

6.0 ALTERNATIVES TO THE PROPOSED ACTION

In conformance with *CEQA Guidelines* Section 15126.6, the EIR has included a comparative impact assessment of “alternatives to the proposed project.” The primary purpose for this section is to provide decision-makers and the public with a reasonable range of project alternatives that could feasibly attain most of the basic project objectives, while avoiding or substantially lessening any of the project’s significant adverse environmental effects. Important considerations for this alternatives analysis are (as noted in Section 15126.6):

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process...;
- Reasons for rejecting an alternative include:
 - Failure to meet most of the basic project objectives;
 - Infeasibility; and
 - Inability to avoid significant environmental effects.

With the exception of potential growth inducing impacts associated with removing an obstacle to growth (i.e. the Carbon Canyon Pump Station), this EIR has not identified any unavoidable significant impacts of the project because all other potentially significant impacts could be mitigated to level of less than significant. However, certain cumulative impacts to which the project would contribute may be slightly reduced with some of the alternatives. Project-related cumulative impacts include air quality and noise, although the project’s contribution is not cumulatively considerable as defined in *CEQA Guidelines* Section 15126.6. As noted in Section 3.0, *Project Description*, the proposed project’s basic objectives are:

- To increase sewer pipeline capacity to accommodate future wastewater flows from existing and proposed developments in the Carbon Canyon sewer tributary;
- To provide capacity for expansion of the Orange County Sanitation District’s service area boundary in the Carbon Canyon sewer tributary;
- To eliminate the need to upgrade the Carbon Canyon Pump Station;
- To eliminate the need to maintain and operate the Pump Station; and
- To allow for the abandonment of the Pump Station.

The following alternatives to the proposed project are discussed: "No Project" alternative; "Alternative Alignment 1" alternative; "Alternative Alignment 2" alternative; "Smaller Sewer Pipe Alternative," and the "Environmentally Superior" alternative. A comparison of issues with implementation of identified alternatives are provided within Table 6.0-1, *Comparison of Alternatives*. Note that the "Alternative Alignment 1" alternative and "Alternative Alignment 2" were

examined in the Preliminary Design Report (refer to Appendix E *Preliminary Design Report and Geotechnical Report*) and have been incorporated into this section.

**TABLE 6.0-1
 COMPARISON OF ALTERNATIVES**

Impact	No Project	Alternative Alignment 1	Alternative Alignment 2	Smaller Sewer Pipe
Land Use and Relevant Planning	<	=	=	<
Geology, Soils, and Seismicity	<	>	=/>	=
Hydrology and Water Quality	<	>	=/>	=
Air Quality	<	=	=	=
Noise	<	=	=	=
Cultural Resources	<	=	=	=
Aesthetics, Light and Glare	<	=	=	=
Population and Housing	<	=	=	<
Biological Resources	<	>	=	=
Traffic	<	=	=	=

LEGEND

- = Impact is equivalent to impact of proposed project (neither environmentally superior or inferior).
- < Impact is less than impact of proposed project (environmentally superior).
- > Impact is greater than impact of proposed project (environmentally inferior).

“NO PROJECT” ALTERNATIVE

None of the impacts associated with the proposed development and construction activities would occur if the "No Project" alternative were selected. Implementation of this alternative would leave in place the existing Carbon Canyon Pump Station and sewer pipeline, and would avoid any adverse physical or environmental impacts associated with the proposed project. Existing aesthetic, cultural, geologic, land use and relevant planning and population and housing conditions in the area would remain the same. Air quality, biological, hydrological, noise, and traffic impacts due to pipeline construction activities would not occur with the "No Project " alternative. The “No Project” Alternative also eliminates the expanded OCSD service area option. As a result, growth-inducing impacts from that option would not occur with the “No Project” Alternative.

The "No Project" alternative fails to meet the basic project objectives because the existing sewer force mains are expected to exceed capacity in the near future and new sewer facilities will be required.

“ALTERNATIVE ALIGNMENT 1” ALTERNATIVE

This alternative requires the proposed pipeline to connect to an existing manhole at the Carbon Canyon Pump Station and immediately head east to avoid the Breiburn oil well site, before turning to the south. If the pipeline were to take this route, the pipeline must cross beneath the existing 66-inch/90-inch storm drain line. By doing so, the gravity sewer line would have an immediate drop in elevation of 15 feet, which would significantly affect the slope of the pipeline throughout. The pipe would also traverse through an existing storm water retention basin. Potential impacts are discussed below.

LAND USE AND RELEVANT PLANNING

The proposed alternative would not change any land use designations. The expanded service area boundary option would remain unchanged under this alternative.

GEOLOGY, SOILS, AND SEISMICITY

The section of the alternative alignment that would traverse the existing storm water retention basin is considered to be a geologically unstable area with potential for soil liquefaction during an earthquake; this would pose a number of design problems.

HYDROLOGY AND WATER QUALITY

This alternative alignment passes through areas used for storm water runoff control including an existing ACOE storm water detention basin. Carbon Canyon Regional Park officials noted that this alignment traverses an area traditionally prone to flooding, often at heights of 10 feet or more. OCSD maintenance personnel indicated that flooding in the alignment area could inundate the pipeline with storm water and limit the wastewater capacity of the surrounding sewer infrastructure. In addition, pipeline maintenance access would be severely limited during rainy conditions.

AIR QUALITY

Short-term impacts from dust, construction-related emissions, and odors would be similar to those of the preferred alignment. Long-term impacts would not be significant because the pipeline would be gravity fed and not require the use of mechanical hydraulic pumps.

NOISE

Short-term impacts from construction-related noise would be similar to those of the preferred alignment. Long-term impacts would not be significant because the pipeline would be gravity fed and not require the use of mechanical hydraulic pumps.

CULTURAL RESOURCES

No known cultural resources exist in the project area. Potential short-term impacts from construction-related activities would be similar to those of the preferred alignment. Long-term impacts on cultural resources under this alternative are anticipated to be less than significant.

AESTHETICS, LIGHT, AND GLARE

Short-term impacts from construction-related aesthetics would be similar to those of the preferred alignment. There would be no long-term impacts because the pipeline would be underground.

POPULATION AND HOUSING

Population and housing impacts from this alternative alignment would remain significant and unavoidable. Impacts on population and housing from the Expanded Service Area Option would remain unchanged.

BIOLOGICAL RESOURCES

The initial reach of this alternative alignment would traverse wetlands and critical occupied habitat of the Federally Listed Endangered Species least Bell's vireo. This alignment would require a Section 7 Permit consultation and a taking of habitat for a Federally listed species. The mitigation and cost of this initial reach of pipeline would be considered prohibitive.

TRAFFIC

Short-term impacts from construction-related traffic would be similar to those of the preferred alignment. There would be no long-term traffic impacts.

CONCLUSION

This alternative is not feasible because ACOE is almost certain to deny this alignment, given the taking of an endangered species that would be necessary and the availability of other alignments that would not impact a Federally Listed Endangered Species. In addition, the significance of the geological and hydrological impacts from the section of the pipeline that would traverse the flood-prone areas and detention basin makes this alignment infeasible.

"ALTERNATIVE ALIGNMENT 2" ALTERNATIVE

This alternative requires the proposed pipeline to connect to an existing manhole at the Pump Station and immediately head west to avoid the Breitburn oil well site, before turning to the south and ultimately joining the preferred alignment prior to the start of the 1,200-foot micro-tunnel reach. If the pipeline were to take this route, the initial reach of the pipeline must be constructed through an existing Park maintenance yard and at depths of 30 feet.

LAND USE AND RELEVANT PLANNING

The proposed alternative would not change any land use designations. The Expanded Service Area Option would remain unchanged under this alternative.

GEOLOGY, SOILS, AND SEISMICITY

The geologic impacts from this alternative are expected to be much more significant than those of the preferred alignment because the alignment would be trenched into a hillside at depths of up to 30 feet. The trench would require extensive stabilization that would significantly cut into the hillside. In addition, OCSD's preference for a maintenance access road over the alignment could potentially require further hillside stabilization measures. In addition, hillside stabilization measures would have to take into account the likelihood of flooding from storm water runoff backed up behind Carbon Canyon Dam.

HYDROLOGY AND WATER QUALITY

Short-term impacts could potentially be more significant from pipeline construction in the maintenance yard, because construction-related runoff might contain contaminants from maintenance yard residue. Long-term impacts would be similar to those of the preferred alignment.

AIR QUALITY

Short-term impacts from dust, construction-related emissions, and odors would be similar to those of the preferred alignment. Long-term impacts would not be significant because the pipeline would be gravity fed and not require the use of mechanical pumps.

NOISE

Short-term impacts from construction-related noise would be similar to those of the preferred alignment. Long-term impacts would not be significant because the pipeline would be gravity fed and not require the use of mechanical hydraulic pumps.

CULTURAL RESOURCES

No known cultural resources exist in the project area. Potential short-term impacts from construction-related activities would be similar to those of the preferred alignment. Long-term impacts on cultural resources under this alternative are anticipated to be less than significant.

POPULATION AND HOUSING

Population and housing impacts from this alternative alignment would remain significant and unavoidable. Impacts on population and housing from the Expanded Service Area Option would remain unchanged.

AESTHETICS, LIGHT, AND GLARE

Short-term impacts from construction-related aesthetics would be similar to those of the preferred alignment. There would be no long-term impacts because the pipeline would be underground.

BIOLOGICAL RESOURCES

Short-term impacts from construction-related activities would be similar to those of the preferred alignment. Long-term impacts would be less than significant because the pipeline alignment would avoid wetlands and the critical occupied habitat of the Federally-listed least Bell's vireo.

TRAFFIC

Short-term impacts from construction-related traffic would be similar to those of the preferred alignment. There would be no long-term traffic impacts.

CONCLUSION

This alternative is not feasible because of the extensive hillside stabilization that would be required for construction and for the maintenance access road. In addition, this alignment would temporarily disrupt maintenance operations of Carbon Canyon Regional Park, and necessitate the temporary closure of a bike/pedestrian trail that runs between Carbon Canyon Regional Park and Carbon Canyon Dam. Overall, this alternative alignment would have significant geologic impacts and would provide little to no environmental enhancement.

"SMALLER SEWER PIPE" ALTERNATIVE

Under the "Smaller Sewer Pipe Alternative," the size of the proposed Carbon Canyon Dam Sewer Pipeline would be reduced to 24 inches. The pipeline would still follow the preferred alignment. As a gravity sewer pipeline, it would not need the Carbon Canyon Pump Station to provide a hydraulic gradient. However, a smaller pipe size would not be able to accommodate the projected flows, as the proposed pipe size would, and that would likely necessitate the continued operation of the two existing force mains and the Carbon Canyon Pump Station. In addition, the Expanded Service Area Option is no longer feasible.

LAND USE AND RELEVANT PLANNING

This alternative would not change any land use designations. However, the Expanded Service Area Option would no longer be feasible because the capacity of the pipe would not accommodate wastewater flows from those areas. Therefore, this alternative would not impact land use and relevant planning in the proposed expanded service areas.

GEOLOGY, SOILS, AND SEISMICITY

The short-term and long-term geologic impacts from this alternative are similar to those of the preferred alignment.

HYDROLOGY AND WATER QUALITY

The short-term and long-term hydrological impacts from this alternative are similar to those of the preferred alignment.

AIR QUALITY

The short-term dust, construction-related emissions, and odor impacts as well as long-term air quality impacts from this alternative are similar to those of the preferred alignment.

NOISE

Short-term impacts from construction-related noise would be similar to those of the preferred alignment. Long-term impacts could potentially be significant because the Carbon Canyon Pump Station would still remain operational.

CULTURAL RESOURCES

The short-term and long-term cultural resource impacts from this alternative are similar to those of the preferred alignment.

POPULATION AND HOUSING

The short-term and long-term population and housing impacts from this alternative are similar to those of the preferred alignment. However, the Expanded Service Area Option is no longer feasible because the capacity of the pipe would not accommodate wastewater flows from those areas. Therefore, this alternative would not impact population and housing in the proposed expanded service areas.

AESTHETICS, LIGHT, AND GLARE

The short-term impacts from this alternative would be similar to those of the preferred alignment. Long-term impacts to aesthetics could potentially occur because of the continued operation of the Carbon Canyon Pump Station in Carbon Canyon Regional Park.

BIOLOGICAL RESOURCES

The short-term impacts from this alternative would be similar to those of the preferred alignment. The long-term impacts from this alignment would be less than significant because it avoids wetlands and the critical occupied habitat of the Federally-listed least Bells vireo

TRAFFIC

The short-term construction related impacts are similar to those of the preferred alignment. There would be no long-term traffic impacts.

CONCLUSION

The smaller sewer pipe alternative would not significantly change the potential impacts of the project. However, it would not satisfy all of the project's objectives, including abandonment of the Carbon Canyon Pump Station and providing capacity for the Expanded Service Area Option.

“ENVIRONMENTALLY SUPERIOR” ALTERNATIVE

The “No Project” Alternative would be environmentally superior to the proposed project, but CEQA requires identification of an environmentally superior alternative from among the other project alternatives. Of the three remaining alternatives, the “Smaller Sewer Pipe” alternative is the most superior from an environmental standpoint. Although this alternative’s short-term construction-related impacts and the long-term operational impacts are virtually identical to those of the proposed project, the project would not have the potential to directly facilitate future population growth in areas outside of the existing OCSD service boundary and also restrict wastewater service to future development within the existing OCSD service boundary. For this reason, the “Smaller Sewer Pipe” Alternative is considered the “Environmentally Superior” Alternative.