

SECTION 4: CUMULATIVE IMPACT ANALYSIS

4.1 - CEQA Requirements

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. As established in the CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts, as well as the likelihood of their occurrence attributable to the project alone. As stated in CEQA, Title 14, Section 21083(b), “a project may have a significant effect on the environment if the possible effects of a project are individually limited but cumulatively considerable.”

According to the CEQA Guidelines:

Cumulative impacts refers to two or more individual effects which, when considered together, are considerable and which compound or increase other environmental impacts.

- a) The individual effects may be changes resulting from a single project or a number of separate projects.
- b) “The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probably future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” (California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, Section 15355)

In addition, as stated in CEQA Guidelines:

The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable. (CCR, Title 14, Division 6, Chapter 3, Section 15064[T][5])

4.2 - Cumulative Impact Setting

Cumulative impact discussions for each environmental topic area are provided below. As established in the CEQA Guidelines, related projects consist of “closely related past, present, and reasonably foreseeable probable future projects that would likely result in similar impacts and are located in the same geographic area.” (CCR, Title 14, Division 6, Chapter 3, Section 15355.)

Based on information provided by the City of Beaumont, City of Calimesa, and County of Riverside, the March 18, 2013 Traffic Impact Analysis (TIA) prepared for the proposed project by Urban Crossroads, Inc. (Appendix H) identified related development projects in the project area that could

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potentially contribute to cumulative impacts (Refer to Attachment E of the TIA for a detailed listing of specific related development projects). The following provides a general summary of the land uses and intensities associated with these related development projects:

- Residential (Single-Family, Multi-Family, Senior Housing): 30,660 dwelling units
- Commercial/Industrial/Public Facilities: 3,011 acres
- Office/Business Park: 145 acres
- Schools: 3,300 students

In addition to these related development projects, two water resources project that were not included in the March 2013 TIA's cumulative impacts evaluation shall also be considered related projects for the purpose of the following cumulative impacts discussion and analysis. The first of these water resources projects involves the future addition of a 20-horsepower (hp) pump at the Cherry Valley Pumping Station located at the western terminus of Orchard Street. The second of these projects involves a currently conceptual plan by the City of Beaumont, who is contemplating the conveyance and disposal of treated wastewater via pipelines to existing or future recharge facilities located within the City for groundwater replenishment. One of these recharge areas could potentially be the proposed recharge facility. At this time, this conceptual plan is not part of the proposed project, and its potential environmental effects have not been evaluated alongside the other project components. If eventually proposed, this conceptual plan would require its own environmental impact analysis and documentation prior to project approval. However, for the purpose of discussing and evaluating cumulative impacts, this conceptual plan is included amongst the other future related projects.

For the purpose of evaluated cumulative impacts, these related projects are viewed collectively in this Draft EIR as comprising the grouping of past, present, and reasonably foreseeable future projects against which the proposed project's contribution to cumulative impacts is assessed.

4.3 - Cumulative Impact Analysis

Air Quality

Cumulative impacts related to air quality are fully addressed by Impact AIR-3 in Section 3.1, Air Quality. The following is a summary of the cumulative impacts findings.

To explain how implementing the requirements in the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plans (AQMPs) ensures the project's incremental contribution to the cumulative effect is not cumulatively considerable, the following three-pronged analysis was performed. To conclude that a project could result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants below the regional significance thresholds.
2. Plan approach: project consistency with current air quality attainment plans including control measures and regulations.
3. Cumulative health impacts: less than significant cumulative health effects of the nonattainment pollutants.

Criterion 1: Regional Analysis

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The South Coast Air Basin is in nonattainment for PM₁₀, PM_{2.5}, nitrogen dioxide, and ozone. Therefore, if the project exceeds the regional thresholds for PM₁₀, or PM_{2.5}, then it contributes to a cumulatively considerable impact for those pollutants. If the project exceeds the regional threshold for NO_x or VOC, then it follows that the project would contribute to a cumulatively considerable impact for ozone. If the project exceeds the NO_x threshold, it could contribute cumulatively to nitrogen dioxide concentrations.

Construction

The regional assessment includes all project-generated emissions from both onsite sources such as off-road construction equipment and off-site sources including worker and haul truck emission sources. Section 3.1, Air Quality, Table 3.1-13 compares the project regional construction emissions with the relevant SCAQMD regional construction emission significance threshold. As noted from this table, the project's construction emissions could exceed the SCAQMD's regional emission significance thresholds for NO_x emissions during the retention basin construction phase. In addition, the regional significance threshold for NO_x could also be exceeded if the construction of the retention basins, the pipeline construction, or the service connection construction occurred simultaneously. As such, the project results in a significant regional air quality impact.

Operations

The project's regional operational emissions results from the off-road equipment used in the maintenance of the retention basin (i.e., bulldozer, water truck, and haul truck) and worker vehicles associated with the maintenance activities. The operation of the irrigation water pump is assumed to be electrically-powered. Table 3.1-14, in Section 3.1, Air Quality, provides the estimate of the project's operational emissions along with the relevant SCAQMD regional operational emission significance thresholds. As noted from this table, the project's operational emissions would not exceed the SCAQMD's regional operational emission significance thresholds.

The regional significance analysis of project impacts indicates that construction emissions could exceed the SCAQMD regional construction emission significance threshold for NO_x. Therefore, the project could have a regionally cumulative impact according to this criterion.

Criterion 2: Plan Approach

The geographic scope for cumulative criteria pollution from air quality impacts is the South Coast Air Basin, because that is the area in which the air pollutants generated by the sources within the air basin circulate and are often trapped. The SCAQMD is required to prepare and maintain an AQMP and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the SCAQMD does not have direct authority over land use decisions, it is recognized that changes in land use and circulation planning are necessary to maintain clean air. The SCAQMD evaluated the entire air basin when it developed the AQMP.

According to the analysis contained in Impact AQ-2, the project is not consistent with the most recent AQMP without mitigation. Therefore, the project presents a potentially significant impact according to this criterion.

Criterion 3: Cumulative Health Impacts

The air basin is in nonattainment for ozone, nitrogen dioxide, PM₁₀, and PM_{2.5}, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as the elderly, children, and the sick). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects that were described in Table 3.1-3. The concentration of the pollutant in the air, the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects.

The regional analysis of construction emissions indicates that without mitigation, the project would exceed the SCAQMD regional significance thresholds for NO_x. NO_x is a precursor to ozone. Because ozone is a secondary pollutant (it is not emitted directly but formed by chemical reactions in the air), it can be formed miles downwind of the project site. Project emissions of NO_x may contribute to the background concentration of ozone and nitrogen dioxide and cumulatively cause health effects, such as those identified in Table 3.1-3.

However, with the incorporation of Mitigation Measures AIR-1 and AIR-2, impacts associated with air quality issues would be less than significant. Thus, despite the potentially cumulative impacts resulting from implementation of the related development projects, the proposed project's incremental air quality impacts would be less than significant, and therefore, the project's contribution to cumulative impacts would not be considered cumulatively considerable because the

guidance provided by SCAQMD states that if an individual project does not exceed the SCAQMD thresholds, the individual project does not significantly contribute to significant cumulative air quality impacts. Thus, the project's cumulative impact would be less than significant after the implementation of the above mentioned mitigation measures.

Additionally, the aforementioned water resources related projects, and in particular the conceptual plan to convey and dispose of treated wastewater existing or future recharge facilities located within the City of Beaumont for groundwater replenishment, could result in cumulative impacts related to the creation of objectionable odors. Land uses typically associated with emitting objectionable odors include wastewater treatment facilities, waste disposal facilities, and agricultural operations. The proposed project does not contain land uses usually associated with odors. Since the SGPWA would maintain the proposed recharge basins to ensure that objectionable odors do not occur, less than significant project odors impacts would occur. Moreover, diesel exhaust and VOCs would be emitted during project construction, which are objectionable to some. However, emissions would disperse rapidly from the project sites and are not expected to reach an objectionable level. Thus, despite the potentially cumulative impacts resulting from implementation of the related water resources projects, the proposed project's incremental objectionable odors impacts would be less than significant, and therefore, the project's contribution to cumulative impacts would not be considered cumulatively considerable. Thus, the project's cumulative impact would be less than significant.

Biological Resources

Implementation of the related projects could result in a loss of suitable habitat for candidate, sensitive, or special status species. Suitable habitat for Los Angeles Pocket Mouse (LAPM) occurs on the both the recharge facility site and the offsite triangular parcel. Construction of the proposed recharge facility would directly affect 0.1 acre of low quality LAPM habitat. This impact to this low quality occupied habitat will not reduce the population of LAPM to a less than self-sustaining level, and therefore, is considered a less than significant impact. While the loss of a few individuals is considered an adverse impact, the small isolated patch of low quality remnant Riversidean Alluvial Fan Sage Scrub is not suitable for the long-term conservation of the species. Therefore, this loss of remnant low quality occupied habitat would not significantly contribute to cumulative impacts on the LAPM. Therefore, the project's direct cumulative impact on LAPM would be less than significant. In addition, the proposed project will result in the avoidance of 0.9 acre of suitable LAPM habitat and to reduce the project's contribution to indirect impacts on the LAPM, mitigation measures BIO-3 through BIO-11 will be required. These measures would reduce the project's indirect cumulative impacts on LAPM to less than significant.

The proposed project also has the potential to impact burrowing owls which could contribute to cumulative impacts; however, the project's mitigation measures (Mitigation Measures BIO-1 and BIO-2) would reduce these potential impacts through either passive relocation or avoidance during

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nesting season, and thus reduce the project's potential contribution to cumulative impacts on this species to less than cumulatively considerable.

In addition, the construction activities associated with the project could result in impacts to nesting birds that could also contribute to cumulative impacts. However, the project's mitigation measures (Mitigation Measures BIO-12 through BIO-14) would reduce the project's potential contribution to cumulative impacts on this species to less than cumulatively considerable through avoidance during the nesting season or provision of a buffer around the active nests during construction.

Cultural Resources

Development of the related projects could engage in construction activities that would encounter unrecorded buried cultural resources. Since the proposed project involves grading, excavation, and other earthmoving activities, there is a possibility that project construction would disturb buried cultural resources. As a result, project impacts on cultural resources would be potential significant. However, with the incorporation of Mitigation Measures CULT-1 through CULT-7, impacts associated with cultural resources issues would be less than significant. Thus, despite the potentially cumulative impacts resulting from implementation of the related development projects, the proposed project's incremental cultural resources would be less than significant. Based on reducing the project's potential impact on unrecorded buried cultural resources through the implementation of the above referenced mitigation measures, the project's contribution to cumulative impacts would not be considered cumulatively considerable. Thus, the project's cumulative impact would be less than significant with the implementation of the above mentioned mitigation measures.

Geology and Soils

Implementation of the related projects could expose people and structures to strong ground shaking. Considering the seismically active nature of the project region, along with the proposed recharge facility's design requirement of sloped basins, the proposed project would be susceptible to seismic impacts. As a result, project impacts related to geology and soils would be potentially significant. However, with the incorporation of Mitigation Measures GEO-1 through GEO-11, impacts associated with geotechnical issues would be less than significant. Thus, despite the potentially cumulative impacts resulting from implementation of the related development projects, the proposed project's incremental geotechnical impacts would be reduced with the incorporation of the mitigation measures identified above. These mitigation measures would reduce the project's contribution to cumulative impacts to less than cumulatively considerable. Thus, the project's cumulative impact would be less than significant after the implementation of the above mentioned mitigation measures.

Greenhouse Gas Emissions

Development of the related projects could generate greenhouse gases emissions that may have an environmental effect or conflict with an applicable greenhouse gas plan or policy. No individual project can affect climate change through greenhouse gas emissions, and as such, greenhouse gas

impacts are always cumulative in nature. The proposed project would produce greenhouse gas emissions during the construction and operational phases, including several defined by AB 32 such as carbon dioxide, methane, and nitrous oxide. However, the proposed project would emit approximately 27 MTCO₂e per year, averaged over 30 years, which is substantially under the SCAQMD's draft thresholds and the County of Riverside threshold of 3,000 MTCO₂e per year. As a result, project impacts on greenhouse gas emissions would be less than significant. Thus, despite the potentially cumulative impacts resulting from development of the related development projects, the proposed project's incremental greenhouse gas impacts would be less than significant, and therefore, the project's contribution to cumulative impacts would not be considered cumulatively considerable. Thus, the project's cumulative impact would be less than significant.

Hazards and Hazardous Materials

Implementation of the related projects could create a public or environmental hazard through the handling of hazardous materials, generate hazardous emissions within a sensitive land use, or cause a hazard by being located on a hazardous materials site. According to regulatory records searches, the proposed project is not located on any parcels identified as a recognized environmental concern (REC). Construction and operational activities have the potential to use hazardous materials in the form of oil, gas, pesticides, etc. However, it is unlikely that the project could result in a significant hazardous impact due to the nominal quantities associated with the project activities. As a result, project impacts on hazards and hazardous materials would be less than significant. Thus, despite the potentially cumulative impacts resulting from development of the related development projects, the proposed project's incremental hazardous materials impacts would be less than significant, and based on the unlikelihood of a potential significant hazardous impact, the project's contribution to cumulative impacts would be considered less than cumulatively considerable. Thus, the project's cumulative impact would be less than significant.

Hydrology and Water Quality

Development of the related projects could engage in construction and operational activities that would degrade water quality, affect groundwater supplies and recharge, alter existing drainage patterns, and impede and redirect flood flows. While the proposed project would place the proposed recharge facility adjacent to Noble Creek, a designated 100-year flood hazard area, the project would not be within this 100-year floodplain, and would not impede or redirect flood flows. As a result, project impacts on hydrology and water quality would be less than significant. Thus, despite the potentially cumulative impacts resulting from implementation of the related development projects, the proposed project's incremental hydrology impacts would be less than significant, and therefore, the project's contribution to cumulative impacts would not be considered cumulatively considerable. Thus, the project's cumulative impact would be less than significant.

Additionally, the aforementioned water resources related projects, and in particular the conceptual plan to convey and dispose of treated wastewater to existing or future recharge facilities located

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within the City of Beaumont for groundwater replenishment, could contribute to the degradation of surface and subsurface water quality. However, the proposed project is not expected to result in significant water quality impacts. The recharge water that is proposed to be used would be from the SWP and has higher water quality (i.e., lower in nitrates) compared to the quality of water that is within the existing Beaumont groundwater basin. Thus, the proposed project would not contribute to the degradation of the groundwater basin through the proposed recharge activities. As a result, the proposed project would not contribute to the potential cumulative degradation of the quality of groundwater.

Noise

Implementation of the related projects could generate increased construction and operational noise levels that would exceed local noise standards or impact the existing ambient noise environment. During the construction phase, operation of construction equipment would temporarily produce higher noise levels in the project vicinity. However, according to both the Municipal Code and the Riverside County Code of Ordinances, noise related to project construction would be exempt from the provisions established by each jurisdiction's respective noise standards, except for the proposed irrigation well construction that would require a 24-hour construction time frame. Additionally, noise levels associated with project construction would not affect the noise environment at the nearest sensitive receptor and would not exceed OSHA thresholds for harm during the daytime or nighttime construction periods.

Long-term noise levels associated with the project would not exceed local noise standards except for potential noise from the long-term operation of a pump associated with an irrigation well. Since the proposed irrigation pump could result in significant noise levels, the project could contribute to potentially significant noise impacts. Thus, the project's cumulative impact is potentially significant. To reduce the project's contribution to the cumulative noise level, Mitigation Measure NOI-1 would be required. This mitigation measure would require the irrigation pump to be set back from the property line or housed in a structure. With the implementation of Mitigation Measure NOI-1, the project's contribution to cumulative impacts would be considered less than cumulatively considerable. Therefore, the project's cumulative long-term noise impact would be less than significant.

Transportation and Traffic

The March 2013 TIA prepared for the proposed project (Appendix H) evaluated the potential incremental and cumulative project impacts associated with project implementation. Cumulative impacts related to transportation and traffic are fully addressed in Section 3.9, Transportation and Traffic, and are provided below.

Development of the related projects could generate increased levels of construction and operational vehicle and truck trips that would impact the local and region circulation system. The traffic analysis

reviewed potential cumulative development and projected a growth in traffic volumes in the project area. The construction activities associated with the proposed pipeline were determine to be potentially significant based on traffic volumes that exists as well as the addition of traffic levels based on growth in the project area. Mitigation Measure TRANS-1 was determined to be necessary to reduce potential traffic associated with lane closures during project construction. This mitigation measure provides temporary traffic controls during the lane closures. The implementation of this mitigation measure would the project's contribution to cumulative traffic impacts to less than cumulatively considerable. Thus, the project's cumulative traffic impact would be less than significant after the implementation of the above mentioned mitigation measure.

