5 GROWTH INDUCING EFFECTS AND OTHER CEQA CONSIDERATIONS

This section addresses growth inducing effects and significant irreversible changes, including a discussion of energy use and conservation.

5.1 GROWTH INDUCING EFFECTS

Section 15126(d) of the *State CEQA Guidelines* requires a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects if it requires new development or infrastructure to support it. The proposed Project's growth-inducing effects would be considered significant if they could result in significant physical effects in one or more environmental resource areas. The most commonly cited example of how an economic effect might create a physical change is where economic growth in one area could create blight conditions elsewhere by causing existing competitors to go out of business and the buildings to be left vacant.

5.1.1 Economic and Population Growth

As discussed in Section 2.0, *Project Description*, the proposed Project involves the Town of Apple Valley's acquisition of the Apple Valley Ranchos Water System (AVR System), as well as the operation and maintenance of the water system by the Town of Apple Valley. These actions in and of themselves would not directly have any economic or growth-inducing effects, as they would not alter the area or number of customers served by the water system. However, one of the objectives of the proposed Project is to provide greater local control over the water rate-setting process in order to control the pace of future rate increases. Theoretically, if long-range water rates are reduced or, in the more likely scenario, the pace of rate increases is slowed, customers of the water system would save money and be able to spend that money in other ways, thus producing a beneficial impact on the local economy. However, the proposed Project would not change zoning or land use designations or provide new facilities that would accommodate an increased population; therefore, the Project would not induce substantial population growth, including in the unlikely event of a reduction in water rates. This conclusion is supported by determinations made in the Amended Initial Study included as Appendix A to this EIR.

The Amended Initial Study also concluded that the potential for the proposed Project to result in a substantial change in employment within the Town of Apple Valley or surrounding areas beyond employment already provided by the Apple Valley Ranchos Water Company would be minimal because no new facilities would be developed as part of the Project. Therefore, any local employment growth generated by the proposed Project would not be expected to draw a significant number of new employees to the community.

5.1.2 Removal of Obstacles to Growth

As discussed above, the proposed Project involves the Town of Apple Valley's acquisition of the Apple Valley Ranchos Company water system, and subsequent operation and maintenance of the water system by the Town. As discussed in Section 4.7, *Utilities and Service Systems*, no expansion of the water system facilities is proposed and thus the Project would not induce growth that would not otherwise occur in areas not previously served by municipal water supplies. While one of the Project objectives is to provide greater local control over the rate setting process and rate increases, that does not necessarily translate into higher usage and demand because there are other regulatory controls in place that encourage users to conserve water, as discussed in Sections 4.3, *Hydrology and Water Quality*, and 4.7, *Utilities and Service Systems*. Environmental impacts resulting from the proposed Project have been determined to be less than significant and the proposed Project would not induce growth or remove any obstacles to growth because it would not require new or expanded facilities such as water or wastewater treatment plants, or require procurement of additional water supplies beyond what is currently occurring under the existing ownership. The proposed Project would therefore not have any significant effect from removing obstacles to growth.

5.2 IRREVERSIBLE ENVIRONMENTAL EFFECTS

The *State CEQA Guidelines* require that EIRs reveal the significant environmental changes that would occur as a result of a proposed project. CEQA also requires decision-makers to balance the benefits of a project against its unavoidable environmental risks in determining whether to approve a project. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, and irreversible impacts associated with the Project.

The proposed Project would not require construction of new or expanded water treatment or distribution facilities. As part of the proposed Project, employees engaged in operation and maintenance of the water system would be based at the existing O&M facility located at 21760 Ottawa Road. The same sized staff would be utilized, including approximately 20 office workers and 19 technical and field staff. Expansion of facilities or staff to accommodate operations and maintenance activities is not anticipated; therefore, the use of more than minor amounts of building materials and energy, some of which are non-renewable resources, would not occur. Increasingly efficient building fixtures and automobile engines are expected to offset any incremental increase in demand for non-renewable energy resources, such as petroleum and natural gas, which could result due to the presence of additional employees at the operations and maintenance facility, in the unlikely event that is required. As further discussed below, it is not anticipated that the proposed Project would significantly affect local or regional energy supplies.

As described in Section 4.6, *Transportation and Traffic,* the water system would be operated out of the existing O&M facility at 21760 Ottawa Road, and there would be little to no change in the length, distribution, or number of vehicle trips required to operate and maintain the system. The Project would therefore not incrementally increase local traffic, noise levels and regional air pollutant emissions. As discussed in Section 4.1, *Air Quality*, the proposed Project would not result in an increase in air emissions from operation or maintenance activities. As discussed in

Section 4.5, *Noise*, no increased noise levels from traffic noise associated with the proposed Project would occur or expose sensitive receptors to noise levels exceeding applicable standards. No impacts related to additional vehicle trips would occur.

5.3 ENERGY USE

This section describes the supply and use of energy as a result of the proposed Project, as well as local actions to conserve energy and use it more efficiently.

The *State CEQA Guidelines* (Appendix F) require that EIRs analyze energy conservation consistent with Public Resources Code section 21100(b)(3). According to the *State CEQA Guidelines*, energy impacts that have already been analyzed need not be repeated in later EIRs and EIRs do not need to address "lifecycle emissions," such as those embedded in the production of building materials used in projects. Lifecycle emissions under CEQA would normally represent "emissions beyond those that could be considered indirect effects of a project as that term is defined in Section 15358 of the *State CEQA Guidelines*" (CNRA, 2009).

5.3.1 Regulatory Setting

a. Federal Plans, Policies, Regulations, and Laws

National Energy Act. The National Energy Act of 1978 was a legislative response by the U.S. Congress to an energy crisis that occurred in 1973. It includes the statutes summarized below.

- Public Utility Regulatory Policies Act (PURPA) (Public Law 95-617). PURPA was passed to promote greater use of renewable energy. This law created a market for non-utility electric power producers to permit independent power producers to connect to their lines and to pay for the electricity that was delivered. Although PURPA is a federal law, implementation was left to the states and a variety of regulatory regimes developed.
- Energy Tax Act (Public Law 95-318). The Energy Tax Act was passed to promote fuel efficiency and renewable energy through taxes and tax credits.
- National Energy Conservation Policy Act (NECPA) (Public Law 95-619). NECPA requires utilities to provide residential consumers with energy conservation audits and other services to encourage slower growth of electricity demand. NECPA was amended in 1985 by the Energy Policy and Conservation Act Amendments of 1985.
- Power Plant and Industrial Fuel Use Act (Public Law 95-620).
- Natural Gas Policy Act (Public Law 95-621).

Federal Energy Management Program. The U.S. Department of Energy's Federal Energy Management Program works to reduce the cost and environmental impact of the federal government by advancing energy efficiency and water conservation, promoting the use of distributed and renewable energy, and improving utility management decisions at federal sites.

Energy Policy Act. The Energy Policy Act of 1992, recent executive orders, and presidential directives require federal agencies to meet a number of energy and water management goals, among other requirements. Federal agencies were directed to reduce their energy use by 35 percent by 2010 in comparison to 1985 levels. Federal agencies rely on effective coordination

and sound guidance to help meet this requirement. The Federal Energy Management Program reports agencies' progress annually, manages interagency working groups, and offers policy guidance and direction. The Energy Policy Act was amended in 2005 (Public Law 109-190) to increase the supply of energy primarily through subsidies.

Federal Energy Regulatory Commission. The Federal Energy Regulatory Commission (FERC) regulates and oversees energy industries in the economic, environmental, and safety interests of the American public. FERC is the federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, and oil pipeline rates. FERC also reviews and authorizes liquefied natural gas terminals, interstate natural gas pipelines, and non-federal hydropower projects. Production of electricity is overseen by the states, although FERC has jurisdiction over certain matters (FERC, 2006).

b. State Plans, Policies, Regulations, and Laws

California Energy Commission (CEC). Established in 1974 by the Warren-Alquist Act (Public Resources Code Section 25000 et seq.), the CEC is the state's primary energy policy and planning agency. The CEC has five major responsibilities: forecasting future energy needs and keeping historical energy data, licensing thermal power plants 50 megawatt (MW) or larger, promoting energy efficiency through appliance and building standards, developing energy technologies and supporting renewable energy, and planning for and directing the state response to an energy emergency. California offered generous tax subsidies in the early 1980s for renewable power development. The state also ordered utilities to not only buy electricity from independent power generators, but also directed utilities to set a price and offer standard contracts. California's subsidies and the standard offer contracts launched the commercial wind industry in the country.

California's Renewable Portfolio Standards (RPS). Established in 2002 under Senate Bill (SB) 1078, accelerated in 2006 under SB 107 and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

California Energy Code, Title 24. The California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings), provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The Code applies to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances. The Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The Code provides guidance on construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls and ceilings. The Code emphasizes saving energy at peak periods and seasons, and improving the quality of installation of energy efficiency measures.

California Green Building Standards Code. The California Building Standards Code is published in its entirety every three years by order of the California Legislature. The California Legislature delegated authority to various State agencies, boards, commissions and departments to create building regulations to implement the State's statutes. These building regulations or standards have the same force of law, and generally apply to all new building construction in California. A city, county, or city and county may establish more restrictive standards reasonably necessary because of local climatic, geological or topographical conditions. On July 17, 2008, the California Building Standards Commission adopted the California Green Building Standards Code for all new construction statewide. A voluntary implementation period was intended to give builders, local governments, and communities' time to adapt to the new rules. The Code sets targets for energy efficiency; water consumption; dual plumbing systems for potable and recyclable water; diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including ecofriendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels.

State of California Energy Action Plan. In 2003, the three key energy agencies in California, consisting of the California Energy Commission (CEC), the California Power Authority (CPA), and the California Public Utilities Commission (CPUC), jointly adopted an Energy Action Plan (EAP) that listed goals for California's energy future and set forth a commitment to achieve these goals through specific actions. In 2005, the CPUC and the CEC jointly prepared the EAP II to identify the further actions necessary to meet California's future energy needs, which was again updated in 2008. EAP II describes the priority sequence for actions to address increasing energy needs, also known as "loading order". The loading order identifies energy efficiency and demand response as the state's preferred means of meeting growing energy needs. After cost-effective efficiency and demand response, the state is to rely on renewable sources of power and distributed generation, such as combined heat and power applications. To the extent that efficiency, demand response, renewable resources, and distributed generation are unable to satisfy increasing energy and capacity needs, the EAP II supports the use of clean and efficient fossil-fired generation. The plan recognizes that concurrent improvements are required to the bulk electricity transmission grid and distribution facility infrastructure to support growing demand centers and the interconnection of new generation, both on the utility and customer side of the meter. The EAP II identifies key actions to be taken in all of these areas in order to meet the state's growing energy requirements.

Apple Valley Climate Acton Plan. In 2010, the Town of Apple Valley adopted a Climate Action Plan, which was most recently updated in 2013. In this plan, the Town set a reduction target of 15% below 2005 levels by the year 2020 for both community and municipal operations. New projects that demonstrate a reduction in emissions of 15% or more are considered to be consistent with this Climate Action Plan. The plan includes policies aimed at meeting this goal, including Policy MO-24: Encourage Apple Valley Ranchos, Golden State and other water purveyors to replace water systems with energy efficient motors, pumps and other equipment. See Section 4.4, *Greenhouse Gas Emissions*, for further details.

5.3.2 Environmental Setting

a. Electricity Use

California uses 265,000 gigawatt-hours (GWh) of electricity per year. Since the early 1970s, electricity consumption per capita in California has stayed nearly constant, while rising steadily for the US as a whole. California consumes 40 percent less electricity per person compared to the national average (Sudarshan and Sweeney, 2008). Most of the electric energy used in southern California is imported to the region from coal-fired and hydroelectric generating facilities located elsewhere in California and out-of-state. Utilities in southern California participate in power-sharing arrangements with many other entities throughout the western United States. In 2005, the Southern California Association of Governments (SCAG) region consumed almost 128,000 GWh of electricity, which was approximately 48 percent of total consumption of the State. Electricity consumption has been increasing approximately 1.3 percent per year (SCAG, 2006).

b. Natural Gas Use

In 2007, California used more than 6.9 billion cubic feet of natural gas per day. The natural gas was used to produce electricity (50 percent), and used in industrial uses (18 percent), commercial uses (nine percent), and in residential uses (22 percent). Approximately 14 percent of the natural gas was produced within California, with the balance imported from other western states (63 percent) and Canada (23 percent). As noted, natural gas is used to generate almost 50 percent of electricity used in California. This results in peak seasonal demands for natural gas not only during the winter months for heating but also during the peak electricity-demand period in summer when cooling needs are greatest. Natural gas usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all gas-consuming devices within a building (CEC, 2009).

Recent technological advancements in exploration, drilling, and hydraulic fracturing have transformed shale formations from marginal natural gas producers to substantial and expanding contributors to the natural gas portfolio. Recoverable shale reserve estimates range as high as 842 trillion cubic feet, a 37-year supply at today's consumption rates. While natural gas production from shale formations has significantly increased domestic production, there is ongoing investigation of potential environmental concerns related to shale gas development, including carbon emissions and possible groundwater contamination. As recently as 2007, domestic natural gas production and imports to California were on the decline, and liquefied natural gas was seen as a source to better serve the natural gas needs of California. The recent development of natural gas shale formations has contributed to increased domestic production of natural gas, and liquefied natural gas does not seem to be a priority fuel for California at this time (CEC, 2009).

c. Transportation Fuel

State and federal policies encourage the development and use of renewable and alternative fuels to reduce California's dependence on petroleum imports, promote sustainability, and cut

greenhouse gas (GHG) emissions. Former California Governor Schwarzenegger's Executive Order S-06-06 established clear targets for increased use and in-state production of biofuels. California and the federal government also have policies to improve vehicle efficiencies and to reduce vehicle miles traveled in efforts to achieve 2050 GHG reduction targets of 80 percent below 1990 levels (as directed in the Governor's Executive Order S-3-05). Until new vehicle technologies and fuels are commercialized, petroleum will continue to be the primary fuel source for California's vehicles, and the state must enhance and expand the existing petroleum infrastructure while at the same time working to develop an alternative fuel infrastructure.

Economic recession in California has had a significant impact on the state's transportation sector. California's average daily gasoline sales for the first four months of 2009 were 2.1 percent lower than the same period in 2008, continuing a reduction in demand observed since 2004. Daily diesel fuel sales for the first three months of 2009 were 7.7 percent lower than the same period in 2008, continuing a declining trend since 2007. Job growth and industrial production - drivers of air travel – declined during the recessions causing the aviation sector to experience a drop in air traffic. Demand trends for jet fuel, which saw an 8.9 percent decline in 2008, are similar to diesel fuel and reflect the impact of the economic downturn and higher fuel prices (CEC, 2009).

The initial years in the CEC transportation fuel demand forecast show a recovery from the recession. Because the economic and demographic projections used in these forecasts indicate a return to economic and population growth, fuel demand in the light-duty, medium- and heavy-duty vehicles and aviation sectors tends to resume historical growth patterns. However, the mix of fuel types is projected to change significantly as the state transitions from gasoline and diesel to alternative and renewable fuels (CEC, 2009).

5.3.3 Impact Analysis

Methodology and Significance Thresholds. For the purpose of this analysis, the following thresholds of significance have been used to determine whether implementing the proposed Project would result in a significant impact. These thresholds of significance are based on Appendix F of the *State CEQA Guidelines*. An impact on energy resources or energy conservation is considered significant if implementation of the proposed Project would meet one or more of the following criteria:

- Develop land uses and patterns causing wasteful, inefficient, and unnecessary consumption of energy
- Result in the need for new systems or substantial alterations to electrical, natural gas, or communication systems infrastructure, the construction or operation of which would have significant impacts

Effects on Energy Consumption from Land Use Locations and Patterns. The proposed Project would not require construction of new facilities or infrastructure to facilitate transfer of ownership of the system from Apple Valley Ranchos Water Company to the Town. Therefore, the Project would not result in a change in land use or development of new structures. Following the proposed acquisition, the Town would continue to operate the AVR System and typical, ongoing operations and maintenance activities would be required, similar to if the system

remained in Apple Valley Ranchos Water Company ownership. Operation and maintenance of the existing water system would utilize the existing operations and maintenance facility at 21760 Ottawa Road and therefore, in addition to not generating new trips associated with operation and maintenance of the system, the Project also would not alter the distribution or duration of vehicle trips to or from the operations and maintenance facility. No increased energy demand would result from implementation of the proposed Project.

Increased Energy Demand and Need for Additional Energy Infrastructure. As shown above, implementation of the proposed Project would not increase energy demand associated with vehicle trips or other factors associated with operation and maintenance of the water system. Therefore, the Project would not require new construction and operation of energy-related facilities. No impacts associated with a need for new systems or substantial alterations to energy systems would occur.

5.4 EFFECTS NOT FOUND TO BE SIGNIFICANT

As discussed in Section 1.0, *Introduction*, impacts related to the following topics were determined to be less than significant and not to warrant additional analysis for the reasons explained in the Amended Initial Study (Appendix A), and are not discussed further in this EIR:

- Aesthetics
- Agriculture and Forest Resources
- Biological Resources
- Cultural Resources
- Geology/Soils
- Hazards and Hazardous Materials
- Mineral Resources
- Population/Housing
- Public Services
- Recreation

The Amended Initial Study, and the comment letters received on the original Initial Study and Amended Initial Study are included in Appendix A, which is attached hereto and incorporated herein by this reference.

6 ALTERNATIVES

Section 15126.6(a) of the *State CEQA Guidelines* requires that an EIR describe a reasonable range of alternatives to a project, or the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. The EIR also shall describe the comparative merits of the alternatives. Section 15126.6(f) further states that "the range of alternatives in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The analysis in this section focuses on those alternatives capable of reducing the potential environmental effects of the proposed project even if they would impede the attainment of some project objectives or be more costly. The EIR also analyzes the specific alternative of "no project" and its potential environmental effects. In accordance with Section 15126.6(f)(1), among the factors that may be taken into account when addressing the feasibility of alternatives are: (1) site suitability; (2) economic viability; (3) availability of infrastructure; (4) general plan consistency; (5) other plans or regulatory limitations; (6) jurisdictional boundaries; and (7) whether the proponent can reasonably acquire, control or otherwise have access to the alternative site. An EIR need not consider an alternative when the effect cannot be reasonably ascertained and the implementation is remote and speculative.

The objectives of the project are as follows:

1. Allow the Town to independently own and operate a water production and distribution system;

2. Provide for greater transparency and accountability, as well as increased customer service and reliability;

3. Enhance customer service and responsiveness to Apple Valley customers;

4. Provide greater local control over the rate setting process and rate increases;

5. Provide direct access to locally elected policy makers for the water operations;

6. Allow the Town to pursue grant funding and other types of financing for any future infrastructure needs, including grants and financing options which the CPUC does not allow private company to include in their rate base (such that private companies do not pursue advanced planning and investment for infrastructure);

7. Ensure better coordination amongst Town decisions involving land use, emergency services, policy, the location and need for capital improvements, and overall planning in the water context; and

8. Enable the Town to use reclaimed water for public facilities without invoking potential duplication of service issues with Apple Valley Ranchos Water Company.

The evaluation of environmental impacts in Chapter 4.0, *Environmental Impact Analysis*, concludes that the proposed Project would not result in temporary or permanent significant and unavoidable effects for any of the environmental issue areas identified in Appendix G of the

State CEQA Guidelines. However, a range of feasible alternatives to the proposed Project was developed to provide additional information and flexibility to the decision-makers when considering the proposed Project.

The following alternatives are evaluated in this EIR:

- Alternative 1: No Project
- Alternative 2: Alternative Operator – City of Victorville
- Alternative 3: Alternative Operator – City of Hesperia
- Alternative 4: Operated by Apple Valley, Alternative O&M Facility

A more detailed description of the alternatives is included in the impact analysis for each alternative. As required by CEQA, this section also includes a discussion of the "environmentally superior alternative" among those studied.

6.1 ALTERNATIVE 1: NO PROJECT

6.1.1 Description

The No Project alternative assumes that the proposed acquisition of the Apple Valley Ranchos Water System by the Town of Apple Valley would not occur. Under this alternative, Apple Valley Ranchos Water Company would continue to operate and maintain the system from its existing facilities. The No Project Alternative would not achieve any of the project objectives because it would not allow the Town to independently own and operate a water system, provide greater local control over the system and the rate setting process, enhance customer service and responsiveness, allow the Town to pursue grant funding related to operation of a water system, ensure better coordination amongst Town decisions involving land use, emergency services, policy, the location and need for capital improvements and overall planning in the water context, enable the Town to use reclaimed water for public facilities without duplicating service issues with Apple Valley Ranchos Water Company, or improve public transparency and accountability.

6.1.2 Impact Analysis

The No Project alternative would avoid all of the less than significant environmental impacts associated with the proposed Project and would maintain the current ownership and operational regime for the AVR System. In reality the less than significant impacts under Air Quality, Greenhouse Gas Emissions, Noise and Transportation/Traffic under the proposed Project, would be the same as under existing conditions (i.e. the No Project Alternative), since no change in operation or maintenance activities would occur. No change in demand for groundwater supplies would occur. While this alternative would not conflict with current General Plan policies, it also would not assist in the pursuit of some of the policies provided in the General Plan by reducing the coordination required on water issues. Therefore, the No Project alternative would be slightly worse than the proposed Project in relation to land use, although any land use impact resulting from the No Project alternative would remain less than significant.

6.2 ALTERNATIVE 2: ALTERNATIVE OPERATOR – CITY OF VICTORVILLE

6.2.1 Description

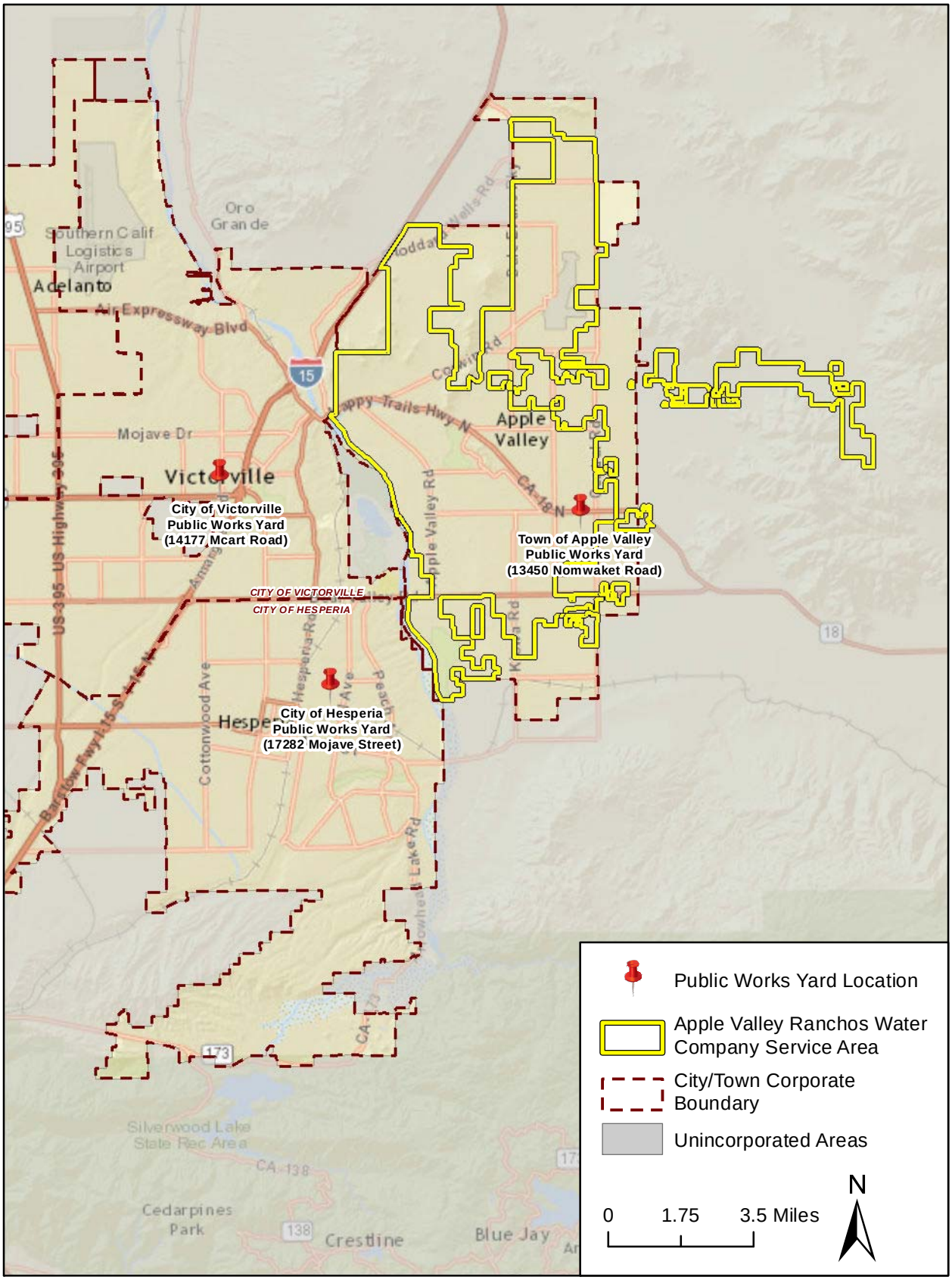
Alternative 2 (Alternative Operator – City of Victorville) assumes that the proposed acquisition of the AVR System by the Town of Apple Valley would proceed but that the City of Victorville Public Works Department would be contracted to operate and maintain the System. The assumed location where these operations and maintenance activities would be based is the City of Victorville Public Works Yard located at 14177 Mc Art Road in Victorville; located approximate four miles from the western border of the AVR System Service Area (see Figure 6-1). The size of the system and the associated infrastructure would be the same as under the proposed Project and no substantial construction would occur. Therefore, the number of vehicle trips required to operate the system as well as the timing of those trips from the Victorville Public Works Yard are assumed to be the same as if the system were operated by the Town of Apple Valley, as described in Section 2.0, *Project Description*. This alternative would achieve all of the stated project objectives, with the exception of the objective to operate the system listed in Objective 1.

6.2.2 Impact Analysis

The comparison of the environmental impacts of Alternative 2 to those of the proposed Project are presented below. To be clear, none of the potential environmental impacts resulting from the proposed Project or from Alternative 2 would be significant. Instead, and although Alternative 2 has environmental impacts that may be slightly greater or less than those of the proposed Project, all of the impacts of Alternative 2 are fully analyzed in this Draft EIR and would remain less than significant

Air Quality. Alternative 2 would relocate operations and maintenance activities to a location outside Apple Valley, potentially leading to an increase in vehicular trip length and distribution, and therefore also lead to an increase in mobile source emissions. The Victorville Public Works Yard is located approximately four miles from the AVR System's western boundary. The existing AVR System O&M Facility is located within the AVR System Service Area and is the current base for existing operations and maintenance activities. In order to operate the system from the Victorville Public Works Yard an estimated additional 79,040 annual vehicle miles travelled would be required to operate the AVR System from Victorville. This is based on the distance from the western boundary of the system to the Victorville Public Works Yard and assumes that each of the 19 field staff would make two service calls to and from the Public Works Yard per day. Mileage traveled within the service area is excluded to account for the fact that those trips are already occurring, as discussed in Section 4.1, *Air Quality*, as is mileage generated by employees traveling to and from their residences. The greater distance of the Victorville Public Works Yard to the AVR System service area would therefore potentially increase vehicle miles traveled (VMT) associated with operations and maintenance activities when compared to the proposed Project, resulting in an incremental increase in associated air quality emissions from mobile sources.

Impacts to air quality would therefore be greater than from the proposed Project.



Public Works Yard Locations Figure 6-1

Greenhouse Gas Emissions. Alternative 2 would potentially increase the VMT associated with operation and maintenance of the AVR System, given the greater distance of the Victorville Public Works Yard to the AVR System service system. Therefore, impacts would increase when compared to the proposed Project, but would remain less than significant given the minor increase in distance that would occur under Alternative 2.

Similar to the proposed Project, this alternative would involve operation and maintenance of an existing water supply system. As such, it would not conflict with California GHG reduction goals, or any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant, similar to the proposed Project.

Hydrology and Water Quality. No new facilities are proposed as part of Alternative 2; therefore, an increase in impermeable surfaces within the Project Area would not occur and thus there would be no reduction in groundwater recharge, similar to the proposed Project.

As in the case of the Town of Apple Valley, if Victorville were contracted to operate and maintain the AVR System it is anticipated that Demand Management Measures (DMMs) would be implemented for the AVR System and that continued improvements in conservation would be achieved even if rates charged are less than would have been charged by Apple Valley Ranchos Water Company. Thus, the requirement to comply with the mandated reduction of the California Water Conservation Act will drive a reduction in water use throughout the AVR System, even if the price charged for water is less than under Apple Valley Ranchos Water Company ownership. As a result, increased demand for groundwater supplies would not occur as a result of Alternative 2 and impacts would be less than significant, similar to the proposed Project.

Land Use. Similar to the proposed Project, this alternative would involve operation and maintenance of an existing water supply system. As such, it would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant, similar to the proposed Project.

Noise. Alternative 2 could increase traffic and associated noise levels along area roadways in and around the Project Area, including in the vicinity of the City of Victorville Public Works Yard, potentially exposing existing and future land uses to increased noise. The estimated number of trips leaving or entering the site during the peak hour is 58 (20 office employees and 19 field staff arriving for work; 19 field staff leaving for service calls) of the estimated ADT of 154. Given the minimal number of trips associated with operation of the system relative to the level of existing traffic along most roadways in the Project Area, increases in noise levels associated with Alternative 2 would not be noticeable, and would therefore not expose sensitive receptors to noise levels exceeding applicable standards in the Town of Apple Valley, City of Victorville or surrounding area. Impacts would therefore be less than significant, though slightly greater than the proposed Project.

Transportation/Traffic. Implementation of Alternative 2 would contribute trips to the local street network. It should be noted that while these trips would be slightly longer, they would not be "new" trips, but instead would be trips redistributed along the network due to the relocation of operation and maintenance activities to the Victorville Public Works Yard.

Conservatively assuming that all trips associated with operation of the system are in fact new, Alternative 2 would contribute no more than 58 trips at any one intersection in each of the peak hours, which equates to approximately one trip every minute. Similar to the proposed Project, this minor increase in trip volume along area roadways would not be anticipated to degrade LOS at any intersection. Impacts would therefore be less than significant, similar to proposed Project.

Utilities and Service Systems. Operation and maintenance of the system by the City of Victorville would not result in alterations to the service provided or the number of connections to the system. In addition, in the unlikely event water rates are reduced when compared to the current rates charged by Apple Valley Ranchos Water System, this would not be expected to result in an increase in demand on the water supply as discussed above under *Hydrology and Water Quality*. Therefore, implementation of Alternative 2 would not result in a commensurate increase in demand for wastewater treatment or need for an increase in capacity of the stormwater conveyance. Impacts would therefore be less than significant, similar to the proposed Project.

6.3 ALTERNATIVE 3: ALTERNATIVE OPERATOR – CITY OF HESPERIA

6.3.1 Description

Alternative 3 (Alternative Operator – City of Hesperia) assumes that the proposed acquisition of the AVR System by the Town of Apple Valley would proceed but that the Town would not operate and maintain the system. Instead the City of Hesperia Public Works Department would be contracted to operate and maintain the system. The assumed location for operations and maintenance activities to be based would be the City of Hesperia Public Works Yard located at 17282 Mojave St, Hesperia approximately three miles from the southwestern border of the AVR System service area (see Figure 6-1). The size of the system and the associated infrastructure would be the same as under the proposed Project and no substantial construction would occur. Therefore, the number of vehicle trips required to operate the system as well as the timing of those trips from the Hesperia Public Works Yard are assumed to be the same as if the system were operated by the Town of Apple Valley, as described in Section 2.0, *Project Description*. This alternative would achieve all of the stated project objectives, except the objective to operate the system.

6.3.2 Impact Analysis

The comparison of the environmental impacts of Alternative 3 to those of the proposed Project are presented below. To be clear, none of the potential environmental impacts resulting from the proposed Project or from Alternative 3 would be significant. Instead, and although Alternative 3 has environmental impacts that may be slightly greater or less than those of the proposed Project, all of the impacts of Alternative 3 are fully analyzed in this Draft EIR and would remain less than significant.

Alternative 3 would relocate operations and maintenance activities to a location outside Apple Valley, potentially leading to an increase in vehicular trip length and distribution, and therefore also lead to an increase in mobile source emissions. The Hesperia Public Works Yard, located at 17282 Mojave St, is located approximately three miles from the southwestern border of the AVR System service area. The existing AVR System O&M Facility is located within the AVR System Service Area and is the current base for existing operations and maintenance activities. In order to operate the system from the Hesperia Public Works Yard an estimated additional 59,280 annual vehicle miles travelled would be required to operate the AVR System from Hesperia. This is based on the distance from the southwestern boundary of the system to the Hesperia Public Works Yard and assumes that each of the 19 field staff would make two service calls to and from the Public Works Yard per day. Mileage traveled within the service area is excluded

to account for the fact that those trips are already occurring, as discussed in Section 4.1, *Air Quality*, as is mileage generated by employees traveling to and from their residences. The greater distance of the Hesperia Public Works Yard to the AVR System service area would potentially increase vehicle miles traveled (VMT) associated with operations and maintenance activities when compared to the proposed Project, resulting in an incremental increase in associated air quality emissions from mobile sources. As discussed in Section 4.1, *Air Quality*, not all of the trips associated with operations and maintenance activities would be new, but instead would be redistributed trips that are currently being generated during operation and maintenance of the system by GSWC.

Impacts to air quality would therefore be greater than from the proposed Project.

a. Greenhouse Gas Emissions.

Alternative 3 would potentially increase the VMT associated with operation and maintenance of the AVR System, given the increase in distance between the Hesperia Public Works Yard and the AVR System service area. Therefore, impacts would increase when compared to the proposed Project, but would remain less than significant given the minor increase in distance that would occur under Alternative 3.

Similar to the proposed Project, this alternative would involve operation and maintenance of an existing water supply system. As such, it would not conflict with California GHG reduction goals, or any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant, similar to the proposed Project.

b. Hydrology and Water Quality.

No new facilities are proposed as part of Alternative 3; therefore, an increase in impermeable surfaces within the Project Area would not occur and thus there would be no reduction in groundwater recharge, similar to the proposed Project.

Similar to the Town of Apple Valley, should Hesperia be contracted to operate and maintain the AVR System it is anticipated that DMMs would be implemented for the AVR System and that continued improvements in conservation would be achieved even if rates charged are less than would have been charged by Apple Valley Ranchos Water Company. Thus, the requirement to comply with the mandated reduction of the California Water Conservation Act will drive a

reduction in water use throughout the AVR System, even if the price charged for water is less than under Apple Valley Ranchos Water Company ownership. As a result, increased demand for groundwater supplies would not occur as a result of Alternative 3 and impacts would be less than significant, similar to the proposed Project.

c. Land Use.

Similar to the proposed Project, this alternative would involve operation and maintenance of an existing water supply system. As such, it would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant, similar to the proposed Project.

d. Noise.

Alternative 3 could increase traffic and associated noise levels along area roadways in and around the Project Area, in particular in the vicinity of the City of Hesperia Public Works Yard, potentially exposing existing and future land uses to increased noise. The estimated number of trips leaving or entering the site during the peak hour is 58 (20 office employees and 19 field staff arriving for work; 19 field staff leaving for service calls) of the estimated ADT of 154; equating to approximately one trip every minute during the peak hour only. Given the minimal number of trips associated with operation of the system relative to the level of existing traffic along most roadways in the Project Area, increases in noise levels associated with Alternative 3 would not be noticeable, and would therefore not expose sensitive receptors to noise levels exceeding applicable standards in the Town of Apple Valley, City of Hesperia or surrounding area. Impacts would therefore be less than significant, though slightly greater than the proposed Project.

e. Transportation/Traffic.

Implementation of Alternative 3 would contribute trips to the local street network. It should be noted that while these trips would be slightly longer, these would not be "new" trips but rather trips redistributed along the network due to the relocation of operation and maintenance activities to the Hesperia Public Works Yard. Conservatively assuming that all trips associated with operation of the system are in fact new, Alternative 3 would contribute no more than 58 trips at any one intersection in each of the peak hours, which equates to approximately one trip every minute. Similar to the proposed Project, this minor increase in trip volume along area roadways would not be anticipated to degrade LOS at any intersection. Impacts would therefore be less than significant, similar to proposed Project.

f. Utilities and Service Systems.

Operation and maintenance of the system by the City of Hesperia would not result in alterations to the service provided or the number of connections to the system. In addition, in the unlikely event water rates are reduced when compared to the current rates charged by Apple Valley Ranchos Water System, this would not be expected to result in an increase in demand on the water supply as discussed above under *Hydrology and Water Quality*. Therefore,

implementation of Alternative 3 would not result in a commensurate increase in demand for wastewater treatment or need for an increase in capacity of the stormwater conveyance. Impacts would therefore be less than significant, similar to the proposed Project.

6.4 ALTERNATIVE 4: OPERATED BY APPLE VALLEY, ALTERNATE O&M FACILITY

6.4.1 Description

Alternative 4 (Operated by Apple Valley at an Alternate O&M Facility) assumes that the proposed acquisition of the AVR System by the Town of Apple Valley would proceed and the Town would operate and maintain the system. However, under this alternative rather than continuing to use the current AVR System O&M facility as the base for all operations and maintenance activities, the majority of these would be relocated to the Town of Apple Valley Public Works Yard located at 13450 Nomwaket Road (see Figure 6-1). The only exception would be for equipment and material storage, which would continue at the existing AVR System O&M facility. The size of the system and the associated infrastructure would be the same as under the proposed Project and construction of new or expanded facilities would not be required to facilitate the proposed Project. Therefore, the number of vehicle trips required to operate the system as well as the timing of those trips are assumed to be the same as if the system were operated by the Town out of the AVR System O&M facility, as described in Section 2.0, *Project Description*. This alternative would achieve all of the stated project objectives.

6.4.2 Impact Analysis

The comparison of the environmental impacts of Alternative 4 to those of the proposed Project are presented below. To be clear, none of the potential environmental impacts resulting from the proposed Project or from Alternative 4 would be significant. Instead, and although Alternative 4 has environmental impacts that may be slightly greater or less than those of the proposed Project, all of the impacts of Alternative 4 are fully analyzed in this Draft EIR and would remain less than significant.

a. Air Quality.

Similar to the proposed Project, Alternative 4 would maintain operations and maintenance activities within the AVR System service area. Because these activities would remain within the service area, trips associated with operations and maintenance activities are currently part of the existing baseline. While some redistribution of trips within the service area would occur these trips would not be "new", but instead would be redistributed trips that are currently being generated during operation and maintenance of the system by Apple Valley Ranchos Water Company. This would result in a broadly similar number of miles traveled (VMT) associated with operations and maintenance activities when compared to the proposed Project; therefore, no new air emissions from mobile sources would be generated.

Impacts to air quality would therefore be less than significant, similar to the proposed Project.

b. Greenhouse Gas Emissions.

Alternative 4 would result in a similar number of VMT associated with operation and maintenance of the AVR System as the proposed Project, given the fact that the operations and maintenance activities would be based out of a location within the AVR System service area. As discussed in Section 4.2, *Greenhouse Gas Emissions*, these are part of the current baseline since mobile trips associated with operation of the AVR System currently occur. Therefore, impacts would be similar to the proposed Project, and would remain less than significant.

Similar to the proposed Project, this alternative would involve operation and maintenance of an existing water supply system. As such, it would not conflict with California GHG reduction goals, or any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This impact would be less than significant, similar to the proposed Project.

c. Hydrology and Water Quality.

No new facilities are proposed as part of Alternative 4; therefore, an increase in impermeable surfaces within the Project Area would not occur and thus there would be no reduction in groundwater recharge, similar to the proposed Project.

Similar to the proposed Project, should the Town of Apple Valley operate the system out of an alternate location, it is anticipated that DMMs would be implemented for the AVR System and that continued improvements in conservation would be achieved even if rates charged are less than would have been charged by Apple Valley Ranchos Water Company. Thus, the requirement to comply with the mandated reduction of the California Water Conservation Act will drive a reduction in water use throughout the AVR System, even if the price charged for water is less than under Apple Valley Ranchos Water Company ownership. As a result, increased demand for groundwater supplies would not occur as a result of Alternative 4 and impacts would be less than significant, similar to the proposed Project.

d. Land Use.

Similar to the proposed Project, this alternative would involve operation and maintenance of an existing water supply system. As such, it would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant, similar to the proposed Project.

e. Noise.

Alternative 4 could potentially redistribute traffic and associated noise levels along area roadways in and around the Project Area, including the vicinity of the Apple Valley Public Works Yard, potentially exposing existing and future land uses to localized increases in noise. The maximum estimated number of trips leaving or entering the site during the peak hour is 58 (20 office employees and 19 field staff arriving for work; 19 field staff leaving for service calls) of the estimated ADT of 154; equating to approximately one trip every minute. However, in the

case of the alternative, the number could be less given that some employees may travel directly to the existing AVR System O&M facility rather than to the Apple Valley Public Works Yard. In either case, given the minimal number of trips associated with operation of the system relative to the level of existing traffic along most roadways in the Project Area, increases in noise levels associated with Alternative 4 would not be noticeable, and would therefore not expose sensitive receptors to noise levels exceeding applicable standards in the Town of Apple Valley. Impacts would therefore be less than significant, similar to the proposed Project.

f. Transportation/Traffic.

Implementation of Alternative 4 would redistribute existing trips associated with operation and maintenance of the AVR System along the local street network, due to the relocation of most operation and maintenance activities to the Apple Valley Public Works Yard. Given that these trips would remain within the AVR System service area, little to no increase in VMT is anticipated to occur. Conservatively assuming that all trips associated with operation of the system are in fact new, Alternative 4 would contribute no more than 58 trips at any one intersection in each of the peak hours, which equates to approximately one trip every minute. Similar to the proposed Project, this minor increase in trip volume along area roadways would not be anticipated to degrade LOS at any intersection. Impacts would therefore be less than significant, similar to proposed Project.

g. Utilities and Service Systems.

Similar to the proposed Project, operation and maintenance of the system by the Town would not result in alterations to the service provided or the number of connections to the system. In addition, this alternative would not be expected to result in an increase in demand on the water supply as discussed above under *Hydrology and Water Quality*. Therefore, implementation of Alternative 4 would not result in a commensurate increase in demand for wastewater treatment or need for an increase in capacity of the stormwater conveyance. Impacts would therefore be less than significant, similar to the proposed Project.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

This section evaluates the impact conclusions for the proposed Project and the four alternatives under consideration. It then identifies the environmentally superior alternative. In accordance with the *State CEQA Guidelines*, if the No Project Alternative is identified as the environmentally superior alternative, the alternative among the remaining scenarios that is environmentally superior must also be identified.

Table 6-1 shows whether each alternative's environmental impact is greater, lesser, or similar to the proposed Project for each issue area.

Table 6-1
Comparison of Project Alternatives to Proposed Project

Impact Category	No Project Alternative	Alt 2 (Victorville)	Alt 3 (Hesperia)	Alt 4 (Alt O&M)
Air Quality	=	-	-	=
Greenhouse Gas Emissions	=	-	-	=
Hydrology and Water Quality	=	=	=	=
Land Use	-	=	=	=
Noise	=	-	-	=
Transportation/Traffic	=	=	=	=
Utilities/Service Systems	=	=	=	=

\+ *Superior to the proposed project*
\- *Inferior to the proposed project*
= *Similar impact to the proposed project*

As described above and in Section 4.0, *Environmental Impact Analysis*, no significant impacts would result from implementation of the proposed Project or any of the alternatives considered. Generally, the proposed Project is environmentally preferable to any of the alternatives analyzed in this EIR. Based on the comparison provided in Table 6-1, there is no clearly Environmentally Superior Alternative to the proposed Project; however, of the alternatives considered, Alternative 4 is considered to be Environmentally Superior since it is similar in impact level to the proposed Project for all issue areas analyzed in the EIR.

The No Project alternative (Alternative 1) would be similar though slightly less preferable to the proposed Project as this alternative, while consistent with the current land use policy framework, would not provide some of the consistency benefits of the proposed Project. It also would not accomplish any of the objectives of the proposed Project, including: allowing the Town to independently own and operate a water system, providing greater local control over the system and the rate setting process, enhancing customer service and responsiveness, allowing the Town to pursue grant funding related to operation of a water system, ensuring better coordination amongst Town decisions involving land use, emergency services, policy, the location and need for capital improvements, and overall planning in the water context, enabling the Town to use reclaimed water for public facilities without duplicating service issues with Apple Valley Ranchos Water Company, or improving public transparency and accountability.

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