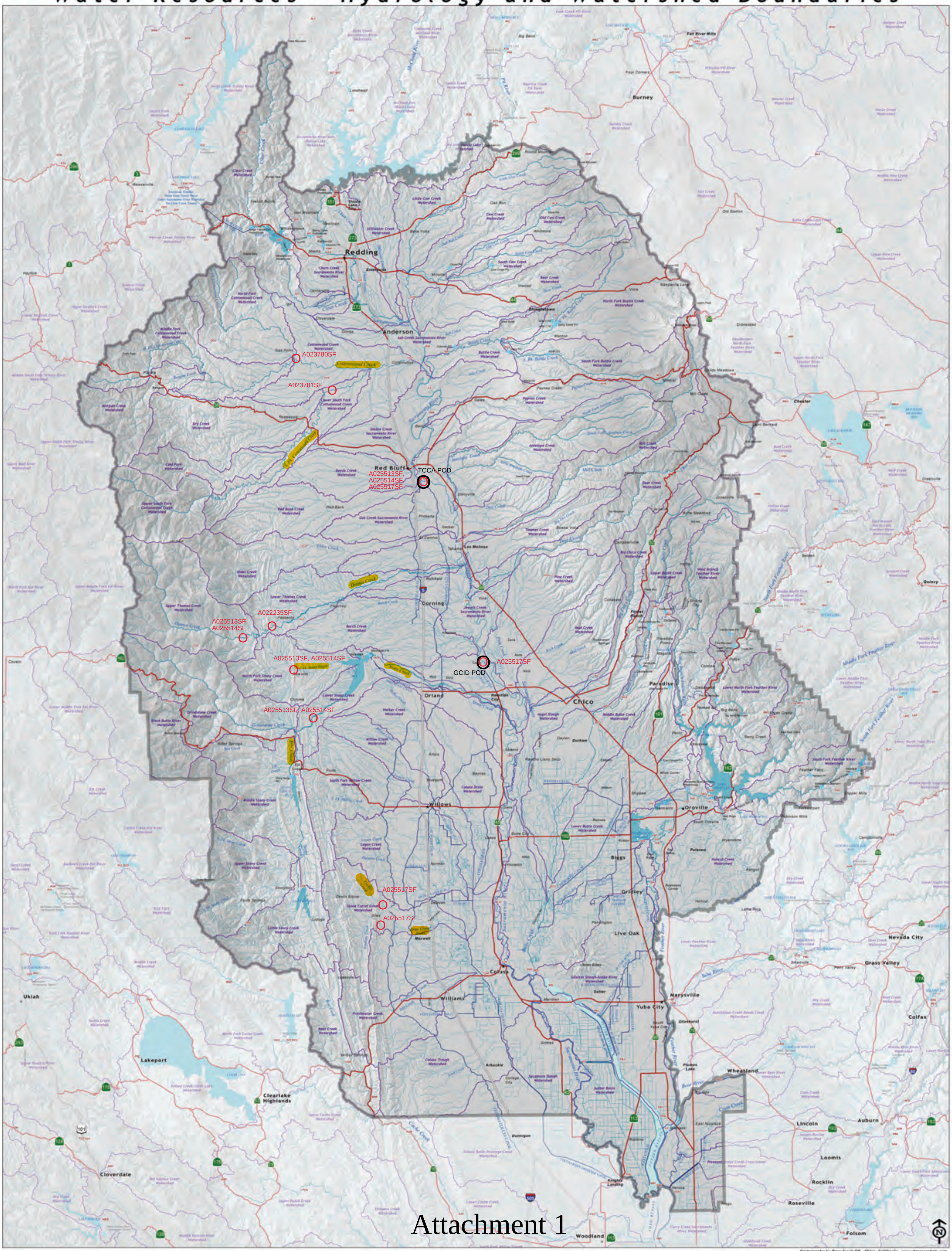
Using information from these field studies, along with currently available information, the Authority will prepare a Funks and Stone Corral Creeks flow schedule and will incorporate it into the Reservoir Operations Plan. The Reservoir Operations Plan will identify the approach for releases, including release schedules and volumes, a monitoring plan, and an adaptive management plan to maintain fish in good condition consistent with California Fish and Game Code section 5937 and to ensure Project diversions do not disrupt senior downstream water rights and other more senior flow priorities. This flow schedule will ensure that the Project does not deprive environmental demands of water needed in the creeks. (Sites Reservoir Project RDEIR/SDEIS, Chapter 2: Project Description and Alternatives (Nov. 2021), p. 2-38.)

4.e. Conclusion

Accordingly, releases of priority of the State Filed applications in favor of the portion of A025517 assigned to the Authority would not deprive Glenn, Tehama, Shasta, and Colusa Counties of water needed for development or environmental demands.

Northern Sacramento Valley IRWM Planning Area

Water Resources - Hydrology and Watershed Boundaries



Map Source: Northern Sacramento Valley Integrated Regional Water Management Plan (2012); Annotations to map made by MBK Engineers (05/10/2022)

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