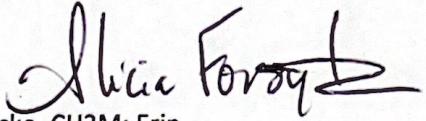


To: Modeling Assumptions File
From: Alicia Forsythe, Environmental Planning and Permitting Manager 
Thru: Laurie Warner Herson, Integration; Nicole Williams, ICF; Steve Micko, CH2M; Erin Heydinger, Integration; John Spranza, Integration
Date: April 27, 2021
Subject: Modeling Baseline Selection

This memorandum (memo) describes the environmental modeling approach chosen for the analysis of hydrologic effects in the Sites Reservoir Project Revised Draft EIR/Supplemental Draft EIS, which is currently under development. It also describes the options for the modeling approach and the pros and cons of those options. To inform the analysis, the memo describes (1) the requirements under the California Environmental Quality Act (CEQA) for the environmental baseline, which is used as a starting point to compare against the future environmental conditions anticipated to occur with the project in order to assess the significance of the project's environmental impacts; and (2) the distinct requirements under the National Environmental Policy Act (NEPA) for the no action alternative, which reflects the future environmental conditions anticipated to occur without the project and which plays a similar function under federal law to the baseline under CEQA. For the Revised Draft EIR/Supplemental EIS, the CEQA baseline and the NEPA no action alternative reflects the same hydrological conditions for purposes of assessing the Project's impacts, and therefore the modeling approach selected for the analysis addresses the requirements of both statutes.

1.0 Background and Current Status

As work progresses on the analysis for the Revised Draft EIR/Supplemental Draft EIS, the operations team is developing modeling parameters and operational criteria required for assessing the effects of potential alternatives in the document while still achieving the goals and objectives of the Project. One of the foundational decisions related to the operations modeling for the EIR/EIS analysis is the description of the modeling approach for the CEQA baseline and for the NEPA no action alternative. An adequate description of the baseline and the no action alternative is critical to the CEQA and NEPA evaluation, respectively. This description also is essential for numerous state and federal environmental permits and to describe the Project's benefits.

The baseline conditions for water supply and delivery in California have changed substantially in 2019-2020. Specifically, the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) have issued new Biological Opinions for the Reinitiation of Consultation on the Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP) (the two new Biological Opinions will be referred to collectively as the ROC on LTO BiOps). The California Department of Fish and Wildlife (CDFW) also has issued a new Incidental Take Permit for Long-Term Operations of the SWP in the Sacramento-San Joaquin Delta (SWP ITP). The ROC on LTO BiOps and the SWP ITP reflect baseline conditions for the CVP-SWP system that are substantially different from those contained in the previous BiOps (2008/2009). This is the first time in recent history that the CVP and SWP are being operated to different "rules", resulting in an unprecedented modeling and analytical situation for the Sites Project to navigate.

The ROC on LTO BiOps have been challenged by the State of California and a coalition of environmental groups in federal district court, and lawsuits brought by both environmental groups and major water suppliers are pending against the SWP ITP in state superior court. As evidenced by the litigation, there is disagreement regarding the implementation of the ROC on LTO BiOps and the SWP ITP among water

users, environmental stakeholders, and the federal and state water management and permitting agencies. This disagreement, and the resulting uncertainty over the regulatory regime that ultimately will govern the CVP-SWP system, may very well persist throughout the Sites Project planning and permitting process.

The Authority is not at liberty to stop planning activities and wait for resolution of the current disputes over the ROC on LTO BiOps and SWP ITP. The Authority must continue to move forward with the development of the Revised Draft EIR/Supplemental Draft EIS, releasing the document for public review in summer 2021 to continue to be eligible for Water Storage Investment Program (WSIP) funding by meeting the requirements set forth in Proposition 1¹.

Despite ongoing litigation and political changes, the Bureau of Reclamation (Reclamation) has worked to develop a baseline and no action alternative that represent actions from both ROC on LTO BiOps and the SWP ITP actions. Specifically, the Revised Draft EIR/Supplemental Draft EIS is using an approach that will be referred to as the CalSim II 2020 Benchmark, which was developed by Reclamation in collaboration with state agencies, including CDFW.

The Authority proposes to move forward with model development with the CalSim II 2020 Benchmark to provide analysis that most closely represents actual operations of the CVP and SWP. This approach provides:

1. The most accurate starting point with respect to actual operations for analysis of Sites Project operations.
2. Meets adequacy tests under CEQA/NEPA and provides the public with a reasonable evaluation of effects from the Project.
3. Does not require the Authority to conjecture the outcome of ongoing litigation.

This memo documents this decision and reviews other options considered by the Authority.

2.0 CEQA / NEPA Baseline Requirements

CEQA and NEPA have different requirements for analyzing the impacts of proposed projects/actions. Under CEQA, the impacts of the proposed project and the alternatives normally are evaluated against the existing environmental “baseline,” which consists of the physical conditions that exist at the time a notice of preparation is issued for an EIR. The CEQA lead agency has the discretion to define the baseline as consisting of historical conditions or conditions that are anticipated when the proposed project becomes operational, although the agency’s approach must be supported by evidence in the administrative record (State CEQA Guidelines Section 15125[a]). Unlike CEQA, neither the language of NEPA nor the Council on Environmental Quality’s (CEQ’s) Regulations for implementing NEPA contain a specific directive for using a baseline for determining an action’s significant effects on the quality of the

¹ California Water Code Section 79757(a) states that: “A project is not eligible for funding under this chapter unless, by January 1, 2022, all of the following conditions are met: (1) All feasibility studies are complete and draft environmental documentation is available for public review. . . .” While the Authority has released a Draft EIR for public review in 2017, arguably satisfying this requirement, the Project has changed substantially through the Value Planning effort completed in early 2020. The Authority has established an internal deadline for release of the Revised Draft EIR/Supplemental Draft EIS of July 2021 to allow for public review, time to assess public comments and prepare a summary report of the comments received, and time for the California Water Commission to review and take action on the Project prior to the January 1, 2022 deadline.

human environment. Instead, NEPA requires that the analysis present the environmental impacts of the proposed action and the alternatives, including the no action alternative, in comparative form in order to provide a clear basis for choice among options for the decision maker and the public (40 CFR 1502.14). The CEQA and NEPA requirements are discussed in more detail below.

2.1 CEQA Baseline Requirements

Under section 15125(a) of the CEQA Guidelines, there are four key principles for defining the environmental baseline in an EIR.

- The default rule is that the baseline should reflect the physical conditions as they exist at the time the notice of preparation is published for the EIR.
- However, where existing conditions fluctuate over time, and where it is necessary to provide the most accurate picture of the project’s impacts, a lead agency may define the existing conditions baseline by referencing historic conditions or conditions that are expected when the project becomes operational—instead of relying on the conditions as they exist at the time of the notice of preparation.
- Where a lead agency wishes to rely solely on the use of a future baseline that reflects conditions that will not be in existence until after the project commences operation, the agency must demonstrate that use of an existing conditions baseline would be uninformative or misleading.
- Lastly, an existing conditions baseline may not be based on hypothetical conditions, such as those that might be allowed but have never actually occurred.

The leading case on the CEQA baseline is the California Supreme Court’s decision in *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (Neighbors)* (2013) 57 Cal.4th 439, where the Court relied extensively on its earlier decision in *Communities for a Better Environment v. South Coast Air Quality Management District (Communities)* (2010) 48 Cal.4th 310. In its decision in *Neighbors*, the California Supreme Court explained that “[t]he CEQA Guidelines establish the default of an existing conditions baseline even for projects expected to be in operation for many years or decades.”² According to the California Supreme Court, “existing conditions constitute the norm from which a departure must be justified—not only because the CEQA Guidelines so state, but because using existing conditions serves CEQA’s goals in important ways.”³ The Court emphasized that the paramount goal under CEQA is to have agencies employ “a realistic baseline” that gives the public and decision makers “the most accurate picture practically possible of the project’s likely impacts.”⁴

However, the Supreme Court made it clear that “[n]either CEQA nor the CEQA Guidelines mandates a uniform, inflexible rule for determination of the existing conditions baseline. Rather, an agency enjoys the discretion to decide, in the first instance, exactly how the existing physical conditions without the project can most realistically be measured, subject to review, as with all CEQA factual determinations, for support by substantial evidence.”⁵ Accordingly, the Court explained that “in appropriate circumstances an existing conditions analysis may take account of environmental conditions that will

² *Neighbors, supra*, 47 Cal.4th at p. 455.

³ *Ibid.*

⁴ *Id.* at p. 449.

⁵ *Ibid.* (citing *Communities*, 48 Cal. 4th at 328).

exist when the project begins operations; the agency is not strictly limited to those prevailing during the period of EIR preparation. An agency may, where appropriate, adjust its existing conditions baseline to account for a major change in environmental conditions that is expected to occur before project implementation. In so adjusting its existing conditions baseline, an agency exercises its discretion on how best to define such a baseline under the circumstance of rapidly changing environmental conditions.... [W]e find nothing precluding an agency from employing, under appropriate factual circumstances, a baseline of conditions expected to obtain at the time the proposed project would go into operation.”⁶ The Court cautioned, however, that if a CEQA lead agency wishes to rely solely on the use of a “future” baseline—i.e., a baseline reflecting conditions not in existence until after the commencement of project operations—then the agency must demonstrate that an existing conditions baseline “would be uninformative or misleading to decision makers and the public.”⁷

In response to the Supreme Court’s decisions in *Neighbors* and *Communities*, in 2018 the California Natural Resources Agency amended section 15125(a) of the CEQA Guidelines to read as follows in its entirety:

(a) An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives. The purpose of this requirement is to give the public and decision makers the most accurate and understandable picture practically possible of the project’s likely near-term and long-term impacts.

(1) Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. Where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project’s impacts, a lead agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence. In addition, a lead agency may also use baselines consisting of both existing conditions and projected future conditions that are supported by reliable projections based on substantial evidence in the record.

(2) A lead agency may use projected future conditions (beyond the date of project operations) baseline as the sole baseline for analysis only if it demonstrates with substantial evidence that use of existing conditions would be either misleading or without informative value to decision-makers and the public. Use of projected future conditions as the only baseline must be supported by reliable projections based on substantial evidence in the record.

(3) An existing conditions baseline shall not include hypothetical conditions, such as those that might be allowed, but have never actually occurred, under existing permits or plans, as the baseline.

⁶ *Id.* at p. 452-53 (citing *Communities*, 48 Cal. 4th at 328).

⁷ *Id.* at p. 453.

To comport with the CEQA Guidelines, the Revised Draft EIR/Supplement Draft EIS uses an “existing conditions” baseline. However, an updated existing conditions baseline that reflect changes in the existing conditions as of late 2020 is being used. This updated existing conditions baseline is being used because some environmental conditions have fluctuated considerably since the notice of preparation was issued in March 2017, and because an updated baseline is necessary to provide the most accurate picture of the potential near-term and long-term impacts from the Project.

Thus, the CEQA baseline for the Revised Draft EIR/Supplemental Draft EIS includes facilities and ongoing programs that existed as of the March 2017 publication date for the notice of preparation, updated to reflect current hydrologic physical conditions and regulatory operating conditions of the CVP and the SWP, State Water Resources Control Board’s water rights orders and decision and water quality criteria; municipal, environmental, and agricultural water uses; land uses; and relevant current plans and policies.

2.2 *NEPA Requirements for the No Action Alternative*

Unlike CEQA, NEPA does not have a requirement to measure impacts against an existing conditions baseline. Instead, the NEPA regulations provide that the EIS should compare the impacts of the proposed action against the impacts of the alternatives, including the no action alternative. 40 CFR 1502.14, 1502.16. The no action alternative, which reflects the future environmental conditions that would occur if the proposed action does go forward, has been described in guidance issued by the Council on Environmental Quality as the “benchmark” against which the public and decision-makers can compare the impacts of the action alternatives.⁸ Similarly, Reclamation explains in its NEPA Handbook that the impact analysis in the EIS should “compare the reasonable action alternatives to the no action alternative to determine the net effect or impact of each of the action alternatives.”⁹

In the context of an ongoing plan or program, the no action alternative reflects proceeding with the pre-project course of action, assuming continuation of existing policies and management direction into the future. As explained in Reclamation’s NEPA Handbook, the no action alternative “represents a projection of current conditions and reasonably foreseeable actions to the most reasonable future responses or conditions that could occur during the life of the project without any action alternatives being implemented.”¹⁰

In the Revised Draft EIR/Supplemental Draft EIS, the no action alternative under NEPA assumes the same environmental conditions as the existing conditions baseline used under CEQA for the purposes of the modeling analysis.

2.3 *Analysis Approach*

Large-scale, California-focused, long-term planning analyses (including environmental documents such as the Sites Reservoir Project 2017 Draft EIR/EIS) typically use the CalSim model to identify potential water system–related impacts. CalSim II is a reservoir-river basin planning model developed by the

⁸ CEQ, “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations” (adopted Mar. 23, 1981, as amended in 1986), Question #3.

⁹ U.S. Bureau of Reclamation, Reclamation’s NEPA Handbook (Feb. 2012), at p. 8-15.

¹⁰ *Id.* at p. 8-8

California Department of Water Resources (DWR) and Reclamation to simulate the operation of the CVP and SWP over a range of different hydrologic conditions. Inputs to CalSim II include water demands (including water rights), stream accretions and depletions, reservoir inflows, irrigation efficiencies, and parameters to calculate return flows, non-recoverable losses, and groundwater operations. The CalSim II model simulates river flows, reservoir storage, Delta outflow, and diversions including Delta exports. The use of CalSim II allows for comparative changes or effects to the CVP and SWP water resources system associated with adding a new surface storage reservoir located north of the Delta.

CalSim II uses the Sacramento Valley and tributary rim basin hydrology with an adjusted historical sequence of monthly stream flows over an 82-year period (1922 to 2003) to represent a sequence of flows at a specific level of land use development and associated water demands. The CalSim II model includes water demands and associated water deliveries to water rights holders. The CalSim II model also includes discharges and releases from non-CVP and non-SWP water users and wastewater dischargers.

3.0 Options for Environmental Modeling Baseline

There are five potential options for consideration for the environmental modeling approach for the CEQA baseline and NEPA no action alternative. The five options include the following:

1. ROC on LTO Alternative 1/Proposed Action published December 2019
2. SWP ITP Alternative 2b/Proposed Project published March 2020
3. Final DCR 2019, published August 2020
4. CalSim II 2020 Benchmark, developed by Reclamation in coordination with California agencies
5. Historical analysis with daily flow availability and diversion tool

3.1 Pros and Cons of Each Option

The pros and cons of each of the five potential options are provided below.

1. Reclamation ROC on LTO Alternative 1/Proposed Action Published December 2019 – This baseline would utilize the ROC on LTO Proposed Action CalSim II model released by the Reclamation in December 2019.
 - a. Pros
 - i. As of March 1, 2020, Reclamation is operating the CVP to the ROC on LTO Alternative 1/Proposed Action published in December 2019 as represented in the BiOps published by USFWS and NMFS.
 - ii. Reclamation’s December 2019 version of the CalSim II model includes a representation of these operations, subject to recent refinements by Reclamation (model may include limited changes for model improvements, climate change or other updates).
 - iii. Use of the merged version of the model developed for the Reclamation Feasibility Report, which includes the Sites Project, would expedite the model development process.
 - iv. As the NEPA lead agency, Reclamation is likely to require the use of a baseline that includes ROC on LTO as this is the current operating criteria for the CVP.

- b. Cons
 - i. Reclamation’s December 2019 CalSim II model does not include additional actions that are included in DWR’s model of SWP ITP Alternative 2b/Proposed Project.
 - ii. As a permitting agency for the Sites Project, CDFW likely would not accept ROC on LTO Alternative 1/Proposed Action as the baseline since the model does not include the SWP ITP Alternative 2b/Proposed Project and associated actions in the SWP ITP.
 - iii. ROC on LTO is currently in litigation by a number of parties, presenting risks due to changes during / as a result of litigation and indicating that plaintiff organizations would likely be concerned with the use of ROC on LTO Alternative 1 as a baseline.
 - iv. Reclamation may expect Sites to use Reclamation’s CalSim II 2020 Benchmark model (see #4 below) especially when considering benefits of Shasta exchanges as the CalSim II 2020 Benchmark model provides the most complete representation of Shasta temperature operations under the ROC on LTO BiOps.

- 2. DWR ITP Alternative 2b Published March 2020 – This baseline would utilize the SWP ITP CalSim II model released by DWR in March 2020.
 - a. Pros
 - i. As of April 2020, DWR is operating the SWP to the ITP Alternative 2b/Proposed Project as described in the SWP ITP published in March 2020.
 - ii. As a permitting agency for the Sites Project, CDFW will likely require the baseline to include the SWP ITP Alternative 2b/Proposed Project as described in the ITP as this is the current operating criteria for the SWP.
 - b. Cons
 - i. The CalSim II version published by DWR in March 2020 is incomplete and does not appear to include all of the components of the SWP ITP. It would require additional model updates to include all of the actions described in the SWP ITP.
 - ii. As a permitting agency for the Sites Project, CDFW will likely request additional updates to DWR’s model of the SWP ITP Alternative 2b/Proposed Project since it is incomplete and does not include all of the actions as described in the SWP ITP that DWR is currently operating to.
 - iii. DWR’s model of Alternative 2b was based on Reclamation’s ROC on LTO Alternative 1/Proposed Action CalSim II model released in January 2019 and does not include important changes made in the updated final ROC on LTO Alternative 1/Proposed Action published in December 2019 and BiOps subsequently published by USFWS and NMFS. DWR’s model needs to be updated to reflect the ROC on LTO Alternative 1/Proposed Action published in December 2019.
 - iv. Reclamation, as the lead federal agency for the Sites Project, will likely not support the SWP ITP Alternative 2b/Proposed Project as a selection for the baseline, as the current model does not include Reclamation’s ROC on LTO Alternative 1/Proposed Action and does not include all the actions in the SWP ITP. There are areas where the SWP ITP action would be in conflict with Reclamation’s ROC on LTO Alternative 1/Proposed Action and the BiOps subsequently published by USFWS and NMFS.
 - v. Utilizing this model as the baseline will require significant collaboration to refine model representation of SWP ITP actions and criteria that influence Sites operations.
 - vi. The SWP ITP is currently in litigation by a number of parties, presenting risks due to changes during / as a result of litigation and indicating that plaintiff organizations

would likely be concerned with the use of the SWP ITP Alternative 2b published March 2020 as a baseline.

3. Final DCR 2019 published in August 2020 – DWR developed a joint representation of the ROC on LTO BiOps and the SWP ITP as part of DCR 2019. This was released in August 2020. This option involves the use of the Final DCR 2019 CalSim model as the baseline. This model attempts to incorporate in ROC on LTO with the SWP ITP but has not been reviewed or agreed upon by Reclamation.
 - a. Pros
 - i. May provide a better overall baseline representation of operations currently being developed in response to ROC on LTO and the SWP ITP and potential future combined CVP/SWP operations.
 - ii. May allow for acceptance to a wider range of agencies and stakeholders as both the ROC on LTO and SWP ITP would be included in the baseline.
 - b. Cons
 - i. DWR's DCR 2019 model is based on Reclamation's Alternative 1/Proposed Action CalSim II model released in January 2019 and does not include important changes made in the updated final Alternative 1/Proposed Action published in December 2019 and BiOp published by USFWS in October 2019. DWR's model needs to be updated to reflect the ROC on LTO Alternative 1/Proposed Action published in December 2019.
 - ii. As a permitting agency for the Sites Project, CDFW will likely request additional updates to DWR's DCR 2019 model since it is incomplete and does not include all of the actions as described in the ITP that DWR is currently operating to.
 - iii. Reclamation, as the lead federal agency for the Sites Project, will likely not support DWR's DCR 2019 model as a selection for the baseline, as the current model does not include Reclamation's Alternative 1/Proposed Action and does not include all the actions in the ITP. There are areas where the ITP action would be in conflict with Reclamation's Alternative 1/Proposed Action and the October 2019 BiOp.
 - iv. Implementing this model will require significant DWR/CDFW collaboration to refine model representation of ITP actions and criteria that influence Sites operations.
 - v. Current litigation indicates that water users and environmental groups may not support DWR ITP Alternative 2b, and therefore DWR's DCR 2019 as a selection for the baseline.
4. CalSim II 2020 Benchmark model – Reclamation worked closely with DWR, CDFW and other water agencies to develop an updated baseline model that incorporates both ROC on LTO BiOps and actions from the SWP ITP. Several technical staff from multiple agencies met to review, discuss and select model assumptions that best represent current CVP and SWP operations. This baseline considers the most recent CalSim II operational assumptions of the CVP and SWP system.
 - a. Pros
 - i. As of the February 2020 Record of Decision, Reclamation is operating the CVP to the ROC on LTO Alternative 1/Proposed Action published in December 2019 and BiOp published by USFWS in October 2019 (pending action by the court). The Reclamation version of the CalSim II model will include the current representation of these operations.

- ii. With Reclamation is a lead agency for the Sites Project, Reclamation will likely require this model to be the baseline for effect analysis.
 - iii. This baseline includes the most recent representation of Shasta Lake tiered cold water pool management that will be critical to understanding the opportunities for exchange of water with Sites Reservoir and gaining Reclamation support for the proposed exchange operations.
 - iv. Reclamation is developing the CalSim II model in coordination with DWR and CDFW. DWR and CDFW may require this baseline. This model includes more ITP actions than the DCR 2019 model and the DWR ITP Alternative 2b model.
 - b. Cons
 - i. Similar to the options above, this option also presents risks as the ROC on LTO and the SWP ITP are currently in litigation by a number of parties.
5. Historical analysis with daily flow availability and diversion tool – The daily flow availability and diversion tool uses historical gage data and reservoir release information for the last 10 years of record. The tool then applies diversion criteria for the Sites Project to assess the opportunity of diversion of water into the reservoir on a daily basis. It is important to note that the daily flow availability and diversion tool is not a system-wide tool. It does not dynamically seek to operate the CVP and SWP. It simply identifies possible Sites diversions and resulting river flows based on historical information from the last 10 years – it does not seek to see how the CVP and SWP would be re-operated in response to Sites operations and does not represent conveyance of water through the Delta.
- a. Pros
 - i. Represents most recent hydrology.
 - ii. Utilizes a daily time step.
 - b. Cons
 - i. Doesn't include a dynamic representation of Sites Reservoir operations.
 - ii. Doesn't include representation of the CVP/SWP system and is therefore not capable of being used to support an effects analysis for potential hydrological impacts.
 - iii. Would be unique to the Sites Project and would not be tested or reviewed by others. Nor would this model be used by others and thus, would not be comparable to other modeling efforts for other related and ongoing projects.
 - iv. Has not been independently or peer reviewed.
 - v. Is based on historical system operations and thus, does not represent the operations of the CVP and SWP under the new operating rules – the ROC on LTO and SWP ITP.

Prior to the development of the CalSim II 2020 Benchmark, the Authority also considered developing a model that would include actions from both ROC on LTO BiOps as well as the SWP ITP. However, with the emergence of the baseline developed with input from both state and federal agencies (the CalSim II 2020 Benchmark), this option was considered redundant and would likely add more uncertainty to the evaluation due to the possibility of conflicting assumptions with the CalSim II 2020 Benchmark.

4.0 Proposed Approach

The Sites Authority's Environmental Planning and Permitting Manager along with members of the Sites integration, environmental, planning and operations consulting teams met a number of times to review

and discuss the five options identified above. The team considered the pros and cons of each option with the following key factors:

1. Project Schedule – The Authority has limited time to prepare the Revised Draft EIR/Supplemental Draft EIS and needs a readily available model baseline to complete the analysis for the document. Based on the Project schedule, the modeling analysis needs to be completed by early January 2021 to allow time for the subsequent impact analysis and preparation of the document for a July 2021 public release. The schedule was a driving factor in selecting a model baseline as meeting the requirements in California Water Code Section 79757(a) and continuing to remain eligible for Proposition 1 funding is critical to the success of the Project.
2. On-going Litigation and Resolution of Litigation – With various parties in litigation or threatening litigation over the ROC on LTO and SWP ITP, it is speculative to assume any particular action by the court. The litigation however does show that there is significant disagreement between the water users, environmental stakeholders, and the federal and state water management and permitting agencies. However, significant effort between DWR and Reclamation has resulted in a combined baseline model that was selected as the best tool to describe the real operations of the CVP and SWP. The Authority will assess any changes to the ROC on LTO and SWP ITP if and when changes are made during litigation and adjust as appropriate at that time.
3. Providing the Most Realistic Representation of Future CVP and SWP Operations – The Project’s operations rely a good extent on the operations of the CVP and SWP. For example, a component of the Project description includes exchanges with Reclamation in Shasta Lake to bolster the cold-water pool for anadromous fish benefits. In addition, much of the Project water will need to be diverted at the SWP Banks Pumping Plant for Project members south of the Delta. ROC on LTO and the SWP ITP fundamentally change the operation of the system and are the first time in history that the two projects will be operated by different criteria. Using a modeling baseline that accurately represents the ROC on LTO is important for assessing the Projects ability and resulting effects (impacts and benefits) of exchanges with Shasta Lake. Conversely, using a modeling baseline that accurately represents the SWP ITP is important for assessing the Projects effects of diversions at the SWP Banks Pumping Plant. The ability to use a model baseline that represents both ROC on LTO and the SWP ITP, and that has been reviewed and approved by Reclamation and DWR as the operators of the CVP and SWP, was a driving factor in selecting a model baseline.
4. Identifying the Baseline that Meets the CEQA and NEPA – The modeling baseline is being used for the Revised Draft EIR/Supplemental Draft EIS. The ability of the model baseline to meet the CEQA and NEPA requirements was a driving factor.
5. Using a Baseline that Is Developed by DWR and Reclamation and is not Unique to the Sites Project – There are a number of other projects currently underway. These include Delta Conveyance, Voluntary Agreements, and other Proposition 1 funded projects, among others. Many of these other projects will use CalSim as their modeling and analysis tool. In addition, the CalSim model is a complicated and complex model – and there are a number of different ways to represent the ROC on LTO and SWP ITP operations criteria in the model. Reclamation and DWR have been using CalSim for years and are generally considered the industry experts on the model. They are also viewed as industry experts in representing their respective project

operations in the model. Having a model baseline developed by Reclamation and DWR, along with one that was widely available in the industry, was a driving factors in the team selecting a model baseline.

Based on the options identified in Section 3.0 above along with the key driving factors discussed above, the team selected the CalSim II 2020 Benchmark model as the modeling baseline. This model baseline includes both ROC on LTO and SWP ITP, meets the CEQA and NEPA requirements, and was developed by Reclamation with input from DWR and CDFW.

For a number of reasons, including the on-going litigation on ROC on LTO and the SWP ITP, it is possible that any baseline chosen may change during the planning/permitting process. While analysis will proceed using the CalSim II 2020 Benchmark model, the Authority may prepare additional analysis as needed to assess any major, system-wide changes related to the CVP or SWP operations through ongoing litigation or changes in regulatory requirements. Such adjustments may include, but may not be limited to, sensitivity or gap analyses.