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**CHAPTER 7**  
**PROJECT ALTERNATIVES**

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## **CHAPTER 7 PROJECT ALTERNATIVES**

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The California Environmental Quality Act requires that an EIR evaluate a “reasonable” range of alternatives to a Proposed Project that would feasibly attain most of the basic objectives of the project and would avoid or lessen any significant environmental impacts. EIRs are also required to evaluate the comparative merits of the alternatives. This chapter of the EIR describes and evaluates alternatives to the proposed East Highline Reservoir and Intake Channel Project and implements the requirements set forth in the CEQA Guidelines for alternatives analysis. This chapter also identifies the Environmentally Superior Project Alternative as required by CEQA Guidelines, Section 15126.6(e)(2).

### **7.1 RATIONALE FOR ALTERNATIVES SELECTION**

The Proposed Project was determined to result in potentially significant short-term impacts related to air quality, biological resources, cultural resources, and hazardous materials. However, with implementation of appropriate mitigation, all potentially significant impacts identified in the EIR would be reduced to less-than-significant levels, and it is fully anticipated that mitigation will appropriately occur. As a result, for the purposes of this document, these alternatives would only reduce potential impacts in severity, since all project impacts would be reduced to below levels of significance.

Section 15126.6(f) of the CEQA Guidelines states that “the range of alternatives in an EIR is governed by the ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.” The CEQA Guidelines provide several factors that should be considered in regard to the feasibility of an alternative. Those factors include: (1) site suitability; (2) economic viability; (3) availability of infrastructure; (4) general plan consistency; (5) other plans or regulatory limitations; (6) jurisdictional boundaries; and (7) whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site (if an off-site alternative is evaluated). This EIR analyzes a total of three alternatives: the No Project Alternative, a Reduced Size Reservoir Alternative, and an Alternative Intake Route. All of these are evaluated under Section 7.5, Alternatives Identified and Analyzed, of this chapter.

### **7.2 PROJECT OBJECTIVES**

The purpose of the Proposed Project is to augment IID’s current levels of operational flexibility while creating an additional tool to assist in meeting main-system and on-farm conservation program goals consistent with IID’s Water Conservation Plan. The Project is also consistent with the State of California’s water conservation objectives established under Executive Order B-37-

16 and the Reclamation Reform Act. The specific objectives for the Proposed Project are further described below.

- The Project will increase delivery flexibility and provide conservation opportunities within the district to accommodate in-valley water demand. These efforts are consistent with the objectives set forth in IID’s 2016 Water Conservation Plan. Mid lateral and off line reservoirs are an integral part of the IID System Conservation Program.
- The Project will help support IID’s 12-Hour Delivery Program via maximized operational storage capacity and flexibility, enabling farmers to match crop water requirements and conserve water. The reservoir will help balance supply-demand mismatches due in part to conveyance travel time, peak demands, unavailable storage, and rain events.
- The Project will provide consistency with the 2018 California Water Plan goals: Goal 2-Strengthen Resiliency and Operational Flexibility of Existing and Future Infrastructure; Goal 4-Empower California’s Under-Represented and Vulnerable Communities; and, Goal 6-Support Real-time Decision-making, Adaptive Management, and Long-term Planning.
- The Project will be in support of the Reclamation Reform Act of 1982 to “. . . encourage . . . consideration and incorporation of prudent and responsible water conservation measures . . . by . . . recipients of irrigation, municipal and industrial water . . .”

The specific project design objectives are described below.

- Optimal reservoir placement that will benefit the greatest number of downstream IID water users and on-farm water conservation efforts.
- Utilize a route with the most beneficial hydrologic conditions to accommodate gravity flow (i.e., avoiding/minimizing pumping).
- Minimize the length of the intake channel from AAC and the outflow channel to EHL Canal.
- Minimize displacement of existing IID and farming infrastructure.

### 7.3 SELECTION OF ALTERNATIVES

The range of alternatives and methods for selection is governed by CEQA and applicable CEQA case law. This chapter includes the range of project alternatives that have been considered by the lead agency (IID) for examination, as well as its reasoning for selecting these alternatives. As stated in Section 15126.6(a) of the CEQA Guidelines (14 CCR 15126.6(a)), there is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. This rule is described in Section 15126.6(f) of the CEQA Guidelines (14 CCR 15126.6(f)) and requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. As defined in Section 15126.6(f) of the CEQA Guidelines, the rule of reason limits alternatives analyzed to those that would avoid or substantially lessen one or more of the significant effects of a project. Of those alternatives, an EIR needs to examine in detail only the ones that the lead agency determines could feasibly attain most of

the basic objectives of the project. Other relevant provisions set forth in the CEQA Guidelines (14 CCR 15000 et. seq.) state that EIRs neither need to consider every conceivable alternative to a project nor are they required to consider alternatives that are infeasible.

In addition to attaining most of the objectives of the project and lessening significant effects of the project, the development of alternatives was based on potential feasibility. Potential site locations were selected based on a number of planning, environmental, design, and engineering criteria. A reasonable range of potentially feasible alternatives is presented in this section, describing their impacts and benefits.

## **7.4 ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER STUDY**

In accordance with CEQA Guidelines Section 15126.6(f)(2), an alternative project site location should be considered if development of another site is feasible, and if development of another site would avoid or substantially lessen significant impacts of the Proposed Project. Factors that may be considered when identifying an alternative site location include the size of the site, its location, the General Plan (or Community Plan) land use designations, and availability of infrastructure. CEQA Guidelines Section 15126.6(f)(2)(A) states that a key question in looking at an off-site alternative is “whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location.” Further, CEQA Guidelines Section 15126.6(f)(1) states that among the factors that may be taken into account when addressing the feasibility of alternative locations are whether the project proponent can reasonably acquire, control, or otherwise have access to the alternative site (or whether the site is already owned by the proponent).

An effort was made to identify an alternative location for the project. The selection criteria were developed to identify potential alternative project sites that would be fairly easy to acquire, and large enough to accommodate the proposed uses. When looking for the alternative sites, the following criteria were used:

- Alternative site had to be within the identified market area
- Land had to be privately owned and located adjacent to existing IID water infrastructure

With these considerations in mind, the Single Reservoir Alternative Site Locations and Multiple Smaller Reservoirs Alternatives were considered during the early planning stages and prior to identifying the preferred site for the Proposed Project.

### **Single Reservoir Alternative Site Locations**

IID considered 11 sites, including the Proposed Project site, prior to identifying the preferred site for the Proposed Action. However, 10 of these alternative sites were quickly eliminated as prospective sites due to one or more of the following reasons: the hydraulic conditions of the site are not adequate to be redeveloped as a reservoir and supporting infrastructure, the site is located

on BLM property and inside an ACEC, or the site was considered financially infeasible. The 10 alternatives site locations considered but eliminated from further evaluation are listed below.

1. North of Anza Road, east of Bowker Road, and southwest of the AAC.
2. North of the AAC, east of Claverie Road, south of Carr Road, and west of SR 7
3. North of the AAC, east of Hawk Road and south of the 98
4. North of the Mexico Border, south of the AAC, approximately 1 mile southeast of Bonesteele Road
5. Southeast of Holdridge Road, approximately 0.25 mile north of SR-98
6. Northwest of Holdridge Road, approximately 0.15 mile southeast of the EHL Canal
7. Southwest of Holdridge Road, approximately 0.7 mile southeast of the EHL Canal
8. South of Desert Road, approximately 0.7 mile northeast of Verde School Road
9. North of SR-98, approximately 1.15 east of Holdridge Road
10. South of SR-98, approximately 4 miles northwest of the SR-98 and I-8 intersection

### **Multiple Smaller Reservoirs**

The Multiple Smaller Reservoirs Alternative would construct seven reservoirs on privately owned agricultural parcels instead of a single large reservoir. These reservoirs would be smaller in size, and each would be operated by the landowner of the land on which the reservoir is located. The Multiple Smaller Reservoirs Alternative was developed to provide an alternative to the Proposed Project that would benefit the local farmers and provide nearby farms with a plentiful, independent water supply.

An alternative site would have to feasibly accomplish most of the basic objectives of the project. The project objectives require that the project benefit the greatest number of downstream IID water users, maximize system-wide water deliveries, and provide the greatest opportunity to store returned flows that are backed out of main system canals. This alternative would partially accomplish the project objectives of supporting on-farm efficiency conservation measures and minimizing displacement of existing IID and farming infrastructure. However, this alternative would not accomplish the remaining project objectives. This alternative would only provide a few landowners with increased water deliveries, thus leaving the remaining water supply infrastructure as is. In addition, this alternative would maximize the length of the intake channel from AAC and the outflow channel to EHL Canal, rather than minimize the length. Additionally, the construction of seven separate reservoirs would likely result in higher greenhouse gas (GHG) emissions and construction noise levels due to the increase in construction duration, compared to the construction of one reservoir. Therefore, the need for additional evaluation of this alternative was also rejected from further consideration.

## **7.5 ALTERNATIVES IDENTIFIED AND ANALYZED**

### **7.5.1 No Project Alternative**

The No Project Alternative is the scenario under which the Proposed Project is not permitted, constructed, or implemented. The No Project Alternative provides a basis for comparison of the environmental consequences of the proposed action. It is defined as “existing environmental conditions” as well as what would reasonably be expected to occur in the foreseeable future if the Proposed Project were not approved, based on current plans and consistent with available infrastructure (14 CCR 15126.6(e)(2)). In this EIR, the No Project Alternative assumes that the project would not occur and the existing East Highline Canal would be operated and maintained in its current condition.

Under the No Project Alternative construction of the Proposed Project would not be conducted and the existing site conditions would remain as is. The agricultural land would continue to be farmed and, similar to the surrounding agricultural uses, the site would continue receiving water supplies by diverting water from the EHL Canal and the AAC. The No Project Alternative would not fully accomplish the goals of the QSA, which reallocates conserved Colorado River water among IID (including SDCWA), CVWD, and MWD. As stated in Section 1.3.2, Program EIR for the Implementation of the Colorado River Quantification Settlement Agreement, of this EIR, the implementation of the QSA would result in a net reduction of Colorado River diversions to California. The No Project Alternative would also not achieve the goal of increasing operational storage to more effectively manage IID’s daily water diversions at the Colorado River. As such, with implementation of this alternative, operational efficiency and conservation efforts for Imperial County water supplies would not be maximized.

#### **Environmental Analysis**

##### ***Aesthetics***

Under the No Project Alternative, no development would occur and no changes to the existing condition of the Proposed Project area would occur. Therefore, no changes to the existing visual character of the project area would occur, and there would be no aesthetic impacts from the No Project Alternative.

##### ***Agricultural and Forestry Resources***

Under the No Project Alternative, no development would occur and no changes to the existing condition of the Proposed Project area would occur. Therefore, no impacts to agricultural and forestry resources would result from the No Project Alternative.

***Air Quality***

The No Project Alternative would generate no construction or operational air quality impacts since the Proposed Project area would remain in its current state and no construction would occur. Therefore, the No Project Alternative would result in no air quality impacts.

***Biological Resources***

Under the No Project Alternative, no development would occur and no changes to the existing condition of the Proposed Project area would occur. Therefore, no impacts to biological resources would result from the No Project Alternative.

***Cultural Resources***

Under the No Project Alternative, no development would occur and no changes to the existing condition of the Proposed Project area would occur. Therefore, no impacts to cultural resources would result from the No Project Alternative.

***Energy***

The No Project Alternative would not consume energy for construction or operation since the Proposed Project area would remain in its current state and no construction would occur. Therefore, the No Project Alternative would result in no energy impacts.

***Geology and Soils***

Under the No Project Alternative, no development would occur and no changes to the existing condition of the Proposed Project area would occur. Therefore, no impacts to geology and soils would result from the No Project Alternative.

***Greenhouse Gas Emissions***

The No Project Alternative would generate no construction or operational GHG emissions impacts since the Proposed Project area would remain in its current state and no construction would occur. Therefore, the No Project Alternative would result in no GHG emissions impacts.

***Hazards and Hazardous Materials***

Under the No Project Alternative, no development would occur and no hazardous substances or wildfire hazards would be introduced to Proposed Project area. Therefore, no impacts from hazards or hazardous materials would result from the No Project Alternative.

### ***Hydrology and Water Quality***

The No Project Alternative would not result in any impacts related to hydrology or water quality, since no construction would occur and there would be no increase in runoff from the Proposed Project area. No construction or development activities would take place that could generate potential pollutants; therefore, the No Project Alternative would result in no impacts to hydrology and water quality.

### ***Land Use and Planning***

Under the No Project Alternative, no development would occur and the Proposed Project site would retain its existing land use and zoning designations. Therefore, no impacts to land use and planning would result from the No Project Alternative.

### ***Mineral Resources***

Under the No Project Alternative, no development would occur and no changes to the existing condition of the Proposed Project area would occur. Therefore, no impacts to mineral resources would result from the No Project Alternative.

### ***Noise***

Under the No Project Alternative, no construction or development would occur. Further, the use of construction equipment and other noise-generating construction activities would not occur. Therefore, no noise impacts would result from the No Project Alternative.

### ***Population and Housing***

Under the No Project Alternative, no development or population growth would occur within the Proposed Project area. Therefore, no impacts to population and housing would result from the No Project Alternative.

### ***Public Services***

Under the No Project Alternative, no development or population growth that would generate any demand for public services or need for additional public service infrastructure would occur within the Proposed Project area. Therefore, no impacts to public services would result from the No Project Alternative.

### ***Recreation***

Under the No Project Alternative, no new parks or recreational facilities would be provided, and no new or increased demand for parks and recreational facilities would occur, since no new population would be introduced or generated by this alternative. Therefore, no impacts to recreation would result from the No Project Alternative.

### *Transportation and Traffic*

The No Project Alternative would have no impacts on transportation or traffic since the Proposed Project area would remain in its existing condition. Further, there would be no vehicle trips generated by the No Project Alternative. Therefore, no impacts to transportation and traffic would result from the No Project Alternative.

### *Utilities and Service Systems*

Under the No Project Alternative, no development or population growth that would generate any demand for utilities and service systems or need for additional utilities infrastructure would occur within the Proposed Project area. Therefore, no impacts to utilities and service systems would result from the No Project Alternative.

## **7.5.2 Reduced Size Reservoir Alternative**

As stated above, CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.

As determined by this EIR, the Proposed Project would result in potentially significant impacts associated with air quality, biological resources, cultural resources, and hazards and hazardous materials. All significant impacts would be reduced to below significant levels with incorporation of mitigation measures presented in this EIR; therefore, the analyzed alternatives would only reduce potential impacts in severity. As described in Sections 4.2, Air Quality, and 4.4, Cultural Resources, the Proposed Project would result in significant impacts that would be mitigatable with **Mitigation Measure (MM) AQ-1, MM-AQ-2, and MM-CR-1 through MM-CR-4**. However, under the Reduced Size Reservoir Alternative, these significant impacts would be lessened in severity prior to mitigation.

The Reduced Size Reservoir Alternative, as shown on Figure 3-2, would manage up to approximately 2,700 acre-feet of water, over approximately 290 acres of agricultural land. Compared to the proposed 370-acre reservoir, the Reduced Size Reservoir would cover approximately 80 acres less, with 700 acre-feet less water capacity. By reducing the footprint and depth of the reservoir, potential impacts related to cultural, paleontological, tribal, biological, and agricultural resources are reduced. Due to its smaller water capacity, this alternative would not benefit the greatest number of downstream IID water users, nor would it maximize system-wide water deliveries, in comparison to the Proposed Project. In addition, the Reduced Size Reservoir Alternative would not provide the greatest opportunity to store returned flows that are backed out of main system canals, as the Proposed Project would have a larger capacity, thus more storage for returned flows. As such, the Reduced Size Reservoir Alternative would not fully accomplish all project objectives to the extent the Proposed Project would.

Additionally, the Reduced Size Reservoir Alternative would not fully accomplish the goals of the QSA, which reallocates conserved Colorado River water among IID (including SDCWA), CVWD, and MWD. As such, with implementation of this alternative, less water would be conserved for diversion to additional IID water users, SDCWA, CVWD, and MWD, thus reducing the water going directly to agricultural uses in Imperial County.

## **Environmental Analysis**

### ***Aesthetics***

The Reduced Size Reservoir would cover approximately 70 acres less land (3 percent less) than the Proposed Project and would have lower berm heights than the Proposed Project. With physical development lessened, the Reduced Size Reservoir Alternative would result in reduced impacts to the visual character of the surrounding agricultural landscape. Therefore, while the Proposed Project would not result in significant impacts to aesthetics, the Reduced Size Reservoir Alternative would result in marginally reduced aesthetic impacts compared to the Proposed Project.

### ***Agricultural and Forestry Resources***

With physical development lessened, the Reduced Size Reservoir Alternative would result in reduced impacts to the agricultural uses on the Proposed Project site (up to 3 percent less). Therefore, while the Proposed Project would not result in significant impacts to agricultural and forestry resources, the Reduced Size Reservoir Alternative would result in reduced impacts to agricultural and forestry resources compared to the Proposed Project.

### ***Air Quality***

With physical development lessened, the Reduced Size Reservoir Alternative would result in less construction and operational emissions and thereby reduced air quality impacts compared to the Proposed Project. Therefore, while the Proposed Project would not result in significant impacts to air quality with implementation of **MM-AQ-1** and **MM-AQ-2**, the Reduced Size Reservoir Alternative would result in reduced air quality impacts compared to the Proposed Project.

### ***Biological Resources***

With physical development lessened, the Reduced Size Reservoir Alternative would result in fewer impacts to biological resources. Therefore, while the Proposed Project would not result in significant impacts to biological resources with implementation of **MM-BIO-1** through **MM-BIO-10**, the Reduced Size Reservoir Alternative would result in fewer impacts to biological resources compared to the Proposed Project.

### ***Cultural Resources***

With physical development lessened, both acreage and excavation depths, the Reduced Size Reservoir Alternative would result in reduced impacts to cultural resources. Therefore, while the Proposed Project would not result in significant impacts to cultural resources with implementation of **MM-CR-1** through **MM-CR-3** and **MM-PAL-1**, the Reduced Size Reservoir Alternative would result in reduced impacts to cultural resources compared to the Proposed Project.

### ***Energy***

With physical development lessened, the Reduced Size Reservoir Alternative would result in less construction energy consumption, while operational energy remains the same, and thereby reduced energy impacts compared to the Proposed Project. Therefore, while the Proposed Project would not result in significant impacts to energy consumption, the Reduced Size Reservoir Alternative would result in reduced energy impacts compared to the Proposed Project.

### ***Geology and Soils***

With physical development lessened, the Reduced Size Reservoir Alternative would result in reduced impacts to geology and soils. Therefore, while the Proposed Project is not expected to result in significant impacts to geology and soils, the Reduced Size Reservoir Alternative would result in reduced impacts to geology and soils compared to the Proposed Project.

### ***Greenhouse Gas Emissions***

With physical development lessened, the Reduced Size Reservoir Alternative would result in less construction and operational GHG emissions and thereby reduced GHG emissions impacts compared to the Proposed Project. Therefore, while the Proposed Project would not result in significant GHG emissions impacts, the Reduced Size Reservoir Alternative would result in reduced GHG emissions impacts compared to the Proposed Project.

### ***Hazards and Hazardous Materials***

With physical development lessened, the Reduced Size Reservoir Alternative would result in less construction and possibility of disturbing pesticides, herbicides, and valley fever, and thereby reduced impacts from hazards and hazardous materials. Therefore, while the Proposed Project is not expected to result in significant impacts from hazards and hazardous materials with implementation of **MM-HAZ-1** through **MM-HAZ-4** and **MM-AQ-2**, the Reduced Size Reservoir Alternative would result in reduced impacts relating to hazards and hazardous materials compared to the Proposed Project.

### ***Hydrology and Water Quality***

With physical development lessened, the Reduced Size Reservoir Alternative would result in reduced construction activity and impacts to hydrology and water quality within the project area. Therefore, while the Proposed Project would not result in significant impacts to hydrology and water quality, the Reduced Size Reservoir Alternative would result in reduced impacts to hydrology and water quality compared to the Proposed Project.

### ***Land Use and Planning***

The Proposed Project would not result in inconsistencies with the County Zoning Ordinance or significant impacts to land use and planning. Because the Reduced Size Reservoir Alternative would occupy the same parcels of land, it would result in similar impacts to land use and planning as the Proposed Project.

### ***Mineral Resources***

With physical development lessened, the Reduced Size Reservoir Alternative would result in reduced impacts to mineral resources. Therefore, while the Proposed Project is not expected to result in significant impacts to mineral resources, the Reduced Size Reservoir Alternative would result in reduced impacts to mineral resources compared to the Proposed Project.

### ***Noise***

With physical development lessened, the Reduced Size Reservoir Alternative would result in less construction and operational noise generation and thereby reduced noise impacts than the Proposed Project. Therefore, while the Proposed Project would not result in significant impacts from noise generation, the Reduced Size Reservoir Alternative would result in reduced noise impacts compared to the Proposed Project.

### ***Population and Housing***

While construction of the Reduced Size Reservoir Alternative would likely require fewer construction workers than would the Proposed Project, these new jobs would be locally sourced and would not result in population growth. Similarly, both the Reduced Size Reservoir Alternative and the Proposed Project would not displace people or demolish existing housing. Therefore, although development would be decreased under the Reduced Size Reservoir Alternative, this alternative would result in similar less-than-significant impacts to population and housing as compared to the Proposed Project.

### ***Public Services***

While construction of the Reduced Size Reservoir Alternative would likely require fewer construction workers than would the Proposed Project, these new jobs would be locally sourced and would not result in population growth that would increase demand on public services. Similarly, construction of both the Reduced Size Reservoir Alternative and Proposed Project may result in increased need for fire and police protection. Therefore, although development would be decreased under the Reduced Size Reservoir Alternative, this alternative would result in similar less-than-significant impacts to public services as compared to the Proposed Project.

### ***Recreation***

While construction of the Reduced Size Reservoir Alternative would likely require fewer construction workers than would the Proposed Project, these new jobs would be locally sourced and would not result in population growth that would increase demand on nearby recreation facilities. Similarly, construction of both the Reduced Size Reservoir Alternative and the Proposed Project do not include development of recreation facilities. Therefore, although development would be decreased under the Reduced Size Reservoir Alternative, this alternative would result in similar less-than-significant impacts to recreation as compared to the Proposed Project.

### ***Transportation and Traffic***

While construction of the Reduced Size Reservoir Alternative would likely require fewer construction workers and daily vehicle trips than would the Proposed Project, existing traffic volumes in the vicinity are low and no road improvements are proposed that would introduce traffic congestion or hazards. Similarly, construction and operation of the Reduced Size Reservoir Alternative would not result in population growth, new construction, or any other changes that would affect traffic. Therefore, although development would be decreased under the Reduced Size Reservoir Alternative, this alternative would result in similar less-than-significant impacts to transportation and traffic as compared to the Proposed Project.

### ***Utilities and Service Systems***

While construction of the Reduced Size Reservoir Alternative would likely require fewer construction workers than would the Proposed Project, these new jobs would be locally sourced and would not result in population growth that would increase demand on utilities and service systems. Similarly, construction and operation of both the Reduced Size Reservoir Alternative and Proposed Project would not increase the amount of wastewater produced, or increase the demands for water supplies in the area since this alternative and the Proposed Project would not introduce a new population to the area. Therefore, although development would be decreased under the Reduced Size Reservoir Alternative, this alternative would result in similar less-than-significant impacts to utilities and service systems as compared to the Proposed Project.

### 7.5.3 Alternative Intake Route Alternative

The Alternative Intake Route Alternative, as shown on Figure 3-3, would entail siting the proposed reservoir in the same place; however, the intake route to the AAC would be located farther east of where the proposed intake route is. This alternative would extend northwest from the AAC to the proposed reservoir, through BLM lands. This alternative would avoid impacts related to the proposed intake route's intersection with the AAC Drain 2A, which would include biological and cultural impacts. The Alternative Intake Route Alternative would use gravity to route water to the proposed reservoir, similar to the Proposed Project.

However, due to access and time constraints, biological resource surveying was not completed for the potential placement of the alternative. As determined by this EIR, the Proposed Project would result in potentially significant impacts associated with air quality, biological resources, cultural resources, and hazards and hazardous materials. All significant impacts would be reduced to below significant levels with incorporation of mitigation measures presented in this EIR; therefore, the analyzed alternatives would only reduce potential impacts in severity.

As described in Section 4.3, Biological Resources, and Section 4.4, Cultural Resources, the Proposed Project would result in impacts to sensitive vegetation communities and jurisdictional resources, as well as impact the AAC Drain 2A along the proposed intake route (as depicted on Figure 4.3-1g, Biological Resources – Map 6). The proposed intake channel would remove agricultural land and also interrupt the irrigation systems supporting that agriculture, including the AAC Drain Number 2, shown on Figure 3-3. Although avoiding these resources and infrastructure would not lower a CEQA threshold, it would lessen the interference with existing infrastructure.

Given the amount of biological resources identified within the Proposed Project area, the likelihood of encountering biological resources under the Alternative Intake Route Alternative would be very high. Additionally, considering the cultural resources report prepared for the Proposed Project encountered a scatter of prehistoric ceramic buffware fragments, as well as other previously identified resources, the likelihood of encountering cultural resources is also high under the Alternative Intake Route Alternative. Therefore, this alternative would not be considered the Environmentally Superior Alternative.

#### Environmental Analysis

##### *Aesthetics*

The Alternative Intake Route Alternative would develop a reservoir to the same extent as the Proposed Project; however, the proposed intake channel would extend southeast from the reservoir to the AAC, through BLM land. The visual quality of the BLM land that the Alternative Intake Route would traverse is identified as having “High Value” (County of Imperial 2016). The alternative intake route would remain hidden from public view, with exception to drivers on SR-

98, where it would be visible approximately 1 mile east from where the Proposed Project would connect to the AAC. However, because the alternative intake route would pass SR-98 within BLM land, the intake channel would have an increased impact on the visual quality compared to the proposed intake channel that connects within the existing agricultural field. Although SR-98 is not designated as a scenic highway, so impacts would be less than significant, the Alternative Intake Route Alternative would result in an increase in severity to aesthetics compared to the Proposed Project.

### ***Agricultural and Forestry Resources***

The Alternative Intake Route Alternative would develop the intake route farther east of the proposed intake route, through BLM land. In doing so, the Alternative Intake Route Alternative would avoid disrupting and converting the existing agricultural use to the proposed intake channel. Similar to the Proposed Project, the Alternative Intake Route Alternative would not be located on Williamson Act contract land, forest land, timberland, or timberland production land. Therefore, impacts to agricultural and forestry resources as a result of the Alternative Intake Route Alternative would be less than significant, similar to the Proposed Project.

### ***Air Quality***

The Alternative Intake Route would be approximately 1.16 miles (6,113 linear feet), in comparison to the proposed intake route, which would be approximately 1.3 miles (approximately 6,740 linear feet). Therefore, with implementation of the Alternative Intake Route Alternative, construction of approximately 0.14 miles, or 739 feet, of intake channel would be avoided, which would slightly reduce the pollutants from construction activities. Operations of the Alternative Intake Route Alternative would result in comparable effects regarding air quality, as this alternative would use gravity flows to route the intake water to a reservoir of the same size. While the Proposed Project would not result in significant impacts to air quality with implementation of **MM-AQ-1** and **MM-AQ-2**, the Alternative Intake Route Alternative would result in slightly reduced severity of air quality impacts compared to the Proposed Project.

### ***Biological Resources***

The Alternative Intake Route would be located farther east on BLM lands. Given the amount of biological resources identified within the Proposed Project area, the likelihood of encountering biological resources within the BLM lands would be increased. Therefore, while the potential for additional specific biological resources is unknown, the likelihood of additional impacts to biological resources is high, though reduced with application of the identified mitigation measures for the Proposed Project. Therefore, impacts related to biological resources would be increased in severity under the Alternative Intake Route Alternative, but would be mitigated to less than significant, similar to the Proposed Project.

### ***Cultural Resources***

The Alternative Intake Route Alternative would locate the intake farther north and east on BLM lands. This area of the BLM lands is within an ACEC for cultural resources and there are known previously identified resources in this area; therefore, the likelihood of encountering cultural resources is increased under the Alternative Intake Route Alternative. Therefore, under this alternative, potential impacts related to cultural resources would be increased in severity, but would be mitigated to less than significant, similar to the Proposed Project.

### ***Energy***

The Alternative Intake Route Alternative would result in approximately 0.14 miles less constructed intake channel. Therefore, the Alternative Intake Route Alternative would result in slightly less construction energy consumption and thereby fewer energy impacts than the Proposed Project. Operational energy consumption would be similar to the Proposed Project. Therefore, while the Proposed Project would not result in significant impacts to energy consumption, the Alternative Intake Route Alternative would result in fewer energy impacts compared to the Proposed Project.

### ***Geology and Soils***

There are no active faults within the Alternative Intake Route Alternative area. The Alternative Intake Route Alternative would implement structural design measures that reduce liquefaction risk, as well as complying with any recommendations in the geotechnical report and applicable regulations within the California Building Code. Therefore, the Alternative Intake Route Alternative would not result in significant impacts to geology and soils, similar to the Proposed Project.

### ***Greenhouse Gas Emissions***

The Alternative Intake Route would be approximately 1.16 miles (6,113 linear feet), in comparison to the proposed intake route, which would be approximately 1.3 miles (approximately 6,740 linear feet). Therefore, with implementation of the Alternative Intake Route Alternative, construction of approximately 0.14 miles, or 739 feet, of intake channel construction would be avoided, which would slightly reduce GHG emissions from construction equipment. However, the Alternative Intake Route would be more secluded and farther from any landfill or other off-site location that construction trucks would route to. Therefore, GHG emissions resulting from construction of the Alternative Intake Route Alternative would be comparable to those of the Proposed Project. Once operational, the Alternative Intake Route Alternative would operate in the same way as the Proposed Project. Therefore, the Alternative Intake Route Alternative would result in less-than-significant impacts related to GHG emissions, similar to the Proposed Project.

### ***Hazards and Hazardous Materials***

The Alternative Intake Route would avoid the agricultural uses along the course of the proposed intake channel, which would therefore reduce the severity of potential impact as a result of construction on agricultural land. However, the reservoir would be constructed in the same location, which is located on agricultural land, so **MM-HAZ-1** through **MM-HAZ-3** would still apply to the Alternative Intake Route Alternative. Therefore, the Alternative Intake Route Alternative would result in slightly reduced impacts related to hazards and hazardous materials compared to the Proposed Project. Operations of the Alternative Intake Route Alternative would be comparable to the Proposed Project; therefore, operational impacts related to hazards and hazardous materials would be similar.

### ***Hydrology and Water Quality***

The Alternative Intake Route Alternative would consist of a main canal off-line reservoir storage project in the same location as the Proposed Project and an intake channel located farther east of the proposed intake channel. Similar to the Proposed Project, the Alternative Intake Route Alternative would comply with the Construction General Permit, and no wells or direct connections to the underlying aquifers are proposed for project construction or operations, and any dust control actions would utilize water imported via water trucks. Therefore, construction and operations of the Alternative Intake Route Alternative would not interfere with groundwater resources or local groundwater recharge. Lastly, the Alternative Intake Route would not be located within a 100-year flood hazard area and would be more than 45 miles from a dam. Therefore, the Alternative Intake Route Alternative would result in less-than-significant impacts related to hydrology and water quality, similar to the Proposed Project.

### ***Land Use and Planning***

The Alternative Intake Route Alternative would consist of a main canal off-line reservoir storage project in the same location as the Proposed Project and an intake channel located farther east than the proposed intake channel, within BLM land. The Alternative Intake Route Alternative would potentially be inconsistent with BLM's ACEC and the Desert Renewable Energy Conservation Plan. Impacts would be potentially significant and unavoidable. Therefore, the Alternative Intake Route Alternative would potentially have an increased impact related to land use and planning compared to the Proposed Project.

### ***Mineral Resources***

The Alternative Intake Route Alternative would consist of a main canal off-line reservoir storage project in the same location as the Proposed Project and an intake channel located farther east than the proposed intake channel, within BLM land. Mineral resource data has not been provided for land under BLM jurisdiction; however, no active mineral recovery is underway or historically known for the area and the area is considered an ACEC by the BLM, which would limit the potential for mineral recovery. Therefore, the Alternative Intake Route Alternative would result similarly in less-than-significant impacts to mineral resources.

### *Noise*

The Alternative Intake Route Alternative would relocate the intake channel farther north and east of the proposed intake channel, within BLM land and away from the existing agricultural uses. While the Alternative Intake Route Alternative would result in approximately 0.14 miles less intake channel being constructed, the Alternative Intake Route would be imperceptible from sensitive receptors due to its relocated location. Therefore, while the Proposed Project would not result in significant impacts from noise generation, the Alternative Intake Route Alternative would result in reduced severity in noise impacts compared to the Proposed Project. Considering the reservoir would be the same location and size as under the Proposed Project, the project design features proposed to further reduce construction noise for the project would still apply to the Alternative Intake Route Alternative. The Alternative Intake Route Alternative would result in comparable noise impacts during operations.

### *Population and Housing*

Construction of the Alternative Intake Route Alternative would likely require a similar number of construction workers, who would be locally sourced, which would not result in population growth. Similarly, both the Alternative Intake Route Alternative and the Proposed Project would not displace people or demolish existing housing. Therefore, the Alternative Intake Route Alternative would result in less-than-significant impacts to population and housing, similar to the Proposed Project.

### *Public Services*

Construction of the Alternative Intake Route Alternative would likely require a similar number of construction workers, who would be locally sourced, which would not result in population growth that would increase demand on public services. Similarly, construction of both the Alternative Intake Route Alternative and the Proposed Project may result in increased need for fire and police protection. Therefore, the Alternative Intake Route Alternative would result in similar less-than-significant impacts to public services as the Proposed Project.

### *Recreation*

The Alternative Intake Route Alternative would result in the same acreage of the reservoir, with the intake channel located farther north and east than the proposed intake, within BLM land. Construction of the Alternative Intake Route Alternative would likely require a similar number of construction workers, who would be locally sourced, which would not result in population growth that would increase demand on nearby recreation facilities. Similarly, construction of both the Alternative Intake Route Alternative and the Proposed Project would not include development of recreation facilities. Therefore, the Alternative Intake Route Alternative would result in similar less-than-significant impacts to recreation as the Proposed Project.

### *Transportation and Traffic*

Construction of the Alternative Intake Route Alternative would likely require a similar number of construction workers and daily vehicle trips. As with the Proposed Project, existing traffic volumes in the vicinity are low and no road improvements are proposed that would introduce traffic congestion or hazards. Similarly, construction and operation of the Alternative Intake Route Alternative would not result in population growth, new construction, or any other changes that would affect traffic. Therefore, the Alternative Intake Route Alternative would result in similar less-than-significant impacts to transportation and traffic as the Proposed Project.

### *Utilities and Service Systems*

Construction of the Alternative Intake Route Alternative would likely require a similar number of construction workers, who would be locally sourced, which would not result in population growth that would increase demand on utilities and service systems. Similarly, construction and operation of both the Alternative Intake Route Alternative and Proposed Project would not increase the amount of wastewater produced, or increase the demand for water supplies in the area, since this alternative and the Proposed Project would not introduce a new population to the area. Therefore, the Alternative Intake Route Alternative would result in similar less-than-significant impacts to utilities and service systems as the Proposed Project.

## **7.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

The No Project Alternative would result in the least environmental impacts and would be the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, the environmentally superior alternative is the Reduced Size Reservoir Alternative.

## **7.7 COMPARISON OF ALTERNATIVES**

Table 7-1 summarizes the potential impacts identified for alternatives in comparison with those identified for the Proposed Project. The table addresses each of the alternatives. The Reduced Size Reservoir Alternative would meet most of the project objectives, but to a lesser extent than the Proposed Project. This alternative would construct a large operational reservoir that would utilize a route with the most beneficial hydrologic conditions, and support on-farm efficiency conservation measures. The Reduced Size Reservoir Alternative would result in decreased agricultural, biological, cultural, and noise effects. However, due to the reduction in reservoir capacity, the ability to meet the QSA transfers and obligations with ease would not be possible.

**Table 7-1  
Summary of Impacts for Each Alternative**

Environmental Issue	Project	No Project Alternative	Reduced Size Reservoir Alternative	Alternative Intake Route Alternative
Aesthetics	Less than significant	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Increased severity compared to the project, less-than-significant impact
Agricultural and Forestry Resources	Less than significant	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Air Quality	Less than significant with incorporation of mitigation	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Less than Proposed Project, less-than-significant impact
Biological Resources	Less than significant with incorporation of mitigation	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Increased severity compared to the project, less-than-significant impact with mitigation incorporated
Cultural Resources	Less than significant with incorporation of mitigation	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Increased severity compared to the project, less-than-significant impact with mitigation incorporated
Energy	Less than significant	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Less than Proposed Project, less-than-significant impact
Geology and Soils	Less than significant	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Greenhouse Gases	Less than significant	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Less than Proposed Project, less-than-significant impact
Hazards and Hazardous Materials	Less than significant with incorporation of mitigation	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Less than Proposed Project, less-than-significant impact with mitigation incorporated
Hydrology and Water Quality	Less than significant	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Land Use and Planning	Less than significant	Less than Proposed Project, no impact	Similar impacts as Proposed Project, less-than-significant impact	Increased severity compared to the project, significant and unavoidable
Mineral Resources	Less than significant	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact

**Table 7-1  
Summary of Impacts for Each Alternative**

Environmental Issue	Project	No Project Alternative	Reduced Size Reservoir Alternative	Alternative Intake Route Alternative
Noise	Less than significant	Less than Proposed Project, no impact	Less than Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Population and Housing	Less than significant	Less than Proposed Project, no impact	Similar impacts as Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Public Services	Less than significant	Less than Proposed Project, no impact	Similar impacts as Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Recreation	Less than significant	Less than Proposed Project, no impact	Similar impacts as Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Transportation/ Circulation	Less than significant	Less than Proposed Project, no impact	Similar impacts as Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Utilities and Service Systems	Less than significant	Less than Proposed Project, no impact	Similar impacts as Proposed Project, less-than-significant impact	Similar impacts as Proposed Project, less-than-significant impact
Meets Most of the Basic Project Objectives?	Yes	No	Yes	Yes

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