



October 16, 2013

Attention: Imported Water Committee

Bay Delta Conservation Plan Environmental Review Process (Discussion)

Purpose

The purpose of this report is to discuss: 1) the state and federal Endangered Species Act permitting process, 2) the state and federal environmental review process, and 3) the baselines used in the Bay Delta Conservation Plan (BDCP) environmental and economic benefits analyses.

Background

Proposed activities that may affect state or federal listed endangered or threatened species require an authorization (“take” permit) from California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and/or National Marine Fisheries Service.

Both the state and federal Endangered Species Act (ESA) describe two procedures to obtain permits. State ESA permits can be granted under either California Fish and Game Code Section 2081 or Section 2835, while the federal ESA (16 USC §1531 et. seq.) grants permits under either Section 7 or Section 10. Section 2835 and Section 10 permits are based on an analysis contained in a Habitat Conservation Plan (HCP) and/or Natural Communities Conservation Plan (NCCP) prepared by the permit applicant.

ESA Permits	Listed Species Only	Listed and Non-listed Species
Federal	Section 7	Section 10 (HCP)
California	Section 2081	Section 2835 (NCCP)

When both state and federal listed species are potentially affected by the proposed activities, a joint HCP/NCCP is typically prepared. Permits are issued after the HCP/NCCP has been approved and an Implementing Agreement has been executed by the applicant and permitting agencies. Under an NCCP/HCP, the objective is not to just mitigate impacts to species caused by a project, but to contribute toward the recovery of species. Ultimately, the aim of species recovery is to delist endangered or threatened species and avoid the need to list other species in the future. The BDCP is being developed to contribute to species recovery consistent with its permitting approach under the NCCP/HCP laws.

The issuance of ESA permits is a discretionary action subject to the California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA). Both CEQA and NEPA are designed to ensure that the potential environmental impacts of proposed activities are disclosed to decision-makers and the public before the activities are approved. For proposed activities having the potential to significantly affect the environment, CEQA and NEPA require the preparation of an Environmental Impact Report (EIR) and Environmental Impact Statement (EIS), respectively. When both state and federal ESA permits are necessary, and to provide consistency, the state and federal lead agencies can agree to prepare a single joint environmental review document known as an EIR/EIS. Both CEQA and NEPA require certain procedures be followed during the

environmental review process, including establishing environmental baselines, public noticing and review of documents.

Discussion

ESA Permitting Process

The BDCP is a joint HCP/NCCP designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework. It is intended to result in the issuance of long-term state and federal ESA permits for the operation of the State Water Project (SWP) and Central Valley Project (CVP). Permits covering 57 species (30 currently listed as endangered or threatened) are expected to be issued by the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service. The BDCP permits will allow specific activities affecting certain species to occur within a specified geographic area over a 50-year period.

The BDCP consists of 22 separate Conservation Measures (CMs), each designed to collectively contribute to the overall BDCP planning goals of ecosystem recovery and water supply reliability.

1	Water facilities and operations (<i>North Delta Diversion</i>)
2	Yolo bypass fisheries enhancement
3	Natural communities protection and restoration
4	Tidal natural communities restoration
5	Seasonally inundated floodplain restoration
6	Channel margin enhancement
7	Riparian natural community restoration
8	Grassland natural community restoration
9	Vernal pool and alkali seasonal wetland complex restoration
10	Nontidal marsh restoration
11	Natural communities enhancement and management
12	Methylmercury management
13	Invasive aquatic vegetation control
14	Stockton deep water ship channel dissolved oxygen levels
15	Reduction of predatory fishes
16	Nonphysical fish barriers
17	Illegal harvest reduction
18	Conservation hatcheries
19	Urban storm water treatment
20	Recreational users invasive species program
21	Nonproject diversions
22	Avoidance and minimization measures

As described at last month's Imported Water Committee meeting, part of the BDCP permitting process involves a science-based decision tree that will inform the permitting agencies on how to set the initial operation of the North Delta Diversion (CM 1). The BDCP process requires portions of CMs 2 through 22 to be implemented and monitored before the water facilities are operable. The

working hypothesis is that implementation of these conservation measures will enhance the Delta ecosystem sufficient to alleviate regulatory requirements for increased Delta outflows. As was also discussed at the September 26, 2013 Committee meeting, the amount of fresh water required to flow out of the Delta and into San Francisco Bay is a key factor in species and ecosystem protection, and also has the greatest effect on the amount of water supply that is available for export to Central and Southern California. Because of the direct linkage between Delta outflow and Delta exports, the regulatory agencies are taking an incremental approach to setting operating criteria based on additional scientific research and actual operating data.

The ESA permits cannot be issued until the CEQA and NEPA processes are concluded. Once the EIR/EIS is certified/adopted, the permit applicants and permitting agencies will execute an Implementing Agreement (IA) that describes the roles and responsibilities of each signatory to implement the various BDCP provisions. Concurrent with execution of the IA, the permitting agencies will make required biological findings for each species and issue their separate ESA permits. In order to issue permits, the permitting agencies must be assured that adequate financial resources are designated to implement BDCP measures. Once permits are issued, from the perspective of the state and federal ESA, the conservation measures contemplated by the BDCP can be initiated. It is anticipated, given the high priority state and federal agencies have placed on the BDCP, that ESA permits will be issued and the IA will be executed concurrent with completion of the CEQA/NEPA process or shortly thereafter. More information on the BDCP approval process and implementation can be found in a separate Imported Water Committee memo titled, *Bay-Delta Conservation Plan Implementation and Evaluation of Portfolio Alternative*.

However, to actually begin implementation of the conservation measures, additional permits must be acquired to comply with numerous other federal and state laws governing construction and operation activities (Clean Water Act, Clean Air Act, Rivers and Harbors Act, Porter-Cologne Water Quality Control Act, Coastal Zone Management Act, etc.). In addition, the State Water Resources Control Board (SWRCB) is updating its San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan. The 2009 Delta Reform Act specified that construction of the BDCP facilities cannot commence until the SWRCB approves the necessary changes in the point of diversion and associated Delta flow criteria, which the updated Bay-Delta Water Quality Control Plan would cover.

If implemented as planned, the BDCP should negate the need for any additional state and federal ESA permits for 50 years. Until the new conveyance facilities have been constructed and are operational, the state and federal project operations will continue to be governed under the existing biological opinions, which are presently being litigated. To help avoid continued litigation, and with the court's approval, the regulatory agencies and a group of stakeholders (state, federal, public water agencies, and environmental organizations) met to develop a robust science and adaptive management program that will inform the development and implementation of the Delta smelt and salmonid biological opinions, the BDCP, and other programs in the Delta. A joint status report is due to the court on February 15, 2014.

BDCP Environmental Review Process

Implementing proposed aspects of the BDCP will result in potentially significant impacts to the environment and must comply with the environmental review provisions of CEQA and NEPA. The

basic purpose of environmental review is to:

1. Inform governmental decision makers and the public about the potential significant environmental effects of proposed activities or actions;
2. Identify the ways that environmental damage can be avoided or reduced; and
3. Disclose to the public the reasons why a governmental agency approved the activity or action in the manner the agency chose if significant impacts are involved.

In addition, CEQA requires governmental agencies to prevent significant damage to the environment by requiring changes in the activity through the use of alternatives or mitigation measures when the government agency finds the changes to be feasible.

In the BDCP process, the lead agency for CEQA is the California Department of Water Resources (DWR); the lead agencies for NEPA are the U.S. Bureau of Reclamation (USBR), U.S. Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS). These agencies have agreed to prepare a joint EIR/EIS document that analyzes the potential environmental impacts of implementing the BDCP.

While minor differences exist, CEQA and NEPA share many procedural similarities that support joint document preparation. The general steps being followed by the BDCP agencies in the state and federal environmental review process, and their status, are shown below.

CEQA	STATUS	NEPA
Review for Exemption	Complete	Review for Exemption
Initial Study	Complete	Environmental Assessment
Decision to prepare EIR	Complete	Decision to prepare EIS
Notice of Preparation	Complete	Notice of Intent
Scoping	Complete	Scoping
Administrative Draft EIR ¹	Complete	Administrative Draft EIS ¹
Draft EIR	Nov. 15, 2013	Draft EIS
State Clearinghouse Review	Nov. 15, 2013	EPA Filing; Federal Register Notice
Public and Agency Review of EIR	Nov. 15, 2013 to March 15, 2014	Public and Agency Review of EIS
Public and Agencies submit comments	March 15, 2014	Public and Agencies submit comments
Final EIR, includes responses to public comments	Fall 2014	Final EIS, includes responses to public comments
Review of Responses by Commenting Agencies	Fall 2014	Public and Agency Review of Final EIS; EPA Filing; Federal Register Notice
Lead Agency Decision (DWR)	Winter 2014	Lead Agency Decision (USBR, USFWS, NMFS)
Findings; Statement of Overriding Consideration, Mitigation Monitoring & Reporting Program	Winter 2014	Record of Decision

Legal Challenge Period 30 days after filing of Notice of Determination by DWR	To Be Determined	Legal Challenge Period 6 years after Record of Decision by USBR, USFWS, and NMFS per Administrative Procedures Act
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¹ The Administrative Draft EIR/EIS was provided to the public for informal review. This step is not required by either CEQA or NEPA.

Both the state and federal lead agencies have the legal authority to complete the environmental review process without approval or confirmation from a legislative body. Similarly, in regards to the ESA permits and approval of the NCCP/HCP, the state and federal wildlife agencies have the legal authority to issue those permits and are also not required to obtain approval from any legislative body. Therefore, under existing law, both the environmental review process and permitting process can be completed administratively by the agencies involved with no further approvals required. However, actions undertaken by the legislature could result in additional legislative oversight and review of actions, if not additional direct approval authority. In addition, both CEQA and NEPA provide that environmental documents and ESA permits can be legally challenged under federal and state law after issuance.

While the BDCP contains 22 separate CMs, the EIR/EIS only analyzes CM 1 (Water Facilities and Operations) in sufficient detail to allow construction and operation. The remaining 21 CMs are examined programmatically and will require additional CEQA and/or NEPA review before implementation. Some of these conservation measures may be exempt from additional environmental review and implemented rather quickly. Others, (e.g., larger habitat restoration projects) may require preparation of additional EIR/EIS documents before land-disturbing activities can commence.

Other local, state, and federal agencies will rely on the completed EIR/EIS documents when granting permits, approving funding, or directly participating in aspects of the BDCP. These agencies will need to make independent findings that the relevant environmental documents adequately analyze the potential impacts that may result from their decision to participate in the BDCP. For some of those permits, specifically state water and air quality related permits; approval of the EIR/EIS by an appointed or elected body may be required depending on the nature of the permit. This is the typical process the Water Authority went through for its NCCP/HCP, and the same process as for any major capital improvement project.

Baseline

In previous memos and at Committee meetings, staff has mentioned the importance and use of baselines in the environmental review process and in determining the incremental water supply improvements of the three Delta fix options with new north Delta conveyance. The baseline for water exports is used to estimate how much water can continue to be exported under current conditions using the existing through-Delta conveyance facilities (without any new north delta diversion capacity). To effectively evaluate the effects of a proposed project, it is important to establish a baseline against which to compare the adverse or beneficial impacts that might result if the project is approved. The significance of impacts is determined by comparing the proposed project (and alternatives) to this baseline.

Board members and others have asked questions as to the use of different baseline amounts of water supply exports in the EIR/EIS and in the analysis of economic benefits contained in BDCP Appendix 9A *Economic Benefits of the BDCP and Take Alternatives*. In last month's Imported Water Committee meeting, staff described export yields in BDCP Appendix 9A, where the same Delta outflow criteria is applied to the three north Delta conveyance alternatives and the existing through-Delta conveyance alternative, to show the relative benefits from the various conveyance sizes in an "apples to apples" comparison of water supply yield. Staff utilized the baseline data from BDCP Chapter 9 *Alternatives to Take* and Appendix 9A because it was the only BDCP related analysis that applied the same operating criteria (high Delta outflow scenario) to the different size north delta conveyance capacities being evaluated. As noted at the September Committee meeting, operating criteria is crucial to determining the amount of water supply that could be exported by the different conveyance alternatives. Since the Appendix 9A economic benefits analysis applied the high Delta outflow scenario to all the conveyance alternatives, it was the only way to compare the alternatives on an "apple to apples basis" as requested by the Board at the August Special Meeting of the Imported Water Committee.

Baseline Used in EIR/EIS

Baseline has a specific meaning under CEQA. The baseline used for environmental analysis under CEQA may be different than the baseline used for other types of analyses (for example, economic benefits analysis). Under CEQA, the baseline is normally "the physical environmental conditions in the vicinity of the project as they exist at the time the notice of preparation is published" (CEQA Guidelines §15125). However, the California Supreme Court has recently clarified that a departure from this norm can be justified if an analysis based on existing conditions would tend to be misleading or without informational value to EIR users. NEPA is not so specific, but states that the assessment of impacts should include the "environment of the areas to be affected or created by the proposed action" (40 CFR §1502.15). In simple terms, the baseline is typically considered the condition of the environment for purposes of evaluating the environmental effects of a proposed project.

Sometimes, using the normal "existing conditions" baseline could be misleading. Therefore, regulations provide that where environmental conditions will change regardless of whether the project proceeds or when project implementation stretches over a long time period, the baseline should identify and include those changes so as to not analyze artificial conditions that assume the existing physical environment will be preserved. Where the surrounding physical conditions existing at the time of environmental review may vary independent of the project over the course of project implementation, the baseline for evaluating the project's significant impacts on the environment should reflect those variances.¹

In the BDCP EIR/EIS, the baselines used for impact analysis under CEQA and NEPA are slightly different. Both include continued operation of the State Water Project and Central Valley Project under current criteria as modified by the more restrictive conditions placed on

¹ The California Supreme Court's opinion in *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority*, decided in August 2013, has provided judicial guidance for making determinations of baselines under CEQA.

south Delta pumping contained in the 2008 and 2009 biological opinions, as well as facilities, programs, and projects in effect in 2009. The primary difference between the two baselines relates to the fall salinity standard described in the 2008 delta smelt biological opinion; it is excluded from the CEQA baseline, but included in the NEPA baseline. Use of the fall salinity standard would increase the amount of fresh water flowing out of the Delta to San Francisco Bay (Delta outflow) as a measure to protect fish species and results in a reduction in the amount of fresh water that can be diverted by the CVP and SWP (delta exports). As described at the September Imported Water Committee meeting, the effect of the fall salinity standard is similar to the high outflow operating scenario used in Chapter 9 and Appendix 9A to compare supply yields from the different alternatives. Any actions that increase Delta outflow will reduce Delta water supply exports.

DWR, as the CEQA lead agency, determined that there was too much uncertainty over implementation of the fall salinity standard prior to BDCP approval and, therefore, it should be excluded from the baseline. Under the CEQA baseline, less restrictive Delta outflow criteria were used, which resulted in slightly higher water supply diversions to the CVP and SWP. These same concerns did not exist for NEPA, so the fall salinity standard was included and resulted in less available water supply for the NEPA baseline. The NEPA baseline also includes the effects of a higher Delta outflow to offset expected climate change and sea level rise through the year 2060, which were factors excluded under CEQA using the same rationale as for the salinity standard. As it relates to the BDCP, the difference in baselines may not materially affect the environmental analysis since at least one of the baselines contains a more comprehensive look at reasonably expected future conditions. However, the choice of baseline can greatly affect the scope and nature of obligations imposed on a project to mitigate environmental impacts it may cause.

As noted in previous memos to the Imported Water Committee on this subject, the QSA EIR used both an existing and predicted future condition in establishing baselines. This approach was upheld by Judge Lloyd Connelly when he issued the final trial court decision in the QSA litigation earlier this year. Because the evidence showed that salinity of the Salton Sea would continue to increase in the absence of the QSA water transfers, an adaptive management program was developed to assure that mitigation of Salton Sea impacts was directly related to the water transfers as they occur and not based on the conditions that existed at the time the EIR was developed. In light of the Supreme Court's decision (see Footnote 1, Page 6), DWR may be justified in reconsidering the use of scientifically predicted future environmental conditions in the CEQA baseline, including the fall salinity standard, climate change, and sea level rise. This would make the CEQA and NEPA baselines virtually identical. However, use of the future baseline for CEQA purposes may not materially change the project or its cost.

The key question is whether the use of any baseline, either the current condition or a future predicted baseline that shows continuing diminishment of export yield, makes a substantive difference in the BDCP alternatives and cost of mitigation. It is important to remember that the BDCP is a habitat conservation plan, and not the typical "impact and mitigation" paradigm of most projects. The BDCP is designed to contribute to the recovery of species, while at the same time provide more operational certainty for water exports. While the north Delta diversions and

twin tunnels (CM 1) appear to be a traditional water facility project, it really is a means to reduce impacts to species and habitats resulting from water exports in the south Delta. The BDCP establishes a direct positive relationship between the extent of species recovery and allowable water exports. In other words, to ensure a certain export amount, a certain amount of species recovery must be demonstrated. This is the primary manner in which the co-equal goals of water supply reliability and ecosystem restoration are achieved.

Because some of the BDCP CMs contemplate physically altering the existing environment (e.g., building diversion structures, tunnels, various native habitats, etc.), the conservation plan consists of two main components: 1) traditional mitigation for direct and indirect impacts resulting from BDCP construction and operational activities, and 2) additional species and habitat restoration that contributes to recovery. Since the BDCP describes the overall habitat conservation goals required by the permitting agencies, the EIR/EIS baseline really only becomes useful in assigning mitigation responsibility to the water contractors for CM 1 impacts. The direct impacts of the facilities being built under CM1 and its related mitigation are not significant when compared to the entire restoration effort and it is unknown where a change in the baseline used to measure those impacts and assign cost responsibility are substantive. For the remainder of the CMs, the EIR/EIS baseline does not materially affect the total amount of habitat and species restoration to be accomplished by the BDCP in order to contribute to the higher conservation standard of HCP/NCCP.

Baseline Used In Economic Benefits Analysis

As discussed in last month's memo to the Imported Water Committee, the economic benefits analysis included in BDCP Appendix 9A was conducted as part of the take alternatives analysis described in BDCP Chapter 9. The economic benefits analysis is completely separate and distinct from the environmental analysis; generally, economic impacts are not an environmental issue that needs to be addressed in the EIR/EIS. Therefore, an economic analysis is not required to use the EIR/EIS baseline. The BDCP economic benefits analysis was conducted from the perspective of a water supply agency and used the high Delta outflow scenario for all alternatives, including the existing through-Delta conveyance alternative. Water Authority staff used this same analysis to compare export yields provided by the different conveyance alternatives. As was noted last month, the high outflow scenario imposes more conservative operating criteria and results in greater restrictions on export yield. The high Delta outflow scenario is also used in the decision tree process, which is part of the preferred alternative included in the EIR/EIS. However, the high Delta outflow operating scenario was not utilized in the EIR/EIS baselines.

There have been questions raised in different forums as to whether it is appropriate for the high Delta outflow scenario to be applied to the existing through-Delta conveyance alternative. As stated in BDCP Chapter 9,

“...without the BDCP, covered fish populations are expected to continue to decline. To arrest those declines, operational constraints proposed by BDCP to protect native fish such as high outflow scenario of the decision tree and more protective south Delta operations could be imposed on the existing infrastructure.”

Water Authority staff confirmed with BDCP technical staff that the high outflow criteria was proposed by the permitting agencies and would be the method used to protect species and achieve water quality objectives under all future conditions being evaluated, including a scenario consisting solely of the existing through-Delta conveyance facilities. For economic benefit analysis purposes, using the more conservative assumption of export quantity may be appropriate. However, this assumed scenario may not reflect actual future conditions, which will entirely depend on BDCP implementation success. A comparison of criteria used in the baselines for continued operation of the existing conveyance without additional north Delta diversion is summarized below, along with expected annual export yield.

Document	High Outflow	Environmental Conditions	Fall Salinity Standard	Yield (MAFY)	
				BDCP	No BDCP
EIR/EIS	EIR: N EIS: N	EIR: Existing EIS: Future	EIR: N EIS: Y	4.7 – 5.6	4.7
Economic Benefits Analysis	Y	Future with more Delta outflow	Y	4.7 – 5.6	3.4 – 3.9

As noted above in the section on EIR/EIS baseline, the use, or not, of the high Delta outflow scenario in the EIR/EIS baseline may be immaterial to the ultimate selection of an alternative or the overall cost of the BDCP restoration. At present, staff has not reviewed the underlying assumptions for the fishery agencies’ determination to use the high outflow criteria in the preferred alternative decision tree process. Release of the public review Draft EIR/EIS may provide additional information as to why this criterion was not utilized in the environmental baseline. Regardless of its absence from an environmental baseline, its use is not precluded when examining the range of possible economic benefits and identifying the water supply yield of the existing through Delta conveyance.

Next Steps

The BDCP documents are scheduled for formal public release in mid-November 2013. Staff will review for changes from the previous draft and confirm validity of prior analysis. Staff will prepare a draft comment letter for review by the Board at the February 2014 meeting and will request Board consideration to submit a formal comment letter prior to the March 15, 2014 close of the public comment period.

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