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RECLAMATION

Final Feasibility Report Appendix M – Sites Reservoir Project Environmental Feasibility Summary Report

North-of-the-Delta Offstream Storage Investigation



Mission Statements

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Final Feasibility Report

Appendix M – Sites Reservoir

Project Environmental Feasibility Summary Report

**North-of-the-Delta Offstream Storage Investigation, California
Interior Region 10 • California-Great Basin**

prepared for Reclamation by AECOM under Contract/Order No. GS-00F-188CA, 140R2018F0052

Cover Photo: Sites Reservoir proposed site (Sites Project Authority)

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Sites Reservoir Project Environmental Feasibility Summary Report

Interim Progress Report on the EIR/EIS

August 2020

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Executive Summary

The Sites Project Authority (Authority) is pursuing development of the Sites Reservoir Project (Project), an up to 1.8 million acre feet (MAF), above-ground surface storage reservoir offstream of the Sacramento River. The Project, originally known and referenced as the North-of-Delta Offstream Storage (NODOS) Project, is located in Colusa and Glenn counties, north of the town of Maxwell, California. In addition to providing other important water storage and operational benefits, the Project is being proposed to greatly increase the reliability of water supplies for environmental, agricultural and urban uses. To date, Congress has appropriated approximately \$10 million in Water Infrastructure Improvements for the Nation (WIIN) Act funding to the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) for Sites Reservoir/NODOS.

The Authority and Reclamation have prepared the Sites Reservoir Project Draft Environmental Impact Report/Environmental Impact Statement, hereafter referred to as the Draft EIR/EIS, to address the potential environmental effects of the proposed Project. The Draft EIR/EIS was prepared in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Reclamation has also prepared the Draft North-of-the-Delta Offstream Storage Investigation Feasibility Report. Both were released for public comment in August 2017. The Draft Feasibility Report and the Draft EIR/EIS will be used by the Department of the Interior and the United States Congress to determine the Federal interest in the Project.

This report is intended to provide a summary of progress to date on the EIR/EIS and support Reclamation in the process of determining the Project's environmental feasibility. Although the CEQA/NEPA process is ongoing and minor changes to project facilities may necessitate further study, this report identifies the substantive comments received on the Draft EIR/EIS and the approach to responding to those comments.

Efforts to complete the joint EIR/EIS for the Project are ongoing. Initial review has indicated that all of the comments on the Draft EIR/EIS can be responded to within the context of a Final EIR/EIS. Responses to comments drafted so far demonstrate adequacy of the Draft EIR/EIS impact analyses and findings. Ongoing meetings with regulatory agencies including the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, and other stakeholders will facilitate the completion of an EIR/EIS that can support future permit approvals and ensure adequate opportunity for stakeholder input.

1. Introduction

The Sites Project Authority (Authority) is pursuing development of the Sites Reservoir Project (Project), an up to 1.8 million acre feet (MAF), above-ground surface storage reservoir offstream of the Sacramento River. The Project, originally known and also referenced as the North-of-Delta Offstream Storage (NODOS) Project, is located in Colusa and Glenn counties, approximately 10 miles west of the town of Maxwell, California. In addition to providing other important water storage and operational benefits, the Project is being proposed to greatly increase the reliability of water supplies for environmental, agricultural and urban uses. To date, Congress has appropriated approximately \$10 million in Water Infrastructure Improvements for the Nation (WIIN) Act funding to the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) for Sites Reservoir.

The Authority and Reclamation have prepared the *Sites Reservoir Project Draft Environmental Impact Report (EIR) / Environmental Impact Statement (EIS)*¹, hereafter referred to as the Draft EIR/EIS (Sites Project Authority and Reclamation 2017), to address the potential environmental effects of the proposed Project. The Draft EIR/EIS was prepared in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Reclamation has also prepared the *Draft North-of-the-Delta Offstream Storage Investigation Feasibility Report*² (Draft Feasibility Report). Both were released for public comment in August 2017. Reclamation's Feasibility Report and the Draft EIR/EIS will be used by the Department of the Interior and the United States Congress to determine the Federal interest in the Project.

1.1 Purpose of this Report

This report is intended to provide a summary of progress to date on the EIR/EIS and support Reclamation in the process of determining the Project's environmental feasibility. Although the CEQA/NEPA process is ongoing and minor changes to project facilities may necessitate further study, this report identifies the substantive comments received on the Draft EIR/EIS and the approach to responding to those comments.

The following sections rely primarily on information provided in the Draft EIR/EIS and the Draft Feasibility Report. This report also provides a summary of comments received during the public review of the Draft EIR/EIS and the approach to responding to those comments.

1.2 Background

Multiple alternatives related to offstream storage reservoirs located north of the Sacramento-San Joaquin Delta (Delta) have been developed and evaluated since 1930 in studies completed by the California Department of Water Resources (DWR) and local agencies. The range of alternatives previously evaluated included reservoirs that have been constructed (e.g., Black Butte Reservoir on Stony Creek) and numerous reservoirs that have not been constructed, including the following:

- Sites Reservoir (Stone Corral and Funks creeks)
 - 1957 DWR Bulletin No. 3 (referred to as Golden Gate Reservoir)
 - 1964 DWR Bulletin No. 9 (several small reservoirs on Stone Corral and Funks creeks)
- Newville Reservoir (North Fork Stony Creek)
 - 1957 DWR Bulletin No. 3 (referred to as Golden Gate Reservoir)

¹ Available at: <https://sitesproject.org/resources/environmental-review/draft-environmental-impact-report-environmental-impact-statement/>

² Available at: <https://sitesproject.org/resources/feasibility-report/>

- 1978 DWR Bulletin No. 76
- Colusa Reservoir (Willow, Logan, Hunters, Funks, and Stone Corral creeks)
 - 1978 DWR Bulletin No. 76
- Glenn Reservoir (Stony Creek)
 - 1978 DWR Bulletin No. 76
- Dippingvat and Schoenfield Reservoirs (on Red Bank Creek)
 - 1957 DWR Bulletin No. 3 (referred to as Golden Gate Reservoir)
- Paskenta Reservoir (Thomes Creek)
 - 1957 DWR Bulletin No. 3 (referred to as Golden Gate Reservoir)
- Dutch Gulch Reservoir (Cottonwood Creek)
 - 1978 DWR Bulletin No. 76
- Tehama Reservoir (Cottonwood Creek)
 - 1978 DWR Bulletin No. 76

As currently proposed, the Sites Reservoir project is a joint investigation between the Authority and Reclamation. Originally known as the North-of-Delta Offstream Storage (NODOS) investigation, the Project is one of five surface water storage studies recommended in the 2000 CALFED Bay-Delta Program, Programmatic Record of Decision³ (ROD). The CALFED EIR/EIS evaluated potential offstream surface water storage projects that could increase surface water storage capacity in the Sacramento River Basin as one of several actions to improve water supply reliability, renewable power integration, Delta water quality, and critical fish populations within the Bay-Delta watersheds.

The CALFED Program began in 1995 after several federal, State, and local agencies signed the Bay-Delta Framework Agreement in December 1994. The CALFED Program initiated the evaluation of expanded surface water storage in the Sacramento and San Joaquin valleys as part of a long-term comprehensive plan to restore the ecological health and improve water management to protect beneficial uses in the Delta and the Delta watershed. The CALFED Program identified the need for up to 3.0 MAF of additional surface water and/or groundwater storage in the Sacramento Valley, 2.0 MAF additional surface water and/or groundwater storage in or near the Delta, and 0.5 MAF surface water storage and 0.5 MAF groundwater storage in the San Joaquin Valley to meet environmental and water supply needs.

During preparation of the CALFED EIR/EIS, the CALFED Program initially identified 52 potential surface storage locations and retained 12 reservoir locations statewide for further study. The screening criteria indicated a preference for offstream over onstream surface water storage to avoid redirected impacts on aquatic species in the primary tributaries of the Delta. A summary of the CALFED Program Inventory of Potential Surface Water Storage Sites and the results of the screening of the range of alternatives to define those alternatives evaluated in detail in the CALFED EIR/EIS are presented in the Draft EIR/EIS (Appendix 2A, Development of Alternatives).

Following the CALFED ROD, DWR and Reclamation initiated development of an EIR/EIS and continued to analyze potential locations for a reservoir on the western side of the Sacramento Valley as part of a DWR Surface Water Storage Investigation⁴. Alternatives previously considered for new surface water reservoirs on the western side of the Sacramento Valley and alternatives identified during the 2001–2002 EIR/EIS scoping

³ Available at: <https://www.ccwater.com/DocumentCenter/View/3213/CALFED-Programmatic-ROD--Aug-28-2000?bidId=>

⁴ Available at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/RMS/2016/12_Surface_Storage_CALFED_July2016.pdf

process (the 2001-2002 Scoping Report is included as Appendix 36B of the Draft EIR/EIS) were considered. As described in Appendix 2A of the Draft EIR/IS, an initial screening process was conducted for the west Sacramento Valley reservoir alternatives evaluated in detail in the Surface Water Storage Investigations reports. The results of the analysis identified the following four alternatives:

- Red Bank Alternative (Dippingvat and Schoenfield Reservoir)
- Newville Reservoir Alternative
- Colusa Reservoir Alternative
- Sites Reservoir Alternative (Project)

The four west Sacramento Valley reservoir alternatives listed above (Red Bank, Newville, Colusa, and Sites reservoirs) were compared to screening criteria in a three-step screening process based on legal considerations under CEQA and NEPA, including the ability to meet the project objectives and purpose and need statement, avoid or reduce adverse effects, and/or provide benefits. The result of this screening process was the selection of the Sites Reservoir location as the alternative most able to meet the project objectives and purpose and need while minimizing impacts and providing the greatest potential benefits.

Additionally, a variety of water sources (and associated conveyance options) including diversions from the Colusa Basin Drain, the Sacramento River, and local tributaries including Stony Creek were also evaluated. Potential conveyance systems from these sources to the proposed Sites Reservoir included the existing and/or enlarged Tehama-Colusa and Glenn-Colusa Irrigation District (GCID) Main canals, and/or a new conveyance facility from the Sacramento River near Moulton Weir and/or from the Colusa Basin Drain to the existing Funks Reservoir on the Tehama-Colusa Canal. Conveyance from Stony Creek Canyon was also considered. All conveyance alternatives required enlargement of the existing Funks Reservoir to provide adequate storage capacity for pumping of water into Sites Reservoir and hydropower generation.

2. Proposed Project

The Sites Reservoir Project, as currently analyzed in the Draft EIR/EIS, would consist of a new offstream surface storage reservoir (Sites Reservoir) of up to 1.8 MAF with two main dams, up to nine saddle dams, and up to five recreation areas. The Sites Reservoir would be filled by the existing Tehama-Colusa Canal Authority (TCCA) and GCID Sacramento River diversions/canals (included in all alternatives) and a proposed new inlet/outlet structure and pipeline (included in the majority of alternatives). The pipeline would allow the diversion of excess Sacramento River flows for most alternatives and the discharge of water under all alternatives. Water conveyance between the reservoir and the canals and pipeline would be facilitated by two new regulating reservoirs. Pumping/generating plants would also be included as part of most alternatives. A new overhead power line would connect the pumping/generating plants and their associated electrical switchyards to an existing overhead power line in the Sites Reservoir Project area. New roads would be constructed to provide access to the proposed Sites Reservoir Project facilities, a new bridge would be constructed to provide access over the proposed reservoir, and some existing roads would be relocated or improved. The Sites Reservoir Project would require modifications to the Tehama-Colusa Canal and Funks Reservoir.

Project facilities would primarily be located in Colusa and Glenn counties, approximately 10 miles west of the town of Maxwell, California (see Figure 1); however, proposed minor modifications within the existing diversion facility would also need to occur at the existing Red Bluff Pumping Plant in Tehama County, California (see Figure 2). A more complete description of the Sites Reservoir Project can be found in Draft EIR/EIS Chapter 3, Description of the Sites Reservoir Project Alternatives, and is outlined below.

2.1 Alternatives Included the Draft EIR/EIS and Feasibility Report

Multiple alternatives related to north-of-the-Delta offstream storage reservoirs have been developed and evaluated since 1930 in numerous studies completed by DWR and local agencies, as described above. The range of alternatives for the Project was developed through the consideration of reservoir alternatives accounting for:

- The completion of previous analyses (including the CALFED EIR/EIS and Integrated Surface Storage Investigation studies);
- Comments received during the scoping process for the Draft EIR/EIS; and,
- Screening the range of feasible alternatives by comparing them with the Project objectives and purpose and need statement and evaluating those alternatives that have the potential to avoid or substantially lessen one or more of the Project's significant impacts.

Four surface water reservoir size and conveyance options (in addition to a "sub-alternative" that would not include power generation at the Delevan release structure) were retained for detailed review in the EIR/EIS. All alternatives would include a Sites Reservoir that would be filled using existing Sacramento River diversion facilities and a proposed Delevan Pipeline on the Sacramento River to allow for release of flows into the Sacramento River. All but one alternative would also use the proposed Delevan Pipeline to divert Sacramento River water. The Project would divert and store water appropriated by the Authority pursuant to State law within the Sacramento River watershed when available. This water could then be released for beneficial uses to meet Project objectives in compliance with various operating agreements, relevant permits, and approvals.

The proposed operations vary between Alternatives A, B, C, C1, and those included in Alternative D. The final operations of the Project are intended to be flexible and expected to vary from year to year in response to compliance with permit conditions and the needs of the California water supply system to provide high-quality water to enhance the environment, the economy, and quality of life for Californians. The specific operational parameters included in the Draft EIR/EIS were identified to support/evaluate the upper bound of potential impacts. The operations evaluated for Alternative D were based on operations included in the application to the California Water Commission for the Water Storage Investment Program (WSIP). The operations included in that application were specifically selected to respond to the requirements of that program and its evaluation criteria.

Associated facilities for all alternatives would be similar but would vary in location and size as further described in Chapter 3 of the Draft EIR/EIS and as outlined below:

- Alternative A – 1.3-MAF Sites Reservoir with Delevan Pipeline. Alternative A would include a 1.3 MAF Sites Reservoir with conveyance to and from the reservoir provided by the existing Tehama-Colusa and GCID Main canals, and a new Delevan Pipeline (2,000-cubic-foot-per-second [cfs] diversion/1,500-cfs release). This alternative would also include new hydropower facilities.
- Alternative B – 1.8-MAF Sites Reservoir with Release-only Delevan Pipeline. Alternative B would include a 1.8-MAF Sites Reservoir with conveyance to and from the reservoir provided by the existing Tehama-Colusa and GCID Main canals, and a new release-only Delevan Pipeline (1,500-cfs release). This alternative would also include new hydropower facilities.
- Alternative C – 1.8-MAF Sites Reservoir with Delevan Pipeline (and Subalternative C1). Alternative C would include a 1.8 MAF Sites Reservoir with conveyance to and from the reservoir provided by the existing Tehama-Colusa and GCID Main canals, and a new Delevan Pipeline (2,000 cfs diversion/1,500-cfs release). This alternative would also include new hydropower facilities. Subalternative C1 is identical to Alternative C, except that it would not include any hydropower-generating facilities.

- Alternative D – 1.8-MAF Sites Reservoir with Delevan Pipeline. Alternative D would include a 1.8 MAF Sites Reservoir with conveyance to and from the reservoir provided by the existing Tehama-Colusa and GCID Main canals, and a new Delevan Pipeline (2,000-cfs diversion/1,500-cfs release). This alternative would include more Sites Reservoir water supply designated for Sacramento Valley agricultural water users than the other alternatives, alternative road relocations to the other alternatives, and an alternate alignment of a proposed overhead power line. This alternative would also include new hydropower facilities.

Key Project features include:

- Sites Reservoir Complex: Sites Reservoir Inundation Area, Golden Gate Dam, Sites Dam, Saddle Dams, Recreation Areas, South Bridge and Roads, Sites Pumping/Generating Plant and Electrical Switchyard, Sites Reservoir Inlet/Outlet Structure and associated facilities, and Maintenance Yard
- Holthouse Reservoir Complex: Holthouse Reservoir and Dam, breached existing Funks Dam, existing Funks Reservoir Dredging, Holthouse Spillway and Stilling Basin, Tehama-Colusa Canal Discharge Dissipater, Tehama-Colusa Canal Bypass Pipeline, and Holthouse to Tehama-Colusa Canal Pipeline
- Terminal Regulating Reservoir (TRR) Complex: GCID Main Canal Modifications, GCID Main Canal Connection, TRR, TRR Pumping/Generating Plant and Electrical Switchyard, and TRR Pipeline and Road
- Overhead Power Lines and Substations: Substations, Electrical Connections for Sites, TRR and Delevan Pumping/Generating Plants
- Delevan Pipeline Complex: Delevan Pipeline Intake/Discharge Facilities, Forebay, Pumping/Generating Plant, Electrical Switchyard, Maintenance and Electrical Buildings, Delevan Pipeline
- Project Buffer: Total land acquired for the Project beyond the facility footprints, out to the nearest existing parcel boundaries; applies to Sites Reservoir Complex, Holthouse Reservoir Complex, TRR Complex, and Delevan Complex (excluding the pipelines)

Table 1 provides a summary list of proposed Project facilities for each action alternative. Key features are also illustrated in Figure 3.

2.1.1 Environmental Commitments Included as Part of the Project

The following standardized environmental measures, plans, protocols, and best management practices would be incorporated into any alternative for construction as well as operations/maintenance activities, as appropriate:

- Worker Environmental Awareness Program
- Environmental Site Assessment
- Construction Management Procedures
- Fire Safety and Suppression
- Construction Equipment, Truck, and Traffic Management
- Storm Water Pollution Prevention Plan, Erosion Control, Management, and Dewatering
- Compliance with the Requirements of Regional Water Quality Control Board Order No. 5-00-175
- Spill Prevention and Hazardous Materials Management
- Mosquito and Vector Control
- Groundwater/Dewatering Water Supply

- Visual/Aesthetic Design, Construction, and Operation Practices
- Emergency Action Plans (e.g., Sites Dam, Golden Gate Dam, Saddle Dams)

In addition, the Authority and Reclamation will coordinate during planning, engineering, design and construction, operation, and maintenance phases of the Project with applicable resource agencies.

3. Reclamation Feasibility Report

According to the Reclamation Manual Directive and Standards, feasibility studies support the formulation and evaluation of a range of alternative plans to meet established planning objectives and lead to the selection of a recommended plan or a recommendation to take no action, specifically:

“A feasibility study requires detailed investigations, including collection and development of study-specific data, and communication and collaboration with the stakeholders to systematically formulate and evaluate a reasonable range of alternative solutions in order to recommend a plan to Congress for authorization and implementation.”

The Draft Feasibility Study evaluates new offstream surface water storage north of the Delta. The investigation was developed consistent with the requirements of Section 4007 of the Water Infrastructure Improvements for the Nation [WIIN] Act (Public Law [P.L.] 114-612 [2016]). Section 4007 of the WIIN Act authorizes the Secretary of the Interior (Secretary) to participate in both federally owned (4007(b)) and state-led (4007(c)) storage projects. Pursuant to Section 4007(c)(2)(C) of the WIIN Act, the Secretary must find that a proportionate share of the project benefits are Federal benefits.

“This Feasibility Report evaluates and proposes Federal Central Valley Project (CVP) Operational Flexibility and Coldwater for Anadromous Fish as Federal benefits and project purposes eligible for non-reimbursable Federal funding. Flood Damage Reduction and Recreation are Federal benefits cost-shared with the State. Incremental Level 4 refuge Water Supply and Delta Ecosystem are State-funded benefits. This investigation was developed consistent with the requirements of Section 4007 of the WIIN Act (P.L. 114-612 [2016]) and the 1983 United States Water Resources Council (WRC) Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (P&Gs). This Feasibility Report was completed by the United States Department of the Interior, Bureau of Reclamation (Reclamation), the Sites Project Authority (Authority), and the California Department of Water Resources (DWR), in coordination with cooperating agencies, other resource agencies, Native American tribes, stakeholders, and the public.”

The Congress granted initial study authorization in 2003 under Public Law (P.L.) 108-7, which states:

“The Secretary of the Interior, in carrying out CALFED-related activities, may undertake feasibility studies for Sites Reservoir, Los Vaqueros Reservoir Enlargement, and Upper San Joaquin Storage projects. These storage studies should be pursued along with ongoing environmental and other projects in a balanced manner.”

According to the Draft Feasibility Report, the alternatives:

“...were formulated to achieve the primary objectives, as described below, and evaluated to assess their effectiveness in achieving these objectives. The alternatives are not formulated to maximize the secondary objectives, but opportunities to achieve them were included in the alternatives and evaluated.

Improve Water Supply (Primary Objective)

NODOS could provide increased water supply and improve the reliability of water deliveries for municipal, industrial, and agricultural uses, especially during drought conditions.

Provide CVP Operational Flexibility (Primary Objective)

The Project would provide additional water to relieve some of the existing operational constraints in the CVP system, and meet obligations under Federal law (including regulations). Utilization of operational flexibility would enhance the CVP's ability to meet CVP demands in an ever-changing environment. This would include providing environmental benefits to anadromous fish, refuges, and water quality, as well as restoration of CVP deliveries that have been lost due to regulatory changes. Releases for operational flexibility would improve CVP benefits.

Provide Incremental Level 4 Refuge Water Supply (Primary Objective)

NODOS could provide additional water that is needed to meet the Incremental Level 4 refuge water supply demands established in the Central Valley Project Improvement Act (P.L. 102-575, Title 34).

Improve the Survival of Anadromous Fish (Primary Objective)

NODOS could benefit anadromous fish (including endangered winter-run Chinook salmon) and other aquatic species by facilitating cooperative operations of existing reservoirs to improve temperatures and flows in the Sacramento, Feather, and American Rivers. Conserving higher storage levels in CVP reservoirs to be used for operational flexibility provides a distinct opportunity for benefits through preserving coldwater pools, and improves downstream water temperature management in below normal, dry, and critical water years.

Enhance Delta Ecosystem (Primary Objective)

NODOS could enhance the Delta ecosystem by providing water to convey food resources from the floodplain to the Delta, thereby improving the foodchain and quality of the Delta's estuarine habitat for use by Delta smelt and other species.

Provide Sustainable Hydropower Generation (Secondary Objective)

Equipping a NODOS reservoir with pumped storage capability supports the integration of other forms of renewable energy (e.g., wind and solar) into the power grid."

As stated in the Draft Feasibility Report:

- All alternatives (A, B, C, and D) would require cooperative operations with existing CVP and State Water Project (SWP) facilities to achieve the estimated physical improvements and monetized benefits. All alternatives were developed on the premise that there will be no negative impacts to the CVP, SWP, or their contractors. Avoiding these impacts includes, but is not limited to, no negative operational, financial, or compliance impacts to the CVP and SWP.
- All alternatives would provide water for water supply, Incremental Level 4 refuge water supply, and Delta environmental water quality. Each alternative also includes coldwater pool improvements and augmentation of flows to support fish migration through exchanges of Sites Reservoir water for water in existing reservoirs.
- Alternatives A, B, and C have similar operations that maximize deliveries to South Coast municipal and industrial (M&I) users and dedicate significant releases to the Delta for water quality improvements. Alternative D operations reduce deliveries to South Coast M&I users and releases for Delta water quality, but provide more water for coldwater pool improvements and distribute water deliveries more equally between Northern and Southern California.
- Reclamation has assumed that all alternatives would be locally-led projects, with the Authority leading the development, construction, and operations for the new facilities. The Tehama-Colusa Canal and Holthouse Reservoir (an expansion of the existing Funks Reservoir) would remain as part of the CVP system. Contracts would be required to store or convey water in Federal facilities (water would be

stored in CVP reservoirs for anadromous fish benefits). A similar agreement would be required for storage in SWP facilities. Principles of Operation would need to be established between Reclamation, DWR, and the Authority to implement the alternatives as described.

Studies to support the determination of technical, environmental, economic and financial feasibility are ongoing. While Alternative D was initially identified in the Draft Feasibility Report as the locally preferred project⁵ ongoing refinement of project design and operational considerations may result in some modifications to the locally preferred project. It is anticipated at this time that Reclamation will finalize the Feasibility Report in late 2020; findings will likely be updated through a post-feasibility process.

4. Draft EIR/EIS

Reclamation, as the NEPA lead agency, and the Authority, as CEQA lead agency, have prepared a Draft EIR/EIS to address the potential effects of the proposed Project. The Draft EIR/EIS, released in August 2017, describes the environmental effects of the No-Action Alternative and four action alternatives and identifies feasible mitigation measures to avoid or minimize most of the project's environmental effects. However, based on the analysis in the Draft EIR/EIS, the Project would result in significant unavoidable adverse environmental effects to terrestrial biological resources (Golden Eagle), paleontological resources, land use, air quality, and greenhouse gases. The Project would also result in growth inducement.

4.1 Scoping

As noted above, the Project was formerly known as the NODOS Project. A Notice of Intent (NOI) to prepare an EIS under NEPA was published in the Federal Register (Volume 66, Number 218) on November 9, 2001. An initial Notice of Preparation (NOP) to prepare an EIR for the NODOS Project was issued by DWR, as the CEQA lead agency at that time, on November 5, 2001. After the formal scoping period concluded on February 8, 2002. Reclamation and DWR jointly completed the North-of-the-Delta Offstream Storage Investigation Scoping Report, included as Appendix 36B in the Draft EIR/EIS. The scoping report provided an overview of the written and verbal comments during initial scoping. The report summarized the public concerns, evaluated the magnitude of the concerns, and provided decision makers information on the suggested range of alternatives to be considered in the analyses and the EIR/EIS.

Since the original scoping in 2002, the Authority assumed the role of the CEQA lead agency in lieu of DWR and will be responsible for constructing, operating, and maintaining the Project. Due to this change in lead agency, the Authority issued a Supplemental NOP on February 2, 2017.

In compliance with NEPA and CEQA, Reclamation, DWR, and the Authority notified interested parties of the scoping periods and public scoping meetings through electronic and postal mailings, and through publication of the NOP and NOI. In November 2001, public notifications were also made through direct mailings to local landowners in and near the Sites and Newville reservoir alternative sites, and by advertisements in four local newspapers prior to the public meetings. In addition, a news release was placed on the DWR and Reclamation website home pages.

In January 2002, DWR and Reclamation conducted three scoping meetings (one meeting each in Sacramento, Maxwell, and Fresno, California) to seek public input and comments prior to the preparation of the EIR/EIS. In addition, DWR and Reclamation held a scoping meeting with the Native American tribes in Williams, California. At the scoping meetings and during the scoping comment period, the public was invited to submit written comments regarding the scope, content, and format of the environmental document by mail, fax, or email to representatives at DWR and Reclamation.

⁵ In a letter dated June 25, 2018, the Sites Project Authority requested that Reclamation "use Alternative D as the basis for implementing the project and for identifying the federal interest" and identified Alternative D as the Locally Preferred Project.

The Authority subsequently conducted two scoping meetings in February 2017 (one meeting in Sacramento and one meeting in Maxwell, California) to seek agency and public input and comments prior to the preparation of the EIR/EIS. At the scoping meetings and during the scoping comment period, the public was invited to submit written comments regarding the scope, content, and format of the environmental document by mail, fax, or email to representatives at the Authority.

In addition to the original Scoping Report, a Supplemental Scoping Report, prepared following the scoping meetings conducted in 2017, is included in the EIR/EIS as Appendix 36A. The Draft EIR/EIS analysis took into consideration all comments received during the original scoping period in 2001/2002 as well as the supplemental scoping period of February 2, 2017 through March 2, 2017, including public testimony received during meetings held during this timeframe.

4.2 Approach to the Analysis

The Draft EIR/EIS describes the Project, a feasible range of alternatives, environmental setting, along with potential direct and indirect impacts that could result from implementation of each of the Projects alternatives, and identifies mitigation measures to avoid and/or minimize potentially significant impacts, as applicable. Three study areas were developed to evaluate potential Project impacts: the Extended, Secondary, and Primary study areas, which are summarized in the Draft EIR/EIS and provided below.

Extended Study Area

The Extended Study Area, consisting of the CVP and SWP service areas, is the largest and most diverse of the three study areas in terms of size, geography, land use, and habitat conditions. It is anticipated to experience minor effects with respect to changed operations and conditions, given no construction will occur in this area. As described in the various resource area chapters, impacts in this area would be limited to generally minor reservoir-level fluctuations and changes in releases across the CVP and SWP system. As such, it has been described and evaluated in the resource chapters of this document (Chapters 6 through 31) at the lowest levels of detail. Changes in conditions at the CVP and SWP facilities located south of the Delta (including the San Luis Reservoir) are considered within the Extended Study Area. Changes within the CVP and SWP service areas, resulting only from changes in CVP and/or SWP water deliveries, are also considered within the Extended Study Area. The CVP and SWP service areas included in the Extended Study Area are shown on Figure 1-3 in Chapter 1 Introduction.

Secondary Study Area

The Secondary Study Area is smaller than the Extended Study Area and consists of the majority of CVP and SWP facilities that could be affected by potential operations associated with certain Project alternatives; this study area has been described and evaluated in the resource chapters in more detail than for the Extended Study Area. The Secondary Study Area consists of the geographical area with CVP and SWP facilities located north of the Delta and in the Delta, and the streams downstream of the CVP and SWP reservoirs that could experience water surface elevation fluctuations or stream flow changes. Those facilities are located within the following 18 counties: Alameda, Butte, Colusa, Contra Costa, Del Norte, El Dorado, Glenn, Humboldt, Placer, Sacramento, Santa Clara, Shasta, Solano, Sutter, Tehama, Trinity, Yolo, and Yuba. Operational changes could occur as a result of the coordinated and integrated operation of the Project's facilities with those State and federal projects located on the American River, Trinity River, Clear Creek, Sacramento River, Sutter Bypass, Yolo Bypass, Feather River, and the Delta. The Secondary Study Area is shown on Figure 1-5 in Chapter 1 Introduction.

Primary Study Area

The Primary Study Area is the focus of the resource evaluations in this EIR/EIS. The Primary Study Area includes the areas within Glenn and Colusa counties where short-term and long-term direct and

indirect effects from constructing, operating, and/or maintaining proposed Project facilities may occur. This study area includes the footprints of the proposed Sites Reservoir inundation area and other proposed facilities (e.g., dams, intakes/discharge facilities, pipelines, overhead power lines, pumping/generating plants, recreation areas, road relocation areas, borrow areas, and associated facilities). It also includes the construction disturbance areas, i.e., the footprint of each proposed facility plus the area around each facility that would be disturbed over the short-term by Project-related construction activities, vehicles, and equipment. The Primary Study Area also includes the land parcels that surround those Project facilities; these parcels would be purchased but not developed for the Project and are referred to as the "Project Buffer." Facilities associated with Alternatives A, B, C, C1, and D are shown on Figure 1-6A, Figure 1-6B, Figure 1-6C, Figure 1-6C1, and Figure 1-6D, respectively, in Chapter 1 Introduction.

Existing Conditions/No Project/No Action Condition

Existing conditions and the future No Project/No Action alternatives were assumed to be similar in the Primary Study Area, given the generally rural nature of the area, and limited potential for growth and development in Glenn and Colusa counties within the 2030 study period used for this EIR/EIS, as further described in Chapter 2 Alternatives Analysis. As a result, within the Primary Study Area, it is anticipated that the No Project/No Action Alternative would not entail material changes in conditions as compared to the existing conditions baseline.

With respect to the Secondary and Extended study areas, the effects of the proposed action alternatives would be primarily related to changes to available water supplies in the Secondary and Extended Study Areas; the Project's cooperative operations with other existing large reservoirs in the Sacramento watershed; and the resultant potential impacts and benefits to biological resources, land use, recreation, socioeconomic conditions, and other resource areas. DWR has projected future water demands through 2030 conditions that assume the vast majority of CVP and SWP water contractors would use their total contract amounts, and that most senior water rights users also would fully use most of their water rights. This increased demand, in addition to the projects currently under construction and those that have received approvals and permits at the time of preparation of the EIR/EIS, would constitute the Existing Conditions/No Project/No Action Condition. As described in Chapter 2 Alternatives Analysis, the primary difference in these projected water demands would be in the Sacramento Valley; and, as of the time of preparation of this EIR/EIS, the water demands have expanded to the levels projected to be achieved on or before 2030.

Accordingly, existing conditions and the No Project/No Action alternatives are assumed in the Draft EIR/EIS to be the same and are referred to as the "Existing Conditions/No Project/No Action Condition," which is further discussed in the Draft EIR/EIS in Chapter 2, Alternatives Analysis.

Projects considered in the cumulative impacts analysis included other relevant multi-region projects and actions; water supply, water quality, and hydropower projects and actions in the vicinity of the proposed Project facilities and/or potentially affected by CVP and SWP operations; and ecosystem improvement projects and actions in the vicinity of the proposed Project facilities and/or potentially affected by CVP and SWP operations. Potential impacts associated with climate change are addressed separately in Chapter 25, Climate Change and Greenhouse Gas Emissions, of the Draft EIR/EIS.

4.3 Impacts and Mitigation

Based on the Draft EIR/EIS analysis, the Project action alternatives would affect environmental resources in all three study areas to varying degrees, with most impacts potentially occurring in the Primary Study Area. Anticipated impacts would vary from construction-related effects that would be less than significant or would be reduced to less-than-significant levels through mitigation to those that would remain significant and unavoidable despite proposed mitigation measures. In addition, many effects of the Project would be beneficial, particularly related to improved water supply reliability in drier years and potential ecosystem

benefits. The Draft EIR/EIS found that implementation of the Project would not result in a cumulatively considerable incremental contribution to an overall significant cumulative adverse effect.

Table 2 summarizes the impacts by environmental resource type for each Project action alternative and identified proposed mitigation measure (as applicable), and the level of significance of the impact after implementation of mitigation.

4.3.1 Significant and Unavoidable Impacts

As shown in Table 2 and discussed in the Draft EIR/EIS, the proposed Project action alternatives would likely result in the following potentially significant and unavoidable direct and indirect impacts.

Terrestrial Biological Resources (Golden Eagle)

Construction and filling of the proposed Sites Reservoir Inundation Area, as well as construction of the proposed Recreation Areas, would result in the permanent loss of foraging and nesting habitat for the golden eagle. Although implementation of compensatory mitigation including land preservation and/or acquisition is proposed, these measures would not reduce this loss of habitat to less-than-significant levels.

Paleontological Resources

Construction of the proposed Project facilities could affect paleontological resources. Mitigation measures would reduce the impacts, but not to a less-than-significant level if such resources are encountered during construction.

Cultural Resources (Historical and Tribal Resources, Human Remains)

Construction of the proposed Project facilities would affect built historical, archaeological and tribal resources, as well as human remains associated with a designated cemetery and adjacent areas. If these resources and/or areas are determined to be eligible for listing in the California Register of Historical Resources or National Register of Historic Places, mitigation measures would not reduce the impact to less-than-significant levels.

Land Use (Community of Sites and Existing Land Uses)

Construction and filling of the proposed Sites Reservoir Inundation Area would result in the physical division and loss of the community of Sites, resulting in a significant and unavoidable impact. Construction of the proposed Project facilities would result in conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance to non-agricultural use, resulting in significant and unavoidable impacts. Implementation of mitigation measures would not reduce these impacts to less-than-significant levels.

Air Quality (PM10, ROG, and NOx)

Construction activities associated with all proposed Primary Study Area Project facilities, as well as activities (such as use of roads, recreation, electricity generation and consumption, and sediment dredging) associated with the long-term operation and maintenance of the Project, would result in significant and unavoidable emissions of particulate matter less than 10 microns in diameter (PM10), reactive organic gas (ROG), and nitrogen oxide (NOx).

Climate Change and Greenhouse Gas Emissions

The greenhouse gas (GHG) emissions estimated for construction, operation, and maintenance of the Project when compared to applicable county standards would contribute to a cumulatively considerable effect that would be significant and unavoidable.

Growth-inducing Impacts

Implementation of the Project would improve water supply reliability for agricultural, urban, and environmental uses; provide more options for water management; increase recreational opportunities; and increase temporary and permanent employment opportunities. Although it is not anticipated that the water made available from the Project would result in a direct increase in population or employment, the potential exists for the quantity of water made available by the Project to result in secondary effects of growth consistent with local general plans and regional growth projections in an agency's respective service area.

These significant and unavoidable environmental effects were common to all of the alternatives analyzed in the Draft EIR/EIS due to the magnitude of construction activities and future reservoir-related inundation of environmental resources. There were changes in the level of effects for some alternatives depending on construction and operation of the Delevan Intake, including:

- Impact Fish-1c: Hydrostatic Pressure Waves, Noise, and Vibration – Delevan Facilities.
- Impact Fish-1d: Predation Risk – Delevan Facilities.
- Impact Fish-1e: Stranding, Impingement, and Entrainment – Delevan Facilities.
- Impact Fish 1f: Modification of Pulse Flows and Entrainment during Diversions at the Delevan Facilities.

However, the Draft EIR/EIS concluded that these effects were less than significant after implementation of mitigation.

4.3.2 Areas of Controversy/Issues to Be Resolved

The Draft EIR/EIS identified the following areas of controversy and issues to be resolved:

- Impacts on Project Area Property Owners: Project development would require the demolition of existing structures, acquisition of private property, and relocation of displaced parties. These actions concern property owners within the Primary Study Area.
- Impacts on Aquatic Biological Resources: Project operations would change the flow patterns and the amounts of unregulated water in the Sacramento River. These changes, and the uncertainty of future regulatory constraints on both regulated and unregulated flows in the Sacramento River, are a concern within the Secondary Study Area.
- Impacts on Tribal Resources: Project development would affect burials, and potentially other sensitive tribal resources, and could be viewed by some as controversial.
- Impacts on Terrestrial Biological Resources: Golden eagles have been identified as foraging within the proposed Sites Reservoir Inundation Area and nesting within the proposed recreation areas. The U.S. Fish and Wildlife Service (USFWS) has expressed concern about the potential loss of nesting and foraging habitat for golden eagles, which are protected by the Bald and Golden Eagle Protection Act.

5. Draft EIR/EIS Public Circulation and Comments

A Notice of Availability of the Draft EIR/EIS and notice of public meetings was published in the Federal Register on August 18, 2017. The Authority, as the CEQA lead agency, also issued a Notice of Availability (NOA) on August 14 and provided a summary of the project, identification of significant environmental effects and information on where to obtain the Draft EIR/EIS, how to provide comments and the location, time and dates for public meetings.

Electronic CD copies of the Draft EIR/EIS were made available upon request from the Authority. The Draft EIR/EIS was also made accessible online. For those lacking computer access, copies of the Draft EIR/EIS were made available at the following locations:

1. Sites Project Authority, 122 Old Highway 99 West, Maxwell, CA 95955.
2. Bureau of Reclamation, Regional Library, 2800 Cottage Way, Sacramento, CA 95825.
3. Sacramento Public Library, Central Branch, 828 I Street, Sacramento, CA 95814.
4. Colusa County Free Library, Main Branch, 738 Market Street, Colusa, CA 95932.
5. Glenn County Public Library, Willows Branch, 201 N. Lassen Street, Willows, CA 95988.
6. Tehama County Library, Red Bluff Branch, 645 Madison Street, Red Bluff, CA 96080.

Two following public meetings were held to receive oral and/or written comments regarding environmental effects:

- Tuesday, September 26, 2017, 6:00 p.m. to 8:00 p.m., Maxwell, CA.
- Thursday, September 28, 2017, 1:00 p.m. to 3:00 p.m., Sacramento, CA.

The Draft EIR/EIS was initially made available for public review from August 14, 2017 to November 13, 2017. This review period was ultimately extended to January 15, 2018 to accommodate additional public review and comments.

5.1 Comments Received on the Draft EIR/EIS

During the public review period, 137 comment letters were received in various forms including email, public meeting transcripts, public meeting comment cards, letters, and a petition. Commenter affiliation and the number of commenters is provided below.

Commenter Affiliation	Number of commenters
Tribal	3
Federal	3
State	6
Local/Regional Agencies	12
Non-Government Organizations (NGO)*	10
Individuals**	103
TOTAL COMMENT LETTERS/E-MAILS/PETITION	137

*Some NGO letters included comments from multiple NGOs

** Includes individual petition on Change.com containing 1001 signees as of 2/8/18

A brief summary of comments received during the public review period are presented below in the context of the commenter's affiliation.

Tribal Comments

Letters were received from three tribal affiliations: Colusa Indian Community Council, California Indian Water Commission, and the Winnemem Wintu tribe. Substantive comments are outlined below:

- Colusa Indian Community Council
 - Indian Trust Assets (ITAs) need to be identified and potential impacts addressed, including Tribal water demands
 - Burial grounds within reservoir footprint and Sacramento River diversion
- California Indian Water Commission
 - Requests extension for review
 - ITA discussion inadequate
 - Ecocultural effects not analyzed
 - Support of the No Action Alternative
- Winnemem Wintu
- A signatory to comments from the Pacific Coast Federation of Fisherman's Association (see below)

Federal Agencies

Letters were received from the Environmental Protection Agency (EPA), National Marine Fisheries Service (NMFS), and Western Area Power Administration (WAPA). Primary areas of concern include:

- Final operational approach (including bypass flows and weirs) – *NOAA (NMFS), EPA and WAPA*
- Water quality – *EPA and NMFS*
- Fish screens – *NMFS*
- Wetlands – *EPA*
- Power benefits methodology – *WAPA*

In addition, the U.S. Fish and Wildlife Service notified the Authority they will be providing comments through their Fish and Wildlife Coordination Act report, which has not yet been completed.

State Agencies

Letters were received from California Department of Fish and Wildlife (CDFW), State Water Resources Control Board, Delta Stewardship Council, Cal FIRE, Caltrans, and the Department of Conservation. Primary areas of concern include:

- Proposed diversions/bypass flows and impacts to fisheries; need to consider additional alternatives
- Water quality, both Sacramento River and reservoir temperatures
- Terrestrial biological species impacts
- Delta aquatic species impacts
- Enforceable mitigation measures need more detail
- Avoidance of additional run-off to state roads and highways
- Fire suppression and access due to wildfire risk
- First responders and required communications
- Conversion of agricultural lands and need for conservation easements

Local / Regional Agencies

Letters were received from the following local agencies: Colusa Board of Supervisors; Maxwell Fire Protection District; Kanawha Fire Protection District; County of Humboldt Board of Supervisors; Northern California Power Agency; Woodland-Davis Clean Water Agency (WDCWA); Sacramento Municipal Utility District (SMUD); Metropolitan Water District of Southern California (MWD); and Contra Costa Water District (CCWD). Primary local agency concerns/comments included:

- Fire potential during construction and access
- Recreational use and implications to county operations
- Land use impacts
- Impacts to CVP power customers
- Electrical transmission interconnections
- Potential Trinity River impacts
- Potential impacts to CCWD water supply quality
- Support of the Project

Non-Governmental Organizations (NGOs)

Letters were received from the following NGOs: Natural Resources Defense Council and others including Defenders of Wildlife, Bay Institute, Center for Biological Diversity, Pacific Coast Federation of Fishermen's Association; Pacific Coast Federation of Fishermen's Association, Institute for Fisheries Resources, Save California Salmon, Winnemem Wintu Tribe, and San Francisco Baykeeper; AquAlliance; Friends of the River; Sierra Club; Save California Salmon (1,000+ individuals). Primary NGO concerns/comments included:

- Range of alternatives – include decrease in diversions
- Baseline assumptions – need to include future and/or very recent actions (e.g. Shasta storage, Yolo Bypass weir)
- Climate change should be part of baseline
- Outdated modeling approach
- Operational impact to fisheries
- Impacts to terrestrial species
- Impacts to cultural resources
- Impacts to the Trinity River and the Delta
- Additional cumulative impacts

Individuals

Letters and/or e-mails were received from approximately 100 individuals, in addition to 1000+ individuals who signed a petition. Comments included:

- Property owner concerns including grazing and general access
- Petition focuses surplus water availability and protections for fish (including Trinity River) and flows
- Water quality impacts
- Range of alternatives

- Aquatic and terrestrial resources impacts
- Location of powerlines
- Impacts to public roads
- Cultural resources impacts
- Delta outflows
- Additional conservation is necessary

Since the original comment period, additional letters have been received, including letters from the Delta Stewardship Council, Karuk Tribe, and Friends of the River. All letters with comments on the Draft EIR/EIS, including those received after the public comment period ended, are being addressed in the ongoing EIR/EIS process.

5.2 Response to Comments Approach

With the addition of letters received after the public comment period, a total of 141 letters and/or emails have been received. Many letters include multiple comments and have resulted in over 800 individual comments on the Draft EIR/EIS. The comments were sorted and categorized, and the following primary concerns were identified:

- Additional analysis is required, primarily fishery related
- Delta flow impacts
- Terrestrial/botanical impacts
- Tribal, ITAs, cultural resources
- Climate change and sea level rise
- Economic/financial impact (including power)
- Range of alternatives
- Bypass flows and flow reductions
- Potential Sacramento River release temperature impacts
- Baseline conditions
- Yolo and Sutter bypass impacts
- Delta fishery and water quality impacts
- Reservoir water quality and releases
- Trinity River watershed impacts

The nature of the comments have allowed for thematic responses. Master comment categories have been identified for which master responses are being developed. These include:

1. General Comments – addresses non-substantive or unsubstantiated comments
2. Alternatives Development – describes compliance with NEPA and CEQA scoping requirements and the selection of alternatives
3. Alternatives Description – describes any changes in footprint and/or facilities since the Draft EIR/EIS was circulated, project operations, including any updated modeling, and project governance

4. Environmental Process – addresses the current level of design detail and identifies if/when additional future supplemental environmental review will be needed
5. Baseline and No Action/No Project – provides clarification of baseline and No Action/No Project as addressed in the Draft EIR/EIS and clarifies regulatory baseline vs modeled baseline
6. Hydrologic Modeling (CALSIM modeling) – provides clarification of prior modeling as well as any updated modeling, use of models for comparative purposes and use of sensitivity analyses, Trinity River operations and impacts, and bypass flow selection process
7. Water Quality – addresses any updated model and modeling assumptions, facility design that will mitigate water quality impacts, temperature issues (in-reservoir, release temperatures from Delevan pipeline, downstream, and cyanobacterial blooms) and specific issues such as methylmercury, salinity, and invasive fish species
8. Fish and Aquatic Resources – describes project operations and facility feature (screens) impacts on fishery conditions, impact analysis methodology, and suggested alternatives regarding fish habitat
9. Terrestrial Biological Resources – explains the relationship between the permitting efforts and the analysis in the Final EIR/EIS as it relates to wildlife, botany, and wetlands, floodplain inundations/geomorphology as it relates to riparian/terrestrial species, proposed operations to improve bypass habitat conditions and minimize diversion timing impacts
10. Indian Trust Assets – summarizes analysis done on ITAs including tribal outreach efforts and continued coordination and further defines mitigation measures identified in the Draft EIR/EIS
11. Cumulative Analysis – describes how cumulative projects were chosen and clarifies how climate change was modeled
12. Power and Economics – summarizes current study efforts regarding power and timeline for the studies

In addition to developing these thematic, master responses, all substantive comments on the Draft EIR/EIS would be individually addressed and cross-referenced to master responses, as appropriate.

Revisions will also be made to the text of the EIR/EIS and appendices. The following provides a preliminary list of the revisions and updated information that will be included in the EIR/EIS in order to clarify and strengthen the environmental analysis.

Description of Alternatives

- The description of the range of alternatives considered and the alternatives screening process will be augmented by creating a new appendix
- The description of alternatives will be reframed to identify: project-level elements, primarily associated with construction and operations; or program-level elements that will be further defined later, such as recreational components, future dam safety monitoring requirements, transportation and construction management plans
- A number of comments will be addressed by adding a reservoir management plan in the alternatives description, including:
 - Interactions between reservoir operations and surrounding landowners related to grazing
 - Maintenance of infrastructure, including reservoir facilities, but also fencing or other ancillary facilities around the reservoir
 - Management of harmful algal blooms

- The alternatives description will expand on the types of use and management of recreational areas
- Comments related to operation of alternatives will be addressed through:
 - Clarification of operational responsibility of the project
 - Description of how operators will integrate operation of Sites Reservoir with operation of the CVP and SWP
 - Clarification of how increasing deliveries to wildlife refuges will be prioritized. Requests for quantification of these potential deliveries

Operations and Modeling

- EIR/EIS revisions will include a discussion of how and why different operational scenarios were screened for further consideration
- Changes that have been made to the operational scenario since 2017 to coordinate with regulatory agencies, including NMFS, USFWS and CDFW and to respond to changes in the regulatory baseline will be described within the text and appendices
- Concerns raised regarding protections for the Trinity and Klamath Rivers, including Trinity Reservoir carryover storage, North Coast Basin Plan temperature objectives, winter flows, and Humboldt County's 50TAF water contract will be addressed by clarifying the relationship between the Trinity Record of Decision and the alternatives (i.e., the alternatives cannot supersede the Trinity ROD and no water would come from the Trinity River)

Existing Conditions/Baseline and the Future No Project/No Action Alternatives

- The baseline will be updated to include more recent data for key environmental resources
- More specific information from the draft biological assessment, including information for species based on more recent studies, will be included
- Baseline model results for key resources will be updated to consider changes in regulatory requirements
- The Future No Project/No Action will be updated to consider recent water-related actions, such as the 2020 ROD and Biological Opinions for the Reinitiation of Consultation on the Coordinated Long-Term Modified Operations of the Central Valley Project and State Water Project⁶
- Due to baseline updates in the hydrologic model, revisions to the EIR/EIS text and appendices will:
 - Provide an overview of modeling tools, analytical methods, and applications
 - Characterize information flow among models and the general application and use of output for resource evaluations

Other Revisions

- An update on the Endangered Species Act Section 7 consultation process will be provided and will clarify that it need not be completed prior to the release of a Draft EIR/EIS
- Additional description of the water rights that will apply to the project and the water rights process will be provided and will clarify that the water rights proceeding does not need to occur prior to the release of the Draft EIR/EIS
- The discussion of the CDFW incidental take permit (ITP) process will clarify that the ITP process need not be completed prior to the release of a Draft EIR/EIS

⁶ https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=39181

These revisions to the EIR/EIS will clarify issues and concerns raised during the public comment period but are not anticipated to change the environmental impact findings of the Draft EIR/EIS. It should also be noted that preliminary review and initial draft responses to comments have indicated that all of the comments on the Draft EIR/EIS can be responded to within the context of a Final EIR/EIS and so far demonstrate adequacy of Draft EIR/EIS impact analyses and findings.

If the Project is significantly modified during design or new adverse environmental impacts are identified, there are procedures in both the NEPA and CEQA regulations and guidelines to address such changes to a project. NEPA (40 C.F.R. § 1502.9(c)) provides for the supplementation of a Draft EIS if there are:

- Substantial changes in the proposed action that are relevant to environmental concerns, or
- Significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts

Similarly, as the CEQA lead agency, the Authority would consider whether recirculation of the Draft EIR is a more appropriate approach to completion of the CEQA process if the changes to the project result in substantial new information, as defined in CEQA Guidelines Section 15088.5(a).

6. Stakeholder Outreach

As noted previously, public meetings and outreach have been undertaken by Reclamation and the Authority as part of the EIR/EIS scoping process and during the public review period for the Draft EIR/EIS. Additional outreach has been ongoing. The following sections address some of the additional outreach that has occurred to date.

6.1 Response to Regulatory Agency Concerns

Reclamation and the Authority have held numerous meetings with USFWS and NMFS and with USFWS staff at the Delevan Refuge to address the biological resource issues associated with implementation of the Project and to discuss future permit applications and requirements. Two joint meetings or workshops have also been held recently with NMFS, USFWS and CDFW.

In May 2019 the Authority initiated a series of meetings with CDFW to address concerns raised in CDFW comments on the Draft EIR/EIS as well as to discuss future permit requirements. Over 40 meetings were held between the Authority and CDFW regulatory staff and/or management to address operational considerations and commitments as well as CEQA concerns.

Coordination with all regulatory agencies is ongoing and will continue throughout the EIR/EIS and permitting processes.

6.2 Tribal Outreach

Initial NEPA and CEQA scoping in 2001/2002 identified the following tribes that could be affected by implementation of the Project: Cachil Dehe Band of Wintun Indians; Cortina Indian Rancheria of Wintun Indians; Grindstone Indian Rancheria of Wintun-Wailaki; Paskenta Band of Nomlaki Indians; Round Valley Indian Tribe of Round Valley; Wintun Tribe in Redding; and Yocha Dehe Wintun Nation. As outlined in the Draft EIR/EIS, representatives of the Project have met with interested tribes at various times since 2002.

The Authority, as the project's CEQA lead agency, is also consulting with Native American tribes pursuant to PRC 21080.3.1. The Authority sent Project notification letters on February 10, 2017 to the following Tribes:

- Cachil Dehe Band of Wintun Indians
- Cortina Indian Rancheria of Wintun Indians

- Grindstone Indian Rancheria of Wintun-Wailaki
- Yocha Dehe Wintun Nation
- Paskenta Band of Nomlaki Indians
- Mechoopda Indian Tribe
- Estom Yumeka Maidu Tribe of the Enterprise Rancheria.

The Colusa Indian Community Council/Cachil Dehe Band of Wintun Indians requested consultation, and the Authority first met with tribal representatives on July 12, 2017. Separately, the Yocha Dehe Wintun Nation contacted Authority staff on May 19, 2017 requesting project information, which the Authority provided on June 22, 2017. More recently, in February 2019, the Authority notified the Cachil Dehe, Cortina Indian Rancheria of Wintun Indians, and Yocha Dehe about proposed limited geotechnical investigations to support the feasibility study. Cachil Dehe and Yocha Dehe both requested consultation and the Authority followed up with meetings in March and May 2019, respectively. In June 2019, Reclamation also invited the seven tribes listed above to consult on the geotechnical studies.

Reclamation and the Authority will continue to consult with any of the above-listed tribes throughout the course of Project design and construction, and potentially during Project operations.

6.3 Other Stakeholders

Sites Authority staff have participated in meetings with several NGOs and local agencies to address questions and concerns raised during the CEQA/NEPA process. In addition, the Authority has conducted regular meetings with local landowners having interest in the project. These outreach efforts will continue throughout the planning phase of the Project.

7. Summary and Conclusions

The environmental effects of the project are evaluated in the Sites Reservoir Draft EIR/EIS (Reclamation and Authority 2017). An environmentally preferred alternative that is consistent with NEPA requirements will be identified in the Final EIR/EIS. Constructing Sites Reservoir would affect environmental resources in the Primary, Secondary, and Extended Study Areas. Beneficial effects correspond to the following resource areas: water management, agricultural resources, fisheries and aquatic resources, socioeconomics, power and energy, and recreation. Some adverse effects would be temporary, construction-related effects that would be reduced to less-than-significant levels through mitigation. Other adverse effects would be permanent, including effects on terrestrial wildlife, land use, air quality, GHGs, and cultural resources. The Draft EIR/EIS evaluates the representative environmental effects, and the proposed mitigation measures are presented in Appendix 1A of the EIR/EIS, and included in Table 2. As part of the project planning process, Reclamation and the Authority will incorporate environmental commitments and Best Management Practices (BMPs) to avoid or minimize potential project impacts. The ROD will not be completed until pre-construction permits and approvals have been acquired.

The evaluation of environmental feasibility is an ongoing process that will incorporate public comment on the Draft EIR/EIS into the Final EIR/EIS.

Ongoing meetings with regulatory agencies, such as USFWS, NMFS and CDFW, will facilitate the completion of an EIR/EIS that can support future permit approvals. Meetings with Tribes and other stakeholders will also continue to ensure adequate opportunity for public input.

Table 1: Draft EIR/EIS Project Features

Project Features/Facilities^a	Alternative A	Alternative B	Alternative C	Alternative C₁	Alternative D
Sites Reservoir Complex					
Sites Reservoir Inundation Area	1.3-MAF capacity (12,400 acres)	1.8-MAF capacity (14,200 acres)	Same as B	Same as B	Same as B
Golden Gate Dam, Sites Dam, Saddle Dams	9 dams (Golden Gate Dam; Sites Dam; Saddle Dams 1, 3, 5, 6, 8a, 8b, 10)	11 dams (Golden Gate Dam; Sites Dam; Saddle Dams 1, 2, 3, 4, 5, 6, 7, 8, 9)	Same as B	Same as B	Same as B
Borrow Areas ^b	Approximately 920 acres in inundation area; 200 acres northeast and east of the inundation area	Same as A	Same as A	Same as A	Same as A
Sites Reservoir Inlet/Outlet Structure and Associated Facilities	Multi-level valve tower and gate shaft; 4,000-foot-long tunnel; 220-foot-high structure; four 32-foot-diameter intake openings at seven levels; trash racks and fish screens; bridge; 15,200-cfs emergency release outlet capacity	Same as A but taller structure (260 feet); intake opening at nine levels	Same as B	Same as B	Same as B
Sites Pumping/Generating Plant and Electrical Switchyard	5,900-cfs pumping capacity; 5,100-cfs generating capacity; 4-acre switchyard with overhead power line tower, at pumping/generating plant	3,900-cfs pumping capacity; 5,100-cfs generating capacity	Same as A	5,900-cfs pumping capacity; (no generation)	Same as A
South Bridge and Roads	Temporary construction roads, several access roads to new facilities, and new roads to replace those currently in the inundation area; South Bridge to provide access between Maxwell and Ladoga	Same as A but slight difference related to access for Saddle Dam 10 for A	Same as B	Same as B	Same as B but with a road to provide access to the community of Leesville; some southern roads not needed
Recreation Areas ^c	Saddle Dam, Stone Corral, Antelope Island, Lurline Headwaters, Peninsula Hills	Same as A	Same as A	Same as A	Stone Corral, Peninsula Hills, boat ramp day use area

Project Features/Facilities^a	Alternative A	Alternative B	Alternative C	Alternative C₁	Alternative D
Field Office Maintenance Yard	Administration, maintenance buildings, asphalt batch plant (possible temporary location), and parking (also serves Holthouse Reservoir and TRR)	Same as A	Same as A	Same as A	Same as A
Holthouse Reservoir Complex					
Holthouse Reservoir	6,250-acre-foot active storage capacity	Same as A	Same as A	No Holthouse Reservoir; modifications to existing Funks Reservoir; 3,372-acre-foot capacity	Same as A
Holthouse Spillway and Stilling Basin and Spillway Bridge	15,200-cfs capacity	Same as A	Same as A	Existing Funks Reservoir 15,200-cfs gated spillway	Same as A
WAPA Transmission Line Relocation	8 transmission line towers moved to the west	Same as A	Same as A	None	Same as A
Sites Pumping/Generating Plant Approach Channel	6,300 feet long	Same as A	Same as A	Same as A	Same as A
Tehama-Colusa Canal Construction Bypass Pipeline/Operation and Maintenance Siphon to Tehama-Colusa Canal	12-foot-diameter approximate 2,600-foot-long siphon pipeline would divert Tehama-Colusa Canal water around Holthouse Reservoir during construction; during operation, water would pass to the canal downstream of the reservoir without pumping	Same as A	Same as A	Same as A; could be used for re-routing water from Tehama-Colusa Canal during maintenance of Funks Reservoir	Same as A
Additional Pump at the Red Bluff Pumping Plant (Secondary Study Area)	Install two additional 250-cfs-capacity pumps	Same as A	Same as A	Same as A	Same as A

Project Features/Facilities ^a	Alternative A	Alternative B	Alternative C	Alternative C ₁	Alternative D
Terminal Regulating Reservoir Complex					
Terminal Regulating Reservoir	2,000-acre-foot capacity; 200 acres; approximately 4,000-foot-long, 60-inch-diameter underground outlet pipe to Funks Creek	Same as A	Same as A	Same as A	1,200-acre-foot capacity; 150 acres; only a minimal drain would be required because of proximity of TRR to Funks Creek
TRR Pumping/Generating Plant and Electrical Switchyard	1,800-cfs pumping capacity; 900-cfs generating capacity; 4-acre electrical switchyard	Same as A	Same as A	1,800-cfs pumping (no generation)	Same as A
GCID Main Canal Connection to TRR	GCID Main Canal energy dissipation bay/check structure; TRR inlet channel and inlet control structure	Same as A	Same as A	Same as A	Similar to A, however approach would be smaller
TRR Pipeline and TRR Pipeline Road	1,800-cfs pumped capacity; 900-cfs gravity flow capacity; 2.5-mile road	Same as A	Same as A	Same capacity as A; longer TRR Pipeline for delivering GCID Main Canal flows from TRR to modified Funks, and slightly longer TRR Pipeline Road	Same as A
GCID Main Canal Modifications	New headgate and canal lining	Same as A	Same as A	Same as A	Refurbished existing gates; canal lining immediately upstream and downstream of the TRR
Delevan Complex					
Delevan Pipeline Intake/Discharge Facilities	250-foot-long by 80-foot-wide facilities building with multiple stories; four 500-cfs-capacity pumping/generating units; two 750-cfs turbines	Smaller structure required for discharge-only facilities	Same as A	Same as A	Same as A
Flat Plate Fish Screen Structure and Forebay	560-foot-long structure; 13-foot-high by 15-foot-wide flat plate screens (32 total); 2,000-cfs capacity; forebay would be constructed between fish screen and pump turbine station	Fish screen and forebay not necessary for discharge-only facility; would include a spillway with fish barrier racks and energy dissipation valves	Same as A	Same as A	Same as A

Project Features/Facilities^a	Alternative A	Alternative B	Alternative C	Alternative C₁	Alternative D
Pumping/ Generating Plant	2,000-cfs pumping capacity; 1,500-cfs generating capacity	No pumping/generating plant (release only); discharge only; 1,500-cfs gravity release flow; energy dissipation valve and structure to minimize river release energy	Same as A	2,000-cfs pumping capacity (no generation)	Same as A
Electrical Switchyard	4-breaker ring bus with poles 15 to 60 feet tall	No switchyard needed	Same as A	Same as A	Same as A
Maintenance and Electrical Buildings	Mechanical control building; electrical building; (each approximately 5,000 square feet)	Not needed for B	Same as A	Same as A	Same as A
Delevan Pipeline	East-west alignment from Delevan Pipeline Intake/Discharge Facilities to Holthouse Reservoir; 2,000-cfs-capacity pumping and 1,500-cfs-capacity release	Same alignment as A No pumping; 1,500-cfs-capacity release	Same as A	Same as A	50 to 150 feet south of alignment for A, B, C, and C ₁ ; same capacity as A
Overhead Power Lines and Substations					
Substations	Stepdown power from the existing WAPA 230-kV and PG&E 230-kV lines near Funks/Holthouse Reservoir; up to 6 acres, including multiple electrical components and related structures, concrete pad, transmission tower, fencing	Same as A	Same as A	Same as A	In addition to substation near Funks/Holthouse Reservoir identified in other alternatives, would include substation to stepdown power from existing WAPA 230-kV lines approximately 1 mile southwest of Colusa, north of Highway 20; up to 6 acres; similar facilities as A
Electrical Connection for Sites Pumping/ Generating Plant	New 1- to 4-mile-long 230-kV or 115-kV overhead power line from the proposed substation west to Sites Pumping/Generating Plant	Same as A	Same as A	Same as A	Same as A

Project Features/Facilities^a	Alternative A	Alternative B	Alternative C	Alternative C₁	Alternative D
Electrical Connection for TRR Pumping/Generating Plant	New 230-kV or 115-kV overhead power line from the proposed substation, east to TRR Pumping/Generating Plant	Same as A	Same as A	Same as A	Same as A
Electrical Connection for Delevan Pumping/Generating Plant	New 230-kV or 115-kV overhead power line from the proposed Sites Substation, east to Delevan Pumping/Generating Plant	Local service from existing PG&E lines near SR 45 (no new west to east lines to the Sacramento River needed for Delevan discharge-only facility)	Same as A	Same as A	New 115-kV overhead power line along SR 45 from the proposed substation west of Colusa to the Delevan Pumping/Generating Plant; line will cross SR 45
Project Buffer					
	Total land acquired for the Project beyond the facility footprints, out to the nearest existing parcel boundaries ^d ; applies to Sites Reservoir Complex, Holthouse Reservoir Complex, TRR Complex, Delevan Complex (excluding the pipelines)	Same as A	Same as A	Same as A	Same as A

Table 2: Draft EIR/EIS Impacts and Mitigation

Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
Aquatic Biological Resources						
Impact Fish-1: A Substantial Adverse Effect (Either Directly, through Habitat Modifications, by Interfering with the Movement of Native Fish Species, or by Impeding the Use of Native Fish Nursery/Rearing Sites) on Any Fish Species of Management Concern, Including Species Identified as a Candidate, Sensitive, or Special-status Species in Local or Regional Plans, Policies, or Regulations, or by CDFW, NMFS, or USFWS						
Fish-1a: Aquatic Habitat Modification – Stone Corral and Funks Creeks	Fish-1a: Implement Habitat Restoration Actions– Stone Corral and Funks Creeks	LS	LS	LS	LS	LS
Fish-1b: Aquatic Habitat Modification – Sacramento River	Fish-1b: Implement Habitat Restoration Actions– Sacramento River	LS	LS	LS	LS	LS
Fish-1c: Hydrostatic Pressure Waves, Noise, and Vibration – Delevan Facilities	Fish-1c: Perform In-water Pile Driving July through September during Daylight Hours – Sacramento River	LS	LS	LS	LS	LS
Fish-1d: Predation Risk – Delevan Facilities	Fish-1d: Design Fish Screen in Compliance with NMFS and CDFW Criteria – Sacramento River	LS	LS	LS	LS	LS
Fish-1e: Stranding, Impingement, and Entrainment – Delevan Facilities	Fish-1e: Prepare and Implement a Fish Salvage and Rescue Plan – Sacramento River	LS	LS	LS	LS	LS
	Fish-1f: Sites Reservoir Diversion Restrictions for Pulse Flow Protection and Entrainment Minimization	LS	LS	LS	LS	LS
Fish-1f: Modification of Pulse Flows and Entrainment during Diversions at the Delevan Facilities	Fish-1f: Sites Reservoir Diversion Restrictions for Pulse Flow Protection and Entrainment Minimization	LS	LS	LS	LS	LS
Botanical Resources						
Impact Bot-1: A Substantial Adverse Effect, Including Conversion to Non-native Vegetation, on Any Riparian Habitat or Other Sensitive Natural Community Identified in Local or Regional Plans, Policies, Regulations, or by CDFW or USFWS, or Any Native Plant Community Known to Be Rare, Unusual, or Becoming Uncommon in the Biogeographic Region of the Project						
Bot-1a: Loss of Vegetation Community	Bot-1a: Implement Compensatory Mitigation Measures for Vegetation Community Impacts in Coordination with USFWS, CDFW, CNPS, and USACE	LS	LS	LS	LS	LS
Bot-1b: Annual Grassland (of Higher Botanical Value)	Bot-1a: Implement Compensatory Mitigation Measures for Vegetation Community Impacts in Coordination with USFWS, CDFW, CNPS, and USACE	LS	LS	LS	LS	LS
	Bot-1b: Conduct Watershed Hydrological Studies	LS	LS	LS	LS	LS

Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
Bot-1c: Blue Oak Woodland (Includes Savanna and Woodland with Chaparral Understory)	Bot-1a: Implement Compensatory Mitigation Measures for Vegetation Community Impacts in Coordination with USFWS, CDFW, CNPS, and USACE	LS	LS	LS	LS	LS
Bot-1d: Riparian Vegetation	Bot-1a: Implement Compensatory Mitigation Measures for Vegetation Community Impacts in Coordination with USFWS, CDFW, CNPS, and USACE	LS	LS	LS	LS	LS
Bot-1e: Valley Oak Woodland	Bot-1a: Implement Compensatory Mitigation Measures for Vegetation Community Impacts in Coordination with USFWS, CDFW, CNPS, and USACE	LS	LS	LS	LS	LS
Bot-1f: Alkaline Wetland	Bot-1a: Implement Compensatory Mitigation Measures for Vegetation Community Impacts in Coordination with USFWS, CDFW, CNPS, and USACE	LS	LS	LS	LS	LS
	Bot-1b: Conduct Groundwater Hydrological Studies	LS	LS	LS	LS	LS
Impact Bot-2: A Substantial Adverse Effect, Either Directly or through Habitat Modifications, on Any Species Identified As a Candidate, Sensitive, or Special-status Species in Local or Regional Plans, Policies, or Regulations, or by CDFW or USFWS						
Bot-2a: Fed/1B-A Special-status Plant Species: CNPS List 1B and State- or Federally Listed Species	Bot-2: Conduct Pre-construction Surveys for Special-status Plants; if Found, Compensate According to USFWS, CDFW, and CNPS Guidelines	LS	LS	LS	LS	LS
Bot-2b: Special-status Plant Species	Bot-1b: Conduct Groundwater Hydrological Studies	LS	LS	LS	LS	LS
Impact Bot-3: An Increase in the Potential for Invasion and Spread of Noxious Weeds						
	Bot-3a: Implement Preventive Actions by Following Weed Control BMPs; Minimize Exposed Ground; Reduce Weed Seed by Removal of Onsite and Offsite Weeds	LS	LS	LS	LS	LS
	Bot-3b: Implement Avoidance Measures in Areas Adjacent to the Delevan National Wildlife Refuge	LS	LS	LS	LS	LS
Impact Bot-4: Indirect Impacts to Native Plants from Human Disturbance						
	Bot-2: Conduct Pre-construction Surveys for Special-status Plants; if Found, Compensate According to USFWS, CDFW, and CNPS Guidelines	LS	LS	LS	LS	LS
Terrestrial Biological Resources						
Impact Wild-1: Substantial Adverse Effect, Including Alteration of Habitat Suitability, on Any Wildlife Habitat, Especially Riparian Habitat or Other Sensitive Natural Communities Identified in Local or Regional Plans, Policies, or Regulations, or by CDFW or USFWS						

Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
	Wild-1a: Confirm Species/Habitat Presence through Appropriately Timed Surveys Per Protocols Identified in Coordination with USFWS and CDFW	LS	LS	LS	LS	LS
	Wild-1b: Identify and Implement a Combination of Habitat Protection, Enhancement, Restoration, or Conservation Easement Measures, in Consultation with USFWS, CDFW, and USACE	LS	LS	LS	LS	LS
Impact Wild-2: A Substantial Adverse Effect, Including Mortality, Either Directly or through Habitat Modifications, on Any Species Identified As a Candidate, Sensitive, or Special-status Species in Local or Regional Plans, Policies, or Regulations, or by CDFW or USFWS						
Wild-2a: Nesting Birds and Roosting Bats	Wild-2a: Prepare and Implement a Bird and Bat Conservation Strategy	LS	LS	LS	LS	LS
Wild-2b: Bald Eagle	Wild-2b: Obtain Permit for Bald Eagle Nest Tree Removal, Remove Nest Tree Outside of Breeding Season, and Create Suitable Habitat	SU	SU	SU	SU	SU
Wild-2c: Bank Swallow	Wild-2c: Implement Protective Actions to Prevent Bank Swallows from Nesting in the Cut Banks of Project Construction Trenches	LS	LS	LS	LS	LS
Wild-2d: Giant Garter Snake	Wild-2d: Conduct Pre-construction Surveys for Giant Garter Snakes and Implement Protective Actions; Conduct Project Construction Activity Between May 1 and October 1 in Giant Garter Snake Habitat; Compensate for Temporary Disturbance of Habitat According to USFWS Guidelines	LS	LS	LS	LS	LS
Wild-2e: Golden Eagle	Wild-2e: Implement Avoidance and Minimization Measures at Historical or Active Golden Eagle Nest Sites. Conduct Satellite Telemetry Studies Pre- and Post-construction to Determine Territory Size. Prepare a Golden Eagle Protection and Monitoring Plan/Conservation Plan as Applicable. Mitigate for Loss of Annual Grassland Foraging Habitat	LS	LS	LS	LS	LS
Wild-2f: Ringtail	Wild-2f: Implement Protective Actions to Minimize Impacts to the Ringtail, and Restore Connectivity of the Riparian Corridor	LS	LS	LS	LS	LS
Wild 2g: Valley Elderberry Longhorn Beetle	Wild-2g: Implement Protective Actions to Avoid or Minimize Impacts to Elderberry Plants. Where Avoidance Is Not Possible, Transplant or Replace Plants, According to USFWS Guidelines	LS	LS	LS	LS	LS
Wild-2h: Western Burrowing Owl	Wild-2h: Conduct Pre-construction Surveys for Western Burrowing Owls; If Owls Are Found, Implement Protective Actions	LS	LS	LS	LS	LS

Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
Wild-2i: Western Pond Turtle	Wild-2i: Conduct Pre-construction Surveys and Provide a Biological Monitor during Project Construction for the Western Pond Turtle; if Found, Turtles Shall Be Captured and Relocated by a Qualified Biologist	LS	LS	LS	LS	LS
Wild-2j: Western Yellow-billed Cuckoo	Wild-2j: Conduct Pre-construction Surveys for the Western Yellow-billed Cuckoo and Schedule Construction Activities to Avoid Impacts to Nest Sites	LS	LS	LS	LS	LS
Impact Wild-3: Substantial Interference with Movement of Native Resident or Migratory Wildlife Species, or with Established Native Resident or Migratory Wildlife Corridors, or Impede Use of Native Wildlife Nursery Sites						
	Wild-3a: During Project Construction, Backfill Trenches within 72 Hours of Pipeline Installation and Provide an Escape Ramp for Trapped Wildlife	LS	LS	LS	LS	LS
	Wild-3b: Construct Overhead Power Lines and Associated Equipment Following Suggested Practices for Avian Protection on Power Lines	LS	LS	LS	LS	LS
	Wild-3c: Restore Riparian Habitat Connectivity	LS	LS	LS	LS	LS
Wetlands and Other Waters						
Impact Wet-1: A Permanent Change in the Use, Quality (Extent in Acres or Miles) of "Other Waters of the U.S." (Including, but Not Limited to, Lakes, Rivers, Streams Tributary to Navigable Rivers, Natural Ponds, Canals, or Ditches) That Are Determined by the USACE to Be Jurisdictional, through Direct Removal, Filling, Obstruction, Hydrological Interruption, or Other Means						
Wet-1a: Streams	Wet-1a: Implement Compensatory Mitigation Measures for Streams Pursuant to USACE and State Determination within the Watershed in Which the Impacts Occur	LS	LS	LS	LS	LS
Wet-1b: Canals	Wet-1b: Reroute Drainage Ditches and Canals to Ensure Continued Hydrological Connection, or Implement Other Compensatory Mitigation Measures Pursuant to USACE Determination	LS	LS	LS	LS	LS
Wet-1c: Ponds	Wet-1c: Restore Pond to Original Condition, or Implement Other Compensatory Mitigation Measures Pursuant to USACE Determination within the Same Hydrologic Unit in Which the Pond Occurs	LS	LS	LS	LS	LS
Impact Wet-2: A Permanent Adverse Effect to Federally Protected Wetlands (As Defined by Section 404 of the Clean Water Act [Including, But Not Limited to, Marsh, Vernal Pool, Coastal]) through Direct Removal, Filling, Hydrological Interruption, Discharge of Pollutants, or Other Means						

Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
Wet-2a: Seasonal Wetlands	Wet-2a: Conserve, Enhance, Restore, or Create Seasonal Wetlands, or Implement Other Compensatory Mitigation Measures Pursuant to USACE Determination within the Watershed in Which the Impacts Occur	LS	LS	LS	LS	LS
Wet-2b: Alkaline Wetlands	Wet-2b: Conserve, Enhance, Restore, or Create Alkaline Wetlands, or Implement Other Compensatory Mitigation Measures Pursuant to USACE Determination within the Watershed in Which the Impacts Occur	LS	LS	LS	LS	LS
Wet-2c: Vernal Pools	Wet-2c: Conserve, Enhance, Restore, or Create Vernal Pools Equivalent to the Type of Vernal Pools Adversely Impacted, or Implement Other Compensatory Mitigation Measures Pursuant to USACE Determination	LS	LS	LS	LS	LS
Wet-2d: Emergent Wetlands	Wet-2d: Conserve, Enhance, Restore, or Create Emergent Wetlands, or Implement Other Compensatory Mitigation Measures Pursuant to USACE Determination within the Watershed in Which the Impacts Occur	LS	LS	LS	LS	LS
Wet-2e: Riparian Wetlands	Wet-2e: Conserve, Enhance, Restore, or Create Comparable Riparian Wetlands in the Inner Coast Range Foothills, or Implement Other Compensatory Mitigation Measures Pursuant to CDFW Determination	LS	LS	LS	LS	LS
<u>Paleontology</u>						
Impact Paleo-1: Project Construction, Operation, and Maintenance Effects on Paleontological Resources						
	Paleo-1a: Retain a Qualified Paleontological Resource Specialist prior to the Start of Construction	SU	SU	SU	SU	SU
	Paleo-1b: Consultation with the Paleontological Resource Specialist prior to and during Project Construction	SU	SU	SU	SU	SU
	Paleo-1c: Prepare and Implement a Paleontological Resources Monitoring and Mitigation Plan	SU	SU	SU	SU	SU
	Paleo-1d: Conduct Paleontological Resources Awareness Training	SU	SU	SU	SU	SU
	Paleo-1e: Conduct Monitoring during Project Construction and Prepare Monthly Reports	SU	SU	SU	SU	SU

Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
	Paleo-1f: Ensure Implementation of the Paleontological Resources Monitoring and Mitigation Plan	SU	SU	SU	SU	SU
Cultural/Tribal Cultural Resources						
Impact Cul-1: A Substantial Adverse Change in the Significance of an Archaeological Resource						
	Cul-1a: Avoid Impacts to Historical Resources/Historic Properties	LS	LS	LS	LS	LS
	Cul-1b: Conduct Archaeological Data Recovery	LS	LS	LS	LS	LS
	Cul-1c: Conduct Archaeological Construction Monitoring	LS	LS	LS	LS	LS
	Cul-1d: Immediately Halt Construction if Cultural Resources Are Discovered and Implement a Post-review Discovery Plan	LS	LS	LS	LS	LS
	Cul-1e: Protection of Archaeological Sites by Capping	LS	LS	LS	LS	LS
Impact Cul-2: A Substantial Adverse Change in the Significance of a Historical Resource of the Built Environment						
	Cul-1a: Avoid Impacts to Historical Resources/Historic Properties	SU	SU	SU	SU	SU
	Cul-2a: Follow the Secretary of the Interior's Standards for the Treatment of Historical Resources/Historic Properties	SU	SU	SU	SU	SU
	Cul-2b: Record Built Environment Resources	SU	SU	SU	SU	SU
Impact Cul-3: Disturb a Traditional Cultural Property or a Tribal Cultural Resource as Defined in PCR Section 21074						
	Cul-1a: Avoid Impacts to Historical Resources/Historic Properties	SU	SU	SU	SU	SU
	Cul-3: Consult with Affected Communities regarding How to Mitigate for Impacts on TCPs/TCRs	SU	SU	SU	SU	SU
Impact Cul-4: Disturb Human Remains, Including Those Interred Outside of Dedicated Cemeteries						
	Cul-1a: Avoid Impacts to Historical Resources/Historic Properties	SU	SU	SU	SU	SU
	Cul-4a: Relocation of Dedicated or Known Cemeteries	SU	SU	SU	SU	SU
	Cul-4b: Immediately Halt Construction if Human Remains Are Discovered and Implement a Burial Treatment Plan	SU	SU	SU	SU	SU
Land Use						

Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
Impact Land-2: Conflict with an Applicable Land Use Plan, Policy, or Regulation of an Agency with Jurisdiction over the Project Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect						
	Land-2: Work with Glenn and Colusa Counties to Modify or Amend Counties General Plans and/or Zoning Ordinances to Bring Lands into Consistency with the Project Land Uses	SU	SU	SU	SU	SU
Impact Land-7: Permanent Conflict with Existing Zoning for Agricultural Use, and/or the Permanent Conversion of Lands that Have a Williamson Act Contract						
	Land-7a: Acquire Lands through Eminent Domain or Work with Land Owners to Acquire Properties and Pay Any Cancellation Fees Associated with Removing Lands from Williamson Act Contracts	LS	LS	LS	LS	LS
	Land-7b: For Land Permanently Acquired Other Than by Eminent Domain, Seek County Approvals to Rescind Williamson Act Contracts and Enter in Open Space Contracts or Open Space Easements	LS	LS	LS	LS	LS
Air Quality						
Impact Air Qual-1: Conflict with an Applicable Air Quality Plan, Contribute Substantially to an Air Quality Violation, and/or Result in a Cumulatively Considerable Net Increase of Nonattainment Pollutants						
Emissions of PM ₁₀	Air Qual-1a: Develop and Implement a Fugitive Dust Control Plan	SU	SU	SU	SU	SU
Emissions of NO _x , PM ₁₀ , and ROG	Air Qual-1b: Implement Measures to Reduce Equipment and Vehicle Exhaust Emissions	SU	SU	SU	SU	SU
Emissions of SO _x , CO, and PM _{2.5}	Air Qual-1b: Implement Measures to Reduce Equipment and Vehicle Exhaust Emissions	LS	LS	LS	LS	LS
25. Greenhouse Gas						
Impact GHG-1: Generation of Cumulative GHG Emissions						
	BMP 1: Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high-efficiency technologies are appropriate and feasible for the project or specific elements of the project.	SU	SU	SU	SU	SU
	BMP 2: Evaluate the feasibility and efficacy of performing onsite material hauling with trucks equipped with on-road engines.	SU	SU	SU	SU	SU

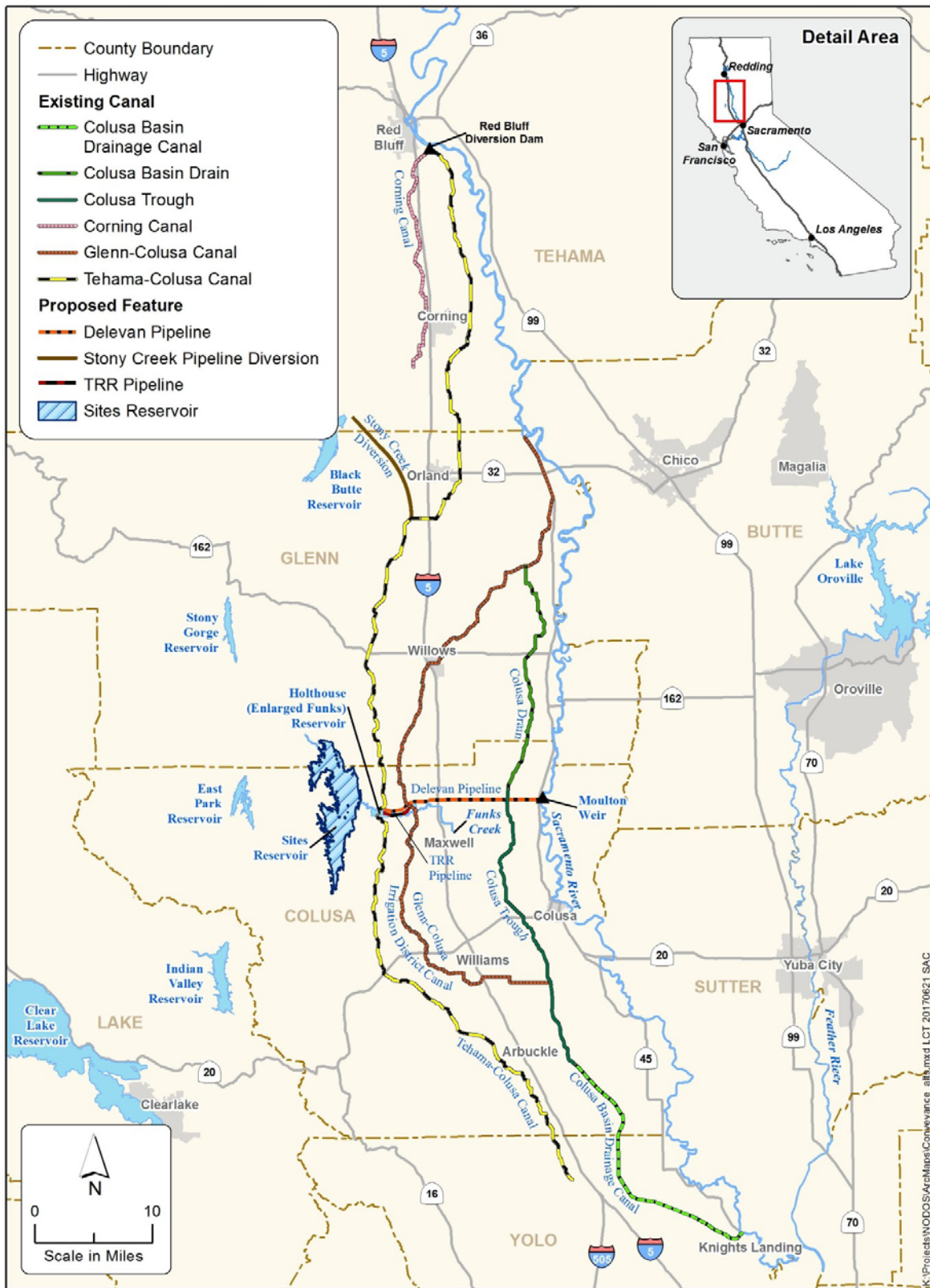
Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
	BMP 3: Ensure that all feasible avenues have been explored for providing an electrical service drop to the construction site for temporary construction power. When generators must be used, use alternative fuels such as propane or solar to power generators to the maximum extent feasible.	SU	SU	SU	SU	SU
	BMP 4: Evaluate the feasibility and efficacy of producing concrete onsite and specify that batch plants be set up onsite or as close to the site as possible.	SU	SU	SU	SU	SU
	BMP 5: Evaluate the performance requirements for concrete used on the project and specify concrete mix designs that minimize GHG emissions from cement production and curing, while preserving all required performance characteristics.	SU	SU	SU	SU	SU
	BMP 6: Limit deliveries of materials and equipment to the site to off-peak traffic congestion hours.	SU	SU	SU	SU	SU
	BMP 7: Minimize idling time by requiring that equipment be shut down after 5 minutes when not in use (as required by the State airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and provide a plan for the enforcement of this requirement.	SU	SU	SU	SU	SU
	BMP 8: Maintain construction equipment in proper working condition and perform preventative maintenance. Required maintenance includes compliance with manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of engine and emissions systems in proper operating condition. Maintenance schedules will be detailed in an Air Quality Control Plan prior to commencement of construction.	SU	SU	SU	SU	SU

Significant Impact	Mitigation Measure	Level of Significance after Mitigation for each Alternative				
		A	B	C	C ₁	D
	BMP 9: Implement tire inflation program on job site to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives onsite and every 2 weeks for equipment that remains onsite. Check vehicles used for hauling materials off-site weekly for correct tire inflation. Procedures for the tire inflation program will be documented in an Air Quality Management Plan prior to commencement of construction.	SU	SU	SU	SU	SU
	BMP 10: Develop a project-specific ride share program to encourage carpools, shuttle vans, and transit passes, and secure bicycle parking for construction worker commutes.	SU	SU	SU	SU	SU
	BMP 11: Reduce electricity use in temporary construction offices by using high-efficiency lighting and requiring that heating and cooling units be Energy Star compliant. Require that all contractors develop and implement procedures for turning off computers, lights, air conditioners, heaters, and other equipment each day at close of business.	SU	SU	SU	SU	SU
	BMP 12: For deliveries to project sites where the haul distance exceeds 100 miles and a heavy-duty Class 7 or Class 8 semi-truck or 53-foot or longer box type trailer is used for hauling, a SmartWay ^a certified truck will be used to the maximum extent feasible.	SU	SU	SU	SU	SU
	BMP 13: Minimize the amount of cement in concrete by specifying higher levels of cementitious material alternatives, larger aggregate, longer final set times, or lower maximum strength where appropriate.	SU	SU	SU	SU	SU
	BMP 14: Develop a project-specific construction debris recycling and diversion program to achieve a documented 50 percent diversion of construction waste.	SU	SU	SU	SU	SU
	BMP 15: Evaluate the feasibility of restricting material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution, minimize, to the extent possible, uses of public roadways that would increase traffic congestion.	SU	SU	SU	SU	SU



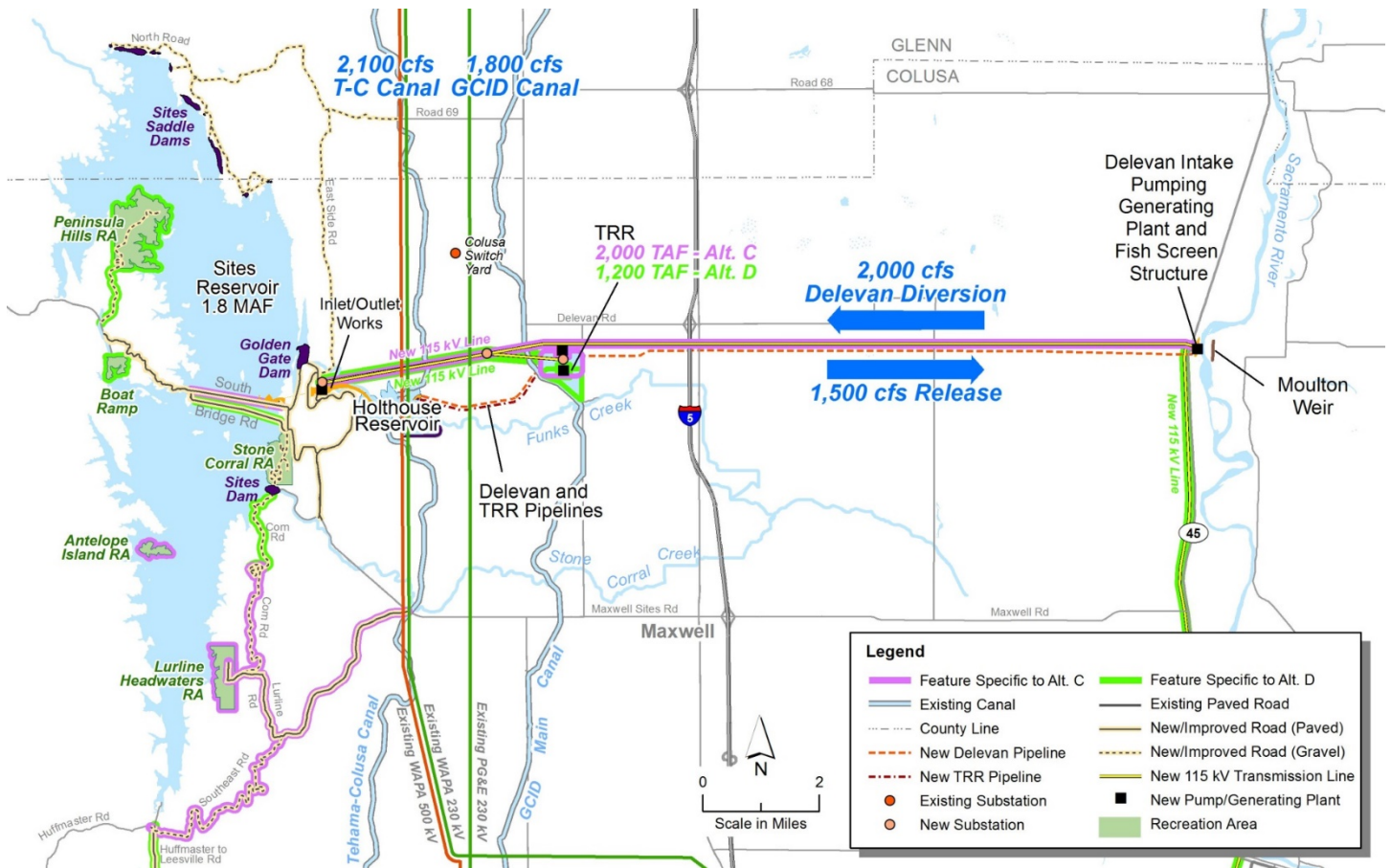
Source: Reclamation 2017

Figure 1: Project Location



Source: Reclamation 2017

Figure 2: Existing Facilities



Source: Reclamation 2017

Figure 3: Proposed Project Facilities