

SECTION 5.0

OTHER CEQA CONSIDERATIONS

5.1 CUMULATIVE IMPACTS

This section discusses the cumulative effects of the Proposed Project. Section 15130(e) of the CEQA Guidelines requires a discussion of cumulative impacts of a project “when the project’s incremental effect is cumulatively considerable.” The CEQA Guidelines, Section 15355, defines a cumulative impact as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Cumulatively considerable impacts are defined in Section 15065 (c) of the CEQA Guidelines as the “incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

Section 15130(b) of the CEQA Guidelines states, “[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness.”

To analyze the cumulative impacts of the project in combination with other expected future growth, the amount and location of growth expected to occur must be predicted. Section 15130(b) of the CEQA Guidelines allows two methods of prediction:

(1) *Either:*

(a) A list of relevant past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the Agency, or

(b) A summary of projections contained in an adopted general plan or related planning document or in a prior adopted or certified environmental document that described or evaluated regional or area-wide conditions contributing to the cumulative impact.

For purposes of this EIR, the Plans and Projections (item b) approach was utilized. The Proposed Project is located in unincorporated Kern County, within the South Inyokern Specific Plan area, and within the City of Ridgecrest. Approximately 220 connections are in San Bernardino County; however, no additional San Bernardino County connections are planned. The District is situated in the Indian Wells Valley, which lies in the northern portion of the Mojave Desert, southeasterly of the Sierra Nevada, and southerly of the Owens Valley. As the primary purveyor of public water supplies in the Ridgecrest area of Kern and San Bernardino counties, the District has a significant portion of the responsibility for managing the area's limited water resources.

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The District's service area encompasses approximately 38 square miles of the 360 square-mile floor of the Indian Wells Valley (IWWVD 2011).

The District currently serves a population of approximately 31,120 people through approximately 12,544 service connections. Population estimates and projections for the portion of the District's service area within Kern County were provided by the Kern Council of Governments (KCOG). Population estimates and projections for the portion of the District's service area within San Bernardino County are based on the number of District connections in that area (83), as well as the average number of persons per household (2.65) for the City of Ridgecrest, obtained from 2009 U.S. Census Bureau data. Estimated current and projected populations within the District's service area are set forth in Table 5.1-1. As shown in this table, the District's service area population is projected to increase from approximately 31,120 currently to approximately 36,720 by 2035 (IWWVD 2011).

**Table 5.1-1
Current and Projected Population, IWWVD Service Area**

SERVICE AREA	2010	2015	2020	2025	2030	2035
Kern County	30900	32400	33900	34800	35700	36500
San Bernardino County	220	220	220	220	220	220
Total Service Area Population	31120	32620	34120	35020	35920	36720

Source: IWWVD 2011

The Proposed Project would support the approximately 1 percent annual growth that is expected to occur in the service area as estimated by Kern COG (Kern COG 2010). The City of Ridgecrest adopted its current General Plan in December 2009 (City of Ridgecrest 2009b). The City's General Plan states that the City's population growth rates through 2030 could range from 1 percent to 3 percent annually. The EIR for the General Plan analyzes impacts to the environment using the 3 percent growth rate.

The Kern County portions of the IWWVD service area are within the South Inyokern Specific Plan. This Specific Plan was adopted by Kern County in 1973 (Kern County 1973). There are no population estimates in this Specific Plan. The Kern County General Plan Land Use element assumes that overall population growth in Kern County will be approximately 2 percent or less per year (Kern County 2009).

No additional connections are anticipated in San Bernardino County, therefore the land use and population assumptions in the San Bernardino County General Plan are not further discussed in this section.

5.1.1 Cumulative Impacts Analysis

5.1.1.1 Air Quality

Air quality impacts associated with the Proposed Project were evaluated to assess whether the Proposed Project would result in a significant impact on air quality. The project would contribute to short-term construction-related emissions within the project sites. However, emissions associated with construction would be below the significance thresholds and impacts would therefore be less than significant. Project construction would be subject to EKAPCD Rule 402, which requires minimization of fugitive dust emissions through dust control measures during construction. These measures would include application of water or other dust suppressants during construction activities and removal of track-out from paved areas. These measures constitute best management practices for dust control.

The main impact associated with the Proposed Project is associated with inspection and maintenance activities, which would mainly involve worker vehicle emissions. Minor emissions may be associated with indirect emissions associated with energy use for the electric pumps and maintenance. Operational emissions would be lower than the construction emissions on both a maximum daily and annual basis, and therefore would be less than significant. The project would not result in significant impacts and would not result in significant cumulative impacts to regional air quality.

5.1.1.2 Biological Resources

The project was analyzed for direct and indirect impacts on biological resources, including sensitive plant species, sensitive wildlife species, and sensitive habitats. Direct impacts are those which affect the resources immediately, such as the removal of vegetation for staging areas or construction. Indirect impacts include those that result from the project but are not immediate effects, such as erosion created by the removal of vegetation. No impacts were identified to sensitive plant species. Direct and indirect impacts to wildlife species (desert tortoise and burrowing owl) could occur as a result of the project; however, mitigation measures have been identified that would reduce these impacts to a less-than-significant level. Indirect impacts to the Mojave ground squirrel were identified; however, these impacts would be considered significant but mitigable. The project would result in potentially significant, but mitigable impacts, and would not result in significant cumulative impacts to biological resources.

5.1.1.3 Cultural and Paleontologic Resources

The project was assessed for potential impacts to cultural and paleontologic resources. One historic archaeological site was identified in the Proposed Project area, which may be disturbed during the construction of proposed Well 35. IWW-001 was evaluated and is not eligible for the CRHR. Therefore, the impacts to Site IWW-001 from the Proposed Project would be less than significant, and no mitigation measures are required for this site.

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Because no prehistoric sites were found within the Proposed Project area and only three isolated artifacts have been recorded within one mile of the Proposed Project Areas, the potential for the Proposed Project area to contain intact buried prehistoric archaeological deposits is considered low. Any historic archaeological sites in this area would likely be visible on the surface and only one, IWW-001, was found. Thus, the potential for buried historical archaeological deposits is also low. However, if unknown, buried archaeological deposits are encountered during construction, impacts to them would be potentially significant without mitigation. Therefore, mitigation measures were identified that would reduce this potential impact to a less-than-significant level.

The search of the Sacred Lands File did not indicate the presence of any Native American cultural resources within or near any of the project areas. To date, no Native American resources have been identified by any of the nine Native American Tribes contacted about the Proposed Project. As a result, impacts to Native American resources are not anticipated, and no mitigation measures are required. Improvements to existing Wells 18 and 34 would not include any new ground-disturbing activity and no impacts to prehistoric or historic archaeological resources or Native American resources is anticipated. No mitigation measures are required.

The project could result in impacts to paleontological resources due to the proposed pipeline trenching; however, mitigation measures were identified that reduce these impacts to a less-than-significant level. Because impacts from the drilling of Well 35 are not expected, no mitigation measures are required for the well. Improvements to existing wells 18 and 34 would not include any new ground-disturbing activity and no impacts to paleontological resources are anticipated. No mitigation measures are required.

The project would result in potentially significant, but mitigable impacts, and would not result in significant cumulative impacts to cultural resources.

5.1.1.4 Geology and Soils

The project was analyzed for impacts in the area of geology and soils. Section 3.5 of this EIR further found that the Proposed Project includes several activities that have the potential to cause erosion and remove topsoil from disturbed areas during the construction of well 35. As discussed in Section 5.1.1.1 Air Quality, the best management practices from EKAPCD's Rule 402 would be applied. This is a potentially significant impact, which would be reduced to a less than significant impact with mitigation. No cumulative impacts to geology and soils would result from the project.

5.1.1.5 Greenhouse Gas Emissions

An Air Quality Technical Report was prepared for the Proposed Project which includes an analysis of the Proposed Project's impacts related to global climate change and greenhouse gas emissions. This report is summarized in Section 3.6 of this EIR and is included in Appendix B. Greenhouse gas emission analyses are inherently cumulative. The analysis provides a calculation of Project-specific emissions, but those emissions are not significant on a project-specific level because no single project will affect climate

change. Accordingly, this analysis focuses on the Project's cumulative impact on global climate change, as discussed in the new State CEQA Guidelines confirming that the focus of a GHG analysis is the cumulative impact. GHG emissions associated with the project include emissions from construction of the Proposed Project and emissions from project operations.

Global climate change impacts associated with the Proposed Project were evaluated to assess whether the project would result in a significant impact. The main impact is associated with construction activities for the Proposed Project. Emissions of GHGs were also evaluated for energy use and inspection and maintenance activities. Based on the evaluation, the project would not:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Cumulative impacts would be less-than-significant and no mitigation measures would be required.

5.1.1.6 Hazards and Hazardous Materials

The project's impacts as relating to hazards and hazardous materials were analyzed. The impacts were found to be less-than-significant-impact for construction and well development as the transport of hazardous materials is regulated by the State and the transport of such materials to the site would be in compliance with all State regulations. These materials would only be present during construction and well development and would be removed upon completion of the project. In addition, any groundwater discharges would comply with the *Water Quality Control Plan for the Lahontan Region, North and South Basins*, commonly referred to as the Basin Plan (RWQCB 2005), as discussed in Section 3.7.

Impacts as a result of disinfection/treatment facilities, discharge pond, and accidental spills were found to be less-than-significant. The project would result in potentially significant, but mitigable impacts, and would not result in significant cumulative impacts relating to hazards or hazardous materials.

5.1.1.7 Hydrology and Water Quality

The potential impacts of the Proposed Project on hydrology and water quality were analyzed in Section 3.8.

The primary goal of the Proposed Project, and of IWWWD, is to provide safe water that meets all applicable drinking water standards. The District owns and operates many wells and treatment units that meet applicable standards for sanitary seals and water quality objectives. For example, the wells include a 50-foot sanitary seal to protect water quality. Water delivered by the District to customers meets state and federal

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drinking water standards. The retrofit of existing Wells 18 and 34 during Phase 1 and the installation of new Well 35 during Phase 2 would be completed in the same manner as existing District facilities. As such, the Proposed Project would not violate any water quality standards or waste discharge requirements. No cumulative impact would occur and no mitigation measures are required.

Regarding the depletion of groundwater supplies, the existing water level declines in the vicinity of the Proposed Project already have the potential to affect the production rate of pre-existing wells, such that these wells may not support existing land uses in the future. This effect, however, is primarily a function of the total depth of the wells. Based on the drilling data from the 1993 U.S. Bureau of Reclamation Report, as summarized in Table 3.8-1, high-quality groundwater exists to depths of at least 2,000 ft bgs in the area of the Proposed Project. This is a potentially significant cumulative impact that can be mitigated.

Section 3.8 analyzed impacts of the Proposed Project on water quality. As discussed in that section, the Proposed Project would not involve the discharge of water offsite or into any other water bodies. As discussed above, the wells would be constructed in accordance with applicable standards and would produce groundwater that meets all drinking water standards. Water discharged to the ground surface would evaporate or percolate back into the ground. Water used to disinfect the wells would be dechlorinated before being discharged to the ground surface and would not violate applicable water quality standards or waste discharge requirements.

As discussed in Section 3.8, the Proposed Project would contribute to the overall pumping in the basin that has created groundwater depressions and thus is assumed to contribute to the co-mingling of good quality water with lesser quality water throughout the basin. The increased pumping from the Proposed Project, however, is a very small fraction of the total pumping from the basin that has created the groundwater depressions. Thus, the contribution of the Proposed Project to the change in water quality is miniscule and cannot be quantified, measured, or monitored. While it may be possible to mitigate for this impact at individual wells by adjusting the depth of the well screen or using wellhead treatment, it is not possible to mitigate for this impact in the intervening aquifer. It is important to note that this impact on the aquifer would occur whether or not the Proposed Project is implemented. In fact, even if all of the pumping by IWWVD was to cease, more groundwater would still be pumped from the basin than is being recharged.

Groundwater depressions would still persist and lower-quality groundwater would continue to co-mingle with higher quality groundwater. As discussed above, the average groundwater pumping from the basin over the last 30 years has been about 26,000 acre-feet per year. Over the same time period, the average pumping by IWWVD (including the entities acquired in the 1980s) has been about 8,000 acre-feet per year. Thus, non-IWWVD pumping has averaged 18,000 acre-feet per year, while the annual recharge is between 8,000 acre-feet and 11,000 acre-feet. Thus, the non-IWWVD pumping exceeds the recharge rate by 7,000 acre-feet per year to 10,000 acre-feet per year. The minor incremental increase in pumping that may occur as part of Phase 2 of the Proposed Project is nominal in comparison to the non-IWWVD pumping. On a

Project-specific basis, this impact is less than significant. On a cumulative basis, this impact is significant, unavoidable, and unmitigable.

As stated above and in Section 3.8, the existing baseline environmental conditions include a significant water quality situation. Therefore, the significant impact exists with or without the project and unavoidable cumulative impacts to groundwater quality would occur. To be clear, these impacts would occur in the absence of the Proposed Project and it is not possible to quantify, measure, or monitor the potential nominal contribution from the Proposed Project. Therefore, this potential impact is unmitigable and would persist with or without the Proposed Project.

5.1.1.8 Noise

Noise impacts resulting from the Proposed Project were analyzed in a noise report and found in Section 3.9. Construction noise and vibration impacts were assessed, in addition to operational noise. The Project would not result in significant impacts associated with the construction or operation of the Proposed Project. However, mitigation measures were recommended in order to reduce the construction noise levels to the extent practicable and help minimize the potential annoyance at nearby sensitive receivers. The project would not result in individually significant noise impacts and would, therefore, not result in significant cumulative noise impacts.

5.2 GROWTH-INDUCING IMPACTS

The CEQA Guidelines Section 15126.2(d) require that an EIR “discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” Growth-inducing impacts can occur in a variety of ways, including the construction of new homes and businesses, and the extension of urban services, such as utilities and improved roads, to previously undeveloped areas.

5.2.1 Regulatory Context

The authority to make land use decisions in its service area does not belong to the IWWWD. The authority to approve or deny development proposals is the responsibility of the City of Ridgecrest and the counties of Kern and San Bernardino. However, the IWWWD is required, through laws and agreements, to provide water service to its service area. California has passed numerous laws to ensure that land use planning and water supply planning occur in a consistent manner for cities, counties, and water suppliers throughout the state. These laws and requirements, summarized below, provide the regulatory and planning context for coordination among water agencies and cities and counties.

5.2.1.1 General Plan Requirements

As required by the California Government Code, Section 65300 *et. seq.*, each city and county is required to adopt a comprehensive, long-term general plan for the physical

development of the city or county. The required elements in a general plan are: land use, circulation, housing, conservation, open space, noise, and safety. The land use element designates the general distribution, location, and type of land uses and includes a standards of population density and building intensity. The conservation element is required to include a water resources section. This section must include an evaluation of water supply and demand information contained in the applicable urban water management plan(s) of the water suppliers in the city or county's jurisdiction.

5.2.1.2 Urban Water Management Planning Act

As required by California Water Code Section 10610.2 *et. seq.*, (the Urban Water Management Planning Act) every urban water supplier must prepare an Urban Water Management Plan (UWMP). In preparing the UWMP, the water supplier is required to coordinate with other water suppliers that share a common source, water management agencies, and relevant public agencies. The water agency is required to provide the current version of the UWMP to the cities and counties in its service area when those cities and counties adopt or substantially amend a general plan. The Urban Water Management Planning Act requires water suppliers to make every effort to ensure reliability in their water service to meet the needs of various categories of customers during normal, dry, and multiple dry water years. The IWWVD's most recent UWMP was finalized in May 2011 (IWWVD 2011).

5.2.1.3 Senate Bills 610 and 221

The California legislature adopted two bills in 2001 requiring coordination between land use and water supply planning. SB 610 requires that the CEQA review for "water-demand" projects include a water supply assessment. Large projects include residential developments with more than 500 units; retail uses with more than 500,000 square feet of floor space; office buildings with more than 250,000 square feet of floor space; hotels or motels with more than 500 rooms; industrial uses occupying more than 40 acres or having more than 650,000 square feet of floor space; and mixed-use project that include any use or combination as large as the previously-listed uses (CEQA Guidelines Section 15155). The purpose of the water supply assessment is to determine if existing water supplies will be sufficient to serve the project and other planned development over a 20-year period in average, dry, and multiple dry year conditions, and must provide a plan to find any additional water supply necessary to serve a proposed project. Even if a water supply shortfall is identified, cities and counties can approve projects provided that they address the shortfalls in their CEQA findings.

SB 221 requires cities and counties to require an applicant for a large subdivision (more than 500 dwelling units) to demonstrate that sufficient water supply is available for the development. This proof of available water supply must be in writing from the applicable public water system and must be supported by substantial evidence (which may include the applicable UWMP).

5.2.2 Analysis of Growth-Inducing Impacts

The Proposed Project would not directly induce growth because it does not involve the development of new housing to attract additional population. It would not indirectly induce growth by establishing substantial permanent or short-term (construction) employment opportunities because all construction workers would be expected to be drawn from the local labor pool, and all operational needs would be met with existing IWWWD personnel.

However, by removing the lack of a reliable water supply as one potential obstacle to growth within the IWWWD service area, there is a possibility for the Proposed Project have an indirect growth-inducing effect according to the CEQA definition. This could occur if the Proposed Project would accommodate more growth than is estimated in the local planning documents of Kern County and City of Ridgecrest. It should be noted that no additional connections are assumed in the San Bernardino County portion of the IWWWD service area. Therefore, no additional analysis of potential growth-inducing impacts for San Bernardino County is included in this EIR.

Implementation of the Proposed Project would improve supply reliability for the existing water system customers and meet projected additional demand related to an approximately 1 percent per year population growth as estimated by Kern COG through 2020 (Kern COG 2020). A variety of factors influence new development or population growth in the IWWWD service area, including economic conditions of the region, land use planning requirements, and the availability of adequate infrastructure (for example, water service, sewer service, public schools, roadways, etc.), with economic factors generally the lead driver. While water service is only one of many factors affecting the growth potential of a community, it is one of the main public services needed to support urban development, and lack of a reliable water supply as well as a service capacity deficiency could constrain future development. The general plans and zoning ordinances of the jurisdictions served by the IWWWD establish land use development patterns and growth policies that are intended to allow for the orderly expansion of urban development supported by adequate public services, including water supply. Local jurisdictions conduct CEQA environmental review on their general plans to assess the secondary effects of their planned growth. A project that would induce growth that is greater than what is estimated in local land use plans and policies could indirectly cause adverse environmental impacts that the local land use jurisdictions have not previously addressed in the CEQA review of their land use plans.

The Proposed Project would support the approximately 1 percent annual growth that is expected to occur in the service area as estimated by Kern COG (Kern COG 2010). The City of Ridgecrest adopted its current General Plan in December 2009 (City of Ridgecrest 2009b). The City's General Plan states that the City's population growth rates through 2030 could range from 1 percent to 3 percent annually. The EIR for the General Plan analyzes impacts to the environment using the 3 percent growth rate.

The Kern County portions of the IWWWD service area are within the South Inyokern Specific Plan. This Specific Plan was adopted by Kern County in 1973 (Kern County

1973). There are no population estimates in this Specific Plan. The Kern County General Plan Land Use element assumes that overall population growth in Kern County will be approximately 2 percent or less per year (Kern County 2009).

Based on the analysis above, the Proposed Project would not remove an obstacle to additional growth because it would not accommodate more growth than what has been planned in the City of Ridgecrest General Plan, South Inyokern Specific Plan, or Kern County General Plan. Growth-inducing impacts would not occur.

5.3 SIGNIFICANT IRREVERSIBLE EFFECTS

The CEQA Guidelines require that an EIR identify and focus on significant environmental effects, including significant irreversible environmental changes that would be caused by the project should the project be implemented.

The CEQA Guidelines Section 15126.2 (c) state that “uses of nonrenewable resources during the initial and continued phases of the Proposed Project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts, and particularly secondary impacts (such as highway improvement which provides access to a previously inaccessible area), generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitment of resources should be evaluated to assure that such current consumption is justified.”

The only significant irreversible effect that cannot be mitigated is related to groundwater quality, and is summarized below in Section 5.4.

5.4 UNAVOIDABLE SIGNIFICANT ADVERSE EFFECTS

The CEQA Guidelines section 151262(b) require that the EIR “describe any significant impacts, including those which can be mitigated but reduced to a level of insignificance. Where there are impacts that cannot be alleviated without proposing an alternative design, their implications and the reason why the project is being proposed, notwithstanding their effect, should be described.”

Based on the analysis in Section 3.0 and 5.1 of this EIR, implementation of the Proposed Project would have significant, unmitigable adverse cumulative effects to water quality. Existing groundwater pumping from all users in the Indian Wells Valley has created groundwater depressions, such that groundwater elevations in these areas are lower than those in surrounding areas. It is assumed, therefore, that water levels dropping throughout the basin has caused the co-mingling of good quality and lesser quality water. The increased pumping from the Proposed Project, however, is a very small fraction of the existing total pumping from the basin that has created the groundwater depressions. Thus, the contribution of the Proposed Project to the change in groundwater quality is miniscule and cannot be quantified, measured, or monitored.

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It is important to note that this impact on the aquifer would occur whether or not the Proposed Project is implemented. In fact, even if all of the pumping by IWWWD was to cease, more groundwater would still be pumped from the basin than is being recharged. Groundwater depressions would still persist, and lower-quality groundwater would continue to co-mingle with higher quality groundwater. Therefore, the nominal increase in pumping that would occur as part of Phase 2 of the Proposed Project would be less-than-significant at the project level, but significant and unavoidable at a cumulative level.

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