Chapter 33
Other CEQA-Required Analyses

This chapter provides an overview of other California Environmental Quality Act (CEQA) considerations based on the technical analyses presented in Chapters 7 through 32. This chapter presents the Delta Conveyance Project (project) alternatives' significant irreversible and irretrievable changes, and the short-term uses versus long-term productivity of resources. The chapter provides a discussion of the CEQA environmentally superior alternative and how it is evaluated in this Draft Environmental Impact Report (Draft EIR). This chapter also addresses a non-CEQA topic, "public trust" considerations, which may be relevant to the proposed project under California law.

33.1 Irretrievable Commitments of Resources and Significant Irreversible Environmental Changes

State CEQA Guidelines (14 California Code of Regulations § 15126.2c) require analysis of significant irreversible environmental changes (impacts) and irretrievable commitments of resources that would be caused by the proposed project. This section fulfills the CEQA requirement to evaluate irretrievable commitments of resources to ensure that their use is justified.

Irreversible impacts are those that cause, through direct or indirect effects, use or consumption of resources in such a way that they cannot be restored or returned to their original condition despite mitigation, or that commit future generations to similar uses. An *irretrievable commitment* of resources occurs when a resource is removed or consumed. These types of impacts are evaluated to inform the California Department of Water Resources (DWR) decision whether to approve the proposed project in light of that consumption.

All of the project alternatives would involve a commitment of a range of natural, physical, and fiscal resources as follows.

- Nonrenewable resources such as gasoline and diesel oil would be used to power construction equipment and vehicles.
- Wood products, a resource that renews slowly, would be used during construction.
- Aggregate would be needed to produce concrete for conveyance facilities and other project facilities.
- Fossil fuels would also be used to produce cement, aggregate, steel, and petroleum-based products, and other construction materials.
- Nonrenewable energy resources would be necessary to operate trucks, pumps, and equipment used for operations and routine maintenance.
- Additional electrical power from a renewable resource would be dedicated to lighting and operations of other equipment.
- Additional electrical power would be necessary to operate electric vehicles to shuttle construction workers to work sites from park-and-ride lots.

- Additional electrical power would be necessary to operate electricity-powered equipment during construction. Renewable energy sources and appropriate conveyance facilities would be evaluated and pursued as well as use of electricity driven construction equipment.
- Additional electrical power would be necessary to operate the pumps at the South Delta Pumping Plant (central and eastern alignments) or Bethany Reservoir Pumping Plant (Bethany Reservoir alignment, Alternative 5) to transport water through the project facilities.
- Land that would be physically altered by construction of the intakes, forebays, conveyance facilities, and compensatory mitigation would be committed to the new use for the foreseeable future, representing a permanent commitment of the land and decreasing the amount of open land available for other uses. Depending on the alternatives, approximately 550 to 1,600 acres of land variously designated as agricultural, residential, commercial/industrial, public, and recreational/open space would be temporarily altered and between 2,000 to 3,000 acres permanently altered. Access to the acquired lands would be limited to authorized personnel, and public access would be restricted.
- Any construction would require a substantial one-time expenditure of funds for the costs of construction, compensation for land purchases, and right-of-way/acquisition. The project alternatives would also require funding for operation and periodic maintenance in perpetuity.
- An increased commitment of public maintenance services (e.g., increased road maintenance due to increases in construction traffic, new electrical utility services, and for operation and maintenance of conveyance facilities) would also be required.

33.2 Environmentally Superior Alternative

Section 15126.6(e) of the CEQA Guidelines sets forth the circumstances in which CEQA lead agencies must identify the "environmentally superior alternative" prior to deciding on a project.

> (2) If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

The CEQA Guidelines assume that, for many proposed projects, the No Project Alternative will be environmentally superior to alternatives that involve carrying out a proposed project in some form. This assumption presumably reflects the fact that, in many instances, the choice of doing nothing (e.g., leaving land undeveloped rather than developing it) will result in fewer environmental impacts than choices involving taking actions of some kind. Under Section 15126.6(e), lead agencies in such circumstances are required, as quoted above, to "identify an environmentally superior alternative among the other alternatives." Each of the project alternatives involves different sets of environmental tradeoffs affecting vast portions of California (not only the study areas, but also the export areas). Unlike many other environmental laws, CEQA does not treat any category of environmental effect as being more important than any other category. Thus, the process for reaching an overall determination under CEQA as to the environmental superiority of a particular alternative action requires the balancing of different sets of environmental benefits and impacts against each other. There is no clear direction under CEQA for how to engage in such balancing to identify an environmentally superior project alternative in an EIR.

As described in Chapter 4, *Framework for the Environmental Analysis*, the No Project Alternative analyses evaluate a scenario that includes climate change and sea level rise, as well as projects that

may occur within the State Water Project (SWP) service area if the Delta Conveyance Project does not move forward. The No Project Alternative would not result in the construction or operational related impacts discussed for the project alternatives but could result in impacts within the SWP service area and within the Delta that would not occur under the project alternatives.

The following discussion describes what DWR regards as the environmental pros and cons among the various project alternatives analyzed in this Draft EIR by synthesizing the analysis of several of the environmental impacts discussed in Chapters 7 through 32. Such analysis is intended to contribute to informed public participation and informed decision making.

As described in Chapter 2, *Purpose and Project Objectives,* the project alternatives evaluated in this Draft EIR have the following objectives.

- To help address anticipated rising sea levels and other reasonably foreseeable consequences of climate change and extreme weather events.
- To minimize the potential for public health and safety impacts from reduced quantity and quality of SWP water deliveries, and potentially Central Valley Project (CVP) water deliveries, south of the Delta as a result of a major earthquake that could cause breaching of Delta levees and the inundation of brackish water into the areas where existing SWP and CVP pumping plants operate in the southern Delta.
- To protect the ability of the SWP, and potentially the CVP, to deliver water when hydrologic conditions result in the availability of sufficient amounts of water, consistent with the requirements of state and federal law, including the California and federal Endangered Species Acts and Delta Reform Act, as well as the terms and conditions of water delivery contracts and other existing applicable agreements.
- To provide operational flexibility to improve aquatic conditions in the Delta and better manage risks of further regulatory constraints on project operations.

The project alternatives would reduce reliance on diversion from the existing south Delta pumps. Diversions at the project's north Delta facilities would pass through state-of-the-art fish screens. Dual conveyance would provide operational flexibility that could reduce impacts on aquatic species by, among other things, allowing operators to divert water at times and places—in either the north or the south—that protect those species at sensitive life stages.

The No Project Alternative would leave the SWP system subject to potentially catastrophic consequences in the event of a major earthquake leading to levee breaks, inundation of Delta islands, and prolonged disruptions of exports that could require environmentally damaging emergency measures south of the Delta to provide water. Even in the absence of an event that catastrophically alters the hydrology of the Delta, climate change and anticipated sea level rise could be expected to gradually limit the operation of the SWP water pumps in the south Delta. Consequently, additional releases from upstream reservoirs are expected to be necessary to provide the fresh water needed to meet current salinity standards. In addition, it is expected that the ecological health of the Delta will continue to decline. While water users have previously relied on groundwater to supplement surface water supplies, groundwater pumping is now limited by the Sustainable Groundwater Management Act requirements, further reducing the available options for meeting water supply demands. As described in in the No Project Alternative discussions in Chapters 7 through 32, water managers in urban export areas could respond to diminished deliveries by taking other actions, such as the construction of desalination plants, that would create

their own negative environmental effects, including consumption of large amounts of greenhouse gas-generating fossil fuels, brine discharge, and potential entrainment of marine species.

The No Project Alternative would also avoid many of the construction impacts identified for the project alternatives in Chapters 7 through 32 including among others, conversion of agricultural lands, changes in plant and wildlife habitat, effects on special-status species and potential nuisances associated with air quality, noise, and transportation changes in the Delta. Project alternative effects on Delta hydrodynamics, water quality, and fish and aquatic resources would not occur and conditions would continue to be similar to existing conditions for these resources.

Each project alternative involves a different set of environmental benefits and impacts. For example, the number of north Delta intakes associated with particular alternatives and the alignment of project features typically reflects a balance between localized construction-related, visual, and footprint-related impacts in the Delta against the system-wide environmental benefits associated with improved reliability of SWP deliveries and meeting the project purpose and objectives. Alternatives with two intakes would involve fewer localized in-Delta impacts than alternatives with three intakes (Alternatives 2a and 4a). Other alternatives with two intakes (Alternatives 1, 2c, 3, 4c, and 5) or with one intake (Alternatives 2b and 4b) would similarly reduce localized, in-Delta impacts compared to alternatives with three intakes. However, alternatives with one intake (Alternatives 2b and 4b) would not have the water supply reliability benefits expected of alternatives with two or three intakes (Alternatives 1, 2a, 2c, 3, 4a, 4c, and 5).

Some of the environmental impacts related to temporary and permanent habitat or agricultural land conversion would be fewer for Alternatives 1, 2b, 2c, 3, 4b, 4c, and 5 than for Alternatives 2a or 4a, which would include three north Delta intakes. Alternatives with three intakes (Alternatives 2a and 4a) would result in the greatest number of acres of farmland conversion while alternatives with fewer intakes (Alternatives 1, 2b, 2c, 3, 4b, and 4c) or that would not involve construction of a new Southern Complex (Alternative 5) would have fewer acres of farmland conversion. Similarly, implementation of alternatives with three intakes (Alternatives 2a and 4a) would cause the greatest amount of conversion of Williamson Act contracted land compared to alternatives with one intake (Alternatives 2b and 4b), which would result in the least amount of conversion of Williamson Act contracted land. Alternative 4b would have relatively fewer terrestrial biological impacts, and for some resources, would have the fewest quantified impacts of all alternatives (e.g., valley/foothill riparian, greater and lesser sandhill cranes) primarily due to having only one intake and the associated smaller reusable tunnel material (RTM) impacts. Because Alternative 5 does not require construction of a new Southern Forebay and a new South Delta Pumping Plant, it would affect substantially fewer acres of wetlands compared to all other alternatives. Alternative 5 would also have substantially fewer impacts on state- and federally regulated aquatic resources compared to the other project alternatives.

For some environmental resources analyzed, the project alignment and features drive the overall impacts in addition to the number of intakes. For cultural resources, alternatives on the central alignment (Alternatives 1, 2a, 2b, and 2c) affect a greater number of built-environment historical resources than alternatives on the eastern or Bethany Reservoir alignments(Alternatives 3, 4a, 4b, 4c, and 5). The central alignment alternatives (Alternatives 1, 2a, 2b, and 2c) would generally result in greater impacts on terrestrial biological resources relative to the eastern alignment alternatives (Alternatives 3, 4a, 4b, and 4c) and the Bethany Reservoir alignment alternative (Alternative 5), which is largely due to the improvements on Bouldin Island and road improvements throughout the central alignment. Among all alternatives, Alternative 5 would result in the least amount of

converted farmland because it does not require construction of a new Southern Complex and Southern Forebay.

The construction of the Southern Complex for Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c is another important variable that contributes to localized impacts. Alternative 2a would result in the greatest impacts on terrestrial biological resources, which would be primarily due to the construction activities on Bouldin Island and the Southern Complex, whereas Alternative 5, which does not require the construction of a forebay, would have the fewest impacts on terrestrial biological resources, wetlands, and waters of the United States. For cultural resources, Alternative 5 on the Bethany Reservoir alignment would affect the fewest eligible built-environmental historical resources and fewest archaeological sites compared to all other project alternatives because it would not require construction of a new forebay. Alternative 5 would result in the fewest acres with land use incompatibilities compared to all other alternatives that require construction of the Southern Forebay at the Southern Complex.

Despite the past and ongoing environmental issues associated with south Delta exports, there could be some advantages that would occur under all project alternatives because of the operational flexibility that would be possible with the the north Delta intakes. The addition of north Delta intakes to the existing diversion facilities in the south would provide system operators the flexibility to divert water from the north or south depending on which is better for species at different times of year and under different hydrological conditions. Dual conveyance also allows flexibility in water diversions when regulatory restrictions limit the ability to divert water from either the north or south, thus enabling the goal of increasing water supply reliability.

All of the project alternatives would create temporary and permanent changes to the Delta environment from construction that in many cases would be mitigated to less-than-significant levels, although several impacts are considered significant and unavoidable. All of the project alternatives would also improve Delta roadways and bridges, and improve water supply infrastructure that is of statewide importance.

As described above, there are different sets of environmental tradeoffs among the project alternatives. Among the project alternatives evaluated in this Draft EIR, Alternative 5, on the Bethany Reservoir alignment, lessens impacts in relation to temporary and permanent effects on the Delta environment, including minimizing impacts on wetlands and other waters of the United States, agriculture, and cultural and historical resources. Therefore, of the project alternatives, Alternative 5 appears to be the environmentally superior alternative.

33.3 Public Trust Considerations

33.3.1 Public Trust Doctrine

Actions by state agencies involving the planning and allocation of water resources could implicate the common law *public trust doctrine*.[1] The doctrine "is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the

[1] *National Audubon Society v. Superior Court* (1923) 33 Cal.3d 419, 446 (*National Audubon*).

purposes of the trust."[2] The "traditional triad" of public trust uses includes navigation, commerce, and fishing on navigable waters.[3] The doctrine could extend to actions on unnavigable tributaries of navigable waters that adversely affect those navigable waters.[4] Protection of recreational and ecological values "is among the purposes of the public trust."[5]

> [T]raceable to Roman law, [the doctrine] rests on several related concepts. First, that the public rights of commerce, navigation, fishery, and recreation are so intrinsically important and vital to free citizens that their unfettered availability to all is essential in a democratic society. "An allied principle holds that certain interests are so particularly the gifts of nature's bounty that they ought to be reserved for the whole of the populace.... Finally, there is often a recognition … that certain uses have a peculiarly public nature that makes their adaptation to private use inappropriate. The best known example is found in the rule of water law that one does not own a property right in water in the same way he owns his watch or his shoes, but that he owns only an usufruct—an interest that incorporates the needs of others. It is thus thought to be incumbent upon the government to regulate water uses for the general benefit of the community and to take account thereby of the public nature and the interdependency which the physical quality of the resource implies."[6]

The public trust doctrine does not operate as an absolute protection of the resources that come under its ambit. Under the doctrine, the State has an "affirmative duty" to "protect public trust uses whenever *feasible*."[7] "[B]oth the public trust doctrine and the water rights system embody important precepts which make the law more responsive to the diverse needs and interests involved in the planning and allocation of water resources. To embrace one system of thought and reject the other would lead to an unbalanced structure, one which would either decry as a breach of trust appropriations essential to the economic development of this state, or deny any duty to protect or even consider the values promoted by the public trust."[8] Thus, "[a]s a matter of practical necessity, the state may have to approve appropriations despite foreseeable harm to public trust uses. In so doing, however, the state must bear in mind its duty as trustee to consider the effect of the taking on the public trust," and "to preserve, so far as consistent with the *public interest*, the uses protected by the trust."[9]

Similar principles apply to agency actions affecting fish and wildlife in California. The California Supreme Court has recognized "two distinct public trust doctrines"—"the common law doctrine, which involves the government's 'affirmative duty to take the public trust into account in the planning and allocation of water resources'" and "a public trust duty derived from statute, specifically California Fish and Game Code section 711.7, pertaining to fish and wildlife."[10] The court observed that "[t]here is doubtless an overlap between the two public trust doctrines—the protection of water resources is intertwined with the protection of wildlife," though "the duty of

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[2] *Ibid.* at p. 441.

[3] *Ibid*. at p. 434.

[4] *Ibid.* at p. 437.

[5] *Ibid*. at p. 435.

[6] *Zack's Inc. v. City of Sausalito* (2008) 165 Cal.App.4th 1163, 1175–1176, quoting Sax, The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention, 68 Mich. L.Rev. 471, 484–485, citations, paragraph breaks, and footnotes omitted.

[7] *National Audubon*, *supra*, 33 Cal.3d at p. 446, italics added.

[8] *Ibid.* at p. 445.

[9] *Ibid.,* italics added.

[10] *Environmental Protection and Information Center v. California Dept. of Forestry & Fire Protection* (2008) 44 Cal.4th 459, 515 (*EPIC*).

government agencies to protect wildlife is primarily statutory."[11] "[W]hatever its historical derivation, it is clear that the public trust doctrine encompasses the protection of undomesticated birds and wildlife. They are natural resources of inestimable value to the community as a whole."[12]

In this second context, the California Supreme Court mentioned two particular provisions of the California Fish and Game Code: Sections 711.7 and 1801. Subdivision (a) of the former statute provides that "fish and wildlife resources are held in trust for the people of the state by and through the [D]epartment [of Fish and Wildlife]." The latter provision declares that it is "the policy of the state to encourage the preservation, conservation, and maintenance of wildlife resources under the jurisdiction and influence of the state," and sets forth several objectives consistent with that policy. Among them are "[t]o provide for economic contributions to the citizens of the state, through the recognition that wildlife is a renewable resource of the land by which economic return can accrue to the citizens of the state, individually and collectively, through regulated management"(California Fish and Game Code [Cal. Fish & G. Code] § 1801(f)). Notably, though, the general policy set forth in Section 1801 "is not intended [to] … provide any power to regulate natural resources or commercial or other activities connected therewith, except as specifically provided by the Legislature" (Cal. Fish & G. Code § 1801(h)). To find such authority, courts "will look to the statutes protecting wildlife to determine if DF[W] or another government agency has breached its duties in this regard."[13] One such statute is Fish and Game Code Section 2081, which authorizes the issuance of incidental take permits for endangered and threatened species.[14] By analogy, another such statute is Fish and Game Code Section 2820, which authorizes California Department of Fish and Wildlife (CDFW) to approve natural community conservation plans.[15]

Although the legal principles are well established, "[t]here is no set 'procedural matrix' for determining state compliance with the public trust doctrine."[16] In general, however, "evaluating project impacts within a regulatory scheme like CEQA is sufficient 'consideration' for public trust purposes."[17] CEQA requires the imposition of all *feasible* means of reducing the severity of significant environmental effects, including those on water-related resources, including fish, and on wildlife species and their habitats (Public [Pub.] Resources Code § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2)). Where governmental action authorizes the *private* use of public trust resources, however, CEQA compliance may not be enough; specific findings separately addressing public trust considerations may be necessary.[18]

The project alternatives set forth in this Draft EIR all involve proposals by which DWR—a public agency—would add new points and diversion and alter the system operations by which they

[11] *Ibid.*

[12] *Center for Biological Diversity, Inc. v. FPL Group, Inc.* (2008) 166 Cal.App.4th 1349, 1363 (*CBD*).

[13] *EPIC*, *supra*, 44 Cal.4th at p. 515.

[14] *Ibid.*

[15] See also *CBD*, supra, 166 Cal.App.4th at pp. 1359–1364; Cal. Fish & G. Code §§ 1802, 2000, 2052, 3503.5, 3511, 3513, 3800, 12000.

[16] *San Francisco Baykeeper, Inc. v. State Lands Commission* (2015) 242 Cal.App.4th 202, 234 (*SF Baykeeper*), quoting *Citizens for East Shore Parks v. California State Lands Commission* (2013) 202 Cal.App.4th 549, 576 (*Citizens for East Shore Parks*).

[17] *Citizens for East Shore Parks*, *supra*, 202 Cal.App.4th at pp. 576–577, citing *National Audubon*, *supra*, 33 Cal.3d at p. 446, fn. 27, and *Carstens v. Coastal Commission* (1986) 182 Cal.App.3d 277, 289–291.

[18] *SF Baykeeper*, *supra*, 242 Cal.App.4th at pp. 241–242 (leases authorizing a private lessee to mine sand from the San Francisco Bay).

provide water to other public agency customers. This Draft EIR, then, sets forth sufficient analyses for allowing DWR, as lead agency, to consider the public trust doctrines. The Draft EIR should also assist both the State Water Resources Control Board and CDFW, as CEQA responsible agencies, to satisfy their own obligations under both the common law public trust doctrine and the statutory public trust doctrine aimed at protecting wildlife and fish species.

33.3.2 Public Trust Doctrine Considerations

Compliance with CEQA, and with its mandate to mitigate significant environmental effects to the extent feasible (Pub. Resources Code § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2)), tends to ensure compliance with the public trust doctrine, at least with respect to public projects involving public use of public trust resources.[19] The public trust doctrine gives the State an "affirmative duty" to project public trust uses whenever *feasible*.[20]

Throughout the CEQA process, DWR as CEQA lead agency has gone to considerable lengths to design the project to avoid impacts as well as develop environmental commitments and mitigation measures intended to reduce otherwise significant environmental effects to less-than-significant levels whenever feasible. These effects include effects on the following public trust resources: water quality, fish and aquatic resources, terrestrial biological resources, in-water recreational resources, and public lands. In this Draft EIR, these topics are addressed in Chapter 9, *Water Quality*; Chapter 12, *Fish and Aquatic Resources*; Chapter 13, *Terrestrial Biological Resources*; and Chapter 16, *Recreation.* All of the impacts on these resources can be mitigated to less-than-significant levels, resulting in protection of the public trust resources.

33.3.3 Conclusion

The guiding principle of California's water law and policy is contained in Article X, Section 2, of the California Constitution. This section requires that all uses of the state's water be both reasonable and beneficial. It places a significant limitation on water rights by prohibiting the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water (California Department of Water Resources 2009:1).

The Delta Conveyance Project provides a way to protect water supply reliability and is grounded in concepts of efficiency and public benefit. The project also uses best available science for design and implementation. By implementing measures for increased efficiency and reliability of water delivery, the project would meet the State's responsibilities under the public trust doctrine, that water resources be put to beneficial use to the fullest extent of which they are capable (Wilson 2011:3).

Rights to use water are subject to the State's obligation under the public trust doctrine as trustee of certain resources for Californians. As explained previously, the public trust doctrine imposes responsibility on the state agencies to protect trust resources associated with California's waterways, including associated environmental and recreational benefits (California Department of Water Resources 2009:2).

[19] *Citizens for East Shore Parks*, *supra*, 202 Cal.App.4th at pp. 576-577, citing *National Audubon*, *supra*, 33 Cal.3d at p. 446, fn. 27; *Carstens v. Coastal Commission* (1986) 182 Cal.App.3d at pp. 277, 289–291; *SF Baykeeper*, *supra*, 242 Cal.App.4th at pp. 241–242 [leases authorizing a private lessee to mine sand from the San Francisco Bay].
[20] *National Audubon*, *supra*, 33 Cal.3d at p. 446, italics added.

In California, public trust principles are found in Article 10, Section 2, of the Constitution, regarding "reasonable and beneficial use," Section 4 regarding navigation, in the California Endangered Species Act, the California Fish and Game Code, and the California Water Code. When CDFW reviews and comments on this Draft EIR as well as when it considers whether to sign a management agreement under Section 1602 of the Fish and Game Code or approve an incidental take permit for the Delta Conveyance Project pursuant to Fish and Game Code Section 2081, CDFW will act as trustee of the people of California for the fish and wildlife of the state.[21] As discussed in Chapters 7 through 32 of this Draft EIR, the Delta Conveyance Project, after mitigation, will not have any significant unavoidable effects on public trust resources.

[21] While not specifically listed as a trustee agency in the CEQA Guidelines, the California State Water Resources Control Board will be evaluating the Draft EIR as a responsible agency in the Change in Point of Diversion process related to aquatic resources public trust issues within its jurisdiction.