# Draft Environmental Assessment

# For Proposed Activities on USACE Managed Federal Lands

# Prado Basin Sewer Improvements Project
# City of Chino, San Bernardino County, California

Prado Dam, California, USGS 7.5-minute Topographic Quadrangle Map
Township 2 South, Range 7 West, Unsectioned

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# SECTION 1: PROJECT AUTHORITY, PURPOSE AND SCOPE

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## 1.1 - Authority

The United States Army Corps of Engineers (USACE) pursuant to 10 U.S.C. 2668 (Easement for Right-of-Way) is authorized to grant the right to use Federal lands for rights-of-way over, in, and upon public lands for gas, water, and sewer pipelines if the proposed use is determined to not be against the public interest. The easement may be granted under such terms as the USACE considers advisable.

## 1.2 - Purpose and Need

The following description is for the purpose and need of a new pipeline and lift station for the City of Chino (City) within Federal lands owned by USACE. A new pipeline and lift station are needed because existing infrastructure (sewer pipes and lift station) are in need of replacement and/or upgrading. This infrastructure supports existing recreation outgrants by the USACE through its lease to San Bernardino County. A new pipeline and lift station are needed to allow efficient and effective collection and conveyance of sewage from Prado Regional Park (Park) and the California Institute for Women (CIW), as well as residential housing and community facilities, to the IEUA's Regional Plant 5 (RP5) for treatment. The Proposed Project needs to disconnect from the Inland Empire Utility Agency's (IEUA) Regional Plant 2 (RP2) that is being phased out by IEUA and no other treatment facility exists in the area other than the RP5 facility. RP5 was approved and constructed to treat sewage from the surrounding areas. Improved infrastructure would also allow for additional camp sites and restrooms within the Park. An improved system would serve approximately 12,000

residents, the Park, the CIW, and other public facilities, including schools, fire station, community centers, library, parks, etc. within the City of Chino. The pipeline and lift station would both need to be permitted in order to operate as a complete system and, thus, both elements are required to convey flows to the RP5 for treatment.

The existing sewer pipelines and lift station are old and in need of renovations due to their depreciated condition. The existing pipeline through Prado Basin is insufficient because the line was sized to only serve the Park when it was constructed in 1976. IEUA and the City did not anticipate the annexation and replacement of farms and dairy land with municipal public facilities and housing at that time. The lift station is constantly breaking down because it is old and requires excessive maintenance from IEUA. The CIW also caused the lift station to malfunction due to utensils and bed sheets being flushed down the toilets in the facility. The outdated technology and the small size of the existing lift station could not handle the loads. In addition, a major flood event would exacerbate the current sewer system, disabling it of its service capabilities for the Park. Repairing the current lift station system after damage from a major flood would take upwards of 4 to 6 months to complete due to parts that would need to be custom made to order. During this time, the Park m have to be closed to the public.

The Inland Empire Brine Line (IEBL), which is currently being used temporarily (in addition to the old pipeline mentioned above), does not allow long-term use for domestic or municipal sewage and was constructed for brine (salts) and industrial uses, not to serve residential or public sewage. The temporary connection has resulted in an unplanned load on the IEBL system and Santa Ana Watershed Project Authority (SAWPA) would not be able to accommodate projected brine and industrial waste loads in the future. The lift station and sewer pipelines to be constructed within the proposed USACE easement would need to be implemented by March 2017. This is the date the SAWPA requires the IEUA and the City to disconnect their temporary sewer connection to the IEBL which was formerly called the Santa Ana Regional Interceptor or SARI line.

The purpose of the Proposed Project is to enable the installation of new sewer infrastructure that would provide various public benefits without hindering the mission of the USACE; this would be done by limiting the amount of land encumbered by an easement.

The USACE's purpose and need for the Proposed Project is to evaluate the City's request by making the following determinations:

1. Determine whether the request is in the interest of the public and the USACE.

**2.** Process the request to use/occupy Federal lands in a way that prioritizes compatibility with the Federal project.

a. Request should not affect/infringe upon the Federal project operations and maintenance activities or reduce flexibility for the Prado Dam Flood Control Project in the future.

b. Request cannot interfere or reduce accessibility to Prado Dam features for operations and maintenance and/or flood fighting.

c. Assess what lands are necessary for the requested use (i.e., the minimum footprint necessary for the requested use). This determination is driven by the needs of the City of Chino and the IEUA based on the current and future capacity and demand for the sewer services.

The overall purpose of this Environmental Assessment (EA) is to evaluate the potential impacts associated with the USACE granting the sewer easement to the City of Chino and the development, operations and maintenance of the necessary sewer facilities.

## 1.3 - Scope of Analysis

This EA analyzes the likely effects of the Proposed Project by comparing a No Action Alternative with various action alternatives, which would provide for an easement on USACE owned land that would be used for the future development of sanitary sewer facilities. This analysis is offered to the interested public to solicit input on the Proposed Project and will be made available for review and public input for a 30-day review period.

Comments regarding the Proposed Project should be addressed to the USACE at the address provided on the accompanying public notice. Following the 30-day review period, the USACE's District Commander would determine if an Environmental Impact Statement (EIS) would be required or if a Finding of No Significant Impact (FONSI) could be issued.

## 1.4 - Location

The Proposed Project site is located within Federal land owned by the USACE in the City of Chino, County of San Bernardino, California. The location of the Proposed Project is shown in Exhibit 1, *Regional Location Map*; Exhibit 2, *Local Vicinity Map Topographic Base*; **Error! Reference source ot found.Error! Reference source not found.**and Exhibit 3, *Local Vicinity Map Aerial Base***Error! Reference source not found.**. The site is located approximately 28 (aerial) miles inland from the

Pacific Ocean, and situated in the Prado Basin floodplain east of the City of Chino Hills at an elevation of 553 to 567 feet above mean sea level (AMSL).

The proposed project site is located within the Prado Dam, California, 7.5-minute USGS Topographic Map, in an unsectioned area in Township 2 South, Range 7 West (**Error! Reference source not ound.**). Using decimal degrees, the center point of the site corresponds to 33.9547150°N, -117.643081°W (Exhibit 3).

On a regional scale, the Proposed Project site is located approximately 1.6 miles east of State Route 71 (SR-71), 0.3 mile east of Euclid Avenue (SR-83), 0.35 mile south of Pine Avenue, 9.75 miles south of the SR-60, 5.23 miles west of Interstate 15 (I-15), and 4.4 miles north of the Riverside Freeway (SR-91).

# SECTION 2: ALTERNATIVES

## 2.1 - No Action Alternative

The No Action Alternative would consist of the present conditions, including use of the existing sewer line within the current USACE easement (that currently serves the Park and golf course) as well as the use of the existing 21-inch line that gravity flows from the development within The Preserve community, north of Pine Avenue, westerly along Pine to its metered connection to the Inland Empire Brine Line (IEBL) that was formerly called the Santa Ana Regional Interceptor (SARI) line (near Johnson Avenue).

The existing City sewer line within the Pine Avenue right-of-way is temporarily connected to the IEBL and currently serves a K-8 public school, a library, a community center, the CIW, and approximately 1,976 dwelling units (roughly 6,000 people) and conveys around 400,000 gallons per day of sewage. Under the No Action Alternative, the USACE would not approve the new easement as described in the Proposed Project, and customers that currently use the 21-inch line in Pine Avenue could be without sewage disposal starting on March 15, 2017. This is due to the mandated disconnection from the IEBL for which SAWPA has made clear its intentions not to grant any future extensions to the City of Chino for the use of the IEBL. The IEBL was intended to remove salts from industrial uses and desalting plants within the Santa Ana River watershed to prevent the degradation to water quality, thereby allowing better use of groundwater resources and expanding the ability to reclaim water. Existing sewage flows from The Preserve area of the City including an existing K-8 public school, a library, a community center, and the CIW, in addition to future build out within The Preserve including another K-8 public school, another public library, another public community center, a senior center, a police substation, recreation centers and the area to the south of Chino-Corona Road, would require that the City of Chino develop another method to dispose of sewage, which would involve the construction of two new lift stations in the southern portion of The Preserve. This would be an offsite alternative if the Proposed Project were not approved, see Section 2.3 for further detail.

Sewage would be collected at two low points within The Preserve where two lift stations would be required (shown with the orange ‘X’s on the Sewer Alternative, Exhibit 4). The first lift station that would be constructed in Phase I would be located on the northwest corner of Pine Avenue and Mayhew Avenue (which would be the proposed road just east of Johnson Avenue and north of Pine Avenue). The sewage generated in the area north of Pine Avenue would gravity flow to this first lift

station. The lift station would convey flows through a force main line to the existing Kimball Interceptor line at Kimball Avenue and convey flows to the RP5.

The second lift station would be constructed in Phase II to serve the area south of Pine Avenue adopted in the City's Specific Plan. The construction of the sewer lines and the lift station would occur as one of the first activities to provide infrastructure to the areas south of Pine Avenue prior to the construction of the residential, commercial and community structures. The lift station would be located on the northeast corner of Chino Corona Road and Chino Corona Road (also called Mill Creek Avenue). The sewer pipeline from this location could continue up Mill Creek Avenue to the Kimball Interceptor, and then continue to the RP5. Because the new sewer line has been recently constructed from Hellman Avenue to Mayhew Avenue, the pipeline from the Phase II lift station could not connect and gravity flow into the existing 21-inch sewer line that runs parallel to the IEBL along Pine Avenue to Mayhew Avenue. The 21-inch line was sized to accommodate the flows only for the area north of Pine Avenue in concert with the City's adopted Master Plan of Drainage. Thus, each lift station would convey flows in a northerly direction to the Kimball Interceptor. The No Action Alternative would require the build out of two lift stations instead of the proposed singular one. Additional environmental impacts would result from the construction of two separate lift stations and more importantly, the potential for operational issues associated with two separate systems. Therefore, it is not as efficient and the capital and operating costs would essentially double with two lift stations. Additionally, the immediate and ongoing environmental impacts would be greater than the Preferred Alternative. Ongoing operations and maintenance for two sewer pipeline systems and two lift stations, respectively, would pose more environmental risks than the Preferred Alternative. The City would construct the two lift stations and pipelines only in the event the Proposed Project would not be approved.

In addition, the No Action Alternative would not provide any connections to the Park for existing or future planned expansion nor would it allow for connections to accommodate the CIW. The current facilities would continue to degrade and be subject to prolonged down time to manufacture the custom parts, estimated to be a minimum of four to six months, should the lift station be inundated by flood waters and damaged. The existence of the deteriorating lift station presents the opportunity for inundation and releases of sewage into the Prado basin, thus increasing the risks to health and safety. The Park campsites would not be expanded because of the lack of capacity with the existing sewer lines and lift station. The Park would need to be closed to the Park users for health and safety in the event of continued failures of the lift station because it services the existing restrooms and camp sites.

The existing USACE easement that contains the sewer system that serves the golf course and the Park includes a lift station just north of the Park, near Johnson Avenue, which forces flows westerly, turning northwesterly within an existing 10-inch pipe to the IEUA's Regional Plant 2 (RP2). The RP2 facility is located within Prado Dam's flood zone and is on leased land owned by the USACE. From 1960 to 2002 RP2 treated both liquids and solids. Since 2002, RP2 acts only as a solids treatment facility. It receives solids removed from IEUA's Carbon Canyon Water Recycling Facility and RP5. No sewage is treated at RP2, but it serves as a regional lift station, forcing flows north to RP5 for sewage treatment. RP2's lease will expire in 2035. Upon expiration of the existing sewer line easement within the Park on Federal land, the USACE could renew the existing sewer easement, and conditions would remain unchanged, or the USACE could decide not to renew the existing sewer easement, in which case the existing easement location would be restored to pre-easement conditions.

If the USACE chose not to renew the existing easement, the City of Chino would be unable to provide sanitary sewage disposal for the Park since it is located on USACE land and could not remove sewage from the site without crossing USACE lands. The only option would be onsite collection, treatment, and effluent disposal. Therefore, without permission to utilize the Proposed Project's lift station at the geographic low point and the associated pipelines on USACE land, the City would only accommodate the existing and planned community development outside of the USACE's land and would not provide services to the Park or CIW.

If the USACE chose to renew the existing easement, then sewage disposal at the Park would continue as it presently operates and as described. The No Action Alternative would not meet the Proposed Project's purpose and need, but it carried forward for full analysis for comparison purposes.

## 2.2 - Alternatives Carried Forward for Further Analysis

The proposed Alternatives are presented below, with Alternative 1 representing the Preferred Alternative. The locations of proposed sewer easement alignment alternatives are shown in Exhibit 5.

A brief description of each alternative sewer easement alignment is provided as follows:

### 2.2.1 - Alternative 1 (Preferred Alternative)

The sewer easement would require open trenching except where the easement traverses through depressional wetlands, in which horizontal directional boring would be utilized to avoid impacts to sensitive willow-cottonwood riparian habitat. The new pipeline would be below grade and the lift station would be elevated above the 566-foot inundation level and located on the IEUA easement

adjacent to an existing dechlorination facility. The flood water capacity of the Prado Basin would experience a net increase of 0.025 acre-feet due to offset grading and off-site (outside of the 566-foot inundation line) removal of an additional net 40 cubic yards of soil to compensate for the volume displacement of the proposed lift station. The existing lift station that is within the 566-foot inundation line would go off line and be removed at the completion of the Proposed Project. This alternative is discussed in greater detail in Section 3, below.

### 2.2.2 - Alternative 2

The same alignment as Alternative 1, except open trenching would be used through the entire length of the sewer easement. This onsite alternative is the most cost effective plan, but would result in loss of sensitive willow-cottonwood riparian habitat, which would result in adverse modification of Federally-designated Critical Habitat for the endangered least Bell's vireo. The new pipeline would be below grade and the lift station would be elevated above the 566-foot inundation level and located on the IEUA easement adjacent to an existing dechlorination facility. The flood water capacity of the Prado Basin would experience a net increase of 0.025 acre-feet due to offset grading and off-site (outside of the 566-foot inundation line) removal of an additional net 40 cubic yards of soil to compensate for the volume displacement of the proposed lift station. The existing lift station that is within the 566-foot inundation line would go off line and be removed at the completion of the Proposed Project.

## 2.3 - Alternatives Considered but Not Carried Forward for Further Analysis

Due to the unique geographic conditions of the Proposed Project site and surrounding area, no specific offsite alternative is practical or feasible at this time. Therefore, the No Action Alternative is the only feasible offsite alternative (No Action Alternative is shown in orange on the Sewer Alternative Exhibit 4). The other offsite/onsite alternatives considered but not carried forward for analysis are described below:

### 2.3.1 - Alternative 3

The sewer easement and alignment would be located along the existing service road that runs north-south along the eastern part of the Park. This alignment would be located west of Alternatives 1 and 2. This alignment would completely avoid the sensitive willow-cottonwood riparian habitat, but would require crossing an existing Southern California Edison (SCE) easement located parallel and to the east of the proposed alignment. SCE requires that the proposed pipeline cross the SCE easement at a 90° angle (+/- 15°). Since the proposed pipeline alignment runs parallel to the SCE easement,

crossing under the easement would create an elbow bend which is infeasible for gravity flow from an engineering perspective. The elbow bend in the pipeline carries a significantly greater risk of sewage backing up in the system and creating a greater environmental risk to the Park restroom and area users. Also, this Alternative would not meet the City's stated purpose and need. As a result of this feasibility limitation, this Alternative was not carried forward for further analysis.

### 2.3.2 - Alternative 4

The idea of multiple onsite collection, treatment and effluent disposal systems was rejected early in the planning process between the City and IEUA because it was orders of magnitude less efficient and less reliable than treating sewage at RP5. Under the multiple systems scenario, the City would construct only those facilities necessary to accommodate their needs. San Bernardino County Parks and the CIW would need to construct and permit their own systems. RP5 has been operational since 2004 and was designed to accommodate future demand in the region. Multiple onsite collection, treatment and effluent disposal systems would pose greater environmental risks than the Preferred Alternative due to the greater opportunity for failure and spills. The regulatory agencies approved the RP5 as a regional type facility. The regulatory agencies preferred the regional consolidated approach to sewage treatment and management afforded by the RP5. Multiple additional systems would be redundant to the RP5 that pose significantly higher risks of environmental issues and may not be approved by the regulatory agencies. Thus, the purpose and need of the project would not be met.

### 2.3.3 - Alternative 5

A variation of the Preferred Alternative was considered where the same alignment as the Preferred Alternative would be implemented with the exception of no manholes located within jurisdictional waters. While this alternative would avoid 0.0009 acre of permanent impacts to jurisdictional waters, it would preclude the pipeline alignment from crossing SCE's easement at a 90° angle (+/- 15°). Thus, the alignment would create an angle that would not allow for efficient gravity inflow and would be subject to greater risks of sewage backup within the pipeline and potentially into the Park restrooms. As a result of this feasibility limitation, this Alternative was not carried forward for further analysis.

### 2.3.4 - Alternative 6

Theoretically, the existing 21-inch gravity line that serves The Preserve existing community north of Pine Avenue and is located within Pine Avenue could be continued west along Pine Avenue, then northwest in El Prado Road to the IEUA's RP2. This sewer system would be mostly offsite until just west of Euclid Avenue where it enters USACE land as the sewer system feeds to RP2. However, this

alignment would have significantly greater environmental effects than other alternatives considered for the following reasons:

1. Due to two major dips in the Pine Avenue right-of-way, one just east of Euclid, and the other, west of Euclid near El Prado Golf Course, the trench depth required to maintain gravity flow to RP2 would be 40 feet below the roadway surface. This depth is infeasible in a busy roadway because of the required trench width. In order to safely trench to a depth a 40 feet, various terraced levels would be created until the final depth is reached. This would require complete temporary closure of Pine Avenue, which is a major roadway. The Chino Circulation Element designates Pine Avenue as a Primary Arterial 6-lane facility between Hellman Ave and Euclid, and a Primary Arterial 4-lane facility between Euclid and the west city limits. Theoretical capacity, or level of service (LOS E), of a 6-lane arterial roadway is approximately 60,000 cars per day. Complete closure of Pine Avenue would have a significant environmental effect on traffic circulation and air quality in the region. Additionally, for future maintenance and in the event of an emergency such as an earthquake, it would be extremely difficult for the City to access the pipeline in a timely manner. The sewage system and traffic would be disrupted for a substantial period of time causing significantly greater environmental effects than other alternatives considered.
2. RP2 is at its capacity and would require a substantial upgrade in order to handle the additional flows from the Park and the planned expansion, the CIW, and The Preserve community planned expansions. Currently, RP2 only treats solid waste and does not treat any direct sewage waste. RP2 also serves as a regional lift station to force liquid sewage waste flows north to RP5 for treatment. IEUA does not intend to upgrade or improve the RP2 because it instead utilizes the newer RP5 as the major sewage treatment facility. IEUA's investments would be at the RP5 where they would treat existing and future sewage. To use the RP2 instead of the RP5 for the Proposed Project, the costs would be doubled (an estimated $12 million to expand the RP2 that is currently at full capacity versus an estimated $6 million to full build out at the RP5). Additionally, RP2's lease is due to expire in 2035 in which the USACE may or may not renew the lease with IEUA.
3. RP2 is currently located within the 566-foot inundation zone. In the event of a major flood, the plant could shut down and contaminate the Prado Basin. Adding substantial flows to RP2 would increase the potential for significantly greater environmental damage compared to other alternatives considered.

In order to gravity flow sewage from development south of Pine, another lift station would have to be constructed within The Preserve build out area to force flows to the 21-inch line in Pine Avenue. However, the water and sewer lines within Pine Avenue have been constructed and the 21-inch lines were sized to accommodate only the build out north of Pine Avenue, not the build out of the area south of Chino Corona Road, the existing and planned expansion of the Park, or the CIW. Therefore, while the aforementioned offsite/onsite alternative might be theoretically possible, it is not practical from an environmental perspective when other alternatives carried forward provide less significant environmental effects. In addition, it would not provide connection or upgrades to the existing and future expansion of the Park or the CIW or the public benefits that would otherwise be provided by other alternatives. Thus, this alternative does not meet the project purpose and need.

### 2.3.5 - Alternative 7

Similar to the above offsite/onsite alternative, a second new sewer line could be constructed to parallel the existing 21-inch line and the IEBL. This would involve more construction related impacts to traffic, air, noise, and disruption to local residents and businesses. Also, this sewer system would be mostly offsite until just west of Euclid Avenue where it enters USACE land as the sewer system feeds to RP2. Under this scenario, the City would not construct sewage facilities for the Park and CIW. In fact, the City would not construct this line due to non-compliance with their adopted Master Plan of Drainage and the additional environmental effects and ramifications of the time required for design, and the uncertainty of regulatory permitting and approvals. Thus, this alternative would be more environmentally impactful than other alternatives considered and would not meet the project purpose and need.

## SECTION 3: PREFERRED ALTERNATIVE

The City of Chino is proposing to acquire easements on Federal land to accommodate the construction of new sewer facilities. These easements would be located within the San Bernardino County leasehold of Federal property for the Park. The Preferred Alternative represents the most efficient, cost effective, and least environmentally impactful method to convey and treat sewage for all the facilities in a collaborative manner. There are two major phases of the Preferred Alternative related to the requested easements and associated sewer facilities improvements. The first phase would be Phase I and the second phase would be Phase II, each is described in greater detail below. Phase I, which would occur immediately, would be located in an area that is almost completely paved and is entirely disturbed. Phase II likely would be constructed immediately or within one year after Phase I is completed, and would be located in an unpaved and undeveloped area generally located to the east of the developed part of the Park, and includes some areas that have jurisdictional waters and sensitive biological resources. See Exhibit 6, Project Phasing. Two construction contracts would be awarded by the City to accelerate the completion schedule to approximately 200 working days. The timing could depend on the development south of Chino-Corona Road. A preliminary design has been prepared, but not yet finalized, for the new sewer system. Final design would commence after completion on this environmental process and the USACE decision.

The new pipeline system would flow to the proposed lift station by gravity. The proposed new lift station would be approximately 300 feet east of the existing lift station. See Exhibit 6. The new lift station would be constructed within the already paved easement area that houses the IEUA dechlorination facility near the Prado Park Equestrian Center. The flows must then be lifted through a force main line to convey flows to the treatment plant. The new lift station would be elevated above the 566-foot inundation elevation and would therefore, not be subjected to periodic down time due to flooding. The proposed new lift station would allow conveyance of flows out of the Prado basin to the Kimball Interceptor and then to the RP5, which was developed to accommodate the existing and new community development in The Preserve including two K-8 public schools, two public libraries, two public community centers, a senior center, a police substation, recreation centers, as well as the flows from the Park and its planned expansion, a number of public parks, and the CIW.

The Proposed Project would not infringe upon Federal project operations and maintenance activities, or reduce flexibility for the Prado Dam Flood Control Project because the surface area of the new sewer facilities, once installed, would be minimal. The lift station facility would be co-located on the same site as an existing IEUA dechlorination facility that is already hard-surfaced. Additionally, the lift station facility would be located on a 14-foot-high raised platform, which would raise the facility

above the 566-foot Prado Dam maximum flood inundation level. With the exception of the manhole covers, once installed, the entire sewer pipeline system would be located underground.

Because most of the potential environmental impacts from the Proposed Project are associated with the implementation of Phase II, much of the analyses in this EA relates to this phase. In many cases, proposed avoidance/minimization/mitigation measures are applicable to only the development of Phase II. A detailed description of each of the two phases is provided below.

## 3.1 - Phase I

The easements for Phase I would run north-south along Johnson Avenue starting at a point roughly at the northern edge of the Prado Park Equestrian Center, continuing south for approximately 680 feet. Johnson Avenue is a single lane north/south roadway that is approximately 1,769 feet or 0.33-mile-long and approximately 20 feet wide and is located south of Pine Avenue. As Johnson Avenue runs south it stops at the Park where a gate restricts further access and a road continues in the Park. See Exhibit 6. The easement for this segment would be 22 to 23-feet wide and would be contained primarily within the existing Johnson Avenue, except for a small area on the east side of the roadway. Additionally, a 30-foot temporary construction easement would be issued (15 feet additional on both sides of the easement). This area is heavily disturbed and does not include any Federal or state jurisdictional waters or sensitive biological resources.

The easement would then turn east running through an existing parking lot and includes portions of an existing IEUA dechlorination facility site. This segment of the easement would cover the same area as an existing IEUA easement and associated facility, which is completely developed, fenced, and hard-surfaced. This area would be used primarily to house a new sewer lift station. The lift station enclosure would be constructed on a concrete podium roughly 14 feet in height (one foot above the 566-foot inundation line) and approximately 1,900 square feet in area. The electrical transformer and emergency generator would be housed on top of the podium. The emergency generator would be enclosed within a sound barrier. Four wet wells with submergible pumps (located at each well bottom) would be constructed as a part of the podium then extending 40 feet below ground surface (to allow for gravity flow in Phase II). These wet wells would be completely water-tight with a total depth from podium top to well bottom of 56 feet. Electric power would be provided by the existing SCE power line on the site. The backup generator would only be used in emergencies when electric power is lost for temporary periods and to test or service the generator.

Sewer system improvements in Phase I would support service for that portion of The Preserve generally located north of Pine Avenue. This includes the 1,976 current connections plus another

1,996 units associated with existing Tentative Tract Maps, plus another 2,000 units that have not yet been lotted (approximate number based on acreages multiplied by average density per land use designation). The existing 21-inch gravity sewer line that extends along Pine Avenue to Johnson Avenue would be extended south to the proposed lift station. Once sewage reaches the lift station, it would be transported back to the north via dual 16-inch force mains along Johnson Road, leaving the Proposed Project area (and Federal land) just north of the Prado Park Equestrian Center to Pine Avenue. At Pine Avenue, the dual 16-inch force mains would travel a short distance east within the Pine Avenue right-of-way, and then north along the right-of-way of the future Mayhew Avenue until it reaches the 54-inch portion of the Kimball Avenue Interceptor, just east of Euclid Avenue. Flows would then continue west to the IEUA RP5 sewage treatment plant located at Kimball Avenue and El Prado Road.

### *Construction*

Construction of Phase I would involve establishing a connection from the existing 21-inch gravity line located within Pine Avenue at the current connection location to the IEBL line. Once completed, a dry connection to the IEBL (the current connection) would remain in place so that in the event of an emergency, flows could be diverted to the IEBL. Construction would take place within the roadway at a depth of around 18-20 feet. The pipeline system would be installed using an excavator and dump trucks.

Trenching would be conducted with an excavator and a dump truck along the right-of-way of Johnson Avenue from Pine Avenue to the existing parking lot located just south of the Prado Park Equestrian Center. The trench would then continue east through the parking lot, to the location of the new lift station on the IEUA easement site of the current dechlorination plant. This trench would be constructed to accommodate the 21-inch gravity line and two 16-inch force mains. The excavator would be used for trenching and would also be used to install the pipeline with a chain attached to the excavator. Trench excavation would initially require removal of earthen material for the pipeline to be installed within the open trench and then backfilled with excavated earthen material which would be re-compacted over the installed pipeline. Approximately 300 cubic yards of excess earthen spoils would be removed during trenching with the excavator loading the spoils into the dump truck. The dump truck would then carry the spoils to an offsite area above the 566-inundation elevation located on private land at the corner of Pine Avenue and East Preserve Loop. See Exhibit 7 for construction haul route. Approximately 38 truckloads would be required to transport the spoils to the offsite location. The pipeline installation for Phase I would take approximately 80 working days. Trenching and installation of pipeline and re-compacted backfill would also occur within the right-of-way of the future Mayhew Avenue, north from Pine Avenue to Kimball Avenue (just east of Euclid Avenue) to

accommodate the two 16-inch force mains. Construction would also occur within the Kimball Avenue right-of-way to tie in the two 16-inch force mains to the existing Kimball Avenue Interceptor.

As described, in order to protect the new lift station from the Prado Dam maximum flood inundation level (566-foot based on National Geodetic Vertical Datum (NGVD) 1929 Datum), the new lift station would be part of the overall wet well enclosure structure that is also the protection from inundation. Four wet wells would be constructed and would extend approximately 40 feet below ground surface in order to allow for gravity flows from Phase II, and extend 14 feet above ground level to the location of the pumps. The wet well would be sealed and watertight. The new lift station would be constructed using an excavator, dump trucks, concrete trucks, a portable wheel crane, a delivery truck, and several skilled workers. An excavator would be used to dig a 40-foot deep pit for the new lift station's wet well enclosure within the area of the dechlorination facility. The pit would require the removal of approximately 800 cubic yards of spoils that would be hauled offsite using a series of two dump trucks for installation of concrete and rebar. The excavator would load the spoils into one dump truck while the other dump truck is in transit to the offsite area, located at the corner Pine Avenue and East Preserve Loop, in a series of loading and dumping. See Exhibit 7. This would require approximately 100 truckloads total between the two dump trucks over a period of approximately two working days. After the 40-foot pit is excavated, a delivery truck would carry rebar to the new lift station site over a period of approximately one day. The rebar would be used for structural support of the wet well enclosure. Following rebar installation in the excavated pit by skilled workers, a series of concrete trucks would pour approximately 200 cubic yards of concrete into the rebar reinforced pit. Delivery of concrete would occur over a period of approximately one day using a series of 25 concrete truck trips limited to one concrete truck making a delivery to the site at a time. All concrete must be poured within one day to allow the concrete to cure together appropriately. The concrete would need approximately 28 days to cure, after which a portable wheel crane would be used to place the backup generator, the lift station pumps and its components onto the raised platform of the new lift station over a period of approximately one day.

The volume occupied by the lift station and the enclosure below the 566-foot elevation inundation area (approximately 297 cubic yards) would be offset by the excavation of 337 cubic yards of fill from the small slope located approximately 150 feet southeast of the proposed lift station. Prior to fill removal the slope would be staked and surveyed. The removal of fill would be done using an excavator and dump trucks. Two dump trucks would carry a combined 42 loads over a period of approximately two days. The excavation and transportation of fill would occur simultaneously with the excavation and removal of the new lift station's pit. The material would be transported approximately 2 miles to the location of an offsite area above the 566-inundation elevation located at

the corner of Pine Avenue and East Preserve Loop. This would result in a net gain of 40 cubic yards (0.025 acre-feet) in flood water storage.

The new lift station would replace the existing one at the Park. Therefore, the existing lift station at the Park, which is within the 566-foot inundation line, would go off line and be removed at the completion of construction of the new lift station during Phase I and disconnection from the IEBL. The existing lift station is fenced and located within a highly disturbed area. No vegetation or sensitive resources are located within the existing lift station's area. Removal of the existing lift station would be done with a small crane and several laborers. The small crane would be used to remove the lift station's generator. Several laborers would disconnect the generator, remove the pumps, and remove the electrical wiring. A Southern California Edison worker would remove the electrical meter prior to removal of electrical wiring. The removal of the existing lift station would take approximately one to two days.

Construction of the Phase I sewer lines and the lift station would be initiated after approval from the USACE and would take approximately 200 working days. Testing for operational approval by the IEUA and the City would be conducted for the following 4-6 months after construction to ensure the system is able to operate in accordance with regulatory requirements.

## 3.2 - Phase II

Phase II would be located in an unpaved and undeveloped area generally located to the east of the developed part of the Park, and includes some areas that have jurisdictional waters and sensitive biological resources.

Phase II of the sewer system would require a pipeline easement that would extend in a generally southeasterly direction from the proposed lift station for a distance of approximately 2,000 feet to the low point of The Preserve, near the intersection of Cucamonga Avenue and Chino-Corona Road. The easement would traverse an undeveloped area, generally to the east of the developed portion of the Park, although it would still be located within the County of San Bernardino leasehold for the Park. The easement proposed in this area would be 20 feet wide, with an additional 30 feet temporary construction easement (15 feet additional on both sides of the easement) for a combined easement width of 50 feet. However, within areas containing jurisdictional waters and/or sensitive habitat, the easement would maintain an overall 20-foot width in order to minimize impacts.

The improvements that would be constructed for Phase II would be a gravity-fed (flowing to the west/northwest) 21-inch sewer line that would serve that portion of The Preserve located south of

Pine Avenue and other future development proposed to the south of The Preserve including the Park's planned expansion. Along this portion of the proposed easement, the sewer would be a gravity-fed sewer line with 3 manholes interspersed at different lengths across the alignment. See Exhibit 8. A single-lane, unpaved service road would be constructed within and along the length of the easement (parallel to the pipeline) for the portions of the easement outside of the wetland area for access and maintenance purposes. The unpaved road would be approximately 15 feet wide located north of the wetland area as well as south of the wetland area. See Exhibit 6.

The easement would traverse a wetland area consisting of Willow-Cottonwood Riparian Woodland suitable habitat for the Federally endangered least Bell's vireo. In order to minimize the impacts in the wetland area, horizontal directional drilling (HDD) or a similar method would be used, for a stretch of approximately 870 feet in one stretch connecting manholes. HDD is done using a HDD machine with GPS capabilities for accuracy and is considered a standard alternative method to open trenching when a need to avoid open trenching occurs. An approximately 20-foot by 40-foot area is used at the location of the manholes to accommodate an excavator to dig a pit, the HDD machine to auger and drill the underground tunnel and push the pipelines through the tunnel, and a dump truck to haul out the excess earthen material from the tunnel. See Exhibit 8A. Segments of approximately 20-foot pipes would be placed on the ground in the same area to feed into the tunnel.

The existing easements on USACE property include 2.94 acres for a 10-inch IEUA sewer pipeline that currently serves the CIW and the Park. The existing easement would remain and would function as is currently until the project is completed. At that time, the line would continue to serve the golf course and clubhouse as an emergency back-up system and for future utility conduits. The CIW would also come online to the new system once Phase II is complete. Exhibit 9 provides a schematic depiction of the new easements requested and the existing easements.

### *Construction*

During Phase II, to avoid potential impacts to water resources and sensitive habitat and species, construction activities within sensitive areas would occur only during the months of September through February and during the dry weather. Construction equipment would include one excavator/trencher, one dump truck, and appropriate equipment for laying pipe (including directional boring). A tractor would be needed to clear vegetation (in non-sensitive areas) prior to trenching and along the two temporary access roads in the sensitive habitat areas. The classifications for vegetation to be cleared consists of scrub-shrub wetland, lawn, and ruderal. All other areas of trenching would occur in disturbed areas with no vegetation community. The non-sensitive areas of Phase II include the easement from the new lift station south to the limit of the northern wetland area and from the

southern limit of the wetland area south to the intersection of Cucamonga Avenue and Chino-Corona Road. See Exhibit 8.

The construction staging area would be located on the eastern portion of the existing public parking lot, adjacent to the dechlorination facility. The existing parking lot is approximately 35,100 square feet or 0.806 acre and is one of eleven parking lots located within the Park. An area approximately 100-feet by 100-feet in size would be temporarily used for staging and would be closed to public access and enclosed with green screen fencing for approximately 200 working days. This staging area within the existing parking lot comprises approximately 10,000 square feet or 0.230 acre, which is approximately 28.5 percent of the parking lot. Gated access to the dechlorination facility would still be available to IEUA during construction.

The dechlorination facility is at the mouth of two equestrian trail entrances utilized by the Prado Park Equestrian Center. The two entrances merge together just south of the dechlorination facility, forming a 'Y' shape. One entrance is on the west side of the dechlorination facility and the other is on the east side of the dechlorination facility. See Exhibit 10. During construction, the Prado Park Equestrian Center would not have access to the west side entrance due to the parking lot staging area temporarily blocking that entrance. However, the east side entrance would continue to be open. The east side entrance is the current preferred ingress/egress to the Park trail system by users from the Prado Park Equestrian Center. This equestrian trail would remain open during construction, except for the installation of the final approximately 250 feet of pipe connecting from the northern HDD limit to the new lift station. See Exhibit 10. The closure for the construction of this segment is expected to be very brief (approximately one day) and the City of Chino would implement a detour for trail users coming from the Prado Park Equestrian Center and would coordinate closely with the Prado Park Equestrian Center to ensure that disruption is minimized. See Exhibit 10 for detour route.

The soil excavated during installation of the initial sewer pipe segment would be temporarily stockpiled in the parking lot as noted above. Soil excavated for the installation of subsequent pipe segments would typically be backfilled to the preceding segment in order to minimize the movement of soil. There may also be the need to temporarily stockpile some soil within the construction staging area. All excess dirt would be hauled offsite by truck, out of the flood inundation area, above the 566-foot elevation. The potential dirt hauled off for the Preferred Alternative related to trenching is estimated to be approximately 1,000 cubic yards for Phase I and 250 cubic yards for Phase II.

Jurisdictional waters for the wetland area within the Phase II have an ordinary high water mark (OHWM) of 1,140 linear feet in which 870 linear feet would consist of pipeline installation with

minimal surface and ground disturbance by way of utilizing the HDD method. This alternative would utilize HDD methods that minimize surface disturbance in this area by drilling underneath the ground surface. The HDD method in this area is used to minimize impacts to jurisdictional waters and its associated vegetation. Boring pit areas 20-feet wide by 40-feet long, within the boundaries of the easement, would be excavated using an excavator and a dump truck to accommodate the HDD equipment. The northern boring pit area would be dug to a depth of 14 feet and the southern boring pit area would be dug to a depth of 11 feet. HDD utilizes a steerable drilling mechanism in which the HDD machine would first drill a burrow, then feed a 29.5-inch pipe sleeve through the burrow, and lastly run the 21-inch gravity fed pipeline through the sleeve. The HDD construction of Phase II would take approximately 14 working days to complete.

The Preferred Alternative anticipates two manholes within the jurisdictional limits of the wetland. The first manhole (Manhole 1) would be located approximately 250 feet southeast of the dechlorination facility fence and the second manhole (Manhole 2) would be located approximately 870 feet southeast of Manhole 1 within the jurisdictional limits. See Exhibit 8. The manhole locations are the same locations where the HDD equipment would be set up. Thus, the pits in these two areas would allow HDD equipment to be setup for 870 linear feet of pipeline to be installed without ground disturbance and the pits would also allow for the installation of Manhole 1 and 2. To install the manholes a 20-foot wide by 40-foot long area would be required to dig the manholes and stage a truck, excavator and drilling machine. Manhole 1 would be dug to a depth of 14 feet and Manhole 2 would be dug to a depth of 11 feet. Manhole 1 requires a deeper depth to allow for gravity flows from Manhole 2. The excavator would load the truck with the excavated material and temporarily deposit the material in the public parking lot. The excess material would be hauled off-site at the completion of the HDD to the offsite area above the 566-inundation elevation located on private land at the corner of Pine Avenue and East Preserve Loop.

The temporary access road for Manhole 1 would extend off the trench access road for the area that would be trenched between the new lift station south to Manhole 1. The access road and trench area from the jurisdictional limit up to Manhole 1 would consist of an approximately 20-foot wide by 200-foot long construction area. This would include the needed area required to stage the HDD, a dump truck, and excavator as well as install Manhole 1, which would be a total of 4,000 square feet or 0.092 acre. No trees would need to be removed for this temporary access area. Manhole 2 would require a temporary access area from the Park service road to Manhole 2, which would consist of an approximately 20-foot wide by 150-foot long construction area within the jurisdictional limits. This would include the needed area required to stage the HDD, a dump truck, and excavator as well as install Manhole 2, which would be a total of 3,000 square feet or 0.069 acre. See Exhibit 8 for

manhole locations. No trees would need to be removed for this temporary access area. These short access areas would be temporary for the construction of the manholes and the HDD and would minimize impacts to the jurisdictional area. Altogether, the access area for the HDD method and the two manholes within the jurisdictional area would total 7,000 square feet or 0.161 acre of temporary impact. The two above-ground manhole covers each require 19.6 square feet of space totaling 39.2 square feet or 0.0009 acre. Thus, 0.0009 acre would represent the only permanent impact in the jurisdictional area.

There is an existing trail located to the west of the proposed sewer line that runs generally along the east edge of the developed portion of the Park. The trail would be temporarily used for construction access during pipeline construction for approximately one week.

## SECTION 4: ALTERNATIVE 2

Alternative 2 would have the same alignment as Alternative 1, except open trenching would be used through the entire length of the sewer easement. Alternative 2 would have the same Phase I and Phase II timing as compared to the Preferred Alternative. Phase I for this alternative would be carried out utilizing the same equipment, methods, and timing of construction as described within the Preferred Alternative above. Phase II for Alternative 2 differs from the Preferred Alternative in the construction method for installing the pipeline segment located within the wetland area containing Federally-designated Critical Habitat. Instead of the use of HDD during construction within the wetland area for Phase II, Alternative 2 would utilize open trenching throughout the sewer alignment within the wetland area as the method of pipeline installation. Open trenching in this area would be done utilizing an excavator and a dump truck in which excess spoils would be hauled to an offsite area above the 566-inundation elevation located at the corner of Pine Avenue and East Preserve Loop. The open trenching in this segment would take approximately 7 working days to complete, whereas the Preferred Alternative's HDD method of construction in this segment would take approximately 14 working days to complete.

Alternative 2 is the most cost effective plan, but would result in loss of sensitive willow-cottonwood riparian habitat totaling approximately 22,800 square feet or 0.52 acre, which would result in adverse modification of Federally-designated Critical Habitat for the endangered least Bell's vireo. As with the Preferred Alternative, the new pipeline would be below grade and the lift station would be elevated above the 566-foot inundation level and located on the IEUA easement adjacent to an existing dechlorination facility. The flood water capacity of the Prado Basin would also experience a net increase of 0.025 acre-feet due to offset grading and off-site (outside of the 566-foot inundation line) removal of an additional net 40 cubic yards of soil to compensate for the volume displacement of the proposed lift station. The existing lift station that is within the 566-foot inundation line would go off line and be removed at the completion of Phase I.

# SECTION 5: ENVIRONMENTAL IMPACTS

This EA is being prepared to support the request by the City of Chino to establish new sewer easements through the Prado Basin. This EA evaluates potential impacts of this Proposed Project and compares these impacts to the existing baseline conditions.

A general description of resource baseline conditions and a summary of expected potential impacts resulting from the no action and action alternatives are provided below. Resource surveys and other technical studies are provided in the respective appendices at the end of this EA.

## 5.1 - General Description of Resource and Baseline Condition

On a regional scale, the Proposed Project site is located approximately 1.6 miles east of State Route 71 (SR-71), 0.3 mile east of Euclid Avenue (SR-83), 0.35-mile south of Pine Avenue, 9.75 miles south of the SR-60, 5.23 miles west of Interstate 15 (I-15), and 4.4 miles north of the Riverside Freeway (SR-91).

Baseline/existing conditions related to each individual environmental topic area are discussed below.

## 5.2 - Potential Expected Direct and Indirect Impacts and Avoidance/Minimization/Mitigation Measures

### 5.2.1 - Geology and Soil Quality, Stability and Moisture

#### I. Significance Threshold

The criteria for significant adverse effects to these resources include substantial effects to people or structures from geologic conditions, including expansive soils, earthquakes, liquefaction, landslides, erosion of topsoil, or otherwise leads directly or indirectly to the destruction and/or degradation of a unique geologic feature.

#### *Liquefaction*

Strong ground shaking could result in liquefaction. Liquefaction, a geologic process that causes ground failure, typically occurs in loose, saturated sediments primarily of sandy composition. However, other structures (such as bridges, roadways, major utility lines, and park improvements) that occupy these areas are vulnerable to damage from liquefaction if not designed in accordance with current regulations and codes.

### *Landslides*

Strong ground motions could also worsen existing unstable slope conditions, particularly if coupled with saturated ground conditions. Seismically induced landslides could overrun structures, people or property, sever utility lines, and block roads, thereby hindering rescue operations after an earthquake.

### *Expansive Soils*

Some of the geologic units have fine-grained components that are moderate to highly expansive. These materials may be present at the surface or exposed by grading activities. Man-made fills could also be expansive, depending on the soils used to construct them.

### *Erosion of Topsoil*

Soil erosion is the process by which soil particles are removed from a land surface by wind, water, or gravity. Topsoil is the uppermost layer of soil, usually the top six to eight inches. Topsoil has the highest concentration of organic matter and microorganisms, and is where most biological soil activity occurs. Plants generally concentrate their roots in, and obtain most of their nutrients from, this layer. Topsoil erosion is of concern when the topsoil layer is blown or washed away, which makes plant life or agricultural production difficult.

### *Geological Features*

Unique geologic features include (but are not limited to) substantial rock outcroppings, hills and ridges, mountains, canyons, waterfalls, rock formations, or other unique features.

### *Regulations Regarding Geology and Soils*

#### *Fault Zones*

In order to protect lives and property from the hazardous effects of fault rupture from earthquakes, the Alquist-Priolo Earthquake Fault Zoning Act of 1972 was implemented "to regulate development near active faults so as to mitigate the hazard of surface fault rupture." The State Geologist (Chief of the Division of Mines and Geology) is required to delineate Earthquake Fault Zones and known active faults. Cities and counties affected by the zones must regulate certain development within the zones. They must withhold development permits for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. Typically, structures for human occupancy are not allowed within 50 feet of the trace of an active fault.

#### *Erosion of Topsoil*

The State Water Resources Control Board (SWRCB) regulates construction activities under a general National Pollutant Discharge Elimination System (NPDES) permit—NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Order No. 98-08-DWQ (1999) (NPDES No. CAS000002). To minimize the potential effects of construction runoff on receiving

water quality, California requires that any construction activity affecting 1 acre or more must obtain coverage under the NPDES General Permit for construction activities. In order to be covered, a project must prepare a Stormwater Pollution Prevention Plan (SWPPP). Components of SWPPPs typically include specifications for construction stormwater quality best management practices (BMPs) that would be implemented during project construction for the purpose of minimizing the discharge of pollutants in stormwater from the construction area. In addition, a SWPPP includes measures to minimize the amount of pollutants in runoff after construction is completed and identifies a plan to inspect and maintain project BMPs and facilities.

## II. Baseline Conditions

### *Liquefaction*

Much of the Proposed Project area is situated on an alluvial fan of unconsolidated, coarse- to medium-grained soil. Groundwater levels in and around the Proposed Project area are shallow, generally in the range of 30 to 500 feet below the surface. Due to the Proposed Project area's loosely compacted, silty, sandy alluvial soil and shallow groundwater, ground shaking and liquefaction would present the most significant hazards during a moderate-to-significant earthquake. Ground shaking causes liquefaction, a phenomena by which soil, due to saturation by groundwater, assumes properties of a liquid, caused by ground shaking. Liquefaction causes shifting and settling of structural foundations, settling of roadways and rupture of underground pipes and cables.

USDA Soils data for the Proposed Project site identify soils as a consociation of Chualar clay loam and Grangeville fine sandy loam. See Exhibit 11.

Where unconsolidated soils are present, ground shaking may be amplified during earthquakes and present a hazard to the structural integrity of unreinforced masonry buildings.

### *Landslides*

Strong ground motions could worsen existing unstable slope conditions, particularly if coupled with saturated ground conditions. Seismically induced landslides could overrun structures, people or property, sever utility lines, and block roads, thereby hindering rescue operations after an earthquake. Despite the presence of faults in the City, the flat terrain of the Proposed Project site, no potential landslide areas exist, and therefore, the possibility of a landslide is highly unlikely.

### *Earthquakes*

According to the United States Geological Survey (USGS), there is one active fault in the Proposed Project area: the Chino-Central Avenue Fault. The fault has two segments that run roughly southeast to northwest, and are located on the western edge of the City of Chino, along the boundary with the City of Chino Hills. Neither segment of the Chino-Central Avenue Fault enters the Proposed Project

area (see City of Chino General Plan, 2010, Figure SAF-1). The southern end of the eastern segment of the fault terminates approximately a quarter mile north of Pine Avenue. The western segment is located in northwesterly alignment approximately half a mile west of SR-71.

The Chino-Central Avenue Fault in Chino is not found on the Alquist-Priolo earthquake-fault zone list because the CGS has determined that the Chino-Central Avenue Fault is sub-surface and does not represent a risk of ground rupture in the event of an earthquake. Although the Proposed Project area is not identified on the earthquake-fault zone list, it lies within the seismically active Southern California region, which is subject to earthquakes of varying magnitudes. In the last several decades, the region has experienced major earthquakes including the San Fernando quake of 1971 and the Northridge quake of 1994. However, the Proposed Project area did not experience any major damage from these earthquakes.

Future earthquakes could generate various levels of seismic ground shaking onsite, and could potentially damage and/or destroy proposed improvements. The potential severity of ground shaking depends on many factors, including distance from the originating fault, the earthquake magnitude, and the nature of the earth materials below the Proposed Project site.

### *Expansive Soils*

Expansive soils, as defined in Table 18-1-B of the Uniform Building Code (UBC), generally denote soil types that swell when they absorb water and shrink as they dry (including certain clays). USDA Soils data for the Proposed Project site identify soils as a consociation of Chualar clay loam and Grangeville fine sandy loam.

### *Erosion of Topsoil*

The Proposed Project area's loosely compacted, silty, sandy alluvial soil would be susceptible to erosion resulting from wind or water. The surrounding area is susceptible to periods of high-winds or storm events that could lead to substantial soil erosion, especially during construction.

### *Geological Features*

There are no unique geologic features located on or adjacent to the Proposed Project site. The general area in and around the Proposed Project area is relatively planar. There are a few knolls located within the area where Phase II would be constructed (west of the CIW), but nothing unique or substantial. There are no substantial rock outcroppings within the site.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed on Federal land, and no further improvements would be made provided the easement is kept in place. The general Proposed Project area would continue to have the same susceptibility to the aforementioned geotechnical issues. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Therefore, because no new structural improvements would be made and no earthwork would occur on Federal land, impacts associated with geology, soil quality, stability, and moisture would be the same as the existing conditions.

### *Preferred Alternative (Alternative 1)*

*Liquefaction*

The Preferred Alternative implementation would result in the establishment of an easement and construction of sewer lines and a lift station. The pipeline and lift station would conform to all applicable State and local building regulations and City design standards. A Geotechnical Investigation was prepared for the sewer lift station location (Appendix A). A detailed liquefaction analysis was performed and the results indicate that the subsurface soils are not prone to liquefaction. Therefore, impacts would be less than significant.

*Landslides*

Despite the presence of faults in the Proposed Project area, due to the flat terrain of the site, no potential landslide areas are found in the area, or in its Sphere of Influence, and therefore, the possibility of a landslide is not likely. Impacts related to landslides would be less than significant.

*Expansive Soils*

The Preferred Alternative site is not within an area that contains expansive soils. Additionally, to further reduce these less than significant impacts, compliance with Avoidance/Minimization/Mitigation Measure (MM) GEO-1, which requires the implementation of recommendations from the geotechnical and soils report, would reduce less than significant impacts further. With the incorporation of MM GEO-1, impact would be less than significant.

*Erosion of Topsoil*

Construction of the Preferred Alternative could result in soil erosion due to precipitation events or from strong winds, but would not be considered significant. To further minimize less than significant impacts, MM GEO-2 (and applicable state regulations) would involve development and implementation of a SWPPP, which would demonstrate compliance with the NPDES permit. The SWPPP would provide for protection of water quality during construction and operation of the Preferred Alternative and the City would submit the SWPPP to the Regional Quality Control Board

(RWQCB) for review. The imposition of Best Management Practices (BMPs) that are a requirement of the SWPPP demonstrates compliance with Federal and state water quality standards.

Typically, the SWPPP would require the following actions to occur during construction of the Preferred Alternative:

- **Erosion control.** Employ measures to prevent the movement of soil by wind or water during construction and may include watering, and physical barriers to the movement of soil particles.

- **Tracking of Soil.** Employ measures to effectively minimize the tracking of soil by vehicles and may include gravel driveways, wheel washes and street sweeping.

- **Wastes and Cleanup.** The SWPPP must also address washout, cleanup, and disposal related to debris, trash, concrete, asphalt, paint, coatings, solvents, and other materials applicable to preparation and construction at the Preferred Alternative site.

- **Other Reasonable BMPs.** The SWPPP must also implement other applicable BMPs as needed to keep pollutants away from stormwater. The SWPPP must also identify additional applicable measures taken during the storm season and when storms are anticipated.

Compliance with the requirements and the provisions of the SWPPP, as described in MM GEO-2, during construction activities would further reduce less than significant impacts with any potential construction period impacts on geological resources. Impacts would be less than significant.

*Geological Features*

Since there no unique geologic feature present on or adjacent to the Preferred Alternative site, no impacts would occur.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except open trenching would be used through the entire length of the sewer easement instead of directional drilling for the segment that spans sensitive biological habitat. This alternative would be located in the same location as the Preferred Alternative, and as a result, would be susceptible to the same aforementioned geotechnical issues. Construction activities would affect a similar area of disturbance and similar soils, and open trenching would require adherence to Avoidance/Minimization/Mitigation Measures

GEO-1 and GEO-2 to further minimize less than significant impacts. Therefore, impacts associated with geology, soil quality, stability, and moisture would be comparable to the Preferred Alternative.

## IV. Avoidance/Minimization/Mitigation Measures

**MM GEO-1** The contractor shall follow the following recommendations outlined in the Geotechnical Investigation during construction:

**Subterranean Base Structure of Lift Station:**

- The proposed excavation is expected to extend to competent alluvial soils. However, if compressible or unsuitable soils extend below the excavation bottom, the soils will need to be over-excavated down to firm native soils.

- The exposed soils beneath the subterranean structure should be scarified an additional 12 inches, moisture conditioned and compacted to a minimum of 90% relative compaction. If the exposed soils at the bottom of the excavation are oversaturated, a 12-inch layer of gravel or rock may be placed to stabilize the bottom.

**Trench Backfill:**

- Onsite soils are suitable for placement as backfill provided they are screened of trash, organic matter and other deleterious substances. Oversize materials with a maximum dimension greater than 12 inches shall not be placed as trench backfill.

- Trench backfill within street right of ways shall be compacted to 90% relative compaction as determined by the ASTM D1557 test method. Backfill may be jetted as a means of initial compaction; however, mechanical compaction will be required to obtain the required percentage of relative compaction. If trenches are jetted, there must be a suitable delay for drainage of excess water before mechanical compaction is applied.

**MM GEO-2** Prior to construction, a Stormwater Pollution Prevention Plan (SWPPP) and erosion control plan for the Proposed Project shall be prepared by the City of Chino and submitted to the State Water Resources Control Board as required for compliance with the National Pollutant Discharge Elimination System (NPDES)

General Permit for Stormwater Discharges Associated with Construction Activity (NPDES No. CAS000002). The SWPPP shall provide for protection of water quality during construction and operation of the Preferred Alternative. The SWPPP shall include a list of feasible Best Management Practices (BMPs) that shall be incorporated during construction of the Preferred Alternative in order to ensure that Federal and state water quality standards would not be violated. BMPs could include, but are not limited to, the use of gravel bags, silt fencing, and general good housekeeping measures to prevent storm water contact with construction materials.

### V. Conclusion

#### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Because no new structural improvements would be made and no earthwork would occur on Federal land, impacts associated with geology, soil quality, stability, and moisture would be the same as the existing conditions and therefore impacts would be less than significant.

#### *Preferred Alternative (Alternative 1)*

Based on the above, impacts to geology, soil quality, stability, and moisture associated with the Preferred Alternative would be less than significant and would incorporate Avoidance/Minimization/Mitigation Measures MM GEO-1 and MM GEO-2 to further reduce the less than significant impacts.

#### *Alternative 2*

Open trenching would require adherence to Avoidance/Minimization/Mitigation Measures GEO-1 and GEO-2 to further reduce less than significant impacts. Therefore, impacts associated with geology, soil quality, stability, and moisture would be comparable to the Preferred Alternative.

## 5.2.2 - Water Resources

### I. Significance Threshold

The criteria for significant, adverse effects to this resource include damage to existing water resources including to water quality, streamflow, wetlands, groundwater recharge, or other floodplain-related management issues; violations to any water quality standard or waste discharge requirement, or otherwise substantially degrades water quality; causes an impairment of beneficial uses of any inland waters; or substantially alters existing drainage patterns.

#### *Regulations Protecting Water Resources*

*Ambient Water Quality Standards*

Pursuant to the Federal CWA (Section 401), water quality standards are "provisions of state or Federal law which consist of a designated use or uses for the waters of the U.S. and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act." Water quality standards for the area are found in the Water Quality Control Plans adopted by the State Water Resources Control Board and the Santa Ana Regional Water Quality Control Board (RWQCB) and are set forth in the Basin Plan for the Region. The water quality objectives standards of the downstream receiving waters from the Preferred Alternative are important because any actions associated with the Preferred Alternative could impact these surface waters. Although not located within the Prado Flood Control Basin, the Santa Ana River (Reach 3), and the Pacific Ocean are downstream receiving waters to the Prado Flood Control Basin; thus, they have been included in Table 1 alongside the Prado Flood Control Basin.

**Table 1 : Water Quality Objectives (Standards)**

| Inland Surface Streams | Hydrologic Sub unit | Water Quality Objectives (mg/L) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TDS | Hard | Na | Cl | TIN | SO4 | COD |
| Prado Basin Management Zone * | 801.21 | — | — | — | — | — | — | — |
| Santa Ana River (Reach 3) | 801.12 | 350 | 260 | 20 | 12 | 2 | 80 | — |
| Pacific Ocean** | — | — | — | — | — | — | — | — |

TDS = Total Dissolved Solids, Hard = Hardness, Na = Sodium, Cl = Chloride, TIN = Total Inorganic Nitrogen, SO4 = Sulfate, CO = Chemical Oxygen Demand.

* Prado Basin Management Zone includes the Prado Flood Control Basin (and all of the Proposed Project site). Within the PBMZ, specific WQO for TDS and TIN apply specifically to Chino Creek, Reach 1A, Chino Creek, 1B, Mill Creek (Prado Area) and Santa Ana River, Reach 3 (see discussion in the Basin Plan, Page 4-27).

**Water quality objectives not listed for the Pacific Ocean in the Santa Ana RWQCB's Water Quality Control Plan, Santa Ana River Basin.

Source: Table 4-1, Water Quality Control Plan, Santa Ana River Basin (Region 8), (1995).

*Drinking Water Maximum Contamination Levels*

Maximum contamination levels (MCLs) are components of the drinking water standards adopted by the California Department of Public Heath (CDPH). The United States Environmental Protection

Agency (USEPA, or EPA) also adopts MCLs under the Federal Safe Drinking Water Act (FSDWA, 42 U.S.C.A §§300f-330j). CDPH drinking water standards are required to be at least as stringent as those adopted by the USEPA. Some California MCLs are more stringent than USEPA MCLs. MCLs include both "Primary" and "Secondary" standards. Primary MCLs are based on human health protection, Secondary MCLs are based on human welfare considerations (e.g., taste, odor, laundry staining).

*Wetland Impacts*

Section 404 of the CWA authorizes USACE to issue permits for the discharge of dredged or fill material into waters of the United States, including wetlands. This section of the Clean Water Act has been interpreted to give USACE jurisdiction over permitting wetlands fill. Wetlands are generally defined as those areas which are inundated or saturated by surface water or groundwater at such a frequency to support a prevalence of vegetation adapted to saturated soil conditions. If wetlands (or other waters of the U.S.) are determined to be potentially impacted by a project, an individual permit (standard permit) or nationwide permit (general permit) may be required. Typically, either of these permit types require some type of mitigation plan.

*Degradation of Water Quality*

USEPA Water Quality Standards (WQS) regulations require that each state have an "anti-degradation policy,"1 At a minimum, California's program must comply with provisions set forth in 40 C.F.R. 131.12(a). Key provisions of the Federal anti-degradation program include maintenance and protection of water quality where the quality of the water exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, and that outstanding national resource water (ONRW), such as waters of National and state parks, are maintained and protected. In summary, the Federal anti-degradation policy is focused on preserving "instream" beneficial uses, protection of aquatic organisms, recreational uses and maintaining ONRW. Federal policy applies only to surface water resources, with a significant nexus to navigable waters.2 State anti-degradation regulations expand to include isolated waters and groundwater resources (State Board Resolution No. 68-16 and Resolution 88-63).

Generally, activities triggering complete anti-degradation analysis include:

- Discharges from new wastewater treatment facilities;

[1] 40 C.F.R. §§131.6(d)

[2] "Waters of the U.S." are defined in 33 CFR 328.3(a). Also, see, U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook, USACE, May 30, 2007.

- Expansion of existing wastewater treatment facilities;
- Reduction in the level of treatment in existing discharges;
- Substantial relocation of an existing outfall; and
- Changes in water quality resulting from water diversions.

### *Compliance with Executive Order 11988 (Floodplain Management)*

Executive Order 11988 (Order) was published in the Federal Register in 1977 (May 24, 1977, 42 F.R. 26951) and applies to executive authority over administrative policy set forth in the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 et seq.), the National Flood Insurance Act of 1968, as amended (42 U.S.C. 4001 et seq.), and the Flood Disaster Protection Act of 1973 (Public Law 93-234, 87 Star. 975). Executive Order 11988 was modified by Executive Order 13690 on January 30, 2015. The Order requires Federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The guidelines address an eight-step process that agencies should carry out as part of their decision-making on projects that have potential impacts to or within the floodplain. (Engineering Regulation 1165-2-26: http://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1165-2-26.pdf).

### *Function and Services of the Wetland Resources*

Based on the hydrogeomorphic contours of the area, and surrounding land-uses. It is expected that the onsite wetlands perform the following functional service:

- Detention of flood waters
- Nutrient/pollutant removal
- Habitat for sensitive species (LBVI)

## II. Baseline Conditions

### *Important Water Resources*

Important surface and groundwater resources are present within the Proposed Project area:

*Surface Water Resources*

A jurisdictional delineation (JD) was completed for the Proposed Project by Jericho Systems, Inc. (Jericho). A wetland feature with hydrophytic vegetation, hydric soils, and hydrology is present within the Proposed Project area. In general, the plant communities that occur within the study area emergent wetland, shrub wetland, perennial, stinging nettle, pepperweed/poison hemlock and willow-cottonwood riparian woodland. For feature specific details please refer to the data sheet provided in Appendix B. The JD confirms the presence of a hydrogeomorphic feature supporting jurisdictional waters subject to the CWA and Fish and Game Code under the jurisdictions of USACE, RWQCB, and California Department of Fish and Wildlife (CDFW) respectively. Evidence of wetland waters of the U.S. was observed. All three parameters that were used for defining a wetlands are present. Hydric soils support hydrophitic vegetation that is fed water ephemerally. Flows onsite are tributary to the Prado Basin Santa Ana River, which continues to the Pacific Ocean, a Traditionally Navigable Water. Jurisdictional waters have an OHWM of 1,140 linear feet.

The location of the jurisdictional feature is shown in Exhibit 12. The Jurisdiction Delineation prepared for the Preferred Alternative has been submitted to the USACE for approval and for processing a CWA Section 404 Nationwide Permit.

The Basin Plan for the SARWQCB denotes the following beneficial uses for the surface waters in the area (Table 2). Although not located within the Prado Flood Control Basin, the Santa Ana River (Reach 3), and the Pacific Ocean are downstream receiving waters to the Prado Flood Control Basin; thus, they have been included in Table 1 alongside the Prado Flood Control Basin.

**Table 2: Beneficial Uses**

| Beneficial Uses | Receiving Waters, Prado Flood Control Basin |
|---|---|
| Municipal/Domestic Water Supply (MUN) | Yes |
| Agricultural Supply AGR) | — |
| Industrial Service Supply (IND) | — |
| Industrial Process Supply (PROC) | — |
| Groundwater Recharge (GWR) | — |

| Beneficial Uses | Receiving Waters, Prado Flood Control Basin |
|---|---|
| Navigation (NAV) | — |
| Hydropower Generation (POW) | — |
| Water Contact Recreation (REC 1) | Yes |
| Non-Contact Water Recreation (REC 2) | Yes |
| Commercial and Sports fishing (COMM) | — |
| Warm Freshwater Habitat (WARM) | Yes |
| Limited Warm Freshwater Habitat (LWRM) | — |
| Cold Freshwater Habitat (COLD) | — |
| Preservation of Biological Habitats of Special Significance (BIOL) | — |
| Wildlife Habitat (WILD) | Yes |
| Rare, Threatened or Endangered Species (RARE) | Yes |
| Spawning, Reproduction, and Development (SPWN) | — |
| Marine Habitat (MAR) | — |
| Shellfish Harvesting (SHEL) | — |
| Estuarine Habitat (EST) | — |

*Groundwater Resources*

As set forth in the Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin, the flood plain behind Prado Dam has unique hydraulic characteristics. Chino Creek, Cucamonga Creek (which flows into Mill Creek) and Temescal Creek join the Santa Ana River behind the dam. Flood control operations at the dam, coupled with an extremely shallow groundwater table and an unusually thin aquifer, significantly affect these surface flows, as well as subsurface flows in the area. Depending on how the dam is operated, surface waters may or may not percolate behind the dam. There is little or no groundwater storage in the flood plain behind the dam. Any groundwater in storage is forced to the surface because the foot of Prado Dam extends to bedrock and subsurface flows cannot pass through the barrier created by the dam and the surrounding hills. Given the close proximity of the groundwater table, this area is designated a surface water management zone, rather than a groundwater management zone. The Prado Basin Management Zone is generally defined by the 566-foot elevation (NGVD 1929 Datum). It extends from Prado Dam up Chino Creek, Reach 1A and 1B to the concrete-lined portion near the road crossing at Old Central Avenue, up the channel of Mill Creek (Prado Area) to where Mill Creek becomes named as Cucamonga Creek and the concrete-lined portion near the crossing at Hellman Road, up what was formerly identified as Temescal Creek, Reach 1A (from the confluence with the Santa Ana River upstream of Lincoln Avenue - this area is indistinguishable because of shifting topography and is now considered a part of the Prado Basin Management Zone), and up the Santa Ana River, Reach 3 to the 566-foot elevation (just west of Hamner Avenue). The Prado Basin Management Zone (PBMZ) encompasses the Prado Flood Control Basin, which is a "created wetland" as defined in this Plan (see the discussion of wetlands elsewhere in this Chapter). Orange County Water District's wetlands ponds are also located within the Prado Basin Management Zone.

The beneficial uses of the proposed PBMZ include all of the beneficial uses currently designated for the surface waters identified above (Table 2: Beneficial Uses). The PBMZ also incorporates the Prado Flood Control Basin. The beneficial uses previously identified for this Basin are designated also for the Zone.

*Presence of Other Special Aquatic Sites*

Special Aquatic Sites are geographical areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. Special Aquatic Sites include (1) Sanctuaries and refuges, (2) Wetlands, (3) Mudflats, (4) Vegetated shallows, (5) Coral reefs, and (6) Riffle pool complexes. (USACE Guidelines Section 230.3(q-1) and Subpart E).

*Waters of the US or Navigable Waters of the US*

The jurisdictional delineation confirmed the presence of a hydrogeomorphic feature supporting jurisdictional waters subject to the CWA and Fish and Game Code under the jurisdictions of USACE, RWQCB, and CDFW respectively. Evidence of wetland waters of the U.S. was observed. All three parameters that were used for defining a wetlands are present. Hydric soils support hydrophitic vegetation that is fed water ephemerally. Flows on site are tributary to the Prado Basin Santa Ana River, which continues to the Pacific Ocean, a Traditionally Navigable Water. The jurisdictional wetland feature has an OHWM of 1,140 linear feet where the Proposed Project would cross.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. The general Preferred Alternative area would share similar water quality and hydrology characteristics as under the existing conditions. However, the current system is over 30 years old and would be susceptible to continued deterioration and potential failure. In addition, it would involve the use of the existing lift station located north of the Park and continue to add flows to RP2, both of which are within the 566-foot inundation line. Flood waters could potentially cause either of these facilities to fail, thus releasing sewage into the Basin. Therefore, impacts associated with water resources could be greater than the existing conditions, but less than significant.

### *Preferred Alternative (Alternative 1)*

*Potential Physical Changes to Water Resources*

*Surface Water*

Implementation of the Preferred Alternative would result in the creation of easements and the construction of sewer lines (subsurface pipes), manholes, an un-paved service access road and a lift station within USACE Federal lands in the Park. Normal operation of the sewer-line would not result in effluent discharge or other sources of pollutants that might reasonably result in impacts to surface water quality or violate water quality objectives set forth above, or as otherwise set forth in the Basin Plan. Sewage that enters the lift station via gravity pipelines would be transported via force main to the IEUA RP5 for treatment and disposal.

Initial construction of the sewer line could result in construction-related runoff that might impact jurisdictional surface waters if the temporary stockpiling next to the open trenching spoils in or near jurisdictional waters occurs without protecting the materials for erosion. However, the Preferred Alternative would require the submittal of a SWPPP, which includes BMPs, intended to reduce erosion, sedimentation, and non-permitted discharges of materials during construction-related activities. The BMPs to be used during construction typically include gravel bags, silt fencing, and

general good housekeeping measures to prevent storm water contact with construction materials. As explained by Avoidance/Minimization/Measure GEO-2, a SWPPP would be prepared to demonstrate compliance with the state NPDES permit and provide protection of water quality during construction activities. The Preferred Alternative is not anticipated to create significant impacts to water quality and would implement the BMPs in the SWPPP to further reduce less than significant impacts.

*Groundwater*

As noted in the Basin Plan, the Preferred Alternative site is located in the Prado Basin Management Zone, where groundwater is located close to the surface. The beneficial uses of the proposed PBMZ include all of the beneficial uses currently designated for the surface waters identified above (Table 2). The Basin Plan does not identify groundwater recharge as a beneficial use within the Prado Flood Control Basin.

During the construction phase, the Preferred Alternative would not substantially increase the amount of impervious surfaces on the Proposed Project site, either in the short- or long-term. The construction staging area would be located on the eastern portion of the existing parking lot, adjacent to the dechlorination facility. This staging area is already surfaced with impervious materials, and thus, the addition of construction materials onto this area would not affect groundwater recharge.

The proposed sewer system would involve trench-excavation; however, the trench would be backfilled solely utilizing the excavated material onsite. Additionally, the new lift station would involve excavation of approximately 800 cubic yards of spoils, however, this material would be hauled to an offsite location at the corner of Pine Avenue and East Preserve Loop. No soil would be imported to the Proposed Project site. The site would be restored to the pre-construction grade. Because the proposed sewer system would not result in any permanent changes to surface water features or significantly change surface flow or flooding within the area, the Preferred Alternative would have no significant effect on the distribution of water for groundwater recharge in the area.

Similarly, except for the lift-station and manholes, the Preferred Alternative does not include the creation of impermeable surfaces that might otherwise prevent percolation/infiltration of surface waters to underground aquifers for recharge. As a result, the Preferred Alternative would not affect groundwater levels nor aquifer volumes (or levels). Therefore, the impact is a less than significant impact.

*Drinking Water*

Preferred Alternative implementation would result in the establishment of an easement on Federal lands and the construction of a sewer line and lift station within the easement. Normal operation of the sewer line would not result in effluent discharge or other sources of pollutants that might

reasonably result in impacts to drinking water supplies. Furthermore, with MM GEO-2, implementation of a SWPPP would occur and construction activities would not result in discharge of sediment or other sources of pollutants that might reasonably result in impacts to drinking water supplies. The Preferred Alternative implementation would not use any of the chemicals (Inorganic, Radionuclides, VOCs, SOCs, etc.) identified as primary MCL or secondary constituent contaminants other than those that might exist in trace amounts in water used for dust control or grading.

*Streamflow Regime(s)*

The Preferred Alternative would cross one wetland feature. The wetland area is located south of the proposed new lift station and east of the existing trail within the Park. The Preferred Alternative would cross approximately 1,140 linear feet of the wetland feature in which 870 linear feet would consist of pipeline installation without surface and ground disturbance by way of utilizing the HDD method. As noted in the Preferred Alternative description above, temporary access roads would also be used during the installation of the pipelines. However, with the use of HDD installation methods in the wetland feature area, impacts to the streamflow regime of the wetland feature would be less than significant. Additionally, MM HYD-1 would be implemented to limit impacts to stream flow and potential impact to downstream water quality (downstream sedimentation) that might otherwise result during construction.

*Potential Impact to Waters of the United States (CWA Section 404/401)*

This Preferred Alternative proposes HDD methods that would minimize surface disturbance in the wetland feature area by drilling underneath the wetland feature area. In order to minimize the impacts in the jurisdictional wetland area, HDD methods would be used, for a stretch of approximately 870 feet. Boring pits 20-feet wide by 40-feet long, within the boundaries of the easement, would be excavated using an excavator and a dump truck to accommodate the HDD equipment. HDD utilizes a steerable drilling mechanism in which the HDD machine would first drill a burrow, then feed a 29.5-inch pipe sleeve through the burrow, and lastly run the 21-inch gravity fed pipeline through the sleeve. The HDD construction of Phase II would take approximately 14 working days to complete. A maximum of two manholes would be necessary in this area and would use the same area as the boring pit areas for installation. Since HDD cannot span the entire wetland margins, the project anticipates a maximum of two manholes would need to be installed within the jurisdictional limits of the wetland. Altogether, the access area for the HDD method and the two manholes within the jurisdictional area would total maximum anticipated disturbance includes 7,000 square feet or 0.161 acre of temporary impact. The two above-ground manhole covers each require 19.6 square feet of space totaling 39.2 square feet or 0.0009 acre. Thus, 0.0009 acre would represent the only permanent impact in the jurisdictional area.

The USACE reissued Nationwide Permits on March 19, 2012 and will expire on March 19, 2017. The USACE issues Nationwide Permits to authorize certain activities that require Department of the Army permits under Section 404 of the CWA that have minimal individual and cumulative adverse effects on the aquatic environment. The Preferred Alternative involves construction of a sewer line, which would be a qualified activity under Nationwide Permit No. 12 (NWP-12) involving Utility Line Activities. NWP-12 has an upper threshold limit of 0.5 acre. Because the Preferred Alternative impacts associated with the primary alignment are below the upper threshold limits for NWP-12 it qualifies for authorization under NWP-12. A Preconstruction Notification for NWP-12 is required if any of the following criteria are met:

1) The activity involves mechanized land clearing in a forested wetland for the utility line right-of-way;

2) A Section 10 permit is required;

3) The utility line in waters of the United States, excluding overhead lines, exceeds 500 feet;

4) The utility line is placed within a jurisdictional area and it runs parallel to or along a streambed that is within that jurisdictional area;

5) Discharges that result in the loss of greater than 1/10 acre of waters of the United States;

6) Permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or

7) Permanent access roads are constructed in waters of the United States with impervious materials.

As the Proposed Project does not include clearing of a forested wetland, does not require a Section 10 permit, the total trenched sewer line length in jurisdictional waters does not exceed 500 feet (approximately 350 feet), does not result in a loss of greater than 1/10 acre of waters of the United States (approx. 0.0009 acre), and does not include a permanent access road in waters of the United States, a Preconstruction Notification for NWP-12 is not required. A NWP-12 application was submitted to USACE in May 2015 for review and consideration and revised February 2016.

The project occurs in an area of designated Critical Habitat and as such requires consultation with the U.S. Fish and Wildlife Service (USFWS). Informal consultation has occurred between USACE and USFWS and is ongoing. However, because construction and project design should result in a temporary impact, a determination of ‘may affect but is not likely to adversely modify or affect listed

species or their designated critical habitat' would be made by USACE for which USACE would seek concurrence from USFWS. Furthermore, a Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB, Santa Ana Region) and a Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement (LSAA) from CDFW are required and applications have been submitted by the City of Chino.

*Presence of Other Special Aquatic Sites*

The JD conducted for the Proposed Project identified the presence of a jurisdictional wetland in the area as depicted on Exhibit 12. The Preferred Alternative would cross one wetland feature. The wetland area is located south of the proposed new lift station and east of the existing trail within the Park. The Preferred Alternative would cross approximately 1,140 linear feet of the wetland feature in which 870 linear feet would consist of pipeline installation without surface and ground disturbance by way of utilizing the HDD method.

As discussed above, the access area for the HDD method and the two manholes within the jurisdictional area would have a total maximum anticipated disturbance area of 7,000 square feet or 0.161 acre of temporary impact. The access area will be returned to pre-project contours following construction and would re-vegetate naturally. The impacts would be temporary for construction. The only permanent impact would be the two above-ground manhole covers of 19.6 square feet each, totaling 39.2 square feet or 0.0009 acre. Thus, 0.0009 acre would represent the only permanent impact in the jurisdictional area. Therefore, impacts would be less than significant.

*Floodplain(s)*

Significant portions of the proposed easement/sewer alignment south of the proposed lift station would be located within the 100-year floodplain. The construction of the sewer line, manholes and lift station would not result in a significant change to the flow or flood regime within the area because trenching would be conducted during the dry season for sensitive areas, and most of the area would be returned to pre-construction grade after installation of the pipe. The Preferred Alternative would require installation of two elevated manholes within jurisdictional waters as described above. Any excess material would be hauled out of the Prado Basin. These manholes would only extend a nominal distance above grade and therefore, would not substantially change flow with the 100-year floodplain. No significant impact to the 100-year floodplain would occur as a result of the Preferred Alternative.

Although not located within the 100-year floodplain, the proposed lift station is located below the Prado Dam 566-foot inundation elevation (NGVD 1929 Datum) at an elevation of 553 feet. In order to protect the new lift station from inundation, a 14-foot-high waterproofed enclosure would be constructed. As mentioned above, the new lift station would be constructed using an excavator, dump

trucks, concrete trucks, a portable wheel crane, a delivery truck, and several skilled workers. An excavator would be used to dig a 40-foot deep pit for the new lift station's wet well enclosure within the area of the dechlorination facility. After the 40-foot pit is excavated, a delivery truck would carry rebar to the new lift station site over a period of approximately one day. The rebar would be used for structural support of the wet well enclosure. The backup generator, pumps and its components would be located on top of the structure. Four wet wells would be constructed and would extend approximately 40 feet below ground surface in order to allow for gravity flows from Phase II, and extend 14 feet above ground level to the location of the pumps. The wet well would be sealed and watertight. The volume occupied by the lift station and its enclosure below the 566-foot elevation inundation area to would be offset by excavation that would occur at the small slope located approximately 150 feet southeast of the proposed lift station. Approximately 297 cubic yards of flood plain capacity would be occupied by the proposed lift station. The project proponent anticipates the removal of 337 cubic yards of material for a net increase of 40 cubic yards (0.025 acre-feet). See Exhibit 8 for volume offset area.

Since the construction of the sewer line system would be subsurface, and the pre-construction grade would be restored, the proposed activity would not result in a significant change to the flow or flood regime within the Prado Area. As such, the Preferred Alternative is in compliance with Executive Order 11988. Impacts related to floodplains are expected to be less than significant.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling. This alternative would be located in the same location as the Preferred Alternative, and as a result, would share similar water quality and hydrology impacts as the Preferred Alternative. Construction activities would affect a similar development footprint in the same vicinity as the Preferred Alternative, although additional open trenching would be used through the ephemeral stream and wetland area. This would result in greater impacts to water resources. The trenching would result in impacts to the wetlands of 22,800 square feet or 0.52 acre.

Alternative 2 would result in impacts greater than the Preferred Alternative to 22,800 square feet or 0.52 acre. Avoidance/Minimization/Mitigation Measures GEO-2 and Avoidance/Minimization/Mitigation Measure HYD-1 would further reduce potential impacts related to streamflow regime and water quality. Therefore, impacts associated with water resources would be greater than the Preferred Alternative as a result of trenching across a wetland area, but less than significant with Avoidance/Minimization/Mitigation Measures.

## IV. Avoidance/Minimization/Mitigation Measures

**MM HYD-1** Phase II pipeline construction through the sensitive wetland areas would be constructed in dry weather during the months of September through February and after surface flow has subsided to pre-wet season levels to limit impacts to stream flow and potential impact to downstream water quality (downstream sedimentation) that might otherwise result during construction.

## V. Conclusion

### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. No new structural improvements would be made and no earthwork would occur, the existing hydrology and water quality would not be affected and therefore impacts would be less than significant.

### *Preferred Alternative (Alternative 1)*

Based on the above, impacts to water resources associated with the Preferred Alternative alignment would be less than significant. Further, with implementation of MM HYD-1, the Proposed Project activities would result in less than significant impacts to wetlands.

### *Alternative 2*

Alternative 2 would result in impacts greater than the Preferred Alternative with the area of impact totaling 22,800 square feet or 0.52 acre. MM GEO-2, MM HYD-1, implementation of a NPDES permit, preparation of SWPPP, and incorporation of construction BMPs would reduce potential impacts related to water quality. Therefore, impacts associated with water resources would be greater than the Preferred Alternative, but less than significant.

## 5.2.3 - Vegetation Cover, Quality and Quantity

### I. Significance Threshold

The criteria for significant, adverse effects to the vegetation cover, quantity and quality include alteration to valuable vegetative communities and/or include substantial loss of regionally unique or designated critical habitat; damage to rare plants or that of their habitat or any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or the USFWS.

#### *Wetland Impacts*

Section 404 of the CWA authorizes USACE to issue permits for the discharge of dredged or fill material into waters of the United States, including wetlands. This section of the Clean Water Act has been interpreted to give USACE jurisdiction over permitting wetlands fill. Wetlands are generally defined as those areas which are inundated or saturated by surface water or groundwater at such a frequency to support a prevalence of vegetation adapted to saturated soil conditions. If wetlands (or other Waters of the U.S.) are determined to be potentially impacted by a project, an individual permit (standard permit) or nationwide permit (general permit) may be required. Typically, either of these permit types require some type of mitigation plan.

#### *Federal Endangered Species Act of 1973*

Section 3 of the Federal Endangered Species Act (FESA) defines an endangered species as any species or subspecies of fish, wildlife, or plants "in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as any species or subspecies "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Designated endangered and threatened species, as listed through publication of a final rule in the Federal Register, are fully protected from a "take" without an incidental take permit administered by the USFWS under Section 10 of the FESA. Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (50 CFR 17.3). The term "harm" in the definition of "take" in the Act means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering (50 CFR 17.3). The term "harass" in the definition of "take" means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). Proposed endangered or threatened species are those for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Section 7 of the FESA requires that Federal agencies ensure that their actions are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its critical habitat. This obligation requires Federal agencies to consult with the USFWS on any actions (issuing permits including Section 404 permits, issuing licenses, providing Federal funding) that may affect listed species to ensure that reasonable and prudent measures would be undertaken to mitigate impacts on listed species. Consultation with USFWS could be either formal or informal depending on the likelihood of the action to adversely affect listed species or critical habitat. Once a formal consultation is initiated, USFWS would issue a Biological Opinion (either a "jeopardy" or a "no jeopardy" opinion) indicating whether the proposed agency action would or would not jeopardize the continued existence of a listed species or result in the destruction or modification of its critical habitat.

## II. Baseline Conditions

### *Vegetative Communities*

The action area for the Proposed Project consists of a portion of Johnson Avenue, a parking lot within the Park, the easement area containing IEUA's dechlorination facility, the jurisdictional wetland area, and portions of the Park. The only additional temporary access routes required during construction would be for access to excavate the HDD pits and to install Manhole 1 and Manhole 2 from the existing dechlorination facility and an existing park road, see Exhibit 6. All other temporary access needed during construction is provided by existing roadways and the parking lot. In general, the plant communities that occur within the action area include emergent wetland, shrub wetland, perennial, stinging netter, pepperweed/poison hemlock and willow-cottonwood riparian woodland. For feature specific details refer to Appendix B. The jurisdictional delineation confirms the presence of a hydrogeomorphic feature supporting jurisdictional waters subject to the CWA and Fish and Game Code under the jurisdictions of USACE, RWQCB, and CDFW respectively. Evidence of wetland Waters of the U.S. was observed at each of the four features the study area, however, only one feature exists within the proposed pipeline alignment. All three parameters that were used for defining a wetlands are present. Hydric soils support hydrophitic vegetation that is fed water ephemerally. Flows on site are tributary to the Prado Basin Santa Ana River, which continues to the Pacific Ocean, a Traditionally Navigable Water.

### *Biological Resources Assessment (BRA)*

The Biological Resources Assessment (BRA) for the Proposed Project (Appendix C) compiled a list of threatened, endangered, and otherwise sensitive species previously recorded to occur near the Proposed Project site. The list was based on a search of the CDFW's California Natural Diversity Database (CNDDB), a sensitive species and plant community account database and the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of

California database for the USGS 7.5-minute topographic quadrangle maps containing the Proposed Project site and immediate vicinity.

The CNDDB GIS database along with ArcGIS software was used to determine the distance between known recorded occurrences of sensitive species and the Proposed Project site. The BRA identifies the Federal and state listed threatened, endangered plant species, and CNPS sensitive species that have a high, moderate, or low potential to occur within the Proposed Project site. The report also includes the species' status and required habitat. It is important to note that all sensitive plant species that have been determined not likely to occur onsite, primarily based on the absence of suitable habitat and a recorded occurrence in the vicinity of the site, have been excluded from further analysis within this study.

Based on the literature review in the BRA, three sensitive plant species have been previously recorded within the vicinity of the site.

- Braunton's milk-vetch (*Astragalus brauntonii*) (Federal Endangered)
- Chaparral sand-verbana (*Abronia villosa* var. *aurita*)
- Coulter's saltbush (*Atriplex coulteri*)

These three sensitive plant species were not observed during the reconnaissance-level survey. However, the willow-cottonwood riparian woodland is identified as a sensitive plant community and is located within the action area, including within the proposed sewer/easement alignment. This plant community also provides habitat for the state/Federal endangered least Bell's vireo. The least Bell's vireo uses the willow-cottonwood riparian woodland, among other vegetation, for refuge and seasonal nesting. The willow-cottonwood riparian woodland located within the jurisdictional wetland area of the Proposed Project has the potential for the least Bell's vireo to be present during their nesting season (March to September). The willow-cottonwood riparian woodland within the jurisdictional wetland area of the Proposed Project is designated Critical Habitat for the least Bell's vireo.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed on Federal land, and no further improvements would be undertaken. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Impacts would be less than significant.

### *Preferred Alternative (Alternative 1)*

In order to minimize impacts to the willow-cottonwood riparian woodland area and to the designated Critical Habitat for the lease Bell's vireo, the Preferred Alternative would utilize HDD or similar

directional boring methods to avoid impacts to this habitat. Horizontal directional boring would be used for a distance of approximately 870 linear feet to minimize temporary impacts to this area. In contrast to surface trenching, which would directly impact this habitat, directional boring would allow installation of the new sewer line beneath the ground surface where this habitat occurs, thus minimizing direct impacts to the habitat. 20-feet by 40-feet pits are created to a depth just below the ultimate pipe depth. Drilling equipment would be used to drill horizontally and simultaneously install pipe (roughly parallel to the ground surface) at the required depth below the area to be preserved. After the installation of the pipe in the shaft, it would then be connected to the pipe on each end that has been installed using traditional trenching methods. Vegetation would be cleared and there would be soil disturbance (excavation) for the two HDD pits/manholes within the wetland. See Exhibit 10 for the manhole location and temporary construction easement boundary. The type of vegetation to be cleared is classified as scrub-shrub wetland, lawn, and ruderal. As discussed above, the access area for the HDD method and the two manholes within the jurisdictional area would have a total maximum anticipated disturbance of 7,000 square feet or 0.161 acre of temporary impact. The impacts would be temporary for construction. The only permanent impact would be the two above-ground manhole covers of 19.6 square feet each, totaling 39.2 square feet or 0.0009 acre. Thus, 0.0009 acre would represent the only permanent impact in the jurisdictional area. Therefore, impacts to these riparian areas would be less than significant.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of HDD. Approximately 1,000 cubic yards of excavation using an excavator and a series of dump trucks would be needed within the jurisdictional wetland area to install the sewer pipeline. This would result in loss of approximately 22,800 square feet or 0.52 acre of sensitive willow-cottonwood riparian habitat, which would result in adverse modification of Federally-designated Critical Habitat for the endangered least Bell's vireo. This vegetation and its habitat would be restored after construction activities, which would take approximately five years. Pursuant to the Federal Endangered Species Act (FESA), this onsite alternative would require formal Section 7 consultation. Although the alternative could possibly result in significant impacts without mitigation, the impacts could be lessened by the implementation of additional mitigation measures. Impacts associated with vegetative cover would be greater than those of the Preferred Alternative and significant.

## IV. Conclusion

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed on Federal land, and no further improvements would be undertaken. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Impacts would be less than significant.

### *Preferred Alternative (Alternative 1)*

Based on the above analysis impacts to vegetative cover associated within the Preferred Alternative would be less than significant.

### *Alternative 2*

Due to the need for vegetation clearance for open trenching to occur in jurisdictional and wetland areas of this alternative, impacts associated with vegetative cover would be greater than those of the Preferred Alternative. Although the alternative could possibly result in significant impacts without mitigation, the impacts could be lessened by the implementation of additional mitigation measures. There would be a temporal loss in wetland vegetation from removal during construction and the time for vegetative regrowth, and therefore, the impact to vegetation is greater for Alternative 2 than Alternative 1.

## 5.2.4 - Wildlife

## I. Significance Threshold

Criteria for significant, adverse effects to wildlife include significant disruption of wildlife corridors; substantial interferences with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; and permanent substantial damage to wildlife or their habitat.

### *Regulations Protecting Wildlife Resources*

*Migratory Bird Treaty Act of 1918*

The Migratory Bird Treaty Act (MBTA) makes it unlawful to "take" (kill, harm, harass, etc.) any migratory bird listed in 50 CFR 10, including their nests, eggs, or products. The MBTA provides protection to over 800 species of birds. This list includes some very common species such as the American robin (*Turdus migratorius*), house finch, American crow (*Corvus brachyrhynchos*), and western meadowlark (*Sturnella neglecta*).

*Federal Endangered Species Act of 1973*

Section 3 of the Federal Endangered Species Act (FESA) defines an endangered species as any species or subspecies of fish, wildlife, or plants "in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as any species or subspecies "likely to become

an endangered species within the foreseeable future throughout all or a significant portion of its range." Designated endangered and threatened species, as listed through publication of a final rule in the Federal Register, are fully protected from a "take" without an incidental take permit administered by the USFWS under Section 10 of the FESA. Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (50 CFR 17.3). The term "harm" in the definition of "take" in the Act means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering (50 CFR 17.3). The term "harass" in the definition of "take" means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). Proposed endangered or threatened species are those for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Section 7 of the FESA requires that Federal agencies ensure that their actions are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its critical habitat. This obligation requires Federal agencies to consult with the USFWS on any actions (issuing permits including Section 404 permits issuing licenses, providing Federal funding) that may affect listed species to ensure that reasonable and prudent measures would be undertaken to mitigate impacts on listed species. Consultation with USFWS could be either formal or informal depending on the likelihood of the action to adversely affect listed species or critical habitat. Once a formal consultation is initiated, USFWS would issue a Biological Opinion (either a "jeopardy" or a "no jeopardy" opinion) indicating whether the proposed agency action would or would not jeopardize the continued existence of a listed species or result in the destruction or modification of its critical habitat.

*Federal US Fish and Wildlife Coordination Act*

This Act requires Federal agencies consult with the USFWS and the fish and wildlife agencies of States where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified" by any agency under a Federal permit or license. Consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources." The intent is to give fish and wildlife conservation equal consideration with other purposes of water resources development projects.

## II. Baseline Conditions

### *Common Wildlife Species*

As outlined in the Biological Resources Assessment (MBA 2013), the action area and surrounding areas provide habitat for a number of local wildlife species. The area has many essential habitat

characteristics, such as disturbed open habitat with adjacent vegetation coverage. Western fence lizard (*Sceloporus occidentalis*) was the only species of reptile observed on-site.

During the site surveys turkey vultures (*Cathartes aura*) and red-tailed hawks (*Buteo jamaicensis*) were observed utilizing the large eucalyptus trees primarily as roosting locations. Various species of waterfowl and shore birds use the adjacent Prado Reservoir. Species observed flying over the site or within the lawn area included mallard (*Anas platyrhynchos*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), Forster's tern (*Sterna forsteri*), and American coot (F*ulica americana*). A high diversity of bird species utilize the trees with in the riparian area and the landscaped areas of the Park. Species observed included least Bell's vireo (*Vireo bellii pusillus*) vermilion flycatcher (*Pyrocephalus rubinus*), common yellow throat (Geo*thlpis trichas*), lesser goldfinch (*Carduelis psaltria*), American crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), golden-crowned sparrow (*Zonotrichia atricapilla*), great-tailed grackle (*Quiscalus mexicanus*), house finch (*Carpodacus mexicanus*).

The diversity of habitats in the action and surrounding area provides favorable conditions expected to support a variety of mammals. Mammal presence was deduced by diagnostic signs, such as track, scat, burrows, etc. Mammal species observed or detected included California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys ottae*), coyote (*Canis atrans*), and raccoon (*Procyon lotor*).

### *Sensitive Wildlife Species*

Based on the BRA literature review, 21 sensitive wildlife species have been previously recorded within the action area. Least Bell's vireo, a species listed as endangered under the FESA, were observed within the project action area during a survey on June 1, 2012. Additionally, despite the marginal nature of the habitat, a 2014 Orange County Water District survey of the Prado basin area spotted three LBVI within the jurisdictional wetland area of the Proposed Project.

The BRA identified 21 sensitive wildlife species known to occur in the region:

- Arroyo chub *(Gila orcuttii)*
- Bell's sage sparrow *(Amphispiza belli belli)*
- Burrowing owl *(Athene cunicularia)*
- Coast horned lizard *(Phrynosoma blainvillii)*
- Coastal cactus wren *(Campylorhynchus brunneicapillus sandiegensis)*
- Coastal California gnatcatcher *(Polioptila californica californica)*
- Delhi sands flower-loving fly *(Rhaphiomidas terminatus abdominalis)*
- Golden eagle *(Aquila chrysaetos)*

- Grasshopper sparrow *(Ammodramus savannarum)*
- Least Bell's vireo *(Vireo bellii pusillus)*
- Long-eared owl *(Asio otus)*
- Orange-throated whiptail *(Aspidoscelis hyperythra)*
- Pocketed free-tailed bat *(Nyctinomops femorosaccus)*
- Red-diamond rattlesnake *(Crotalus ruber)*
- San Bernardino kangaroo rat *(Dipodomys merriami parvus)*
- San Diego banded gecko *(Coleonyx variegates abbotti)*
- Santa Ana sucker *(Catostomus santaanae)*
- Southwestern willow flycatcher *(Empidonax traillii extimus)*
- Southwestern pond turtle *(Actinemys marmorata pallida)*
- Western mastiff bat *(Eumops perotis californicus)*
- White-tailed kite *(Elanus leucurus)*

### *Wildlife Movement*

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat, separating different populations of a single species. Corridors effectively act as links between these populations. The action area could be considered a wildlife corridor for certain species as it is adjacent to the existing Park. Wildlife could conceivable use the project area to cross between the Park and the Mill Creek wetlands area to the east. Future development within the Mill Creek Development would likely block this corridor in the future, but it currently does exist at the time of this writing.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed on Federal land, and no further improvements would be undertaken. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. The action area would be left unchanged and would continue to contain the same vegetative communities and suitable wildlife habitat as under the existing conditions. Therefore, because no new structural improvements would be made and no earthwork would occur on Federal land, impacts associated with wildlife would be comparable to the existing conditions, and there would be no significant impact to wildlife.

### *Preferred Alternative (Alternative 1)*

*Wildlife Species*

The lift station will be constructed in an area that is currently gated and paved at the IEUA dechlorination facility. Therefore, construction of the lift station will not result in the loss of habitat that supports common and sensitive wildlife species. To a large extent the alignment for the sewer pipeline is located in areas that do not provide habitat for common or sensitive wildlife species including paved road, driveway, and parking lot. The use of the construction area by wildlife for nesting or foraging is not anticipated in and adjacent to roadways and is anticipated to be low in the Park. As outlined above there are various bird species that utilize the Park turf area and reservoir. Use of a portion of the existing parking lot for staging equipment and stockpiling of soils will not result in the loss of habitat as wildlife species are not expected to utilize the parking lot. Construction activities would likely decrease the use of the Park for foraging and roosting during the day in the immediate vicinity of the project area due to the presence of construction equipment and human activity. Since the area of the Park in the immediate vicinity of the construction area is small and the remaining large Park will not be affected by the project, this short term impact to a small area potentially used for foraging and roosting is not significant. Installation of the sewer pipeline along other portions of the alignment will result in temporary impacts to approximately 0.161 acre of wetland habitat south of the proposed lift station as well as 0.91 acre of disturbed ruderal vegetation east of Johnson Avenue and south of the proposed lift station on either side of the wetland area. However, following installation of the pipeline these areas will be backfilled and returned to pre-construction contours.. The type of vegetation to be cleared is classified as scrub-shrub wetland, lawn, and ruderal. The impacts would be temporary except for the manhole covers within the jurisdictional area, which totals 0.0009 acre of permanent impact. These temporary impacts and very small permanent impacts would not result in a significant impact to common and sensitive wildlife.

*Wildlife Movement*

The action area is adjacent to open space through its length. The installation of the proposed sewer facilities would not create any permanent impediment to local wildlife movement within the Park or adjacent areas because the proposed pipeline would be placed underground and would therefore not impact any wildlife movement. Construction and staging activities would occur in areas that are more commonly used by pedestrians and equestrians such as Johnson Avenue, the parking lot, the dechlorination facility and the equestrian trail. The parking lot and dechlorination facility are located adjacent to each other and would be accessed through Johnson Avenue. These areas would not pose any significant temporary construction impacts to wildlife movement due to the limited presence of wildlife in these paved road areas. The use of the construction area by wildlife for movement is anticipated to be low on existing roadways and in the Park. Wildlife movement through the area, including across the construction footprint, is anticipated to be greater at night than during the day when there is a higher human presence and activity. As construction activities occur during the day they are not anticipated to interfere with nighttime movement of wildlife through the area. The action

area where wildlife movement would have a higher probability of temporary construction impacts would be the wetland habitat area where the presence wildlife has highest probability to occur within the Preferred Alternative's boundary. HDD would be used to avoid and minimize any temporary construction impacts, but could still pose less than significant impacts to wildlife movement because the areas where equipment would be placed could temporarily obstruct the usual movement of wildlife. Only a nominal impact to wildlife movement is anticipated as wildlife moving through the area will have sufficient undisturbed area surrounding the relatively small linear construction footprint for wildlife to move around the staging areas and continue movement through the area. The proposed new lift station would be located on the same site as the IEUA dechlorination plant, which is already paved, fenced, and developed, so construction of the lift station would not have any new impact upon wildlife movement. Impacts to wildlife movement would be less than significant.

*Migratory Bird Treaty Act (MBTA)*

The Preferred Alternative would use HDD or directional boring to avoid impacts to willow-cottonwood riparian woodlands. However, impacts to nesting birds could result indirectly from construction related noise. Most notably, the noise from a dump truck, excavator, and HDD equipment could create less than significant impacts to birds that would be temporary. Implementation of the following Avoidance/Minimization/Mitigation Measure would ensure compliance with the MBTA and CFG Code for protected nesting bird species. With implementation of Avoidance/Minimization/Mitigation Measure MM BIO-1, less than significant impacts to migratory birds would be further reduced.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling through the wetland area. Approximately 1,000 cubic yards of excavation using an excavator and a series of dump trucks would be needed within the jurisdictional wetland area to install the sewer pipeline. Similar to the Preferred Alternative, with implementation of Avoidance/Minimization/Mitigation Measure MM BIO-1, less than significant impacts to migratory birds would be further reduced. This alternative would result in loss of sensitive willow-cottonwood riparian habitat. Wildlife would have temporary impacts during construction due to the presence of an excavator and dump trucks in the jurisdictional wetland area. However, following installation of the pipeline these areas will be backfilled and returned to pre-construction contours. The impacts would be temporary except for the manhole covers within the jurisdictional area, which totals 0.0009 acre of permanent impact. These temporary impacts and very small permanent impacts would not result in a significant impact to common and sensitive wildlife.

## IV. Avoidance/Minimization/Mitigation Measures

**MM BIO-1** To avoid impacts to nesting birds, Phase II construction and/or grading should be performed outside of the avian nesting season, which is typically between February 1 and August 31. If construction activities would take place during the nesting season, a pre-construction survey shall be conducted by a qualified biologist within 14-30 days and 1-3 days prior to grading activities within any Proposed Project impact area that has not been previously developed, in order to identify all active nests in areas that could be impacted during project grading and construction. If an active nest is identified during the pre-construction survey, no construction activity shall take place within a minimum 250 feet of any active nest until the young have fledged (as determined by a qualified biologist) and the nest is no longer determined to be active. This distance shall be expanded (up to 500 feet) for any nesting raptor species, based upon the recommendation of a qualified biologist. Construction activity in the vicinity of any active nest shall be conducted at the discretion of a qualified biologist.

## V. Conclusion

### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Because no new structural improvements would be made and no earthwork would occur on Federal land, impacts associated with wildlife would be comparable to the existing conditions, and there would be no significant impact to wildlife.

### *Preferred Alternative (Alternative 1)*

Based on the above analysis, impacts to wildlife associated with the Preferred Alternative would be less than significant and would be further reduced with the proposed Avoidance/Minimization/Mitigation Measures.

### *Alternative 2*

Impacts associated with wildlife would be increased compared to the Preferred Alternative but would be less than significant and would have further reduced impacts with the proposed Avoidance/Minimization/Mitigation Measures.

## 5.2.5 - Threatened or Endangered Species

### I. Significance Threshold

Impacts to threatened or endangered species would occur if the population of a threatened, endangered, or candidate species is substantially negatively affected or its habitat is lost or significantly disturbed.

#### *Regulations Protecting Threatened or Endangered Species*

*Federal Endangered Species Act of 1973*

Section 3 of the Federal Endangered Species Act (FESA) defines an endangered species as any species or subspecies of fish, wildlife, or plants "in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as any species or subspecies "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Designated endangered and threatened species, as listed through publication of a final rule in the Federal Register, are fully protected from a "take" without an incidental take permit administered by the USFWS under Section 10 of the FESA. Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (50 CFR 17.3). The term "harm" in the definition of "take" in the Act means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering (50 CFR 17.3). The term "harass" in the definition of "take" means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). Proposed endangered or threatened species are those for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Section 7 of the FESA requires that Federal agencies ensure that their actions are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its critical habitat. This obligation requires Federal agencies to consult with the USFWS on any actions (issuing permits including Section 404 permits issuing licenses, providing Federal funding) that may affect listed species to ensure that reasonable and prudent measures would be undertaken to mitigate impacts on listed species. Consultation with USFWS could be either formal or informal depending on the likelihood of the action to adversely affect listed species or critical habitat. Once a formal consultation is initiated, USFWS would issue a Biological Opinion (either a "jeopardy" or a "no jeopardy" opinion) indicating whether the proposed agency action would or would not jeopardize the continued existence of a listed species or result in the destruction or modification of its critical habitat.

## II. Baseline Conditions

### *Federally Listed Species*

The action area includes USFWS designated Critical Habitat for the least Bell's vireo (LBVI). Marginal suitable habitat is provided by the willow-cottonwood riparian woodland in the Proposed Project area for the state and Federally endangered LBVI. Despite the marginal nature of the habitat, a 2014 Orange County Water District survey of the Prado basin area spotted three LBVI within the jurisdictional wetland area of the Proposed Project.

LBVI generally prefers dense riparian habitats but could also be found in more open riparian habitats, such as mule fat scrub. The patches of riparian habitat within the action area vicinity are small, isolated, and surrounded by highly disturbed areas of non-native vegetation. The jurisdictional wetland area within the Proposed Project area contains two swaths or patches of willow-cottonwood riparian woodland, one patch is located in the northerly area of the jurisdictional wetland area and the other patch is located in the southerly area of the jurisdictional wetland area. One LBVI was spotted in the northerly patch, while two LBVI were spotted in the southerly patch. There is also suitable habitat approximately 0.6 mile to the south of the Proposed Project where there are larger contiguous areas of riparian woodland. LBVI have also been observed along the nearby Santa Ana River and in the Prado Reservoir area.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed, and no further improvements would be undertaken on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. The Proposed Project area would be left unchanged and would continue to contain the same vegetative communities and suitable sensitive species habitat as under the existing conditions. Therefore, because no new structural improvements would be made and no earthwork would occur on Federal land, impacts associated with sensitive species would be comparable to the existing conditions. There would be no significant impact to threatened or endangered species.

### *Preferred Alternative (Alternative 1)*

The Preferred Alternative alignment traverses two swaths or patches of willow-cottonwood riparian woodland, one patch is located in the northerly area of the jurisdictional wetland area and the other patch is located in the southerly area of the jurisdictional wetland area. One LBVI was spotted in the northerly patch, while two LBVI were spotted in the southerly patch and these patches may provide sufficient constituent elements to support LBVI. Instead of open trenching in this area, the sewer segment crossing this habitat would be installed utilizing HDD to minimize impacts to the willow-

cottonwood riparian woodland patch within designated Critical Habitat. Construction activities (presence of people and equipment and associated noise) may indirectly impact LBVI by disturbing them and affecting foraging and/or breeding activities. In order to avoid disturbance, sewer installation within this area would occur outside of the nesting season (September through February) as explained by MM BIO-1. Therefore, the Preferred Alternative would further minimize less than significant impacts to the LBVI by avoiding removal of the willow-cottonwood riparian habitat and by minimizing potential impacts during nesting season.

Though the action would minimize direct and indirect impacts to LBVI and its suitable Critical Habitat, pursuant to the FESA, Section 7 consultation with USFWS would be required. Informal consultation has occurred between USACE and USFWS and is ongoing. Because construction and project design should result in a temporary impact, a determination of 'may affect but is not likely to adversely modify or affect listed species or their designated critical habitat' would be made by USACE for which USACE would seek concurrence from USFWS.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of horizontal directional drilling. Approximately 1,000 cubic yards of excavation using an excavator and a series of dump trucks would be needed within the wetland area to install the sewer pipeline. This alternative would result in removal of approximately 0.52 acre of sensitive willow-cottonwood riparian woodland habitat, which would result in adverse modification of Federally-designated Critical Habitat for the endangered LBVI. The willow-cottonwood riparian woodland habitat may reestablish however there would be a temporal loss as this would take multiple years. It is also possible that it would not re-establish as willow-cottonwood riparian woodland but as herbaceous native and non-native species. Pursuant to the FESA, as this alternative would result in adverse temporary impacts to Critical Habitat it would require formal Section 7 consultation. Although the alternative could possibly result in significant impacts without mitigation, the impacts could be lessened by the implementation of additional mitigation measures. Impacts associated with sensitive species would be increased compared to the Preferred Alternative and potentially significant.

## IV. Conclusion

### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Because no new structural improvements would be made and no earthwork would occur on Federal land, impacts associated with sensitive species would be comparable to the existing conditions and less than significant.

### *Preferred Alternative (Alternative 1)*

Based on the above, the Preferred Alternative would have less than significant impacts to Federally listed species and designated Critical Habitat associated with the Preferred Alternative that would be further reduced with the inclusion of proposed Avoidance/Minimization/Mitigation Measures HYD-1 and BIO-1.

### *Alternative 2*

Although the alternative could possibly result in significant impacts without mitigation, the impacts could be lessened by the implementation of additional mitigation measures. Impacts associated with sensitive species would be increased compared to the Preferred Alternative and potentially significant.

## 5.2.6 - Cultural Resources

### I. Significance Threshold

The criteria for significant, adverse effects to cultural resources are if the project would include disturbance, alteration or otherwise diminishing of the integrity of a cultural or archeological resource or historic property's location, design, setting, materials, workmanship, feeling or association, from original context, or introduction of culturally incompatible elements to a property listed on or considered eligible for listing on the National Register of Historic Places.

### *Regulations Protecting Cultural Resources*

Numerous regulations protect cultural resources at the Federal, state, and local levels. Those that could potentially apply to the Proposed Project include:

*National Historic Preservation Act (1966)*

The National Historic Preservation Act is the most influential Federal law addressing historic preservation. One of the most important provisions of the Act is the establishment of the National Register of Historic Places (NRHP), the official designation of historical resources. Section 106 requires that for any Federal or Federally assisted undertaking, or any undertaking requiring Federal licensing or permitting, the Federal agency must consider the effect of the undertaking on historic properties listed in or eligible for listing in the NRHP.

### II. Baseline Conditions

The Proposed Project's Area of Potential Effect (APE) is the proposed easement under the Proposed Project as well as a 200-foot-wide area that runs the length of both potential easements.

As set forth in the Class III Cultural Resource Assessment Report (CRA) for the Proposed Project (Appendix E) a record search was conducted by MBA staff at the Archaeological Information Center

at the San Bernardino County Museum, Redlands (AIC) in January 2012. The results of the records search indicated that 30 historic cultural properties have been previously recorded within a ½-mile radius of the APE. In addition, numerous cultural resource studies have been conducted within the radius of the APE, including several linear transect surveys.

A record search request of the Sacred Lands File was also sent to the Native American Heritage Commission (NAHC) in January 2012. The sacred lands search indicated the presence of Native American cultural resources in the APE. The NAHC response letter indicated no known cultural resources were listed in the NAHC files and that three local tribal contacts were available for consultation (see Appendix E).

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed, and no improvements would be undertaken on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. The general Preferred Alternative area would be left unchanged and would continue to contain the same cultural resources sensitivity as under the existing conditions. Therefore, because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts associated with cultural resources would be comparable to the existing conditions.

### *Preferred Alternative (Alternative 1)*

*Historical Resources*

A linear transect survey of the APE was conducted in February of 2012. No visible cultural resources were detected, but it is possible that significant and unknown historic properties could be encountered during construction. However, the CRA concludes that because the undertaking would likely not impact the characteristics that make any historic property eligible for the NRHP, a finding of "no historic properties affected" is appropriate. USACE sent a letter to SHPO on February 3, 2016 providing the APE and a determination of "no historic properties affected."

Direct impacts could include trenching on exposed cultural site elements and the potential exposure of buried resources when earth-moving equipment is used. Unanticipated and/or inadvertent impacts could include the unanticipated use of soil as fill during the Preferred Alternative, cutting soil to a depth that was unanticipated during the construction planning process so as to deal with current or altered environmental conditions, and changes to current topographical or cultural resource site conditions.

Because there could be inadvertent impacts to unknown historic properties that could be avoided through the use of professional cultural resource monitors, the Proposed Project would include a cultural resource monitoring program when construction begins in new areas. Thus, limited archaeological monitoring would take place during construction-related earthmoving. Compliance with Avoidance/Minimization/Mitigation Measures CR-1 and CR-2 identified below would ensure that less than significant impacts to cultural resources would be further reduced.

*Archaeological Resources*

No archaeological resources are known to exist within the APE. As required by Avoidance/Minimization/Mitigation Measure CR-1, a qualified archeological inspector would be retained onsite to monitor new excavation activities in areas not previously disturbed. Less than significant impacts from the Preferred Alternative would be further reduced.

*Paleontological Resources*

No paleontological resources are known to exist in the APE. As required by Avoidance/Minimization/Mitigation Measure CR-1, a qualified archeological inspector would be retained onsite to monitor new excavation activities in areas not previously disturbed. Less than significant impacts from the Preferred Alternative would be further reduced.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling. This alternative would be located in the same location as the Preferred Alternative, and as a result, would share similar potential impacts to unknown cultural resources if they occur in the project alignment as the Preferred Alternative. Construction activities would affect a similar development footprint in the same vicinity as the Preferred Alternative except in the jurisdictional wetland area where the Preferred Alternative would utilize HDD. In this area, Alternative 2 would utilize open trenching instead of HDD, which would lessen potential impacts to unknown cultural resources if they occur as compared to the Preferred Alternative due to more visibility with open trenching compared to HDD and the ability to recover and document any resources encountered. Additionally, implementation of Avoidance/Minimization/Mitigation Measures CR-1 and CR-2 would also further reduce less than significant impacts related to cultural resources. Therefore, impacts associated with cultural resources would be less than the Preferred Alternative and would overall be less than significant.

## IV. Avoidance/Minimization/Mitigation Measures

The following Avoidance/Minimization/Mitigations Measures are outlined to further protect potential cultural resource impacts:

**MM CR-1** A qualified archaeological Inspector(s) would be retained to monitor new construction-related activities that involve excavation below a depth of one foot within the basin such that inadvertent finds could be avoided by heavy equipment. If the Inspector encounters a cultural resource site during implementation of this Avoidance/Minimization/Mitigation Measure, the Inspector(s) shall, if possible, move the heavy equipment used during maintenance to a point at least 50 feet away from the new discovery and then inform the USACE of the event. Isolated artifacts lying outside established site boundaries of a known historic property need not be mitigated for, but such finds should be recorded onto DPR523 isolate forms by the Inspector(s), to document historic resources. The City must also notify the USACE if there is an inadvertent discovery made (without the Inspector(s) present) of buried unknown resources, human remains or sacred Native American objects during maintenance activities because there may be additional responsibilities under 36 CFR Part 800.

**MM CR-2** If during maintenance activities for this Proposed Project a previously unknown cultural resource is encountered without an archaeological inspector present, all maintenance activities must stop and construction staff must inform the USACE. With the concurrence of the USACE the Proponent must then retain a qualified archaeological Inspector to examine the find in the field and determine whether or not the find is of historical significance pursuant to 36 CFR Part 800.

## V. Conclusion

### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts associated with cultural resources would be comparable to the existing conditions.

### *Preferred Alternative (Alternative 1)*

Based on the above analysis, impacts to cultural resources associated with the alternative would be less than significant and further reduced with the proposed Avoidance/Minimization/Mitigation Measures.

### *Alternative 2*

Impacts associated with cultural resources would be less than the Preferred Alternative and would overall be less than significant and further reduced with the proposed Avoidance/Minimization/Mitigation Measures.

## 5.2.7 - Aesthetics

### I. Significance Threshold

Criteria for significant, adverse effects to aesthetic resources include direct or permanent impacts to the landscape by changing important existing scenic characteristics of a landscape in a manner that permanently and significantly degrades an existing viewshed, or alters the character of a viewshed by adding incompatible structures. Additional considerations for adverse effects to aesthetic resources include the presence of prominent topographic features, proximity to scenic areas, and whether or not excessive light would result from the Proposed Project.

### II. Baseline Conditions

The Proposed Project site is located within the Park, operated by the County of San Bernardino. The Park is used for fishing, limited boating, hiking, and equestrian purposes. The baseline aesthetics of the project area include existing roadway right-of-way, open space areas on the east side of the Park, a parking lot to the east of the Park, the IEUA dechlorination facility, and willow-cottonwood riparian woodland habitat areas to the east. Generally speaking, the site is flat and lacks any substantial topographical reliefs or rock outcroppings. The areas within the Park are generally pleasing park landscapes with open space and green grassy terrain. The lift station location at the IEUA facility is heavily disturbed and hard-surfaced and has an industrial appearance. The riparian habitat is an aesthetically pleasing natural wooded environment that punctuates the surrounding semi-arid open space and fallow agricultural land.

### III. Impacts

#### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed, and no improvements would be undertaken on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. The general Preferred Alternative area would be left unchanged and would continue to contain the same aesthetic characters and quality as under the existing conditions. Therefore, because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts associated with aesthetics would be comparable to the existing conditions and less than significant.

### *Preferred Alternative (Alternative 1)*

*Scenic Characteristics*

The proposed sewer line easement would be located along the east end of the Park. During construction, soil berms/stockpiles would be temporarily placed along the portions of the Preferred Alternative where excavated trench areas would occur. These areas include Johnson Avenue, the parking lot adjacent to the dechlorination facility, the alignment from the dechlorination facility to the HDD boring pit area, and the alignment in the southern most portion of the Preferred Alternative that is adjacent to the Park's service road. Once construction of the sewer pipeline is completed, the trench would be backfilled and the grade would be restored to its original contour. The new lift station would involve excavation of approximately 800 cubic yards of spoils, however, this material would be hauled to an offsite location at the corner of Pine Avenue and East Preserve Loop. No soil would be imported to the Proposed Project site. Thus, although temporary stockpiling of excavated soils would occur in the immediate vicinity of excavation activities, such stockpiling would be temporary and isolated in nature; therefore, less than significant impacts would occur as a result of construction activities.

The lift station would be located adjacent to existing processing structures and would not interfere with any scenic vistas or views of open space areas. Additionally, the alternative would also minimize impacts to any willow-cottonwood riparian areas, by using HDD methods in those areas where such habitat is present. There are no trees, natural rock outcroppings, historic buildings, or any other unique scenic resources that would be damaged as a result of the Preferred Alternative's implementation.

*Visibility from Populated or Scenic Areas*

Activities for this alternative would primarily occur in the open space area at the east end of the Park, which is not within visual site of any residential communities. Because the area primarily involves construction of a subsurface utility, the project would not result in a change in land-uses. The lift station would be the only feature of the project that would be above ground level and, at a height of approximately 14 feet. Since it would be located in an existing utility facility, it would not significantly affect existing views and would be in conformance with existing uses and structures. The proposed easement and improvement would not degrade the visual character of the site and surrounding area.

*Potential for Light Pollution*

The only area that would involve the use of lighting would be the sewer lift station which may involve the use of security lighting. With the new lift station site being secured with the existing fencing of the dechlorination facility and with the existing parking lot's lighting adjacent to the dechlorination facility, it is not anticipated that a need for new lighting for the new lift station would

occur. However, if vandalism becomes an issue with the new lift station, then a shielded yard light would be placed within the dechlorination facility. The remainder of the Preferred Alternative would be buried pipeline that would not be visible, much less emit any light of glare. The shielded security lighting would not be visible from any populated areas and would nonetheless not be excessive. Therefore, no significant impacts related to light and glare would occur.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling. This alternative would be located in the same location as the Preferred Alternative, and as a result, would share similar aesthetic impacts as the Preferred Alternative. Construction activities would affect a similar development footprint in the same vicinity as the Preferred Alternative, and although additional open trenching would be required, such trenching and subsequent stockpiling would be temporary and isolated in nature. However, during construction within the jurisdictional wetland area, the willow-cottonwood riparian woodland vegetation and habitat area would experience temporary adverse aesthetic impacts due to open trenching. This would most likely be restored to its existing condition within approximately five years. Therefore, permanent impacts associated with aesthetics would be comparable to the Preferred Alternative and would be less than significant.

## IV. Conclusion

### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts associated with aesthetics would be comparable to the existing conditions and less than significant.

### *Preferred Alternative (Alternative 1)*

Based on the above analysis, no significant aesthetic impacts resulting from the Preferred Alternative are expected.

### *Alternative 2*

Permanent impacts associated with aesthetics would be comparable to the Preferred Alternative and would be less than significant.

## 5.2.8 - Demands on Environmental Resources of Land, Water, Air or Energy

### I. Significance Threshold

#### *Demands on Land and Energy Resources*

Demands on the environmental resources of land, water, air, or energy resources would be considered significant if the construction and/or operation of the Proposed Project would cause any of the following:

- Restrict the potential use of the project site or adjacent lands to be used to generate energy, including wind, solar, geothermal, or hydroelectric;
- Result in a demand for energy beyond what local energy providers could provide;
- Create a demand for domestic water usage in excess of existing or planned water entitlements;
- Otherwise degrade air or water quality; or
- Interfere with efforts to extract natural resources from the land, including mineral/ oil extraction and timber harvesting.

### II. Baseline Conditions

The project land is not currently used for, nor designated for potential energy generation uses, including wind, solar, or geothermal. Additionally, there is no compelling reason to expect that this land would be designated in the future as such resulting from unique geological, meteorological phenomena. Mineral or oil extraction activities are not present on the Proposed Project site. The Proposed Project site is not identified as an area with important mineral resources. Similarly, no locally-important mineral resource recovery sites are located on or near the Proposed Project site. The proximate Prado Flood Control Facility is not presently used for Hydro-power generation.

For a discussion of baseline water quality and air quality, refer to Sections 5.2.2 and 5.2.9, respectively.

### III. Impacts

#### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Under the No Action Alternative, a new sewer system would not be constructed, and no further improvements would be undertaken on Federal land. Similar to the Preferred Alternative, this alternative would not interfere with the potential future use of adjacent land areas for energy generation, generate a demand for domestic water, or affect existing or planned water entitlements. Therefore, impacts associated with demand for environmental resources would be comparable to the Preferred Alternative.

### *Preferred Alternative (Alternative 1)*

Sewer-line and lift station construction and operation would not interfere with the potential future use of land areas for energy generation. As, such, no adverse impacts to known land and energy resources would occur. The alternative would not generate a demand for domestic water, and therefore would not affect existing or planned water entitlements. The lift station would require electricity to run the pumps but would not be considered a large user of energy. Impacts to water and air quality are discussed in Sections 5.2.2 and 5.2.9, respectively. No significant impacts to land or energy resources would result from the alternative.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling. Similar to the Preferred Alternative, this alternative would not interfere with the potential future use of adjacent land areas for energy generation, generate a demand for domestic water, or affect existing or planned water entitlements. Therefore, impacts associated with demand for environmental resources would be comparable to the Preferred Alternative and less than significant.

## IV. Conclusion

### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Impacts associated with demand for environmental resources would be comparable to the Preferred Alternative and less than significant.

### *Preferred Alternative (Alternative 1)*

As described above, no significant demands on land or energy resources are expected and therefore no significant impacts would result from the alternative.

### *Alternative 2*

Impacts associated with demand for environmental resources would be comparable to the Preferred Alternative and less than significant.

# 5.2.9 - Air Quality

## I. Significance Threshold

The criteria for significant, adverse effects to this resource include causing or contributing to new air quality violation of any standard or increasing the frequency/severity of any existing violations; delaying timely attainment of any local standards, reductions, or other air quality milestones. For the purposes of this analysis, the determination of level of significance is based on whether or not the Proposed Project will emit emissions that will exceed South Coast Air Quality Management District

regional emission thresholds for construction, will exceed Federal *de minimis* thresholds, or will emit more than 25,000 metric tons of carbon dioxide equivalent per year.

### *Regulations Protecting Air Quality*

*Federal Clean Air Act*

The US EPA is responsible for implementing the Federal Clean Air Act (CAA), which was first enacted in 1955 and amended numerous times after. The Federal Clean Air Act established Federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are $O_3$, CO, $NO_2$, which is a form of $NO_X$, $SO_2$, which is a form of sulfur oxides ($SO_X$), $PM_{10}$, $PM_{2.5}$, and lead (Pb), refer to Table 3. California Air Resources Control Board (CARB) administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 3, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for preparation of the State Implementation Plan (SIP) for the State of California.

Like the US EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved, refer to Table 3. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment.

Table 3: National and California Ambient Air Quality Standards

| Pollutant | Averaging Time | California[1] | | Federal[2] | |
|---|---|---|---|---|---|
| | | Standard[3] | Attainment Status | Standards[3,4] | Attainment Status |
| Ozone ($O_3$) | 1 Hour | 0.09 ppm (180 μg/m$^3$) | **Nonattainment Severe** | N/A | N/A[5] |
| | 8 Hours | 0.070 ppm (137 μg/m$^3$) | N/A | 0.075 ppm (147 μg/m$^3$) | **Nonattainment Extreme** |
| Particulate Matter ($PM_{10}$) | 24 Hours | 50 μg/m$^3$ | **Nonattainment** | 150 μg/m$^3$ | Attainment/ Maintenance |
| | Annual Arithmetic Mean | 20 μg/m$^3$ | **Nonattainment** | N/A | N/A |
| Fine Particulate Matter ($PM_{2.5}$) | 24 Hours | No Separate State Standard | | 35 μg/m$^3$ | **Nonattainment Moderate** |
| | Annual Arithmetic Mean | 12 μg/m$^3$ | **Nonattainment** | 12.0 μg/m$^3$ | **Nonattainment** |
| Carbon Monoxide (CO) | 8 Hours | 9.0 ppm (10 mg/m$^3$) | Attainment | 9 ppm (10 mg/m$^3$) | Attainment/ Maintenance |
| | 1 Hour | 20 ppm (23 mg/m$^3$) | Attainment | 35 ppm (40 mg/m$^3$) | Attainment/ Maintenance |
| Nitrogen Dioxide ($NO_2$)[5] | Annual Arithmetic Mean | 0.030 ppm (57 μg/m$^3$) | Attainment | 53 ppb (100 μg/m$^3$) | Attainment/ Maintenance |
| | 1 Hour | 0.18 ppm (339 μg/m$^3$) | Attainment | 100 ppb (188 μg/m$^3$) | Attainment/ Maintenance |

| Pollutant | Averaging Time | California[1] | | Federal[2] | |
|---|---|---|---|---|---|
| | | Standard[3] | Attainment Status | Standards[3,4] | Attainment Status |
| Lead (Pb)[7,8] | 30 days Average | 1.5 µg/m$^3$ | Attainment | N/A | N/A |
| | Calendar Quarter | N/A | N/A | 1.5 µg/m$^3$ | **Nonattainment** |
| | Rolling 3-Month Average | N/A | N/A | 0.15 µg/m$^3$ | **Nonattainment** |
| Sulfur Dioxide ($SO_2$)[6] | 24 Hours | 0.04 ppm (105 µg/m$^3$) | Attainment | 0.14 ppm (for certain areas) | Attainment |
| | 3 Hours | N/A | N/A | N/A | Attainment |
| | 1 Hour | 0.25 ppm (655 µg/m$^3$) | Attainment | 75 ppb (196 µg/m$^3$) | N/A |
| | Annual Arithmetic Mean | N/A | N/A | 0.30 ppm (for certain areas) | Attainment |
| Visibility-Reducing Particles[9] | 8 Hours (10 a.m. to 6 p.m., PST) | Extinction coefficient = 0.23 km@<70% RH | Unclassified | **No Federal Standards** | |
| Sulfates | 24 Hour | 25 µg/m$^3$ | Attainment | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m$^3$) | Unclassified | | |
| Vinyl Chloride[7] | 24 Hour | 0.01 ppm (26 µg/m$^3$) | N/A | | |

1. µg/m$^3$ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable

2. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter ($PM_{10}$, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the

| Pollutant | Averaging Time | California[1] | | Federal[2] | |
|---|---|---|---|---|---|
| | | Standard[3] | Attainment Status | Standards[3,4] | Attainment Status |

Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

3. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For $PM_{10}$, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

4. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

6. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of ppb. California standards are in units of ppm. To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

7. On June 2, 2010, a new 1-hour $SO_2$ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 $SO_2$ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

8. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

9. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

10. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: California Air Resources Board and U.S. Environmental Protection Agency, June 4, 2013.

The South Coast Air Quality Management District (SCAQMD) is one of 35 air quality management districts in California that have prepared AQMP's to accomplish a five-percent annual reduction in emissions. On December 7, 2012, the SCAQMD Governing Board approved the 2012 Air Quality Management Plan (2012 AQMP), which outlines its strategies for meeting the NAAQS for $PM_{2.5}$ and ozone.

In addition to the 2012 AQMP and its rules and regulations, the SCAQMD published the CEQA Air Quality Handbook. The SCAQMD is in the process of developing an Air Quality Analysis Guidance Handbook to replace the current CEQA Air Quality Handbook approved by the SCAQMD Governing

Board in 1993. In its CEQA Air Quality Handbook, the SCAQMD has established significance thresholds to assess the impact of project-related air pollutant emissions. Table 4 presents these significance thresholds. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emission rates below these thresholds is considered to have a less than significant effect on regional air quality.

Table 4: SCAQMD Regional Pollutant Emission Thresholds of Significance

| Phase | Pollutant (lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | **VOC** | **$NO_X$** | **CO** | **$SO_X$** | **$PM_{10}$** | **$PM_{2.5}$** |
| Construction | 75 | 100 | 550 | 150 | 150 | 55 |
| Operation | 55 | 55 | 550 | 150 | 150 | 55 |
| CO = carbon monoxide; VOC = volatile organic compounds; $NO_X$ = nitrogen oxides; $PM_{10}$ = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns | | | | | | |
| Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993. | | | | | | |

*Federal Clean Air Act General Conformity Rule Review*

Section 118 of the Federal Clean Air Act states that any Federal action that may result in discharge of air pollutants must comply with Federal, state, interstate and local requirements respecting control and abatement of air pollution. Section 176(c) of the Act requires that Federal actions conform to an implementation plan after it has been approved or promulgated under Section 110 of the Act.

Per Section 176(c) of the Federal Clean Air Act Amendments of 1990, a determination must be made as to whether or not the Preferred Alternative "conforms" to the State Implementation Plan (SIP) based on the General Conformity requirements (40 CFR Part 93 et seq.; November 1993). Conformity is defined as compliance with the SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards, and that the activities would not cause or contribute to any new violation of any standard; increase the frequency or severity of any violation of any standard in any area; or delay timely attainment of any standard or a required interim emission reductions or other milestones in any area.

Under US EPA regulations, a conformity analysis must be prepared only for criteria pollutants in non-attainment areas (see 58 FR 63214 - November 30, 1993). Moreover, according to 40 CFR Section 93.153 (Applicability of the General Conformity requirements), if the total direct and indirect emissions from the Proposed Project are below the General Conformity Rule *de minimis* emission thresholds, the Proposed Project would be exempt from performing a comprehensive Air Quality Conformity Analysis, and would be considered to be in conformity with the SIP.

The Proposed Project is located within the San Bernardino County portion of the South Coast Air Basin (Basin) and is designated severe non-attainment for Ozone ($O_3$) and moderate non-attainment for Fine Particulate Matter ($PM_{2.5}$) (http://www3.epa.gov/airquality/greenbook/index.html). The Basin is designated as a maintenance area for Carbon Monoxide (CO) and Coarse Particulate Matter ($PM_{10}$). *De minimis* levels (in tons/year) for the air basin potentially affected by the Proposed Project are listed in Table 5, *General Conformity Rule de minimis Emission Levels for Criteria Pollutants*.

Table 5: General Conformity Rule *de minimis* Emission Levels for Criteria Pollutants

| **Criteria Pollutant** | **10/100 level tons/year[a]** |
|---|---|
| Carbon Monoxide (CO) | 100 |
| Ozone[b] | 10 |
| Volatile Organic Compounds (VOC) | 10 |
| Oxides of Nitrogen ($NO_X$/NO2) | 10 |
| Coarse Particulate Matter ($PM_{10}$) | 100 |
| Fine Particulate Matter ($PM_{2.5}$) | 100 |

a) De minimis levels are established within 40 C.F.R. Section 93.153, Applicability of General Conformity requirements.

b) The majority of ozone formation occurs when nitrogen oxides ($NO_X$) and volatile organic compounds (VOCs), react in the atmosphere in the presence of sunlight. $NO_X$ and VOCs are called ozone precursors. Therefore, this analysis quantifies $NO_X$ and VOCs to determine ozone impacts.

* The South Coast Air Basin is designated attainment/maintenance for CO and $PM_{10}$.

*Greenhouse Gases and Climate Change*

On December 18, 2014, the Council on Environmental Quality provided a revised draft guidance memorandum for public consideration and comment on the ways in which Federal agencies should

consider both the potential effects of a proposed action on climate change, as indicated by its estimated greenhouse gas emissions, and the implications of climate change for the environmental effects of a proposed action. The guidance also emphasizes that agency analyses should be commensurate with projected greenhouse gas emissions and climate impacts, and should employ appropriate quantitative or qualitative analytical methods to ensure useful information is available to inform the public and the decision-making process in distinguishing between alternatives and mitigations. It recommends agencies consider 25,000 metric tons of carbon dioxide equivalent emissions on an annual basis as a reference point below which a quantitative analysis of greenhouse gas is not recommended unless it is easily accomplished based on available tools and data. For the purposes of this analysis, if the Proposed Project would emit more than 25,000 metric tons of carbon dioxide equivalents per year, then the impacts on climate change would be significant.

## II. Baseline Conditions

The Proposed Project is in the South Coast Air Basin (SCAB), which is under the jurisdiction of the SCAQMD. The SCAB is in nonattainment for ozone and particulate matter ($PM_{2.5}$), which means that concentrations of those pollutants currently exceed the ambient air quality standards for those pollutants. The Proposed Project is located within Source Receptor Area (SRA) 33 (Southwest San Bernardino Valley). SRAs are forecasting and monitoring areas throughout the SCAB. SRA 33's monitoring station is located at Ontario Fire Station No. 3, located approximately 6 miles to the northeast. Similar to the larger SCAB, the air quality monitored at SRA 33 is in nonattainment for $PM_{2.5}$ and ozone.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed, and no further improvements would be undertaken. The Preferred Alternative area would be left unchanged and would continue to contain the same air quality characteristics as under the existing conditions. Therefore, because no construction equipment that generates exhaust would be used and no earthwork that generates dust would occur, impacts associated with air quality would be comparable to the existing conditions and would be less than the Preferred Alternative.

### *Preferred Alternative (Alternative 1)*

*SCAQMD Regional Emission Thresholds*

Emissions generated from construction activities and equipment was estimated using CalEEMod version 2013.2.2 as recommended by SCAQMD. Modeling output data is contained in Appendix D. Construction equipment type, number, and hours of operation that were used as model inputs for the analysis are outlined in Table 6 below. As outlined in Section 3.0 Preferred Alternative (and more

specifically 3.1.1 Phase I and 3.1.2 Phase II) construction activities within USACE's Prado Basin are described based on geographic location and potential timing. Phase I, consists of the proposed lift station and sewer pipeline to the west and north up to Pine Avenue, which would occur immediately. Phase II consists of the sewer pipeline from the proposed lift station south and east to Chino-Corona Road, and would be constructed immediately or within 1 year after Phase I is completed. In order to analyze the worst case scenario for construction equipment emissions, it was assumed in the modeling that these two phases would occur concurrently. Further, for the purposes of modeling the emissions from construction equipment the type and number of construction equipment that would be used at one period of time during the construction of Phases I and II were identified and outlined in Table 6 below.

Months 1-3 of construction will include the excavation and construction of the concrete base for the lift station. Months 1-3 of construction will require the export of 800 cubic yards of earthen material/fill from the pit of the lift station base to a stockpile disposal site approximately 2 miles away near East Preserve Loop and Pine Avenue. Approximately 25 concrete truck deliveries will be made to fill the pit for the lift station base. Construction of the lift station platform will only require a small number of utility truck trips for contractors and will occur after the base has been poured and cured.

Months 4-6 of construction will include pipeline installation which will be installed in progressive segments along an alignment. Pipeline installation will require about 1,300 cubic yard of earthen export to the stockpile location near East Preserve Loop and Pine Avenue. Pipeline installation will require approximately 125 cubic yards of pavement to be removed and replaced.

Months 7-9 will include finishing work which includes use of a crane to lift and place the electrical equipment and emergency generator on top of the lift station platform. Finishing work will also include excavation of the volume offset area which is approximately 337 cubic yards of material to the stockpile location near East Preserve Loop and Pine Avenue.

Table 6: Construction Equipment and Duration Data

| Type | Quantity | Hours of Daily Operations |
|---|---|---|
| Months 1-3 | | |
| Excavators | 1 | 8 |
| Off-highway Trucks | 1 | 8 |

| | | |
|---|---|---|
| Tractors/Loaders/Backhoes | 1 | 6 |
| Months 4-6 | | |
| Excavators | 1 | 8 |
| Off-highway Trucks | 1 | 8 |
| Tractors/Loaders/Backhoes | 1 | 6 |
| Months 7-9 | | |
| Crane | 1 | 8 |
| Excavators | 1 | 8 |
| Off-highway Trucks | 1 | 8 |
| Tractors/Loaders/Backhoes | 2 | 6 |

As shown in Table 7, construction related emissions would not exceed the daily SCAQMD regional significance thresholds. The regional significance analysis demonstrated that emissions would not be over the regional significance thresholds for any pollutants.

Table 7: Construction Related Emissions

| **Emissions Source** | **Pollutant (pounds/day)[1]** | | | | | |
|---|---|---|---|---|---|---|
| | **ROG** | **$NO_X$** | **CO** | **$SO_2$** | **$PM_{10}$** | **$PM_{2.5}$** |
| Unmitigated Emissions[3] | 2.81 | 30.46 | 17.47 | 0.03 | 1.73 | 1.45 |
| Mitigated Emissions[2,3] | 2.81 | 30.46 | 17.47 | 0.03 | 1.68 | 1.44 |
| *SCAQMD Thresholds* | *75* | *100* | *550* | *150* | *150* | *55* |
| ***Is Threshold Exceeded After Mitigation?*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

1. Emissions were calculated using CalEEMod, as recommended by the SCAQMD.

2. The reduction/credits for construction emission mitigations are based on mitigation included in CalEEMod and as typically required by the SCAQMD through Rule 403. The mitigation includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.

3. Refer to Appendix D, *Air Quality/Greenhouse Gas Data*, for assumptions used in this analysis.

*Federal de minimis Thresholds*

As outlined in Table 8, estimates of the annual construction emissions will not exceed any of the *de minimis* emission thresholds for criteria pollutants. The Preferred Alternative impacts to air quality would be less than significant.

Table 8: Construction Emissions and 10/100 Levels

| **Activity** | **Pollutant (tons/year)** | | | | |
|---|---|---|---|---|---|
| | **Ozone[d]** | | **CO** | **$PM_{10}$** | **$PM_{2.5}$** |
| | **VOC** | **$NO_X$ /NO2** | | | |
| Construction Activity | 0.15 | 1.6 | 0.99 | 0.09 | 0.07 |
| Operations & Maintenance[a] | N/A | N/A | N/A | N/A | N/A |
| **Project Total[b]** | **0.15** | **1.6** | **0.99** | **0.09** | **0.07** |
| *10/100 Levels[c]* | *10* | *10* | *100* | *100* | *100* |
| Are 10/100 Levels Exceeded? | No | No | No | No | No |

Notes:

a. Operations & maintenance is not applicable. The number of vehicles used for maintenance is substantially less than the number required for construction. Therefore, as the greater number of construction equipment and vehicles does not result in emissions that exceed de minimis levels, the lesser number of vehicles used for maintenance purposes would not be expected to either.

b. Construction and operational emissions will not be altered from existing conditions as a result of implementation of the proposed project.

c. *De minimis* levels are established within 40 C.F.R. Section 93.153.

d. The majority of ozone formation occurs when nitrogen oxides ($NO_X$) and volatile organic compounds (VOCs), react in the atmosphere in the presence of sunlight. $NO_X$ and VOCs are called ozone precursors. Therefore, this analysis quantifies $NO_X$ and VOCs to determine ozone impacts.

*Diesel Emissions*

The SCAQMD prepared a Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis in 2003.[3] As outlined in this document in 1998, following an exhaustive 10-year scientific assessment process, the State of California Air Resources Board identified particulate matter from diesel-fueled engines as a toxic air contaminant. Diesel particulate matter accounts for more than 70 percent of the cancer risk in the South Coast Air Basin. The Health Risk Assessment Guidance serves as technical guidance for estimating potential diesel particulate matter impacts from the following activities:

- Truck idling and movement (such as, but not limited to, truck stops, warehouse/distribution centers or transit centers),
- Ship hoteling at ports, and
- Train idling.

Construction of the Preferred Alternative does not include any of the activities listed above. Although the construction equipment would emit diesel particulate matter, construction emissions are short term in nature. Therefore, considering the dispersion of the emissions, and the short timeframe of construction activities, exposure to diesel particulate matter is expected to have no impact and was not modeled in this analysis.

*Greenhouse Gas Analysis*

As outlined above, pursuant to CEQ guidance, if the Preferred Alternative would emit more than 25,000 metric tons of carbon dioxide equivalents per year, then the impacts on climate change would be significant. Emissions generated from construction activities and equipment was estimated using CalEEMod version 2013.2.2. The Preferred Alternative would emit 177 metric tons of carbon dioxide equivalents per year. The Preferred Alternative's emissions are substantially lower than 25,000 tons per year at 177 for the construction of the alternative, which would occur in less than a year. This impact is less than significant.

### *Alternative 2*

Alternative 2 would use the same alignment as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling through the sensitive habitat area. Construction activities would affect a similar development footprint in the same vicinity as the Preferred Alternative and would use the same equipment type number and hours of operation. The directional drilling equipment is the only difference in construction equipment and the use of up to 2 drills for the Alternative 2 would not contribute significant emissions that would

[3] http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis

exceed either SCAQMD regional or localized thresholds or Federal *de minimis* thresholds. Therefore, impacts associated with air quality would be comparable to the Preferred Alternative and would be less than significant.

## IV. Avoidance/Minimization/Mitigation Measures

The following Avoidance/Minimization/Mitigation Measure is required to minimize air quality impacts:

**MM AIR-1** The Preferred Alternative is required to comply with SCAQMD Rule 403 which regulates fugitive dust and includes the following: properly maintain mobile and other construction equipment, replace ground cover in disturbed areas quickly, water exposed surfaces three times daily, cover stock piles with tarps, water all haul roads twice daily, and limit speeds on unpaved roads to 15 miles per hour.

## V. Conclusion

### *No Action Alternative*

Because no new structural improvements would be made and no earthwork would occur, impacts associated with air quality would be comparable to the existing conditions and would be less than the Preferred Alternative.

### *Preferred Alternative (Alternative 1)*

Based on the above analysis, impacts to air quality associated with the alternative would be less than significant.

### *Alternative 2*

Impacts associated with air quality would be comparable to the Preferred Alternative and would be less than significant.

# 5.2.10 - Noise

## I. Significance Threshold

### *Temporary/Construction Related Noise Impacts*

Construction noise represents a short-term increase in ambient noise levels. Noise impacts from construction activities associated with the Proposed Project would be a function of the noise generated by construction equipment, equipment location, the sensitivity of nearby land uses, and the timing and duration of the construction activities.

The Proposed Project is located within Federal land surrounded by the City of Chino. In accordance with the City of Chino Municipal Code:

> Section 9.40.060 - Special Provisions:
>
> The following activities shall be exempted from the provisions of this chapter…D. Noise sources associated with or vibration created by construction, repair, remodeling or grading of any real property or during authorized seismic surveys, provided said activities do not take place outside the hours for construction as defined in Section 15.44.030 of this code, and provided the noise standard of sixty-five dBA plus the limits specified in Section 9.40.040(B) as measured on residential property and any vibration created does not endanger the public health, welfare and safety;
>
> Section 15.44.030 - Construction Hours states:
>
> A. Construction shall occur only between the hours of seven a.m. and eight p.m. Monday through Saturday, with no construction allowed on Sundays and Federal holidays. For the purposes of this section, construction shall mean any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, streets and other paving, utilities, filling, grading, excavation, mining, dredging, drilling operations, or pile driving.
>
> B. The director of community development may approve exceptions to the hours of construction noted in subsection A of this section, provided that the change in hours does not adversely impact the adjacent neighborhood.
>
> Section 9.40.040 of the City's Municipal Code states that a maximum noise level of 75 dBA must not be exceeded at any time at the boundary of residential land uses.

If construction activities would occur outside of the provisions of the City's Municipal Code as described above by occurring outside of the allowable hours of construction or would result in a 75 dBA exterior noise level at a residential dwelling unit, there would be a significant impact.

### *Groundborne Vibration or Groundborne Noise Levels*

Peak particle velocity (PPV) relates to the maximum instantaneous peak of the vibration signal and is often used in measuring the magnitude of vibration. Scientific studies have shown that human responses to vibration vary by the source of vibration: continuous or transient. Continuous sources of vibration include construction, while transient sources include truck movements. Generally, the

thresholds of perception and annoyance are higher for transient sources than continuous sources. Table 9 shows PPV levels for continuous and transient sources and the associated human response. Vibration impacts include human annoyance and damage to buildings. The Federal Transit Administration has published standard vibration velocities for operation of construction equipment as well as building damage criterion for construction (limits that if exceeded could result in damage)[4]. The Federal Transit Administration limit for engineered concrete and masonry (no plaster) buildings is 0.3 PPV (inches/second). The continuous vibration level that is strongly perceptible is 0.1 PPV (inches/second). If construction activities will result in exceeding these limits at nearby sensitive receptors (nearby residences or schools), there would be a significant impact.

**Table 9: Vibration Levels and Human Response**

| Peak Particle Velocity (inches/second) | | Human Response |
|---|---|---|
| Continuous | Transient | |
| 0.40 | 2.00 | Severe |
| 0.10 | 0.90 | Strongly perceptible |
| 0.04 | 0.25 | Distinctly perceptible |
| 0.01 | 0.04 | Barely perceptible |
| Source: California Department of Transportation, 2004. | | |

### *Permanent/Operational Related Noise Impacts*

A significant impact would occur if operation of the project would result in a substantial permanent increase in ambient noise levels in the project vicinity. A clearly perceptible noise increase for humans is around +3 dB. For the purposes of this analysis a substantial permanent noise increase is 5 dB.

## II. Baseline Conditions

Noise monitoring was performed by Michael Brandman Associates using a Larson Davis Model 820 Type 1 Integrating/logging Sound Level Meter. The unit meets the American National Standards Institute (ANSI) Standard S1.4-1983 for Type 1, International Electrotechnical Commission (IEC) Standard 651-1997.804-1985 for Type 1, and IEC Standard 60942-1997 for Type 1 sound level meters. The unit was field calibrated prior to taking field measurement using a Larson Davis CAL150 calibrator. The accuracy of the meter and calibrator are maintained through an annual

[4] Federal Transit Administration, *Transit noise and Vibration Impact Assessment Guidelines*, May 2006.

calibration program. The calibration unit meets the requirements of ANSI Standard S1.4-1984 and IEC Standard 942: 1988 for Class 1 equipment. The sound level meter and microphone was mounted approximately 5 feet above the ground and equipped with a windscreen during all measurements.

The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources impacting the Proposed Project site and the project vicinity, and to provide a baseline for any potential noise impacts that may be created by development of the Proposed Project. Appendix F includes a photographic index of the study area and noise level measurement locations.

The noise measurements were recorded between 10:41 and 11:59 hours on Monday, June 25, 2012. At the start of the noise monitoring, the sky was clear and sunny, temperature was 73 degrees Fahrenheit °, with calm wind conditions (0 to 3 miles per hour). The major sources of noise onsite were from airplane over flights and the intermittent sound of gunfire coming from the west.

The noise measurements were taken at three (3) locations at and adjacent to the project alignment. The results of the noise level measurements are provided below in Table 10: Existing Noise Level Measurements. Existing maximum noise levels within the Proposed Project vicinity are approximately 68.3 dBA $L_{max}$.

**Table 10: Existing Noise Level Measurements**

| Site Location | Description | $L_{eq}$ | $L_{MAX}$ | $L_{MIN}$ |
|---|---|---|---|---|
| Site 1 | Approximately 115 feet northeast of the horse trail, toward the center of the site/alignment. | 52.7 | 68.3 | 37.3 |
| Site 2 | Approximately 30 yards north of the Park road, adjacent to an area popular with fishermen; roughly 760 feet southwest of the alignment | 50.9 | 68.3 | 35.4 |
| Site 3 | Adjacent to Prado Park Equestrian Center, in the southeastern portion of parking lot just to the south of the equine facility. | 50.7 | 68.3 | 35.4 |

Notes:

$L_{eq}$ (Equivalent Noise Level): The average noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the $L_{eq}$. In noise environments determined by major noise events, such as aircraft over-flights, the $L_{eq}$ value is heavily influenced by the magnitude and number of single events that produce the high noise levels.
$L_{max}$ (Maximum Noise Level): The maximum instantaneous noise level during a specific period of time.
$L_{min}$ (Minimum Noise Level): The minimum instantaneous noise level during a specific period of time.

Source: Michael Brandman Associates 2012.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed, and no further improvements would be undertaken. The general Proposed Project area would be left relatively unchanged and would continue to contain the same noise characteristics as under the existing conditions. Therefore, because no new structural improvements would be made and no earthwork would occur, both of which could generate noise and vibration, impacts associated with noise would be comparable to the existing conditions.

### *Preferred Alternative (Alternative 1)*

*Temporary/Construction Related Noise Impacts*

Short-term noise impacts could occur during construction activities either from the noise impacts created from the transport of workers and movement of construction materials to and from the Preferred Alternative site, or from the noise generated onsite during ground clearing, excavation, and construction activities. Construction activities associated with the Preferred Alternative would include the trenching, construction and installation of the sewer lines and the construction of the lift station. Table 11 lists construction equipment noise levels for devices that would be used during construction of the Preferred Alternative.

**Table 11: Noise Associated with Construction Equipment**

| Equipment | Maximum Noise Levels Measured (dBA at 50 feet) |
|---|---|
| Excavator/Crane | 81 |
| Dump Truck | 74 |
| Tractor | 84 |
| Source: FHWA RCNM Construction User's Guide, 2006. | |

The alternative's alignment is surrounded by open space recreational, agriculture, or vacant or flood control. No residential land uses are within the project vicinity, and the nearest residence is approximately 650 feet to the north of the Preferred Alternative. The Prado Park Equestrian Center has an onsite caretaker that may be subject to intermittent episodes of noise from construction equipment at greater than 75 dBA as the alignment is installed along Johnson Avenue. However, the onsite caretaker is not a resident of the Prado Park Equestrian Center and would thus not apply to residential threshold attainment. As construction noise is intermittent in nature and would only have the potential to occur between the hours of 7 a.m. and 8 p.m. Monday through Saturday, the activity

would meet the requirements for exemption from the noise standard (as stated above) and impacts are considered to be less than significant.

*Permanent/Operational Related Noise Impacts*

The alternative would consist of installation of underground sewer lines and the proposed sewer lift station that would be contained within a 14-foot-high, waterproof enclosure. Operation of the proposed lift station is not expected to generate substantial or noticeable noise due to the fact that the pumps would be located within sealed wet wells, located approximately 40 feet below ground surface, and would be of a generally low horsepower and not involve any internal combustion. The emergency backup generator would be located on top of the podium but would be shielded within a noise-attenuating enclosure. The generator would be used only during temporary periods when the electricity is out. Noise from the generator would be infrequent and temporary in nature. Utility trucks would be used to access the site for inspections and routine maintenance. The use of utility trucks would be short-term and temporary and do not generate a significant source of noise. Therefore, there would be no permanent increase in ambient noise levels in the project vicinity.

*Groundborne Vibration or Groundborne Noise Levels*

There would be no sources of operational vibration, but construction would result in vibration. The alternative's alignment is surrounded by open space recreational, agriculture, or vacant or flood control. No residential land uses are within the project vicinity, and the nearest residence is approximately 650 feet to the north of the Preferred Alternative. The Prado Park Equestrian Center has an onsite caretaker that may be subject to intermittent episodes of noise from construction equipment as the alignment is installed along Johnson Avenue. However, as construction noise is intermittent in nature and would only have the potential to occur between the hours of 7 a.m. and 8 p.m. Monday through Saturday, the activity would meet the requirements for exemption from the noise standard (as stated above) and impacts are considered to be less than significant.

Construction activities could produce vibration that may be felt by adjacent uses. The highest source of vibration during construction of the Preferred Alternative would be from the tractor or loaded truck, which would generate a transient peak particle velocity of approximately 0.076 at a distance of 25 feet from the source (Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006). As the closest receptor (building within the Prado Park Equestrian Center east of Johnson Avenue) is at least 40 feet from the source, particle velocity at that distance would be approximately 0.04, barely perceptible. Furthermore, as stated above, noise and vibration associated with construction activities are exempt from City standards, provided they occur between the hours of 7 a.m. and 8 p.m. Monday through Saturday. The Preferred Alternative would abide by this requirement. In addition, any vibration created would be minimal, temporary, and would not endanger the public health, welfare and safety. Therefore, impacts would be less than significant.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling. Construction activities would affect a similar development footprint in the same vicinity of the Preferred and would use the same equipment type number and hours of operation. The directional drilling equipment is the only difference in construction equipment and the use of up to 2 drills for the Alternative 2 would not generate a new substantial source of noise. As a result, this alternative would utilize a variety of construction equipment that would generate construction-related noise similar to construction of the Preferred Alternative. Therefore, impacts associated with noise would be comparable to the Preferred Alternative, and still less than significant.

## IV. Conclusion

### *Preferred Alternative (Alternative 1)*

Based on the above analysis, there would be no significant noise or vibration impacts resulting from implementation of this alternative.

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be constructed, and no further improvements would be undertaken. The general Proposed Project area would be left relatively unchanged and would continue to contain the same noise characteristics as under the existing conditions. Therefore, because no new structural improvements would be made and no earthwork would occur, both of which could generate noise, impacts associated with noise would be comparable to the existing conditions.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling. Based on the above analysis, there would be no significant noise or vibration impacts resulting from implementation of this alternative.

## 5.2.11 - Impacts to Existing Federal Flood Control Project

## I. Significance Threshold

The impacts would be significant if they would impede or otherwise impact flows to flood control facilities that would significantly reduce the ability of flood control facilities to contain and fight floods.

### *Regulations Related to Flood Control Facilities*

The Proposed Project is located partially within a designated flood control basin on Federally owned land, which would subject the Proposed Project to the requirements of Executive Order 11988 (Floodplain Management). Executive Order 11988 was modified by Executive Order 13690 on January 30, 2015. This order requires all Federal agencies to take actions to reduce the risk of flood loss, to restore and preserve the natural and beneficial values in floodplains, and to minimize the adverse effects of floods on human safety, health, and welfare.

## II. Baseline Conditions

### *Federal Flood Control Facilities*

Downstream flood control facilities include the Prado Reservoir and Prado Dam, which is managed by the USACE. The jurisdictional wetland area within the Proposed Project area drains to a small ravine, outside the Proposed Project area, that then drains into the Prado Reservoir within the Park.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed using additional USACE easements, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. The general Preferred Alternative area would be left relatively unchanged and would continue to contain the same drainage characteristics as under the existing conditions. Therefore, because no new structural improvements would be made and no new areas of earthwork would occur, there would be no impacts associated with Federal flood control facilities.

### *Preferred Alternative (Alternative 1)*

Jurisdictional waters have an OHWM of 1,140 linear feet in which 870 linear feet would consist of pipeline installation without surface and ground disturbance by way of utilizing the HDD method. The jurisdictional waters area is the only portion within the Preferred Alternative where a potential impact to flows to downstream flood control facilities could occur, however, the Preferred Alternative involves minimal temporary construction impacts and minimal permanent impacts to the jurisdictional area that overall would be less than significant. These impacts would include excavation where the manholes and HDD activities would occur and temporary stockpiling at the manhole locations. HDD methods would further minimize surface disturbance in this area by drilling underneath jurisdictional waters. Boring pit areas 20-feet wide by 40-feet long (within the boundaries of the easement) would be excavated to accommodate the HDD equipment. It is anticipated that a maximum of two manholes would be necessary in this area. In order to minimize the impacts in the jurisdictional wetland area, HDD methods would be used, for a stretch of approximately 870 feet. As

discussed above, the access area for the HDD method and the two manholes within the jurisdictional area would have a total maximum anticipated disturbance of 7,000 square feet or 0.161 acre of temporary impact. The impacts would be temporary for construction. The only permanent impact would be the two above-ground manhole covers of 19.6 square feet each, totaling 39.2 square feet or 0.0009 acre. Thus, 0.0009 acre would represent the only permanent impact in the jurisdictional area.

Overall construction of the Preferred Alternative would pose minor temporary impacts that would be less than significant. Temporary impacts include stockpiling the excavated earthen material adjacent to the trenches as segments of the pipeline are constructed and staging of equipment during construction. These activities are minor and pose minimal impacts to the Preferred Alternative area. As such, the alternative would not permanently impede or otherwise impact flows to the downstream flood control facilities and would, therefore, have less than significant impacts on downstream flood control efforts.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of HDD. Similar to the Preferred Alternative, the jurisdictional waters area is the only portion within Alternative 2 where a potential impact to flows to downstream flood control facilities could occur, however, the Alternative involves temporary construction impacts and minimal permanent impacts to the jurisdictional area that overall would be less than significant. Construction activities would affect a similar development footprint in the same vicinity as the Preferred Alternative; however, additional open trenching would be required which would result in slightly higher temporary impacts due to increased construction efforts within the jurisdictional wetland area. More excavation would occur and would result in greater movement of dirt compared to the Preferred Alternative in which HDD would only remove the dirt that the sewer alignment would replace. This would be a higher temporary impact to this area compared to the Preferred Alternative, but still less than significant. Because of the at grade construction and temporary soil stockpiling activities during trenching, Avoidance/Minimization/Mitigation Measure HYD-1 would be implemented to further reduce impacts related to drainage during construction activities. These minimal impacts would be temporary and not permanent. Once operational, the sewer line would be located underground, and as such, would not permanently impede surface flows. Therefore, permanent impacts associated with Federal flood control facilities would be similar to the Preferred Alternative and less than significant.

## IV. Conclusion

### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Because no new structural improvements would be made and no new areas of earthwork would occur on Federal land, there would be no impacts associated with Federal flood control facilities.

### *Preferred Alternative (Alternative 1)*

Based on the above discussion, there would be no significant impacts to Federal flood control efforts resulting from the alternative.

### *Alternative 2*

Impacts associated with Federal flood control facilities would be similar to the Preferred Alternative and less than significant.

# 5.2.12 - Human Health and Safety

## I. Significance Threshold

A significant impact would occur if the Proposed Project would result in a direct or indirect unacceptable risk to the health and safety of humans or violate any law or regulation that is intended to protect the same.

### *Regulations Protecting Human Health and Safety*

*Occupational Safety and Health Act*

The Occupational Safety and Health Act was signed into law on December 29, 1970 (29 U.S.C. 651 et seq.) and prompted the formation of the Occupational Safety and Health Administration (OSHA) on April 28, 1971. OSHA is intended to "assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance."

## II. Baseline Conditions

The project is primarily located within densely vegetated open-space, which is not used for hiking or equestrian activities. However, the most southerly stretch of the project area runs roughly parallel to an access road and equestrian trail within the developed portion of the Park.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps

to construct a sewer system outside the Federal land boundaries. Therefore, because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts associated with human health and safety would be comparable to the existing conditions with regard to construction. However, the current lift station is located below the 566-foot flood inundation line and poses a threat of sewage spills and of being offline for up to 6 months should it be damaged by a major flood event. The Park would need to be closed to the public during repairs. These factors would result in significant impacts to the public with the spillage of sewage in the Park. Under the No Action Alternative, the City would be required to use an offsite alternative method to convey and treat sewage for existing development within the City since the use of IEBL would no longer be an option after March 2017.

### *Preferred Alternative (Alternative 1)*

The Preferred Alternative involves creation of an easement, lift-station, sewer lines and a small dirt access road that would be used for maintenance. Ultimately, the Preferred Alternative would have a positive impact on human health and safety with a new sewer system with much less risk of failure compared to baseline conditions. The construction of the lift station would take place on the premises of the existing IEUA dechlorination plant and would not conflict with public use of the Park. Trenching and installation of the sewer lines within Johnson Road would temporarily impede, but not limit, access to the Prado Park Equestrian Center and parking lot at the southern terminus of the Johnson Road. Appropriate measures would be taken to further ensure that traffic is safely routed around construction areas during trenching and installation, including preparation and implementation of a traffic control and pedestrian/equestrian safety plan, which is implemented by Avoidance/Minimization/Mitigation Measure HHS-1.

Additionally, during trenching and construction for this part of the sewer line, vehicles and equestrians would possibly need to be temporarily re-routed to the west in order to avoid conflict with construction activities. Risks to pedestrian and equestrian uses could be slightly elevated during the construction phase, but such risks are typical of construction activities and could be addressed by typical and customary methods and would be less than significant. The City would create a traffic control and pedestrian/equestrian safety plan to further minimize less than significant safety issues, as implemented by Avoidance/Minimization/Mitigation Measure HHS-1 that must be approved by the City of Chino's Public Works Department prior to the issuance of any building or grading permits. This may include closing the existing access road south of Johnson Avenue, and installing fencing or other barriers to assure that open-trenches are not accessible, and rerouting traffic away from potentially hazardous areas or conditions.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of HDD. Ultimately, the Alternative 2 would have a positive impact on human health and safety with a new sewer system with much less risk of failure compared to baseline conditions. During trenching and construction activities, vehicles and equestrians would potentially need to be temporarily re-routed to the west in order to avoid conflict with construction activities. The additional open trench area within the jurisdictional wetland area would pose slightly higher risks compared to the Preferred Alternative where HDD methods would be utilized in this area, but still less than significant impacts. As such, Avoidance/Minimization/Mitigation Measure HHS-1 would be implemented to further reduce less than significant impacts related to the interaction between construction activities and the public. Therefore, impacts associated with human health and safety facilities would be slightly higher compared to the Preferred Alternative, but less than significant.

## IV. Avoidance/Minimization/Mitigation Measures

**MM HHS-1** A traffic control and pedestrian/bicyclist/equestrian safety plan, prepared to the satisfaction of the USACE, San Bernardino County Parks and Recreation, the Prado Park Equestrian Center, and the City of Chino Public Works Department, would be put in place prior to commencement of any maintenance or construction activities.

## V. Conclusion

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Therefore, because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts associated with human health and safety would be comparable to the existing conditions with regard to construction. However, the current lift station is located below the 566-foot flood inundation line and poses a threat of being offline for up to 6 months should it be damaged by a major flood event. Under the No Action Alternative, the City would be required to use an offsite alternative method to convey and treat sewage for existing development within the City since the use of IEBL would no longer be an option after March 2017.

### *Preferred Alternative (Alternative 1)*

Based on the discussion above, human health and safety impacts associated with the proposed construction and operation of the sewer easement/pipeline and lift station would be less than significant.

### *Alternative 2*

Impacts associated with human health and safety facilities would be slightly higher compared to the Preferred Alternative, but less than significant.

## 5.2.13 - Industrial, Commercial and Agricultural Activities and Production

### I. Significance Threshold

A significant impact could occur if the Proposed Project would either directly or indirectly preclude or hinder the use of industrial, commercial, or agricultural land uses.

### II. Baseline Conditions

#### *Industrial and Commercial Areas*

No industrial and/or commercial zoning designations are within the proposed easement alignment.

#### *Agricultural Activities and Production*

The Proposed Project site is not located on land that is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Proposed Project site is located solely within an existing regional park and is not currently used as farmland.

### III. Impacts

#### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. The general Preferred Alternative area would be left relatively unchanged and would continue to contain the same land use characteristics as under the existing conditions. Therefore, because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts associated with industrial, commercial and agricultural activities and production would be comparable to the existing conditions.

#### *Preferred Alternative (Alternative 1)*

*Industrial and Commercial Areas*

Since no industrial and/or commercial existing uses or zoning designations are within the proposed easement alignment, no impacts would occur. In addition, construction and operation of the Preferred Alternative would not hinder or preclude industrial or commercial uses off-site.

*Agricultural Activities and Production*

The alternative would not result in the direct or indirect conversion of Farmland to non-agricultural uses, nor would it preclude or hinder off-site agricultural uses.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling. No industrial, commercial, or agricultural areas or operations occur along this alignment. Therefore, impacts associated with industrial, commercial and agricultural activities and production would be comparable to the Preferred Alternative and no impacts would occur.

## IV. Conclusion

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. The general Preferred Alternative area would be left relatively unchanged and would continue to contain the same land use characteristics as under the existing conditions. Therefore, because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts associated with industrial, commercial and agricultural activities and production would be comparable to the existing conditions.

### *Preferred Alternative (Alternative 1)*

Based on the above analysis, there would be no impacts to existing Industrial, Commercial or Agricultural activities resulting from the Preferred Alternative.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative, except only open trenching would be used through the entire length of the sewer easement instead of directional drilling. No industrial, commercial, or agricultural areas or operations occur along this alignment. Therefore, impacts associated with industrial, commercial and agricultural activities and production would be comparable to the Preferred Alternative and no impacts would occur.

## 5.2.14 - Quantity and Distribution of Employment

### I. Significance Threshold

The criterion for determining whether or not significant impacts would occur is if the Proposed Project would cause a substantial permanent loss in local employment.

### II. Baseline Conditions

According to recent data published by the California Employment Development Department (EDD), San Bernardino County currently has a labor force of approximately 855,700 people, of which roughly 74,440 are presently unemployed (8.7 percent unemployment rate).

### III. Impacts

#### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Therefore, no new structural improvements would be made and no new earthwork would occur on Federal land. There would be no impact to employment.

#### *Preferred Alternative (Alternative 1)*

The proposed sewer easement, lift-station, pipeline, man-holes and dirt access road are located entirely within the Park. The Preferred Alternative would positively impact housing development and employment generating uses in the City of Chino north of the Park, but would not negatively affect business operations or employment in the area. Additionally, there would be some temporary jobs created as a result of the Preferred Alternative, which would have a temporary positive impact to the region. Overall, impacts would be less than significant.

#### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative. This alternative would positively impact housing development and employment generating uses in the City of Chino north of the Park, but would not negatively affect business operations or employment in the area. Some temporary jobs would be created as a result of this alternative, which would have a positive impact to the region. Therefore, impacts associated with employment would be comparable to the Preferred Alternative, and not significant.

### IV. Conclusion

#### *No Action Alternative*

The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. There would be no impact to employment.

#### *Preferred Alternative (Alternative 1)*

Based on the above analysis, there would be no significant impacts to the quantity and distribution of employment resulting from the Preferred Alternative.

#### *Alternative 2*

Impacts associated with employment would be comparable to the Preferred Alternative, and not significant.

## 5.2.15 - Access and Quality of Recreational and Wilderness Activities

### I. Significance Threshold

Significant impacts to the access and quality of recreational and wilderness activities would include a significant disruption to access of recreational facilities or areas and/or construction or operational activities that substantially conflict with recreational uses.

### II. Baseline Conditions

The Park is an approximately 2,000-acre recreation park offering fishing, camping, hiking, biking and nature trails, disc golf and picnic facilities. Additionally, the Park contains two 18-hole golf courses, an Olympic shooting range, and equestrian facilities. The Proposed Project is located entirely within the Park. Since the Proposed Project is located within an area that is surrounded by urban development, no wilderness exists on or near the site.

### III. Impacts

#### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. Therefore, because no new structural improvements would be made and no new earthwork would occur on Federal land, impacts would be comparable to the existing conditions. The City would go through the necessary steps to construct a sewer system for their needs outside the Federal land boundaries. However, San Bernardino County would continue to utilize the current lift station and CIW would need to determine a method to dispose of and treat their sewage. The current lift station is old, depreciated, and located below the 566-foot flood inundation line and poses a threat of sewage spills and of being offline for up to 6 months should it be damaged by a major flood event. This would result in a significant

environmental risk to Park users. The environmental, health, and recreation area closure would be a significant impact to the public. Under the No Action Alternative, the City would be required to use an off-site alternative method to convey and treat sewage for existing development within the City since the use of IEBL would no longer be an option after March 2017.

### *Preferred Alternative (Alternative 1)*

Impacts to the Park facilities are primarily temporary in nature and would not result in permanent loss or changes to existing wilderness or recreational activities within the Park. Ultimately, the Preferred Alternative would have a positive impact on recreation with a new sewer system with much less risk of failure compared to baseline conditions. During the construction phase of the Preferred Alternative there may be some temporary effects related to access to the Prado Park Equestrian Center, the parking lot located at the southern terminus of Johnson Road, and the equestrian trail and service road located at the south end of the sewer easement. See Section 5.2.17 for additional details. However, such effects would be temporary in nature, and the construction of the Preferred Alternative would not preclude or restrict permanent access to these areas with implementation of Avoidance/Minimization/Mitigation Measure (MM) TRA-1. Therefore, impacts would be less than significant.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative. Ultimately, the Alternative 2 would have a positive impact on recreation with a new sewer system with much less risk of failure compared to baseline conditions. This alternative would result in impacts to the Park resources that would be temporary in nature and would not result in permanent loss or changes to existing wilderness or recreational activities within the Park. Therefore, impacts associated with The Park would be comparable to the Preferred Alternative and less than significant.

## IV. Conclusion

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Therefore, because no new structural improvements would be made and no new earthwork would occur, impacts would be comparable to the existing conditions and not significant.

### *Preferred Alternative (Alternative 1)*

Based on the above analysis, the Preferred Alternative would not significantly limit access or quality of recreational and wilderness activities, and would not conflict with recreational uses. Therefore, impacts would be less than significant.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative. This alternative would result in impacts to the Park resources that would be temporary in nature and would not result in permanent loss or changes to existing wilderness or recreational activities within the Park. Therefore, impacts associated with The Park would be comparable to the Preferred Alternative and less than significant.

## 5.2.16 - Density and Distribution of Population and Housing

### I. Significance Threshold

A significant impact could occur if the Proposed Project would induce population growth.

### II. Baseline Conditions

The 2010 United States Census reported the following data for the City of Chino:

- Population of 77,983.
- Population density of 2,629.9 people per square mile (1,015.4 per square kilometer).
- Racial Profile: The racial makeup of Chino was 43,981 (56.4 percent) White, 4,829 (6.2 percent) African American, 786 (1.0 percent) Native American, 8,159 (10.5 percent) Asian, 168 (0.2 percent) Pacific Islander, 16,503 (21.2 percent) from other races, and 3,557 (4.6 percent) from two or more races. Hispanic or Latino of any race consisted of 41,993 persons (53.8 percent).
- Living Arrangement: The Census reported that 70,919 people (90.9 percent of the population) lived in households, 164 (0.2 percent) lived in non-institutionalized group quarters, and 6,900 (8.8 percent) were institutionalized.
- Household Size: The average household size was 3.41. There were 16,936 families (81.5 percent of all households); the average family size was 3.72.
- Housing Density: There were 21,797 housing units at an average density of 735.1 per square mile (283.8/km²), of which 14,315 (68.9 percent) were owner-occupied, and 6,457 (31.1 percent) were occupied by renters.

- Housing Occupancy Rates: The homeowner vacancy rate was 2.1 percent; the rental vacancy rate was 6.4 percent. 49,280 people (63.2 percent of the population) lived in owner-occupied housing units and 21,639 people (27.7 percent) lived in rental housing units.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Therefore, because no new structural improvements would be made and no earthwork would occur on Federal land, impacts associated with population growth would be comparable to the existing conditions.

### *Preferred Alternative (Alternative 1)*

The proposed sewer easement, lift-station, pipeline, manholes, and dirt access road are located entirely within the Park. Although there would be indirect benefit to housing facilities, the Preferred Alternative would not induce growth as housing facilities were separately planned. The Preferred Alternative does not include construction of new housing and would not require demolition of existing housing. Therefore, no impacts to population growth would occur.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative. Although there would be indirect benefit to housing facilities, Alternative 2 would not induce growth as housing facilities were separately planned. Therefore, impacts associated with population growth would be comparable to the Preferred Alternative and less than significant.

## IV. Conclusion

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Therefore, because no new structural improvements would be made and no earthwork would occur Federal land, impacts associated with population growth would be comparable to the existing conditions.

### *Preferred Alternative (Alternative 1)*

Based on the above analysis, the Preferred Alternative would not impact the density and distribution of housing and therefore there would be no significant impact.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative. This alternative would positively contribute to development in the City of Chino north of the Park, although the alternative in and of itself would not directly add to the local population. Therefore, impacts associated with population growth would be comparable to the Preferred Alternative.

## 5.2.17 - Other Appropriate Social and Economic Circumstances (Traffic and Trails)

### I. Significance Threshold

The criteria for significant, adverse effects on traffic include:

- closures to arterial or collector roadways without suitable detour routes;
- restricting access to or from adjacent land uses without suitable alternative access;
- increase in roadway wear as a result of heavy truck or equipment movements, resulting in noticeable deterioration of roadway surfaces;
- decrease in roadway capacity;
- degradation of level-of-service on local roadways to unacceptable levels as a result of additional commuter and truck trips caused by the Preferred Alternative; or
- safety problems for vehicular traffic.

The criteria for significant, adverse effects on trails includes:

- extended closures to trails without suitable detour routes;
- increase in trail wear as a result of heavy truck or equipment movements, resulting in noticeable deterioration of trail surfaces;
- decrease in trail functionality or capacity;
- safety problems for trail users.

### II. Baseline Conditions

#### *Traffic*

The Proposed Project area would be limited to the roads in the immediate vicinity of the Proposed Project, including the various access and maintenance roads within The Park, Johnson Road, and Pine Avenue. Currently, traffic on Johnson Road and the roadways within the Park contain low to moderate traffic, with acceptable levels of service. (The Chino General Plan Circulation Element has determined that an LOS of D or better is generally acceptable). Pine Avenue (according to The

Preserve Specific Plan EIR) currently carries approximately 29,000 vehicles per day (in the development interim year) and operates at an acceptable level of service.

### *Trails*

Currently there is one trail located in the Proposed Project area. Said trail extends south from the equestrian center, and passes just east of the existing IEUA dechlorination facility, south along the existing SCE right-of-way, then south beyond the limits of the Proposed Project. See Exhibit 10. No other existing trails are located within the Proposed Project area.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed on USACE lands. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Therefore, impacts associated with traffic and impacts to trails would be comparable to the existing conditions and less than significant.

### *Preferred Alternative (Alternative 1)*

*Traffic*

The Preferred Alternative involves creation of an easement, lift-station and sub-surface sewer-line, manholes, and a dirt access road. Construction traffic would be of limited scope and duration and occur over approximately 200 combined days for Phase I and Phase II. Operational traffic would be limited to infrequent and periodic maintenance visits to the facility equating to approximately one or less vehicle trips per day. The alternative would not have any permanent impacts on existing access roads within the Park and would therefore not impede or otherwise change intra-park traffic patterns or vehicular movement.

Additionally, during trenching and construction for this part of the sewer line, vehicles and pedestrians/bicyclists would possibly need to be temporarily re-routed to the west in order to avoid conflict with construction activities. Risks to pedestrian/bicyclist uses could be slightly elevated during the construction phase, but such risks are typical of construction activities and could be addressed by typical and customary methods. The City would create a traffic control and pedestrian/bicyclist safety plan to address potential safety issues, as stated in Avoidance/Minimization/Mitigation Measure HHS-1. This may include closing the existing access road south of Johnson Avenue, installing fencing or other barriers to assure that open-trenches are not accessible, and rerouting traffic away from potentially hazardous areas or conditions. There would be no significant impacts to traffic.

*Trails*

Operation of the alternative would involve the conveyance of wastewater via buried pipeline, a lift station, and a dirt access road. The proposed lift station is located on an existing IEUA dechlorination site that is fenced with restricted access; no users of trails would be permitted to access this area. Operational traffic that could affect future trail operations would be the result of infrequent maintenance activities that could involve the need for utility vehicles and maintenance equipment to cross the trails while driving along the pipeline alignment to access manholes. Implementation of Avoidance/Minimization/Mitigation Measure HHS-1 would minimize less than significant impacts and ensure that any planned work that has a greater disturbance than typical maintenance/manhole access would develop a temporary construction plan to be approved by the City that would provide safety measures and detours (if necessary) during such work. All of the potential activities related to project maintenance would be temporary.

Construction traffic from the alternative would be of limited scope and duration and occur over 200 days. With regard to the existing trail that traverses south from the Prado Park Equestrian Center, trenching for the pipeline as well as flood capacity offset grading would temporarily impact the trail in the area just south of the proposed lift station within the IEUA facility. See Exhibit 10. This equestrian trail would remain open during construction, except for the installation of the final 200 feet of pipe connecting to the new lift station during Phase II. The closure for the construction of this segment is expected to be very brief (approximately one day) and the City of Chino would implement a detour for trail users coming from the Prado Park Equestrian Center and would coordinate closely with the San Bernardino County Parks and Recreation and the Prado Park Equestrian Center to ensure that disruption is minimized. See Exhibit 10 for detour route. This impact would be temporary and would implement MM TRA-1 to further minimize less than significant impacts. Overall, impacts would be less than significant.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative. Similar to the Preferred Alternative, construction traffic would be of limited scope and duration. Operational traffic would be limited to infrequent and periodic maintenance visits to the facility. This alternative would not have any permanent impacts on existing access roads or trails and would, therefore, not impede or otherwise change intra-park traffic patterns, vehicular movement, or the intended uses of existing and planned trails. Impacts would be less than significant.

## IV. Avoidance/Minimization/Mitigation Measures

**MM TRA-1** A temporary equestrian trail detour prepared to the satisfaction of the San Bernardino County Parks and Recreation, the Prado Park Equestrian Center, and

the City of Chino Public Works Department would be implemented with signage during construction when access to the trail entrance is closed during Phase II.

### V. Conclusion

#### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed on USACE lands. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Therefore, impacts associated with traffic and impacts to trails would be comparable to the existing conditions and less than significant.

#### *Preferred Alternative (Alternative 1)*

Proposed construction and operational activities would have a less than significant impact on traffic and trails.

#### *Alternative 2*

Impacts would be less than significant.

## 5.2.18 - Environmental Justice

### I. Significance Threshold

The impacts would be significant if minority and/or low income populations would be disproportionately affected.

#### *Regulations Related to Environmental Justice*

Executive Order 12898 (Order) was published in the Federal Register in 1994 (February 16, 1994, 59 F.R. 7629). The Order is intended to direct each Federal agency "to make achieving environmental justice part of its mission by identifying and addressing... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations in the [U.S.] ..." Criteria for significant, adverse effects to environmental justice include impacts to a sector of the economy, productivity, competition, prices, or jobs; impacts on the welfare of minority or low-income populations (in accordance with Executive Order 12898); changes on the availability of a public service; detriments to fiscal and physical ability of the local governmental agencies to meet the needs of the public following the project-related changes in the local population; a substantial long-term decrease in local employment due to direct loss of jobs or an adverse effect on the local economy that results in an indirect long-term loss of jobs; creates an unacceptable spike in demand for temporary housing caused by construction needs that displace or

prevent normal users from being able to obtain temporary housing in the area; or causes disproportionately high and adverse impacts on minorities, low-income residents, or children.

## II. Baseline Conditions

The Proposed Project is located within the 91708 zip code which is comprised primarily of Census Tract 0019.00. According to the 2010 US Census, 3,369 people live within 91708. The area may be characterized as one that is currently in transition from historic agricultural uses (specifically dairy production) to urban development along the 566-foot inundation line. Lands below the 566-foot inundation line would not be developed with urban uses and would (mostly) retain open space and recreational uses.

According the US Census Bureau, the 4.7% of households within the 91708 zip code currently live at or below the poverty line, while the median household income in 2012 was $111,250. The racial profile of the area is: Black/African American 16.5%; Asian 14.7%; Native American 3.0%; and Caucasian/White 45.4%. The remaining 20% is classified as either "one or more races" or "some other race". Of the aforementioned, 33.2 were of Hispanic descent. The average household size was 3.76 persons. Housing tenure is predominantly owner-occupied at 75%. According to the 2010 census, 71.1% of the households in 91708 are husband-wife family structure. With the exception of a few older farm houses located along Pine Avenue, residential development in this zip code is relatively new. According to City-Data.com, the 2014 median home price in 91708 is $388,543.

## III. Impacts

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Impacts would be less than significant.

### *Preferred Alternative (Alternative 1)*

The Preferred Alternative involves creation of an easement, the construction of a sewer lift-station and sub-surface sewer-line, man-holes a small dirt access road. These actions are proposed to occur within either designated open space/park areas or within public right-of-ways. The actions associated with the Preferred Alternative would not involve any direct or indirect changes to land uses, would not restrict any access to services, would not place any burdens any groups, and otherwise do not have any social or economic impacts to any persons, regardless of income, race, social status, or any other classifier. Furthermore, the area surrounding the project is comprised primarily of middle class families with a low level of poverty. As such, no minority or low-income populations would be disproportionately affected by the alternative, no jobs would be lost, and no

housing would be displaced. Therefore, no significant impacts to environmental justice populations would result.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative. Similar to Preferred Alternative, implementation of this alternative would have similar and less than significant impacts regarding environmental justice issues.

## IV. Conclusion

### *No Action Alternative*

Under the No Action Alternative, a new sewer system would not be developed, and no further construction activities would occur on Federal land. The City would go through the necessary steps to construct a sewer system outside the Federal land boundaries. Impacts would be less than significant.

### *Preferred Alternative (Alternative 1)*

Proposed Project construction and operational activities would have a less than significant impact related to environmental justice issues and/or the intent of EO 12898.

### *Alternative 2*

The same alignment would be used for Alternative 2 as the Preferred Alternative. Similar to Preferred Alternative, implementation of this alternative would have similar and less than significant impacts regarding environmental justice issues.

## SECTION 6: CUMULATIVE IMPACTS

A cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 Code of Federal Regulations [CFR] 1508.7). Cumulative impacts could result from individually minor, but collectively significant, actions taking place over time (40 CFR 1508.7). CEQ's guidance for considering cumulative effects states that NEPA documents "should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant" (CEQA 1997). This EA considers past, present, and reasonably foreseeable short-term and long-term future effects from implementing the Proposed Project and other projects that coincide with the location and timetable of the Proposed Project.

The area of consideration for cumulative impacts is the Proposed Project area plus the area 1.5 mile surrounding the Proposed Project. The following is a list of projects that would constitute the related cumulative projects in the Preferred Alternative area and region:

- Cucamonga Creek Watershed Regional Water Quality Project (Mill Creek Wetlands): Approximately 1.2 miles east of the Proposed Project, Mill Creek Wetlands is a 52-acre natural wetland within Prado Basin located in the City of Chino. This project features a series of natural treatment ponds to improve water quality during dry and wet weather conditions. This project is constructed and the water quality testing and monitoring are in-process.
- The Preserve Specific Plan: Approximately 1 mile east of the Proposed Project, the Preserve Specific Plan includes 5,435 acres of residential, commercial, industrial, open space, and air-port related development. The City of Chino focused on community style living to promote a diverse and dynamic community with interconnected open space features, a downtown main street, and a regional commercial center. This project has completed segments and is still in-process.
- Santa Ana River Mainstem Project: The Santa Ana River Mainstem Project spans over 75 miles of the Santa Ana River to make improvements to flood control protection in San Bernardino County, Riverside County, and Orange County. In addition, the project provides improvements to environmental and recreational resources to preserve open space and wildlife habitat. This project covers seven independent flood control facilities including the Prado Dam Project. This project has completed segments and is still in-process, including current construction of the interior dike to protect the CIW.
- Prado Dam Project: Approximately 0.1 miles south of the Proposed Project, the USACE and Orange County Public Work are currently making flood control improvements to Prado Dam

to increase the reservoir storage capacity from 217,000 acre-feet to 362,000 acre-feet. These improvements include raising the existing embankment, raising the spillway crest, construction of new outlet works, construction of new levees and dikes, acquiring additional property for expansion, relocating utility lines, and increasing the reservoir area. Changes to the existing embankment and construction of new outlet works have been completed, while other segments are still in-process.

- CIW Dike: The Proposed Project's southern portion is approximately 0.1 mile west from the CIW Dike. As an element of the Santa Ana River Mainstem Project, the CIW Dike was triggered to be constructed because the Prado Dam spillway crest will be raised from 543 feet to 563 feet. The CIW Dike is proposed to be constructed on the west and south side of the California Institute for Women Prison for protection against potential flooding and would acquire additional private land to construct. This project is currently in-process.
- Prado Regional Park Planned Expansion: Adjacent to the western and southern portions of the Proposed Project, the Prado Regional Park Planned Expansion would involve expansion of the existing campgrounds within the Park and would include RV camping hook ups as well as additional restrooms. The Prado Regional Park Planned Expansion is in its early planning stages and would be a foreseeable future project with implementation of the Proposed Project, as it would require connection to the Proposed Project's sewer system. The Prado Regional Park Planned Expansion could also include new trails should funding be available to the Park.
- Pine Avenue Extension: Approximately 0.3 miles from the Proposed Project, the Pine Avenue Extension is designed to widen the bridge from two lanes to four lanes between Euclid Avenue and State Route 71. This project is currently in the development phase.
- Sares Regis' Industrial Project: Approximately 0.4 miles from the Proposed Project, the Sares Regis' Industrial Project includes four buildings at the northwest corner of Pine and Euclid. This project is completed and buildings are in operation.
- Watson Land Company's Industrial Project: Approximately 1.5 miles northwest from the Proposed Project, the Watson Land Company's Industrial Project includes three buildings on Cypress Avenue south of Kimball Avenue. This project is completed and buildings are in operation.
- Majestic Reality's Industrial/Commercial Project: Approximately 1.1 miles from the Proposed Project, the Majestic Reality's Industrial/Commercial Project is located at the northwest corner of Kimball Avenue and Euclid Avenue. This project's first phase is currently in-process.

Any of these above related cumulative projects, either by themselves or in combination with any or all of the above cumulative projects, would have the potential to result in the exceedance of established significance thresholds, and thus, result in significant environmental impacts. As addressed throughout this EA, the Proposed Project would result in less than significant individual-level environmental impact with the incorporation of identified Avoidance/Minimization/Mitigation Measures. Further, the related cumulative projects would be subject to the same applicable Federal, state, and local laws and regulations, as well as Federal and/or state environmental oversight, as the Proposed Project.

## 6.1 - Cumulative Impacts Analyzed by Resource

### *Geology and Soil Quality, Stability and Moisture*

The Preferred Alternative would have less than significant impacts relating to the above listed factors and would also implement MM GEO-1 and MM GEO-2 to further minimize to less than significant impacts. Each of the other past, present, and reasonably foreseeable future projects listed above must address site specific geology, soils and seismicity issues through implementation of recommendations outlined in the site specific geotechnical evaluations. Therefore, the Preferred Alternative would not contribute to a cumulative impact regionally.

### *Water Resources*

The Preferred Alternative would have less than significant impacts relating to the above listed factors and would implement MM GEO-2 and MM HYD-1 to further reduce impacts to less than significant. Each of the other past, present, and reasonably foreseeable future projects listed above and located in the Santa Ana River watershed must comply with the National Pollution Discharge Elimination System General Construction Permit to avoid significant impacts to surface and groundwater resources. Completed, underway and future development projects in the watershed must comply with the NPDES MS4 (municipal separate storm sewer system) which includes preparation of a Water Quality Management Plan to address post-construction urban runoff. Therefore, the Preferred Alternative's incremental contribution to the degradation of water quality in the Santa Ana River watershed are not cumulatively considerable.

### *Vegetation Cover, Quality, and Quantity*

The Preferred Alternative would implement HDD methods to avoid potential impacts within the Phase II willow-cottonwood riparian woodland area. With implementation of HDD, impacts to vegetation resources would be less than significant. Approximately 0.0009 acre within the wetland area would have a permanent impact for the two manholes within the wetland area. Each of the other

past, present, and reasonably foreseeable future projects listed above are regulated by Federal and/or state regulation including Section 404 of the CWA and Section 3 of the FESA which require protection of vegetation resources. Each of the other past, present, and reasonably foreseeable future projects listed above must evaluate site specific vegetation resources. Therefore, the Preferred Alternative would not contribute to a cumulative impact regionally.

### *Wildlife*

The Preferred Alternative would implement MM BIO-1 to avoid potential impacts to wildlife and impacts would be less than significant. Each of the other past, present, and reasonably foreseeable future projects listed above are regulated by Federal and/or state regulation including the MBTA, Section 3 and 7 of the FESA, and the US Fish and Wildlife Coordination Act. Each of the other past, present, and reasonably foreseeable future projects listed above must evaluate site specific wildlife resources. Therefore, the Preferred Alternative would not contribute to a cumulative impact regionally.

### *Threatened or Endangered Species*

The Preferred Alternative would implement MM HYD-1 and MM BIO-1 to avoid and further reduce less than significant impacts to LBVI and its designated Critical Habitat. Each of the other past, present, and reasonably foreseeable future projects listed above are regulated by Federal and/or state regulation including Section 3 and 7 of the FESA. Each of the other past, present, and reasonably foreseeable future projects listed above must evaluate site specific threatened or endangered species resources. With implementation of MM HYD-1 and MM BIO-1, the Preferred Alternative would not contribute to a cumulative impact regionally.

### *Cultural Resources*

The Preferred Alternative would implement CR-1 and CR-2 to avoid and minimize less than significant impacts to cultural resources. Each of the other past, present, and reasonably foreseeable future projects listed above are regulated by Federal and/or state regulations including the National Historic Preservation Act, NEPA, CEQA, California Senate Bill 18, California Assembly Bill 52, and the California Health and Safety Code which require the protection of cultural resources. Each of the other past, present, and reasonably foreseeable future projects listed above must evaluate site specific resources. Therefore, the Preferred Alternative would not contribute to a cumulative impact regionally.

### *Aesthetics*

The Preferred Alternative would have less than significant impacts to aesthetics. Most of the Preferred Alternative involves installation of an underground sewer pipeline system except for the new lift station. The new lift station would be located adjacent to IEUA's existing dechlorination facility of similar height. Each of the other past, present, and reasonably foreseeable future projects listed above are not visible from the Proposed Project area, with the exception of the CIW Dike project, which the Proposed Project is approximately 0.1 mile west of. Also, the other past, present, and reasonably foreseeable future projects listed above are similar in size of the other structures in their respective areas. The new lift station would not take away from any viewsheds in the vicinity of the Preferred Alternative and would not contribute to a cumulative impact regionally.

### *Demands on Environmental Resources of Land, Water, Air or Energy*

The Preferred Alternative would have less than significant impacts to environmental resources of land, water, air, or energy. The new lift station would require electricity for power, but this would be considered negligible on a regional scale. With the exception of the new lift station, the land required for the sewer system would be entirely underground and below scour depth. The new lift station would be located within the IEUA's dechlorination facility, which is highly disturbed land. Each of the other past, present, and reasonably foreseeable future projects listed above coordinated or would have to coordinate with utility agencies or other entities for temporary and/or operational demand of land, water, air or energy for their respective needs. The Preferred Alternative would not contribute to cumulative impacts for such needs.

### *Air Quality*

The Preferred Alternative would have less than significant impacts on air quality as emissions from construction activities will not exceed SCAQMD regional or local threshold or Federal de minimis thresholds. The SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed using the same significance criteria as those for project related specific impacts. Therefore, individual projects that generate construction related or operational emissions that exceed the SCAQMD recommended daily thresholds for project specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment. Project related construction activities, in combination with the other past, present, and reasonably foreseeable future projects listed above would not deteriorate the local air quality. The Preferred Alternative would not contribute to a cumulative impact on air quality. The Preferred Alternative's emissions are substantially lower than 25,000 tons per year at 177 for the construction, which would occur in less than a year. The Preferred Alternative will not generate operational greenhouse gas emissions. Construction emissions would occur over a period of less than a year and

then will cease. Therefore, the Preferred Alternative's cumulative greenhouse gas emissions contribution would be considered less than significant.

### *Noise*

The Preferred Alternative would have less than significant impacts related to construction activity noise and vibration. Construction noise from the Preferred Alternative affects the area immediately to the construction site and will not affect noise at the sites of the other past, present, and reasonably foreseeable future projects listed above. Thus, the Preferred Alternative would not contribute to cumulative impacts and impacts in this regard are not cumulatively considerable.

### *Impacts to Existing Federal Flood Control Project*

The Preferred Alternative would have less than significant impacts to existing Federal flood control project resources. Temporary impacts to the jurisdictional Waters of the U.S. would occur during Phase II construction, but no significant permanent impacts to existing Federal flood control project resources would occur. Each of the other past, present, and reasonably foreseeable future projects listed above would not create cumulative impacts with incorporation of the Preferred Alternative on the region.

### *Human Health and Safety*

The Preferred Alternative would have less than significant impacts to human health and safety and would implement MM HHS-1 to further minimize impacts. Each of the other past, present, and reasonably foreseeable future projects listed above are regulated by Federal and/or state regulations including OSHA. Each of the other past, present, and reasonably foreseeable future projects listed above must evaluate project specific impacts to human health and safety. The Preferred Alternative would not contribute to a cumulative impact regionally.

### *Industrial, Commercial and Agricultural Activities and Production*

The Preferred Alternative would not have impacts to industrial, commercial and agricultural activities and production resources. As such, the Preferred Alternative would not add to any possible cumulative impacts from each of the other past, present, and reasonably foreseeable future projects listed above.

### *Quantity and Distribution of Employment*

The Preferred Alternative would not have any negative impacts to quantity and distribution of employment resources. There would be temporary beneficial impacts during construction, but no permanent impacts. As such, the Preferred Alternative would not add to any possible cumulative impacts from each of the other past, present, and reasonably foreseeable future projects listed above.

### *Access and Quality of Recreational and Wilderness Activities*

The Preferred Alternative would implement MM TRA-1 to further minimize temporary less than significant impacts and there would be no permanent impacts to the access and quality of recreational and wilderness activities resources. As such, the Preferred Alternative would not permanently contribute to each of the other past, present, and reasonably foreseeable future projects listed above for any possible cumulative impacts related to these resources.

### *Density and Distribution of Population and Housing*

The Preferred Alternative would have no impacts to density and distribution of population and housing resources. As such, the Preferred Alternative would not add to any possible cumulative impacts from each of the other past, present, and reasonably foreseeable future projects listed above.

### *Other Appropriate Social and Economic Circumstances (Traffic and Trails)*

The Preferred Alternative would implement MM HHS-1 and MM TRA-1 to further minimize temporary impacts. No permanent impacts to other appropriate social and economic circumstance resources would occur as a result of the Preferred Alternative's implementation. As such, the Preferred Alternative would not contribute to each of the other past, present, and reasonably foreseeable future projects listed above for significant cumulative impacts.

### *Environmental Justice*

The Preferred Alternative would have less than significant impacts related to environmental justice. Each of the other past, present, and reasonably foreseeable future projects listed above are regulated by Federal and/or state regulation including Executive Order 12898. The Preferred Alternative would be compliant with Executive Order 12898 and each of the other past, present, and reasonably foreseeable future projects listed above must evaluate site specific compliance related to environmental justice. Therefore, the Preferred Alternative would not contribute to a cumulative impact regionally.

## SECTION 7: COORDINATION

The USACE Asset Management Division would be required to coordinate with the following agencies:

**United States Army Corps of Engineers, Regulatory Division (Los Angeles District)**: The City is required to obtain a CWA Section 404-Permit to Discharge Dredged or Fill Material, or waiver thereof, from the USACE Regulatory Division, Los Angeles District. Informal discussions were held by conference call in the spring of 2013 and winter of 2015 with the Regulatory Division on the need for a 404 Discharge of Dredged or Fill Material Permit. Based on discussions due to the limited impact to Waters of the U.S., a NWP-12 application was submitted to the USACE for consideration in May 2015 and revised February 2016.

**Regional Water Quality Control Board (Santa Ana)**: The City is required to obtain a CWA Section 401 Water Quality Certification, or waiver thereof, from the Santa Ana RWQCB. The City of Chino submitted a Section 401 application to the RWQCB in February 2016.

**U.S. Fish and Wildlife Service:** The USACE would be required to coordinate either informally or formally, with the USFWS as a result of the Proposed Project area containing suitable habitat and designated Critical Habitat for least Bell's vireo. Informal consultation with USFWS occurred in June of 2012 when least Bell's vireo were found during the first protocol survey. This discussion encompassed both the presence of the species and the potential impact to Critical Habitat. Based on these informal discussions, the City modified their construction plans to minimize temporary less than significant impacts and to avoid any permanent significant impacts to Critical Habitat. The City also committed to construction outside of the nesting season in sensitive areas to avoid take of the species and any permanent impacts to Critical Habitat. Currently, USACE is coordinating the Proposed Project with the USFWS. The USACE is preparing a letter to the USFWS requesting concurrence in a "may affect but not likely to adversely modify Critical Habitat" for least Bell's vireo.

**California Department of Fish and Wildlife:** The City would be required to coordinate (either informally or formally, as determined by CDFW) with CDFW in regards to a Lake and Streambed Alteration Agreement. A HDD method would be employed at the drainage crossing to minimize impacts to Waters of the U.S. and the State. A Lake and Streambed Alteration Agreement would be required by CDFW. The City of Chino submitted a LSAA or Section 1602 to the CDFW in February 2016.

SHPO and Tribes: USACE sent a letter to SHPO on February 3, 2016 providing the APE and a determination of "no historic properties affected" pursuant to Section 106 of the NHPA. The City

# SECTION 8: APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

## 8.1 - Compliance with other Regulations

As discussed below, the Preferred Alternative would be in compliance with the regulations identified below.

### 8.1.1 - Endangered Species Act (ESA)

The ESA protects threatened and endangered species, and their designated critical habitat, from unauthorized take. Section 9 of the Act prohibits such take, and defines take as to harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct. Section 7 of the ESA requires Federal agencies to insure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat. Consultation with the USFWS or National Marine Fisheries Service is required if the Federal action may affect a Federally listed species or designated critical habitat.

The Proposed Project is in compliance with the ESA. The Proposed Project is located within Designated Critical Habitat for least Bell's vireo, a Federally listed species that has been spotted onsite. The Preferred Alternative minimizes impacts to the species and the Critical Habitat. Consultation with the USFWS would be required and is expected to result in a concurrence with USACE for a 'may affect but is not likely to adversely modify or affect listed species or their designated critical habitat' determination. Informal consultation has occurred between USACE and USFWS and is ongoing. Because construction and project design should result in a temporary impact, a determination of 'may affect but is not likely to adversely modify or affect listed species or their designated critical habitat' would be made by USACE for which USACE would seek concurrence from USFWS.

Refer to Section 5.2.5, Threatened or Endangered Species, for a discussion related to the Preferred Alternative's potential effects on sensitive species and compliance with the ESA.

### 8.1.2 - Migratory Bird Treaty Act (MBTA)

The MBTA prohibits the taking or harming of any migratory bird, its eggs, nests, or young without an appropriate Federal permit. Almost all native birds are covered by this Act and any bird listed in wildlife treaties between the United States and several countries, including Great Britain, Mexican States, Japan, and countries once part of the former Soviet Socialist Republics. A "migratory bird" includes the living bird, any parts of the bird, its nest, or eggs. The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and

recreation purposes and requiring harvest to be limited to levels that prevent over-utilization. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take. Disturbance of the nest of a migratory bird requires a permit issued by the USFWS pursuant to Title 50 of the Code of Federal Regulations (CFR).

Avoidance/Minimization/Mitigation Measure BIO-1 would include pre-construction surveys if work is done during the nesting season and, if nesting birds are present, actions to avoid affecting nests until the young have fledged. Therefore, the Proposed Project would be in compliance with the MBTA.

Refer to Section 5.2.4, Wildlife, for a discussion related to the Preferred Alternative's potential effects on wildlife, including those species covered by the MBTA, and compliance with the MBTA.

### 8.1.3 - Section 404 of the Clean Water Act (CWA §404)

Section 404 authorizes the Secretary of the Army acting through the USACE to issue permits for the discharge of dredged or fill materials into the Waters of the United States, including wetlands, at specified disposal sites. The selection and use of disposal sites must be in accordance with guidelines developed by the Administrator of EPA in conjunction with the Secretary of the Army and published in 40 CFR Part 230 (knows as the 404(b)(1) guidelines). Under the Section 404(b)(1) guidelines, the USACE shall examine practicable alternatives to the proposed discharge and permit only the Least Environmentally Damaging Practicable Alternative (LEDPA).

Entities must obtain a Section 404 permit from USACE before undertaking any discharge of dredged or fill materials into Waters of the United States, unless determined to be exempt from regulation.

The Proposed Project would be in compliance with the Section 404 of the CWA and qualifies under the NWP 12 program as more fully described in Section 5.2.2 of this EA. The Proposed Project would involve 0.0009 acre of permanent impacts to Waters of the U.S. which would be substantially less than 0.5 acre for a NWP. Construction would have temporary impacts of 0.161 acre to Waters of the U.S. and would occur for approximately 14 days. A revised Section 404 NWP 12 permit application was submitted to the USACE on February 22, 2016 for consideration. The City of Chino would implement any conditions of the 404 permit. The Proposed Project would be in full compliance with the CWA upon issuance of a permit by the USACE.

### 8.1.4 - Section 401 of the Clean Water Act (CWA §401)

Section 401 of the CWA requires that every applicant for a Federal license or permit for any activity that may result in a discharge into navigable waters must obtain a State Water Quality Certification (Certification) or waiver that the proposed activity would comply with state water quality standards (i.e., beneficial uses, water quality objectives, and anti-degradation policy). The Santa Ana RWQCB issues Section 401 Water Quality Certifications for activities within the Prado Basin.

Clean Water Act §401 Water Quality Certification would be required from the Regional Water Quality Control Board (RWQCB, Santa Ana Region). The City of Chino submitted a Section 401 application to the RWQCB on February 22, 2016 and would implement the conditions required of the certification. Therefore, the Proposed Project would be in compliance with the Section 401 of the CWA.

### 8.1.5 - Section 402 of the Clean Water Act (CWA §402)

Section 402 prohibits the discharge of pollutants to "waters of the United States" from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. Section 402 requires a NPDES Permit for the discharge of stormwater from municipal separate storm sewer systems (MS4) serving urban areas with a population greater than 100,000; construction sites that disturb one acre or more; and industrial facilities. The RWQCB administers these permits with oversight provided by the SWRCB and EPA Region IX.

The Proposed Project would comply with Section 402 requirements, and would be required to comply with the San Bernardino County MS4 permit. Initial construction of the sewer line could result in construction-related runoff that might impact jurisdictional surface waters. The Preferred Alternative would require the submittal of a SWPPP, which includes BMPs, intended to reduce erosion, sedimentation, and non-permitted discharges of materials during construction-related activities. The BMPs to be used during construction typically include gravel bags, silt fencing, and general good housekeeping measures to prevent storm water contact with construction materials. As implemented by Avoidance/Minimization/Mitigation Measures GEO-2, a SWPPP would be prepared to demonstrate compliance with the state NPDES permit and provide protection of water quality during construction activities. With implementation of the BMPs in the SWPPP, the Preferred Alternative is not anticipated to create significant impacts to water quality and would be in compliance with Section 402.

## 8.1.6 - Coastal Zone Management Act (CZMA)

The Proposed Project action is in compliance with the CZMA; this location is not located within the Coastal Zone.

## 8.1.7 - Section 176(c) of the Clean Air Act (CAA): General Conformity Rule Review

Section 118 of the Act states that any Federal action that may result in discharge of air pollutants must comply with Federal, state, interstate and local requirements respecting control and abatement of air pollution. Section 176(c) of the Act requires that Federal actions conform to an implementation plan after it has been approved or promulgated under Section 110 of the Act.

The potential air quality impacts of the Preferred Alternative have been examined and compared to the significant levels identified by the SCAQMD, which is the agency with jurisdiction to enforce the Clean Air Act regulations and other relevant local air quality regulations. The SCAQMD sets the threshold limits, which if exceeded, trigger New Source Review Rules, as defined in the Act.

With respect to the "General Conformity Rule" set forth in section 176(c) of the Clean Air Act, and as discussed in Section 5.2.9 (above) no General Conformity *de minimis* thresholds would be exceeded during either construction or operational phases of the Preferred Alternative. Therefore, the Preferred Alternative would be exempt from performing a comprehensive Air Quality Conformity Analysis, and is considered to be in de facto conformity with the SIP and the CAA.

## 8.1.8 - Section 106 of the National Historic Preservation Act (NHPA)

Section 106 of the NHPA requires any Federal agency to take responsibility for the impact of the decisions on historic resources. Under Section 106, Federal agencies are prohibited from approving any Federal "undertaking" (including the issuance of any license, permit, or approval), without 1) taking into account the effects of the undertaking on the historic properties, and 2) affording the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking as appropriate. The NHPA forces an agency to stop and consider the consequences of its undertakings on any historic property, for example by assuring that the agency does so by requiring it to receive comment from the ACHP, or agencies acting in its stead, and from the public before proceeding with any such undertaking. In order to comply with the NHPA, a Federal agency considering an undertaking must document that this process was completed.

The Preferred Alternative's APE is the proposed easement under the Preferred Alternative as well as a 200-foot-wide area that runs the length of both potential easements. In order to assess potential

cultural resources present on the Preferred Alternative's APE site, a Section 106 complaint Class III Cultural Resources Survey was prepared. The findings of the survey indicated that there were no known resources on the Preferred Alternative site. In addition, Mitigation Measures CR-1 and CR-2 require monitoring during construction and make provision for addressing any finds that occur during construction or maintenance. USACE sent a letter to SHPO on February 3, 2016 providing the APE and a determination of "no historic properties affected" pursuant to Section 106 of the NHPA.

Refer to Section 5.2.6, Cultural Resources, for a discussion related to the Preferred Alternative's potential effects on cultural/historical resources and compliance with Section 106.

### 8.1.9 - US Fish and Wildlife Coordination Act (16 USC 661)

This Act requires Federal agencies consult with the USFWS and the fish and wildlife agencies of States where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified" by any agency under a Federal permit or license. Consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources." The intent is to give fish and wildlife conservation equal consideration with other purposes of water resources development projects.

Because the Preferred Alternative does not involve impoundment, diversion, or other modification to bodies of water within the Basin with the proposed classification of land use, no Fish and Wildlife Coordination Act Report is required. The Proposed Project would be in compliance with this Act.

### 8.1.10 - Noise Control Act of 1972, as amended (42 USC 4901 et seq.)

Noise generated by any activity, which may affect human health or welfare on Federal, state, county, local, or private lands, must comply with noise limits specified in the Noise Control Act.

The Preferred Alternative would not have any direct impacts to noise levels in the area. Noise would continue to be regulated with Federal, state, and local laws and ordinances. The Preferred Alternative is in compliance with the Act.

Refer to Section 5.2.10, Noise, for a discussion related to the Preferred Alternative's potential effects on noise and compliance with the Noise Control Act.

### 8.1.11 - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC 9601 et seq.)

CERCLA regulates the release or substantial threat of release into the environment of any pollutant or contaminant, which may present an imminent and substantial danger to the public health or welfare.

As there are no known sites within the Basin, this this Preferred Alternative would be in compliance with the Act

### 8.1.12 - Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality, amended by Executive Order 11991, Relating to Protection and Enhancement of Environmental Quality

This EO mandates that the Federal government provide leadership in protecting and enhancing the quality of the nation's environment to sustain and enrich human life. Federal agencies must initiate measures needed to direct their policies, plans, and programs so as to meet national environmental goals. These regulations include procedures for early EIS preparation and require impact statements to be concise, clear, and supported by evidence that agencies have made the necessary analyses.

An Environmental Assessment has been prepared to address impacts of the Preferred Alternative on multiple resources. The impacts for the Preferred Alternative are less than significant. Therefore, the Preferred Alternative is in compliance with the mandates of this EO.

### 8.1.13 - Executive Order 11988, Floodplain Management

In accordance with this EO, the USACE shall take action to "…avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." Executive Order 11988 was modified by Executive Order 13690 on January 30, 2015.

EO 11988 requires that Federal agencies take action to manage the risk and/or impacts of floods on human safety, health, and welfare and restore and preserve natural and beneficial values served by the floodplains. Each agency also has the responsibility to evaluate potential effects of Federal actions that may be made within floodplains.

Compliance with this EO requires proper implementation of engineering regulations (ER) 1165-2-26, which states that the policy of the USACE with respect to floodplain management is to formulate projects which, to the extent possible, avoid or minimize adverse impacts associated with use of the base (100-year) floodplain and avoid inducing development in the base floodplain unless there is no practicable alternative.

Improvements related to this Preferred Alternative that would be in the 100-year floodplain are limited to an underground sewer line. The Preferred Alternative would not result in further inducing development in the base floodplain.

The Preferred Alternative would not change the floodplain or promote development in the floodplain. The Preferred Alternative is in compliance with the ER 1165-2-26 for implementing EO 11988.

### 8.1.14 - Executive Order 11990, Protection of Wetlands

Federal agencies shall take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies responsibilities. Each agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds that 1) there is no practicable alternative to such construction and 2) the Proposed Project includes all practicable measures to minimize harm to wetlands, which may result from such use. In making this finding, the head of the agency may take into account economic, environmental, and other pertinent factors. Each agency shall also provide opportunity for early public review of any plans or proposals for new construction in wetlands.

The Preferred Alternative would involve minor and temporary impacts to wetlands during construction. The Preferred Alternative would qualify under the NWP program and has taken all practical measures to minimize harm to wetlands. The Preferred Alternative is in compliance with EO 11990.

### 8.1.15 - Executive Order 12088, Federal Compliance with Pollution Control Standards

Federal Agencies are responsible for ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under control of the agency.

The action does not negatively affect the natural and beneficial values of the Basin as the classification of land use would conserve and protect existing natural areas from further development. The Preferred Alternative is in compliance with the EO.

### 8.1.16 - Executive Order 12898, Environmental Justice Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

EO 12898 is intended to direct each Federal agency "to make achieving environmental justice part of its mission by identifying and addressing... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations in the [U.S.] ..."

The Proposed Project would occur within a predominantly recreational area without a substantial residential population or within existing public right-of-way. The Proposed Project would not impose any social or economic impacts or any persons, regardless of social status, race, or income. Furthermore, the area surrounding the Proposed Project may be characterized as middle class with low instances of poverty. As such, no segment of the population, including minority or low income communities, would be disproportionately affected by implementation of the Proposed Project. The Proposed Project is in compliance with the EO. Refer to Section 4.2.18, Environmental Justice, for a discussion related to the Proposed Project's potential effects on Environmental Justice.

### 8.1.17 - Executive Order 13112, Invasive Species

Federal agencies are to expand and coordinate efforts to prevent the introduction and spread of invasive plant species and to minimize the economic, ecological, and human health impacts that invasive species may cause. The Preferred Alternative would not involve invasive species. Eradication/maintenance of invasive species and the future replacement of non-native ornamental trees and other plant material per USACE guidance, may be carried out with other future projects and the intent of the EO is met.

### 8.1.18 - Executive Order 13148, Greening the Government through Leadership in Environmental Management

Environmental management considerations must be a fundamental and integral component of Federal government policies, operations, planning, and management. The primary goal of this EO in the natural resources arena is for each agency to strive to promote the sustainable management of Federal facility lands through the implementation of cost-effective, environmentally sound landscaping practices, and programs to reduce adverse impacts to the natural environment.

The Preferred Alternative is in compliance with the EO because attempts to reduce adverse impacts have been taken with the Proposed Project.

### 8.1.19 - Executive Order 13195, Trails for America in the 21st Century

This EO states that Federal agencies would, to the extent permitted by law and where practicable and in cooperation with Tribes, states, local governments, and interested citizen groups, protect, connect, promote, and assist trails of all types throughout the United States.

The approval of the Proposed Project would not result in the development of trails or the permanent reduction in quality or quantity of existing trails. Minor and temporary limitations on a portion of an existing equestrian trail located near the southerly extent of the proposed sewer line would occur

during construction. However, MM HHS-1 and MM TRA-1 as described above would further minimize temporary impacts that are less than significant and not permanent. This EA is in compliance with this order. Refer to Section 5.2.17, Other Appropriate Social and Economic Circumstances (Traffic and Trails), for a discussion related to the Proposed Project's potential effects on trails.

## SECTION 9: LIST OF PREPARERS

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## SECTION 11: RECOMMENDATION

Based upon the information provided here, the following USACE action is recommended:

☐ EIS ☒ FONSI

## Table 12: Avoidance/Minimization/Mitigation Measures

| Issue Area(s) | Avoidance/Minimization/Mitigation Measure Title | Avoidance/Minimization/Mitigation Measure |
|---|---|---|
| Geology and Soil Quality, Stability and Moisture | MM GEO-1 | The contractor shall follow the following recommendations outlined in the Geotechnical Investigation during construction:<br><br>Subterranean Base Structure of Lift Station:<br><br>- The proposed excavation is expected to extend to competent alluvial soils. However, if compressible or unsuitable soils extend below the excavation bottom, the soils will need to be over-excavated down to firm native soils.<br><br>- The exposed soils beneath the subterranean structure should be scarified an additional 12 inches, moisture conditioned and compacted to a minimum of 90% relative compaction. If the exposed soils at the bottom of the excavation are oversaturated, a 12-inch layer of gravel or rock may be placed to stabilize the bottom.<br><br>Trench Backfill:<br><br>- Onsite soils are suitable for placement as backfill provided they are screened of trash, organic matter and other deleterious substances. Oversize materials with a maximum dimension greater than 12 inches shall not be placed as trench backfill.<br><br>- Trench backfill within street right of ways shall be compacted to 90% relative compaction as determined by the ASTM D1557 test method. Backfill may be jetted as a means of initial compaction; however, mechanical compaction will be required to obtain the required percentage of relative compaction. If trenches are jetted, there must be a suitable delay for drainage of excess water before mechanical compaction is applied. |
| Geology and Soil Quality, Stability and Moisture; Water Resources | MM GEO-2 | Prior to construction, a Stormwater Pollution Prevention Plan (SWPPP) and erosion control plan for the Proposed Project shall be prepared by the City of Chino and submitted to the State Water Resources Control Board as required for compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction Activity (NPDES No. CAS000002). The SWPPP shall provide for protection of water quality during construction and operation of the Preferred Alternative Proposed Project. The SWPPP |

| Issue Area(s) | Avoidance/Minimization/Mitigation Measure Title | Avoidance/Minimization/Mitigation Measure |
|---|---|---|
| | | shall include a list of feasible Best Management Practices (BMPs) that shall be incorporated during construction of the Preferred Alternative Proposed Project in order to ensure that Federal and state water quality standards would not be violated. BMPs could include, but are not limited to, the use of gravel bags, silt fencing, and general good housekeeping measures to prevent storm water contact with construction materials. |
| Water Resources, Vegetation; Threatened and Endangered Species | MM HYD-1 | Phase II pipeline construction through the drainage feature and wetland areas would be constructed in dry weather during the months of September through February, and after surface flow has subsided to pre-wet season levels to limit impacts to stream flow and potential impact to downstream water quality (downstream sedimentation) that might otherwise result during construction. |
| Wildlife; Threatened and Endangered Species | MM BIO-1 | To avoid impacts to nesting birds, Phase II construction and/or grading should be performed outside of the avian nesting season, which is typically between February 1 and August 31. If construction activities would take place during the nesting season, a pre-construction survey shall be conducted by a qualified biologist within 30 days prior to grading activities within any Preferred Alternative impact area that has not been previously developed, in order to identify all active nests in areas that could be impacted during project grading and construction. If an active nest is identified during the pre-construction survey, no construction activity shall take place within a minimum 250 feet of any active nest until the young have fledged (as determined by a qualified biologist) and the nest is no longer determined to be active. This distance shall be expanded (up to 500 feet) for any nesting raptor species, based upon the recommendation of a qualified biologist. Construction activity in the vicinity of any active nest shall be conducted at the discretion of a qualified biologist. |
| Cultural Resources | MM CR-1 | A qualified archaeological Inspector(s) would be retained to monitor construction-related activities that involve excavation below a depth of one foot in the basin such that inadvertent finds could be avoided by heavy equipment. If the Inspector encounters a cultural resource site during implementation of this Avoidance/Minimization/Mitigation Measure, the Inspector(s) shall if possible move the heavy equipment used during maintenance to a point at least 50 feet away from the new discovery and then inform the USACE of the event. Isolated artifacts lying outside established site boundaries of a known historic property need not be mitigated for, but such finds should be recorded onto DPR523 isolate forms by the Inspector(s). The City must also notify the USACE if there is an inadvertent discovery made (without the Inspector(s) present) of buried unknown resources, human remains or sacred Native American |

| Issue Area(s) | Avoidance/Minimization/Mitigation Measure Title | Avoidance/Minimization/Mitigation Measure |
|---|---|---|
| | | objects during maintenance activities because there may be additional responsibilities under 36 CFR Part 800. |
| Cultural Resources | MM CR-2 | If during maintenance activities for this Preferred Alternative a previously unknown cultural resource is encountered without an archaeological inspector present, all construction activities must stop and the USACE must be informed by construction staff. With the concurrence of the USACE the Proponent must then retain a qualified archaeological Inspector to examine the find in the field and determine whether or not the find is of historical significance pursuant to 36 CFR Part 800. |
| Air Quality | MM AIR-1 | The Preferred Alternative is required to comply with SCAQMD Rule 403 which regulates fugitive dust and includes the following: properly maintain mobile and other construction equipment, replace ground cover in disturbed areas quickly, water exposed surfaces three times daily, cover stock piles with tarps, water all haul roads twice daily, and limit speeds on unpaved roads to 15 miles per hour. |
| Human Health and Safety | MM HHS-1 | A traffic control and pedestrian/bicyclist/equestrian safety plan, prepared to the satisfaction of the USACE, San Bernardino County Parks and Recreation, the Prado Park Equestrian Center, and the City of Chino Public Works Department, would be put in place prior to commencement of any maintenance or construction activities. |
| Other Appropriate Social and Economic Circumstances (Traffic and Trails) | MM TRA-1 | A temporary equestrian trail detour prepared to the satisfaction of the San Bernardino County Parks and Recreation, the Prado Park Equestrian Center, and the City of Chino Public Works Department would be implemented with signage during construction when access to the trail entrance is closed during Phase II. |