PALMDALE RECYCLED WATER AUTHORITY RECYCLED WATER FACILITIES PLAN

Addendum No. 2 SCH No. 2014101064

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PRWA RECYCLED WATER FACILITIES PLAN

Addendum No. 2

1.0 Introduction

1.1 Purpose of the Addendum

The Palmdale Recycled Water Authority (PRWA) is a joint powers authority of the City of Palmdale (City) and the Palmdale Water District (PWD). In January 2014, the PRWA completed the PRWA Recycled Water Facilities Plan (PRWA Plan or project), which includes construction and operation of distribution pipelines and one new pump station. In October 2014, the PRWA as Lead Agency under the California Environmental Quality Act (CEQA) prepared a Final Initial Study/Mitigated Negative Declaration (Final MND or 2015 MND) to implement the PRWA Plan. A Notice of Determination for the Final MND was filed with the State Clearinghouse in December 2015.

This Addendum to the 2015 MND will analyze environmental impacts associated with the pipeline modifications to the PRWA Plan proposed by PRWA.

1.2 Regulatory Background

Section 15164(b) of the CEQA Guidelines provides that an addendum to an adopted negative declaration for a project is permissible if: (1) only minor technical changes or additions are necessary; or (2) neither a Subsequent Environmental Impact Report ("EIR") or negative declaration is required pursuant to CEQA Guideline section 15162. Subsequent environmental documents must be prepared if:

- 1. Substantial changes are proposed in the project requiring major revisions of the previous environmental document because the changes will create new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- 2. Substantial changes occur with respect to the circumstances under which the project is undertaken that will require major revisions of the previous environmental document as a result of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- 3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time of the certification or adoption of the previous environmental document, has been discovered and shows that:

- a. The project will have one or more significant effects not discussed in the previous environmental document;
- b. Significant effects previously examined will be substantially more severe than shown in the previous environmental document;
- c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous environmental document would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

PRWA has evaluated the environmental impacts of the proposed modifications and, as Lead Agency under CEQA, has determined that none of these conditions apply. Therefore, an Addendum to the 2015 MND is the appropriate environmental document to analyze the proposed modifications.

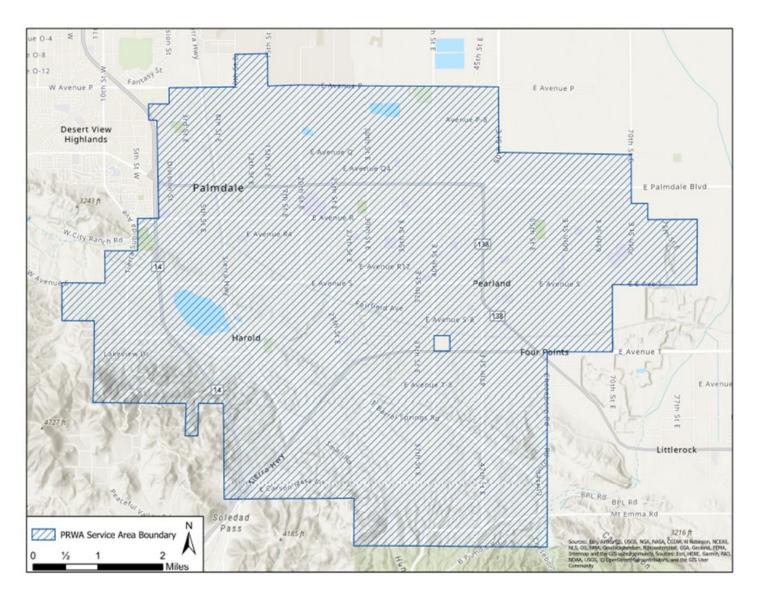
2.0 Adopted Project Overview

This section includes an overview of all project phases as proposed in the 2015 MND. The environmental consistency analysis prepared for this Addendum will focus on environmental impacts associated with proposed modifications made since the adoption of the MND.

2.1 Project Location

The adopted project was proposed to be within the PRWA service area, which encompasses 46 square miles and includes a portion of the City of Palmdale and unincorporated Los Angeles County within the boundaries of PWD (**Figure 1**). The project location is approximately 60 miles north of Los Angeles and 95 miles southeast of the City of Bakersfield, at an elevation approximately 2,600 feet above mean sea level.

The PRWA service area is located along the southwestern perimeter of the Antelope Valley. The Antelope Valley is a 2,400-square mile triangular basin bounded on the northwest by the Tehachapi Mountains, on the southwest by the San Gabriel Mountains, and on the east by a series of buttes and hills that roughly parallel the Los Angeles/San Bernardino County Line. The PRWA is located in a high desert climate, characterized by hot dry summers and cool wet winters. Within the PRWA's service area, land use is primarily residential. However, downtown Palmdale includes commercial, industrial, and public services uses and a small amount of agriculture is located east of the LA-Palmdale Regional Airport.





2.2 Project Components

The adopted PRWA Recycled Water Facility Plan includes the construction and operation of distribution pipelines and laterals and pumping facilities as described below. The adopted project includes phased construction to provide up to 1,325 AFY of tertiary-treated recycled water to PRWA customers, primarily for landscape irrigation at parks, schools, and golf courses. As indicated in the 2015 MND and below, the Phase 1 alignment had already been constructed prior to the publication of the adopted project.

In 2015, PRWA began conducting evaluations on the feasibility of using recycled water for Indirect Potable Reuse (IPR) through groundwater injection. Since then, PRWA has decided to move away from the use of recycled water to Indirect Potable Reuse (IPR). Phases 7 and 8 have been added to the PRWA Recycled Water Facility Plan to reflect the modifications that have resulted from the change in direction towards IPR. This Addendum will focus on modifications resulting from the addition of the construction of Phases 7 and 8.

2.2.1 Pump Station

The adopted project includes the installation of one new pump station at the Palmdale Water Reclamation Plant (PWRP) as part of Phase 2 (see **Figure 3**). The PWRP is owned and operated by LACSD No. 20. The plant, which occupies 286 acres east of Highway 14, provides tertiary treatment for 12 million gallons per day (mgd) of wastewater. The adopted project indicates that the Phase 2 pump station would have a firm pumping capacity of about 800 brake horsepower (bhp), which is based on a maximum supply capacity of about 6,675 gallons per minute (gpm) and 70 percent pump efficiency. The pump station would be housed within a masonry building and would have a footprint of approximately 15 feet by 35 feet, which would accommodate up to four installed vertical turbine pumps at build-out, mounted at a grade above a concrete slab. There the adopted project includes the implementation of either a buried concrete wet well below the pump motors, or vertical pump cans extending through the concrete slab and into the ground below. The pump station building would include an electrical control room to house new electrical panels for the pumps. The adopted plan includes other major pump station components including a generator, for standby power, a surge tank, and a small amount of piping.

2.2.2 Pipelines

The adopted project includes up to 70,000 linear feet of new recycled water pipe, with pipeline diameters ranging from six inches (for laterals) to 24 inches (for distribution pipes). The majority of the pipeline alignments were planned to be within developed and paved portions of roadway rights-of-way. Adopted plans for recycled water pipeline segments and phases are listed in **Table 1**. Phase 1 of the project has already been built, with a pipeline leading from the PWRP down 30th Street East to Avenue R.

Distribution Pipelines (24-inch diameter)	Laterals (6-inch to 12-inch diameter)
Phase 2	
PRWA pump station at PWRP	East Avenue R-6 to Desert Rose Elementary School
• 30 th Street East between Avenue R and Avenue R-8	• 55 Street East to Dominic Massari Park
 Avenue R-8 between 30th St East and 55th St East 	
Phase 3	
	 Avenue R and 20th Street East to Palmdale High School
	 37th Street East, Avenue S, 40th Street East to Dry Town Water Park
	50th Street East to Buena Vista Elementary School
Phase 4	
- Avenue R-8 between 55^{th} St East and 65^{th} St East	 Avenue R-8 to Los Amigos School and Pete Knight High School
Phase 6	
	 30th Street East between Avenue R-8 and Joshua Hills Elementary School and Park
	East Avenue R-12 to Palmdale Park

TABLE 1. ROADWAYS WITH PROPOSED RECYCLED WATER PIPELINES

3.0 Objectives of the Project

The project maintains the same objectives as listed within the 2015 MND and are included below:

- Reduce dependence on the SWP and groundwater supplies
- Improve water supply reliability
- Preserve potable water supplies
- Provide a potential source of supply for groundwater recharge

4.0 Description of Proposed Modifications

The proposed modifications under Addendum 2 include the addition of 8,600 linear feet of new 12-inch recycled water pipe. Phase 7 will be constructed on Avenue Q from 30th Street East to 20th Street East and will provide recycled water for Palmdale Students On the Academic Rise (SOAR) High School and a PWD Recycled Water Fill Station. The PWD AWPF Demonstration Facility will serve to optimize the treatment process for the full-scale design of the Advanced Water Purification Facility (AWPF). Phase 8 will be constructed on a 50-foot easement north of Avenue Q and south of Avenue P-8 from 25th Street East to 30th Street East. This pipeline will convey recycled water from the Palmdale Water Reclamation Plant (PWRP) to the future full-scale AWPF. The full-scale Advanced Water Purification Facility will produce purified water to be used for subsurface injection into the Antelope Valley Groundwater Basin as a form of IPR.

The pipeline modifications are identified in **Figure 2** and include the following:

Construction Addition- Phase 7 Avenue Q Pipeline: Construction of a recycled water pipeline along Avenue Q between 20th Street East to 30th Street East.

Construction Addition- Phase 8 Pipeline: Construction of a recycled water pipeline in a 50-foot easement 1,300 feet north of Avenue Q that runs West to East from 25th Street East to 30th Street East and then runs to the north in 30th Street E from the easement to Ave P-8. Then runs to the East in Ave P-8 from 30th Street East to Palmdale Water Reclamation Plant.

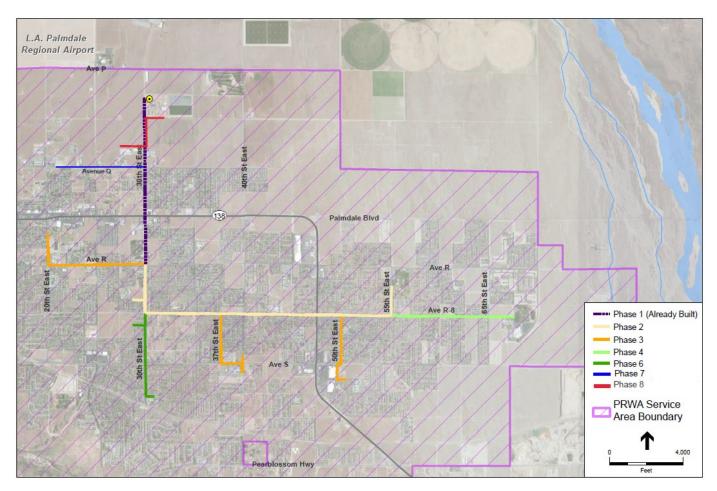


Figure 2 Proposed Modifications

5.0 Environmental Consistency Analysis

This section includes summaries of project impact findings that were described in the 2015 MND for each environmental resource area, updates to environmental settings in the project area since the 2015 MND was adopted, and consistency analyses that describe changes to project impacts and mitigation requirements as a result of the proposed modifications.

As described in Section 4.0, *Description of Proposed Modifications*, this Addendum adds two recycled water pipeline alignments as Phases 7 and Phase 8. The proposed modifications are not anticipated to result in any additional impacts or more severe impacts than previously described in the 2015 MND, as the proposed modifications would not change the project area significantly or include construction of any components that would be implemented differently than the pipeline components that were analyzed in the 2015 MND. However, the consistency analyses below will describe any impacts or mitigation requirements that would differ from the findings of the 2015 MND due to the proposed modifications, regardless of changes in impact significance, and describe updates to environmental settings for the project area that may have occurred since adoption of the 2015 MND.

The consistency analyses below will also reflect the December 2019 update to the CEQA Appendix G checklist and analyze impacts of the modified Phase 7 and 8 alignments to Wildfire and Energy. For the purposes of this Addendum, Energy is addressed together with Utilities and Service Systems, and Wildfire is addressed as a new environmental topic. Tribal Cultural Resources, while now included in the CEQA Appendix G checklist, are not analyzed in this Addendum. Assembly Bill 52 (AB 52), which requires a lead agency to consult with California Native American tribes to identify tribal cultural resources, only applies to projects for which a notice of preparation or a notice of negative declaration or mitigated negative declaration was filed on or after July 1, 2015. The PRWA Plan MND was filed in January 2015 (AB 52, Chapter 532, Section 11(c)), September 25, 2014). As such, AB 52 is not applicable to this project and tribal cultural resources are not addressed.

5.1 Aesthetics

5.1.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.1, *Aesthetic Resources*) evaluated the PRWA Plan for aesthetic resources impacts and concluded that project impacts would be **Less than Significant with Mitigation.** Impacts to light and glare during nighttime construction were found to be less than significant with implementation of **Mitigation Measure AES-1**, which requires PRWA to ensure the construction contractor uses construction lighting that is shielded and directed downward to illuminate only the necessary workspace and avoid light spill into neighboring residential properties. Project impacts to light and glare during operation were found to be less than significant with implementation of **Mitigation Measure AES-2**. Mitigation Measure AES-2 requires the construction contractor to apply to the pump stations and other aboveground appurtenances non-glare exterior coatings that are colored an earth tone to blend in with the surrounding landscape, and that all lights be shielded and faced downward. All other impacts to aesthetic resources were found to be less than significant.

5.1.2 Environmental Setting

The 2015 MND includes a description of environmental settings in the project area based on the City of Palmdale General Plan and found that all scenic roadways in the project area were located to the south and west of the project facilities. The project facility sites were found to be within developed areas throughout the PRWA's service area, including paved public roadways and immediately adjacent vacant lands. However, none of the project roadways were designated as State-designated scenic highways. Further, due to flat topography of the service area, both foreground and middle-ground views included the structures and landscaping along the project roadways. Background views were found to include the distant foothills and ridgelines that form the horizon.

5.1.3 Consistency Analysis

Proposed modifications to Phases 7 and 8 would not change the area of influence for aesthetic effects described in the 2015 MND. Construction and operation of the proposed facility sites would remain within previously developed areas throughout the PRWA's service area, including paved public roadways and immediately adjacent vacant lands, and would not be located within a State-designated scenic highway.

Since the environmental settings for aesthetic resources have not changed since the 2015 MND and no new sources of light and glare are proposed as part of the project, the proposed modifications would not result in any additional impacts or more severe impacts than previously described in the 2015 MND. Implementation of Mitigation Measures AES-1 and AES-2 as previously described in the 2015 MND would reduce both Phases 7 and 8 construction and operation impacts to aesthetic resources to less-than significant-levels. Therefore, impacts to aesthetic resources related to the proposed modifications to Phases 7 and 8 would be **Less than Significant with Mitigation.** No additional mitigation is required.

5.2 Agriculture and Forestry Resources

5.2.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.2, *Agriculture and Forestry Resources*) evaluated the PRWA Plan for potential impacts to agricultural resources in the project area and concluded that there would be **No Impact** to agriculture and forestry resources as a result of the project. Construction and operation of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; would not conflict with zoning for agricultural use or a Williamson Act Contract; would not conflict with existing zoning for forest land or timberland; would not result in the loss or conversion of forest land; and would not otherwise result in conversion of lands zoned for agricultural use and forest use. No mitigation was required.

5.2.2 Environmental Setting

The 2015 MND includes a description of environmental settings in the project area using the State's Important Farmland Map of Los Angeles County and other local planning documents. The 2015 MND found that the project area included only lands classified as "Urban and Built-Up Land" and "Other Land," and did not include any farmland, forest land, or timberland in the project area that could potentially be impacted by the project.

5.2.3 Consistency Analysis

The State's 2016 update to the Important Farmland Map of Los Angeles County does not include any farmland, forest land, or timberland land in the project area that could be impacted by the proposed project. Uses in the modified Phases 7 and 8 project area remain classified as "Urban and Built-Up Land" and "Other Land" (California Department of Conservation, 2016). Local planning documents have not been updated since the 2015 MND to include additional agriculture and forestry resources in the project area. Therefore, no additional or more severe impacts to agricultural and forestry resources would occur as a result of the proposed modifications to Phases 7 and 8, and no additional mitigation is required. Therefore, there would be **No Impact** to agriculture and forestry resources as a result of the proposed modifications to Phases 7 and 8.

5.3 Air Quality

5.3.1 Summary of Previous Impact Analysis

The 2015 MND evaluated the PRWA Plan for potential impacts to air quality and concluded that construction and operation of the proposed project would not: conflict with or obstruct implementation of the applicable air quality play; violate air quality standards or contribute to an existing or projected air quality violation; result in a cumulatively considerable net increase in non-attainment criteria pollutants; expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people. All impacts were considered to be **Less than Significant**. No mitigation was required.

5.3.2 Environmental Setting

The project area is located in the southern region of the Antelope Valley, within the larger Mojave Desert Air Basin (MDAB). The MDAB encompasses about 21,480 square miles and includes the desert portions of San Bernardino County, Riverside County, Palo Verde Valley, and the cities of Palmdale and Lancaster in the Antelope Valley. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that contain dry lakes. The project site is located in the westernmost portion of the MDAB within the jurisdiction of the Antelope Valley Air Quality Management District (AVAQMD).

The California Air Resources Board (CARB) and the United States Environmental Protection Agency (USEPA) use monitored air quality data to designate areas according to their attainment status for criteria air pollutants. The three basic designation categories are nonattainment, attainment, and unclassified. Unclassified is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. Both CARB and USEPA have designated portions of the AVAQMD as being nonattainment for a variety of pollutants. **Table AQ-1** shows the attainment designations and classifications for the AVAQMD updated as of May 2023.¹

	AVAQMD	
Ambient Air Quality Standard	State : Federal	
Ozone – 1 Hour	Nonattainment : Nonattainment	
Ozone – 8 Hour	Nonattainment :Nonattainment	
Respirable Particulate Matter (PM10)	Nonattainment : Unclassified/Attainment	
Fine Particulate Matter (PM2.5) – 24 hour	NA : Unclassified/Attainment	
Fine Particulate Matter (PM2.5) – Annual	Unclassified : Unclassified/Attainment	
Carbon Monoxide	Attainment : Unclassified/Attainment	
Nitrogen Dioxide	Attainment : Unclassified/Attainment	
Sulfur Dioxide	Attainment : Unclassified/Attainment	
Lead	Attainment : Unclassified/Attainment	
Visibility Reducing Particles	Unclassified : NA	
Sulfates	Attainment : NA	
Hydrogen Sulfide	Unclassified : NA	
Vinyl Chloride	Unclassified : NA	

TABLE AQ-1 AVAQMD DESIGNATIONS AND CLASSIFICATIONS

NA = Not Applicable

Source: AVAQMD, 2023.

5.3.3 Consistency Analysis

The modifications to the proposed project, as detailed in Section 4.0 above, would add a new recycled water pipeline under Phases 7 and 8. However, construction of a pipeline is typically conducted by segments limiting construction to a given distance within any given day. Daily emissions associated with the modified alignment and schedule would not result in an increase in daily emissions associated with the construction of the proposed project. The original MND assumed that construction would occur in 2015. Construction under this addendum would not begin until after 2023, therefore the construction fleet would potentially be more efficient reducing the daily emissions from what was identified in the original MND as well as potentially reducing exposure to sensitive receptors. Consistent with the original MND, the revised project would not result in growth-inducing development; would result in negligible operational emissions due to worker trips to and from the project area for routine maintenance; and would

result in the same potential odor emissions from construction and operational activities. Therefore, the modifications to the project would result in no new significant environmental impacts. Impacts to air quality related to the proposed modifications to Phases 7 and 8 would be **Less than Significant**, and no mitigation is required.

5.4 Biological Resources

5.4.1 Summary of Previous Impact Analysis

The 2015 MND evaluated impacts to biological resources in the project area and concluded that construction and operational impacts of the project would be **Less than Significant with Mitigation**, with implementation of Mitigation Measures **BIO-1 through BIO 7**, and **BIO-9**, which are briefly described below..

- **BIO-1**: Prior to ground disturbing activities, a qualified biologist shall conduct preconstruction clearance surveys in areas where potential habitat exists for silvery legless lizard, coast horned lizard, southern grasshopper mouse, and American badger.
- **BIO-2**: All steep-walled trenches or excavation pits used during construction shall be covered at all times except when being actively utilized.
- **BIO-3**: A Worker Environmental Awareness Program (WEAP) shall be implemented to educate construction crews and contractors on sensitive biological resources that could occur on the project site.
- **BIO-4**: If construction and vegetation removal is proposed during the typical bird nesting period (February 1 through August 31), preconstruction surveys for nesting/roosting bird species shall be conducted by a qualified biologist within 30 days prior to construction, with at least one survey conducted no more than five days prior to the onset of construction (or vegetation removal).
- **BIO-5**: A pre-construction survey shall be conducted within areas containing suitable habitat for burrowing owls 14 to 30 days prior to clearing of the site by a qualified biologist in accordance with the most recent CDFW protocol, currently the Staff Report on Burrowing Owl Mitigation (CDFW, 2012).
- **BIO-6**: Prior to project implementation, a habitat assessment shall be conducted by a qualified biologist to determine the potential for the Mohave ground squirrel to occur within and adjacent to the project site.
- **BIO-7**: The PRWA shall have a qualified biologist conduct a pre-construction plant survey to determine and map the location and extent of special-status plant species populations within the construction right-of-way.
- **BIO-9**: The PRWA shall implement the following measures to protect wildlife movement corridors: 1.) All night lighting shall be directed downward to reduce the effects of light pollution on adjacent areas that may be used by wildlife; 2.) To reduce the attractiveness of the project site for wildlife, water shall not be allowed to pond on the project site; and trash shall be stored in a sealable, wildlife-proof container and removed from the project site each week; and 3.) speed limits on the project site shall be 25 mph.

5.4.2 Environmental Setting

The project site is located in unincorporated Los Angeles County and the City of Palmdale; approximately 60 miles north of the City of Los Angeles and 95 miles southeast of the City of Bakersfield, along the southwestern perimeter of the Antelope Valley. The Antelope Valley is a 2,400-square mile triangular basin bounded on the northwest by the Tehachapi Mountains, on the southwest by the San Gabriel Mountains, and on the east by a series of buttes and hills that roughly parallel the Los Angeles/San Bernardino County Line.

The proposed recycled water pipeline would be constructed within the public right of-way of City of Palmdale and Los Angeles County streets. Land uses in the vicinity of the project site vary in degree of development and disturbance, including residential, commercial, industrial and institutional development, as well as active and fallow agricultural fields and undisturbed open space. The project site includes the proposed pipeline and 15 feet there from that would be subject to direct impacts during construction.

5.4.3 Consistency Analysis

Proposed modifications to project facilities and pipeline installation would not change the impacts to biological resources described in the 2015 MND. Construction and operation of the proposed facility sites would remain within previously developed areas throughout the PRWA's service area, such as paved public roadways.

The California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB) (CDFW 2023) and California Native Plant Society Rare Plant Inventory (CNPS 2023) were queried to identify special-status plant and wildlife species that have been recorded in the region since the 2015 MND (see **Appendix A**). The queries included the Palmdale United States Geological Survey (USGS) 7.5-minute quadrangle map in which the project is located as well as the surrounding eight USGS quadrangles for the CNPS inventory and a 10 mile surrounding radius for the CDFW database.

As a result of the database records search for the project site, a total of three new special-status wildlife species were identified as having the potential to occur within the project site or adjacent areas since these databases were queried for the Biological Resources section of the 2015 MND. Of these three species, one was determined to have a high potential to occur at the project site and thus have potential to be impacted by the project. Included in this list is Soledad shoulderband snail (Helminthoglypta fontiphila), a global and state threatened species.

Since construction of Phases 7 and 8 will occur within previously developed areas throughout the PRWA's service area, including paved public roadways and immediately adjacent vacant lands, all Mitigation Measures outlined in the 2015 MND are adequate to reduce biological resource impacts to a less than significant level. Therefore, impacts to biological resources related to the proposed modifications to Phases 7 and 8 would be **Less than Significant with Mitigation**. No additional mitigation is required.

5.5 Cultural Resources

5.5.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.3, Cultural Resources) evaluated the PRWA Plan for potential cultural resources impacts in the project area, including historical resources, archaeological resources, paleontological resources and human remains, and concluded that impacts would be Less than Significant with Mitigation. A Phase I Cultural Resources Assessment identified three historicera archaeological resources (CA-LAN-1558H, CA-LAN-1609H, and CA-LAN-1613H) immediately adjacent to (within 150 feet of) the project area, and it was determined that there was a potential for inadvertent discovery of subsurface cultural resources within the project area. Construction and operation impacts to historical and archaeological resources would be less than significant with implementation of Mitigation Measures CUL-1 and CUL-2. Mitigation Measure CUL-1 requires PRWA to train construction personnel on the types of cultural resources that may be encountered and of the proper procedures to follow in the inadvertent discovery of cultural materials. Mitigation Measure CUL-2 requires PRWA to halt work in the event of the discovery of cultural materials until it can be assessed for significance by a qualified archaeologist. If the discovery is found to be significant (i.e., qualifies as a historical resource or unique archaeological resource), then PRWA is required to develop and implement a Cultural Resources Treatment Plan. PRWA is also required to consult with Native American tribes in the event the discovery is prehistoric or Native American in origin. Construction and operation impacts to paleontological resources would be less than significant with implementation of Mitigation Measure CUL-3, which requires PRWA to halt work in the vent of the discovery of fossil materials until it is assessed for significance by a qualified paleontologist. If the discovery is found to be significant (i.e., qualifies as a unique paleontological resource), the PRWA is required to implement appropriate treatment. The 2015 MND concluded that construction and operation impacts to human remains would be less than significant with implementation of Mitigation Measure CUL-4, which requires PRWA to halt work in the vicinity of a human remains discovery and comply with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5.

5.5.2 Environmental Setting

A records search update was conducted on May 31, 2023 at the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The SCCIC records search included a review of all previously recorded prehistoric and historic archaeological sites located within the Project Area or within a 0.5-mile-radius Study Area, as well as a review of all known cultural resource survey reports, excavation reports, and regional cultural overview studies. The purpose of the records search was to determine the number of cultural resource studies and known archaeological resources in the Project Area and the 0.5-mile-radius Study Area. Additionally, as part of the records search the following sources were reviewed:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources

- California Historical Landmarks (CHL) list
- California Points of Historical Interest (CPHI) list
- California Office of Historic Preservation (OHP) records

Additionally, the Built Environment Resource Directory (BERD), which is maintained by OHP, was consulted to determine if the Project Area or immediate vicinity contains any properties listed and determined eligible for listing in the National Register, listed and determined eligible for listing in the California Register, or that had been evaluated in historic resource surveys and other planning activities.

The records search revealed that no resources have been previously recorded in the Project Area. The record search also revealed that three sites dated to the historic period (P-19-002304, P-19-000803, and P-19-000804) have been previously recorded within the Study Area. Both Site P-19-000803 and P-19-000804 were recorded as historic period buildings and are identified in the Los Angeles County BERD. However, both sites were evaluated in 2014 as not eligible for listing in the NRHP (Status code 6Y). The third previously recorded site (P-19-193304) represents the segment of California State Route 18 between US Highway 395 and State Route 138. It was evaluated in 2014 and found ineligible for listing in the NRHP (Status Code 6Z).

The records search returned seven reports pertaining to previous studies conducted within the Project Area (Love 1997; Lajoie and Baker 2011; Gust et al. 2014a, 2014b; Gust et al. 2015; Sikes 2014; Fumis et al. 2014), and an additional four reports pertaining to previous studies conducted within the Study Area (Eggers et al. 1973; Anonymous 1976; Norwood 1991; Shepard 2003). The records search did not identify any cultural resources that are listed or eligible for listing on local, State, or federal registers (CRHR or NRHP) within the Study Area.

5.5.3 Consistency Analysis

The updated records search for cultural, archaeological, and paleontological resources in the project area described above do not indicate that there are any such resources in the immediate vicinity of the Phase 7 and 8 alignments. Therefore, the proposed Phase 7 and 8 alignments would not result in any additional impacts or more severe impacts with implementation of mitigation. Mitigation Measures CUL-1 through CUL-4 would be implemented as described in the 2015 MND and would reduce impacts of the modified project related to cultural, archaeological, and paleontological resources to less-than-significant levels. Impacts to cultural resources related to the proposed modifications to Phases 7 and 8 would remain **Less than Significant with Mitigation**. No additional mitigation is required.

5.6 Geology, Soils and Seismicity

5.6.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.6, *Geology, Soils and Seismicity*) evaluated the PRWA Plan for potential project impacts to geology, soils and seismicity in the project area and concluded that construction and operation impacts related to liquefaction and expansive soils would be **Less**

than Significant with Mitigation. Implementation Mitigation Measure GEO-1, which requires preparation of a design-level geotechnical investigation and report prior to approval of construction plans, would reduce any liquefaction and expansive soils impacts on project facilities to less-than-significant levels. Project construction impacts on topsoil and subsoil due to grading and excavation were found to be less than significant with implementation of Mitigation Measure GEO-2, Mitigation Measure GEO-2 requires PRWA to prepare a Stormwater Pollution Prevention Plan (SWPPP) that prescribes temporary Best Management Practices (BMPs) to control water and wind erosion during construction of the project. All other impacts related to geology, soils, and seismicity were found to be less than significant.

5.6.2 Environmental Setting

The 2015 MND includes a detailed summary of geologic conditions in Antelope Valley and in the project area using local planning documents and previous geologic studies that overlap the PRWA Plan Area. These settings included the modified Phases 7 and 8 pipeline area and remain applicable.

In general, soils within the Valley are derived from downslope migration of loess and alluvial materials, mainly from granitic rock sources originating along the eastern slopes of the Tehachapi and San Gabriel Mountains. Foothills of the San Gabriel and Sierra Pelona Mountains line the southern and western boundaries of the Recycled Water Facilities Plan study area. The study area is located within the flat basin area, which is filled with unconsolidated alluvium and lacustrine deposits. The alluvial deposits consist of unconsolidated to moderately indurated (hardened) poorly sorted gravel, sand, silt, and clay. The lacustrine deposits are primarily thick layers of blue-green silty clay and brown clay with interbedded sand and silty layers. These deposits accumulated in a lake or marsh which covered large parts of the Antelope Valley at the end of the Pleistocene Epoch. Due to the dry climate, soils do not contain significant amounts of organic matter and have a low intrinsic fertility. These soils have a low to moderate shrink-swell potential and low to moderate subsidence potential.

The 2015 MND's review of the California Geological Survey (CGS) showed the San Andreas Fault Zone traversing in a southeast-trending alignment to the southwest of the project area. The San Andreas Fault Zone is designated as an Alquist-Priolo special study area requiring development setbacks. None of the proposed project facilities would be within the Alquist-Priolo Fault Zone.

5.6.3 Consistency Analysis

Environmental settings described in the 2015 MND for geology, soils, and seismicity conditions in the project area have not changed since adoption of the MND. The proposed modifications to Phases 7 and 8 would not modify the project area to the extent that construction and operation of project components would occur in areas with geologic conditions that differ from those described in the 2015 MND. Therefore, no additional or more severe construction or operation impacts would occur as a result of settings changes or as a result of proposed modifications to Phases 7 and 8. Implementation of Mitigation Measures GEO-1 and GEO-2 as described in the

2015 MND would reduce construction and operation impacts related to geology, soils, and seismicity to less-than-significant levels. Therefore, impacts on geology and seismicity related to the proposed modifications to Phases 7 and 8 would remain **Less than Significant with Mitigation.** No additional mitigation is required.

5.7 Greenhouse Gas Emissions

5.7.1 Summary of Previous Impact Analysis

The Final MND evaluated the PRWA Plan for potential impacts to greenhouse gas emissions and concluded that construction and operation of the proposed project would not: generate greenhouse gas emissions that may have a significant impact on the environment; or conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Impacts were determined to be **Less than Significant**. No mitigation was required.

5.7.2 Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), chlorofluorocarbons (CFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Carbon dioxide is the "reference gas" for climate change, meaning that emissions of GHGs are typically reported in "carbon dioxide-equivalent" (CO₂e) measures. There is international scientific consensus that humancaused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

5.7.3 Consistency Analysis

The modifications to the proposed project, as detailed in Section 4.0 above, would add a new recycled water pipeline under Phases 7 and 8. The 2015 MND quantified emissions of GHGs for construction occurring in 2015 and 2016. Construction under this addendum would not begin until after 2023, therefore the construction fleet would potentially be more efficient reducing construction and operational emissions from equipment and mobile sources. Operational emissions could also be reduced from what was identified in the 2015 MND due to the installation and use of potentially more efficient equipment. Therefore, the modified project would result in GHG emissions that are consistent with, or less than those identified in the 2015 MND. The modified project has the same purpose of developing and increasing recycled water use within the community. Therefore, consistent with the original MND, the modified project would not conflict with plans or policies identified for the reduction of GHG emissions. Therefore, the modifications to the project would result in no new significant environmental

impacts. Impacts associated with GHG emissions related to the proposed modifications to Phases 7 and 8 would remain **Less than Significant**, and no mitigation is required.

5.8 Hazards

5.8.1 Summary of Previous Impact Analysis

The 2015 MND evaluated the PRWA Plan for potential impacts related to hazards and hazardous materials in the project area and concluded that project impacts regarding accidental release of hazardous materials; handling hazardous materials within a quarter mile of existing schools; nearby hazardous materials sites; creating a hazard within an airport land use plan; and wildland fires during construction and operation would be Less than Significant with Mitigation. Construction impacts associated with interference with an emergency response plan or an emergency evacuation plan were found to be less than significant with implementation of Mitigation Measures HAZ-1 and HAZ-2, which requires preparation of a contingency plan for contaminated soils and/or groundwater and a hazardous materials management and spill prevention and control plan, respectively, impacts regarding upset and accident conditions, nearby schools, and active hazardous materials sites would be reduced to less-than-significant levels. Implementation of **Mitigation Measure HAZ-3**, which requires coordination with airport agencies to ensure proper protections measures are integrated into a construction safety program, would reduce impacts related to the Los Angeles County Airport Land Use Plan (ALUP) to a less-than-significant level. Implementation of Mitigation Measure HAZ-4 requires PRWA's construction contractor to develop and maintain emergency access strategies and would reduce impacts to emergency response protocols to a less-than-significant level. Mitigation Measure HAZ-5 requires compliance with fire hazard safety measures during construction and would reduce impacts related to wildland fires to a less than significant level.

5.8.2 Environmental Setting

The 2015 MND describes environmental settings in the project area relevant to hazards and found that U.S. Air Force Plant 42 and LA-Palmdale Regional Airport properties, which include industrial and aerospace uses, were located to the north of the project area, approximately 0.5 miles from the nearest proposed recycled water pipeline at 30th Street East and Avenue P-8. In the PRWA Plan area, dense urban development was found to be interspersed with large expanses of vacant land. Hazardous materials in the project area included household hazardous materials common to residential areas, including fertilizers, fuels, and household cleaning products. These settings remain applicable to the project area.

In addition, a limited regulatory agency records search was performed for the study area. The records search included the State Water Resources Control Board (SWRCB) GeoTracker database and the California Department of Toxic Substances Control (DTSC) EnviroStor database. The 2015 MND found that U.S. Airport Plant 42 was listed as an active cleanup site on the Cortese List; the updated search of the GeoTracker database and Cortese List prepared for this Addendum indicates the cleanup site status remains active. (SWRCB, 2023; DTSC 2023).

5.8.3 Consistency Analysis

As stated above, an updated search of the Cortese List database identifies the U.S. Air Force Plant 42 as a State response site. All other environmental settings relevant to hazards in the project area are the same or have not changed significantly. Therefore, no additional construction or operation impacts would occur as a result of environmental settings changes and no new mitigation is required.

Since the proposed Phase 7 and 8 alignment modifications would not expand the project area to the extent that it would be located in the vicinity of any new hazardous materials sites, the proposed Phase 7 and 8 modifications would not result in any additional impacts or more severe impacts related to new hazards in the project area. Implementation of Mitigation Measures HAZ-1 though HAZ-5 as described in the MND would reduce all Phase 7 and 8 impacts related to hazardous materials to less-than-significant levels. Therefore, impacts related to hazardous materials as a result of the proposed modifications to Phases 7 and 8 would remain **Less than Significant with Mitigation.** No new mitigation would be required.

5.9 Hydrology and Water Quality

5.9.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.9, Hydrology and Water Quality) evaluated the PRWA Plan for potential impacts to water quality in the project area and concluded that project impacts related to water quality standards and waste discharge requirements would be Less than Significant with Mitigation. Implementation of Mitigation Measures HYDRO-1 through HYDRO-5. Mitigation Measures HYDRO 1 through HYDRO 5 require the following: implementation of applicable backflow prevention devices, implementation of minimum pipeline separation standards, painting recycled water pipelines with purple paint, advising the Los Angeles County Department of Public Health's Cross Connection Control Program of new recycled water use sites prior to placing into service, and inspection and testing for possible cross connections with the potable water system. Project impacts on groundwater were found to be less than significant with implementation of **Mitigation Measure HYDRO-6** which requires PRWA to obtain and comply with requirements of dewatering permits issued by the Lahontan RWQCB for dewatering activities. Project impacts related to erosion and siltation would be reduced to less-thansignificant levels with implementation of Mitigation Measure HYDRO-7, which requires PRWA to develop and implement a SWPPP using Best Management Practices (BMP) to minimize erosion and sedimentation. All other project impacts related to hydrology and water quality were found to be less than significant or have no impact.

5.9.2 Environmental Setting

Chapter 2 (*Project Description*) and Section 9.9 (*Hydrology and Water Quality*) of the 2015 MND include a summary of regulatory requirements and other settings related to hydrology and water quality conditions in the PRWA Plan Area. Environmental settings for hydrology and water quality have not changed since adoption of the Final MND. All environmental settings,

including standards held by the Federal government, State, and local agencies that were described for the project area in the Final MND remain applicable.

5.9.3 Consistency Analysis

Environmental settings and applicable regulatory requirements described in the 2015 MND for water quality conditions and groundwater supply in the project area have not changed since adoption of the MND. As a result, no additional or more severe impacts would occur as a result of settings or regulatory changes applicable to the project area. Since the proposed modifications to Phases 7 and 8 consist of the addition of a recycled water pipeline, and would not introduce any components that differ significantly from those described in the 2015 MND, the proposed Phase 7 and 8 modifications would not result in any additional impacts or more severe impacts to hydrology and water quality conditions in the project area. Implementation of Mitigation Measures Mitigation Measures HYDRO-1 through HYDRO-7 as described in the MND, in addition to compliance with applicable regulations relevant to groundwater supply and water quality described above, would reduce impacts to less-than-significant levels. Therefore, impacts to hydrology and water quality related to the Phase 7 and 8 modifications would remain Less than Significant with Mitigation. No new mitigation is required.

5.10 Land Use and Land Use Planning

5.10.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.10, *Land Use and Land Use Planning*) evaluated the PRWA Plan for potential impacts to land use and land use planning in the project area based on local planning documents and concluded that impacts to land use and land use planning would be **Less than Significant with Mitigation**. The MND found that impacts to the Palmdale Regional Airport (PMD) Airport Influence Area (AIA) related to construction of the temporary pump station at the existing industrial facility (the PRWP) would be less than significant with implementation of **Mitigation Measures LU-1** through **LU-4**. Mitigation Measures LU-1 through LU-4 require PRWA to submit their proposed project plans to Los Angeles County ALUC; prepare an airport construction safety plan; identify ground elevation and submit design plans for airspace analysis (FAA Part 7460 review); and to prevent the creation of temporary or permanent wildlife attractants (open sources of water, inappropriate seed mixtures, or inappropriate landscaping designs). All other impacts were found to be less than significant or have no impact.

5.10.2 Environmental Setting

The 2015 MND describes environmental settings related to land use and land use planning in the PRWA Plan Area using City of Palmdale and County of Los Angeles planning documents. It was found that the proposed pipelines would generally be constructed within existing ROWs (paved and unpaved) and adjacent vacant lands. Public ROWs are defined as "a strip of land... intended to be or is presently occupied by a road, sidewalk, railroad, electric transmission lines, oil or gas pipeline, *water line*, sanitary storm sewer, bikeway, pedestrian walkway, or other public use" (City of Palmdale Zoning Ordinance, Chapter 1 Article 16 [1994]).

5.10.3 Consistency Analysis

All settings and regulations described in the 2015 MND for land use and land use planning in the project area remain accurate as regulations have not been updated. The proposed modifications to Phases 7 and 8 would not re-locate construction and operation of the proposed project into areas outside of the land use designations analyzed in the 2015 MND. Therefore, construction and operation of Phases 7 and 8 would not result in any additional impacts than those previously described as a result of settings changes.

The proposed Phase 7 and 8 modifications would not introduce project components to areas with land use regulations that differ from those described in the 2015 MND. Thus, the Phase 7 and 8 modifications would not result in any additional impacts or more severe impacts to land use in the project area. Implementation of Mitigation Measures LU-1 through LU-4 as described in the MND would reduce impacts related to the proposed Phase 7 and 8 modifications to less-thansignificant levels. Therefore, impacts to land use and land use planning related to the Phase 7 and 8 modifications would remain **Less than Significant with Mitigation**. No new mitigation is required.

5.11 Mineral Resources

5.11.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.11, *Mineral Resources*) evaluated the PRWA Plan for potential impacts to mineral resources in the project area and concluded that mineral resource impacts that would occur as a result of the project would be **Less than Significant**. No mitigation was required.

5.11.2 Environmental Setting

The 2015 MND describes environmental settings related to mineral resources in the PRWA Plan Area using City of Palmdale General Plan and Mineral Land Use Classification Maps prepared by the California Department of Conservation. It was found that the majority of the mines in the greater project area were scattered throughout the San Gabriel Mountains and have long been inactive. The 2015 MND also found that nonmetallic minerals were located in widely segregated areas near Palmdale. Known and potential major deposits of sand and gravel, crushed rock, clay, limestone, and dolomite were also identified in the Palmdale area.

An updated search of the Mineral Land Classification Maps found that the project area is designated as MRZ-3, indicating there are no known mineral deposits of significance in the City of Palmdale (California Department of Conservation, 2023).

5.11.3 Consistency Analysis

Mineral resources in the project area have not changed since the adoption of the 2015 MND, and Phase 7 and 8 modifications would not result in construction or operation of components on lands outside the area that was analyzed in the 2015 MND. As a result, implementation of Phase 7 and

8 modifications would not result in any additional impacts or more severe impacts than those previously described. Therefore, all impacts to mineral resources related to the Phase 7 and 8 modifications would remain **Less than Significant.** No mitigation is required.

5.12 Noise

5.12.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.12, *Noise*) determined that temporary impacts during project construction to ambient noise levels in the project vicinity would be **Less than Significant with Mitigation.** Implementation of **Mitigation Measures NOISE-1** and **NOISE-2** would be required to reduce temporary impacts related to existing noise standards and ambient noise levels during construction to less-than-significant levels. These mitigation measures require PRWA to: identify and employ noise-reducing construction practices; to notify all residents and businesses within 500 feet of construction areas of the construction schedule in writing a minimum of two weeks prior to ground-breaking; and to designate Noise Complaint Coordinator. These measures are required to be included in contract documents between PRWA and the construction contractor. Impacts related to groundbourne vibration, permanent increases in ambient noise, and airport noise would be less than significant. There would be no impact related to noise levels in the vicinity of private airstrips.

5.12.2 Environmental Setting

Noise is generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflecting or barriers, also help intensify or reduce the noise level at any given location. The background information associated with noise and vibration as identified in the original MND has not change.

The City of Palmdale's Noise Element provides specific noise standards to judge the relative significance of project-related noise impacts. Policy N1.1.3 limits new stationary (i.e., permanent) noise sources to no more than 65 dBA CNEL exterior with mitigation incorporated. Policy N1.2.2 restricts construction hours during the evening, early morning, and Sundays. To implement the General Plan, the City's Noise Ordinance (Municipal Code, Chapter 8.28 Building Construction Hours and Operation and Noise Control) prohibits construction activities in residential zoning districts between 8:00 PM and 6:30 AM and all day on Sunday. Exemptions to these working hours would require the approval of the City engineer.

5.12.3 Consistency Analysis

Environmental settings described for noise conditions in the project area in the 2015 MND have not changed. Therefore, project construction and operation would not result in any additional impacts or more severe impacts than those previously described and additional mitigation is required as a result of changes to project settings. The pipeline additions in Phases 7 and 8 would be constructed in the same manner as the originally proposed pipelines. That is, in compliance with ordinances, codes, and other regulatory requirements applicable to the City described in the MND, and in compliance with Mitigation Measures NOISE-1 and NOISE-2. Therefore, this modification would not introduce any additional impacts or more severe impacts than previously described and Phase 7 and 8 impacts would remain **Less than Significant with Mitigation**. No additional mitigation measures are required.

5.13 Population and Housing

5.13.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.13, *Population and Housing*) evaluated the PRWA Plan for potential impacts related to population in the project area and concluded that indirect impacts to population growth in the project area would be **Less than Significant**. No mitigation was required. The PRWA Plan was also evaluated for its potential to result in the displacement of people or housing, however the 2015 concluded that the PRWA Plan would have no impact. No mitigation was required.

5.13.2 Environmental Setting

The majority of the PRWA service area overlaps with the PWD service area. Thus, population and water supply/demand growth estimates within the PWD service area are the best proxy for the same metrics within PRWA boundaries. The 2015 MND characterized existing population settings in the PRWA Plan area with estimates that were included in the 2010 PWD Urban Water Management Plan (UWMP). However, PWD updated the UWMP in 2020. Therefore, this addendum evaluates impacts based on the 2020 UWMP (PWD, 2020) which includes updated population estimates for the PRWA Plan area, and PWD's Strategic Water Resources Plan (PWD, 2010) which includes PWD's strategies for meeting future water demand.

The 2020 UWMP indicates that the PWD service area has experienced steady population growth, with over 50 percent population increase since the year 1995, and estimates that the population in the PWD service area will increase from 126,062 in 2020 to 153,766 in 2045. The UWMP further projects that water demands will grow at a similar rate to the population projections at approximately 2% over the 20-year horizon, growing from 19,720 AFY in 2025 to 24,250 AFY in 2045 (PWD, 2020).

The 2010 Strategic Water Resources Plan describes PWD's planned approaches to meet projected water demands, including acquiring and developing new imported supplies, storing water in the local groundwater basin by developing surface spreading facilities and injection wells, adding groundwater pumping capacity, and pursuing recycled water exchange opportunities. PWD is currently in the process of updating the 2010 Strategic Water Resources Plan to reflect the new strategies to meet projected water demands.

5.13.3 Consistency Analysis

As described above, the 2015 MND describes population and water demand settings in the project area using PWD's 2020 Urban Water Management Plan. The 2020 update to the UWMP reflects adjusted population projections from SCAG that result in much more conservative estimates of population growth and water demand for the PWD service area. However, the updated projections indicate a net positive trend of growth for population and water demand in the PWD service area through 2045. Thus, measures outlined in the 2010 Strategic Resources Plan (see above) to meet projected water demand would remain applicable to the project area, and Phases 7 and 8 remain consistent with the 2010 Strategic Resource Plan.

The proposed Phase 7 and 8 modifications would not increase PWD's recycled water capacity in substantial manner, such that indirect growth impacts would occur to a greater extent than those analyzed in the 2015 MND. Therefore, the Phase 7 and 8 modifications do not result in any additional impacts or more severe impacts than previously described, and impacts would remain **Less than Significant.** No mitigation is required.

5.14 Public Services

5.14.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.14, *Public Services*) evaluated the PRWA Plan for potential impacts to public services in the project area and concluded that the proposed project in and of itself would not generate growth that would place new demands on local public services, such as schools, parks, fire, police, or other public service providers. Additionally, operation and maintenance of the proposed project would not be labor intensive and would not increase the need for new PRWA staff. Therefore, the 2015 MND found that **No Impact** to public services in the project area would occur as a result of the PRWA Plan and no mitigation was required.

5.14.2 Environmental Setting

The proposed facilities would be located within the City of Palmdale and unincorporated Los Angeles County. Fire protection services are provided by the Los Angeles County Fire Department. The Los Angeles County Sherriff's Department provides law enforcement services and the California Highway Patrol provides traffic enforcement services to the study area.

The elementary, high school and college districts serving the Palmdale area include: Palmdale School District, Antelope Valley Union High School District, and Antelope Valley Community College District. Each is an independent agency governed by a Board of Trustees. The City of Palmdale Recreation and Culture Department provides public park services to the area.

5.14.3 Consistency Analysis

The proposed modifications would add pipeline construction to streets that are in close proximity to those that were analyzed in the 2015 MND. As a result, the public services described for the project area in the 2015 MND remain applicable to the modified project. Therefore, construction

and operation of the Phase 7 and 8 modifications would not result in any additional or more severe impacts than those previously described.

The proposed modifications to Phases 7 and 8 of the project does not result in any additional impacts or more severe impacts than previously described. Therefore, there would be **No Impact** on public services. No mitigation is required.

5.15 Recreation

5.15.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.15, *Recreation*) evaluated the PRWA Plan for potential impacts to recreational facilities in the project area and concluded that there would be **No Impact** on recreational facilities. The 2015 MND found that the project does not include or require construction or expansion of recreational facilities. Additionally, implementation of the proposed project in and of itself would not generate growth that could result in increased use of existing parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No mitigation was required.

5.15.2 Environmental Setting

The City of Palmdale Recreation and Culture Department manages 18 parks and recreation facilities in PRWA's service area (City of Palmdale, 2016). Additionally, the Angeles National Forest borders the greater project area to the south and is managed by the U.S. Forest Service.

5.15.3 Consistency Analysis

The environmental settings described in the 2015 MND for recreational facilities in the project area have not changed. Therefore, no additional or more severe impacts would occur due to settings changes (i.e. new park facilities in the vicinity of the project).

Phases 7 and 8 of the PRWA Plan remains primarily a pipeline construction project. As such, the proposed modifications to Phases 7 and 8 would not increase use of existing facilities or result in a need for additional facilities, and would not result in any additional impacts or more severe impacts than previously described. Therefore, **No Impact** to recreational facilities would occur as a result of Phases 7 and 8, and no mitigation is required.

5.16 Transportation and Traffic

5.16.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.16, *Transportation and Traffic*) evaluated the PRWA Plan for potential impacts to transportation and traffic in the project area and concluded that impacts of the PRWA Plan related to transportation and traffic would be **Less than Significant with Mitigation**. The 2015 MND found that impacts, particularly during construction of the recycled water pipelines on public roads, would have the potential to affect applicable circulation plans, congestion plans, hazards, public transit, and bicycle facilities. However, **Mitigation Measure TRA-1**, which requires PRWA's construction contractor to prepare and implement a Traffic Control Plan, was required to be implemented and would reduce traffic impacts to less-than-significant levels.

5.16.2 Environmental Setting

Applicable transportation plans and policies in the project area were described in the 2015 MND. Planning documents applicable to the project area include the Los Angeles County Metropolitan Transportation Authority Congestion Management Program (CMP) (MTA, 2010), the Southern California Association of Government's (SCAG) Regional Transportation Plan (SCAG, 2012), the Antelope Valley Transit Authority Comprehensive Long-Range Transit Plan (AVTA, 2010), and the Circulation Element of the Palmdale General Plan (City of Palmdale, 1993).

AVTA bus routes 8 and 98 would be affected by pipeline installation.

5.16.3 Consistency Analysis

Applicable transportation plans have not been updated since adoption of the 2015 MND.

Modifications to Phases 7 and 8 of the project would not move project construction to locations outside of the City of Palmdale's circulation system which could be more severely impacted, and because PRWA is proposing multiple phases (thereby reducing the overall amount of construction at various intersections within the City of Palmdale), impacts from these modifications would not substantially alter traffic to the extent that additional or more significant impacts would occur. Further, implementation of a traffic control plan in compliance with Mitigation Measure TRA-1 would reduce impacts to less-than-significant levels. Therefore, impacts to traffic in the Phases 7 and 8 construction area would remain Less than Significant with Mitigation. No additional mitigation is required.

5.17 Utilities, Service Systems, and Energy

5.17.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9.17, *Utilities, Service Systems and Energy*) evaluated the PRWA Plan for potential impacts to utilities, service systems, and energy in the project area and concluded that impacts related to wastewater treatment requirements, storm water facilities, water supply, landfills, per capita energy consumption, wasteful energy consumption, energy infrastructure, and energy policies and standards would be **Less Than Significant.** No mitigation was required.

The 2015 MND also found that the proposed project would not create the need for additional water for wastewater facilities other than those proposed and would not create demand for wastewater treatment facilities. Further, solid waste generation would be limited to construction-related activities and would not affect available solid waste disposal capacity in the region. Therefore, the 2015 MND found that the project would have no impact with regard to these areas and no mitigation was required.

5.17.2 Environmental Setting

Chapter 2 (*Project Description*) as well as Section 9.17 (*Utilities and Service Systems* of the 2015 MND include regulatory settings related to utilities service systems in the PRWA Plan Area. Environmental settings have not changed since adoption of the Final MND. All environmental settings that were described for the project area in the Final MND remain applicable.

5.17.3 Consistency Analysis

Consistent with the original analysis, the modified project would offset and replace the use of imported water with indirect potable reuse water, therefore decreasing the energy intensity associated with providing water to the area. Given the reduction in energy intensity from imported water, the modified project would not result in wasteful or unnecessary consumption of energy, would not require construction of new sources of energy supplies of infrastructures, and would not conflict with energy efficiency policies or standards. Therefore, the modified project would have no new environmental impacts associated with energy use, and all impacts to utilities, service systems and energy related to the Phase 7 and 8 modifications would remain **Less than Significant.** No mitigation is required.

5.18 Wildfire

5.18.1 Summary of Previous Impact Analysis

The 2015 MND (Section 9., *Hazards and Hazardous Materials*) analyzed the project for potential impacts related to emergency response and evacuation planning, and impacts related to wildfire risk, and found that impacts would be **Less than Significant with Mitigation**.

Impacts related to emergency response planning would be reduced to a less-than-significant level with implementation of Mitigation Measures HAZ-4 and TRAF-1. Mitigation Measure HAZ-4 as described in the 2015 MND requires PRWA to coordinate with its construction contractor to develop comprehensive strategies for maintaining emergency access, including, but not limited to maintaining steel trench plates at the construction sites to restore access across open trenches and identification of alternate routing around construction zones, and notifying local emergency service providers of the construction schedule. Mitigation Measure TRAF-1 requires PRWA to coordinate with emergency service providers in the area in advance of project construction.

Impacts related to wildfire risk were found to be less than significant with implementation of Mitigation Measure HAZ-5, which would ensure the following: all staging areas, welding areas, or areas slated for development using spark-producing equipment would be cleared of dried vegetation or other material that could ignite; any construction equipment that includes a spark arrestor would be equipped with a spark arrestor in good working order; contractors would require all vehicles and crews working at the project site to have access to functional fire extinguishers at all times; and construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.

However, since adoption of the Final MND, the scope of wildfire impact analysis required to meet CEQA standards was expanded pursuant to an Appendix G update in 2019. As a result, the modified project will be analyzed below, against the updated impact thresholds, to ensure that impacts would not increase in severity as a result of project modifications or changes to environmental settings. The updated threshold questions are as follows:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- Substantially impair an adopted emergency response plan or emergency evacuation plan?
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

5.18.2 Environmental Settings

The California Department of Forestry and Fire Protection (CAL FIRE) designates "Very High Fire Hazard Severity" (VHFHS) zones according to their potential to cause fire hazards due to relevant factors such as fuels, terrain, and weather, and provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildfires. The proposed project would be constructed entirely within areas of the City of Palmdale designated as a Local Responsibility Area (LRA) Non-VHFHS Zone (CAL FIRE, 2007). However, near the project are fire hazard zones have the potential to be impacted, or otherwise impact the project, due to their close proximity. The entire southwestern portion of the City that are, in general, southwest of Rancho Vista Boulevard are designated as an LRA VHFHSZ (CAL FIRE, 2008); and areas just south of the City boundary are designated as a State Responsibility Area (SRA) with moderate, high, and very high fire hazard severity zones (CAL FIRE, 2022).

5.18.3 Consistency Analysis

CAL FIRE FHSZ maps have been updated since adoption of the 2015 MND and, similar to the original project, the modified project would be located in areas designated as LRA Non-VHFHS Zone. The LRA and SRA VHFHS Zones in the southeastern portion of the City have also kept the same designation. The modified project area would still be located in public roadways and driveways and have the potential to interfere with emergency response times and emergency evacuation routes in the project area. As a result, environmental settings described for the project

in the 2015 MND have not changed significantly and the potential for impacts related to wildfire risk and emergency response planning due to settings changes remains the same. Mitigation Measures HAZ-4, HAZ-5, and TRAF-1 would be implemented as described in the 2015 MND to further reduce impacts to less-than-significant levels. No additional mitigation is required.

Phases 7 and 8 of the project would not move pipeline construction to roads with more severe fire hazard severity or to a larger street that facilitates higher traffic levels, such as an arterial road or highway, that is more likely to be prioritized in emergency response planning than what was researched in the 2015 MND. Mitigation Measures HAZ-4, HAZ-5, and TRAF-1 would be implemented as described in the 2015 MND to ensure that impacts remain at less-than-significant levels during construction. As a result, impacts to emergency response planning and wildfire risk would be similar or less significant than impacts described for the original project in the 2015 MND. No additional mitigation would be required.

The project would not involve the construction of any support infrastructure such as roads, fuel breaks, emergency water sources, power lines or other utilities that could exacerbate wildfire risk. Mitigation Measure HAZ-5, described above, would ensure that fire risk measures are taken during staging and construction. Impacts would be less than significant with mitigation. The modified project area is relatively flat and would not take place on sloped surfaces. The 2015 MND (Section 9.6, *Geology, Soils, and Seismicity*) determined that impacts related to flooding landslides in the project area as a result of the project were less than significant, and no mitigation was required. The modified project remains primarily a pipeline project, and does not add any components that vary from those analyzed in the 2015 MND. As such, risk downslope flooding or landslide as result of post-fire slope instability or drainage changes would remain less than significant, and no additional mitigation would be required.

In summary, there would be no new or more severe wildfire impacts that would occur as a result of updates to CEQA Appendix G thresholds, project modifications, or changes to environmental settings. Therefore, impacts would remain **Less than Significant with Mitigation**. No new mitigation is required.

5.19 Mandatory Findings of Significance

5.19.1 Summary of Previous Impact Analysis

Section 9.18, *Mandatory Findings of Significance*, of the 2015 MND analyzed the project to determine if the project would:

- Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory;
- Have impacts that are individually limited, but cumulatively considerable; or

• Have environmental effects that would cause substantial adverse effect on human beings, either directly or indirectly.

The 2015 MND found that impacts would be Less than Significant with Mitigation.

The 2015 MND found that project impacts during construction would have the potential to adversely affect biological species, including special-status plant and wildlife species. Implementation of Mitigation Measures BIO-1 through BIO-11 would reduce impacts to biological resources to a less-than-significant level. Regarding project impacts to cultural resources, the 2015 MND found that impacts during construction would be potentially significant. Implementation of Mitigation Measures CUL-1 through CUL-4 would reduce potentially significant impacts to cultural resources to a less-than-significant level.

Environmental analysis in the 2015 MND found no direct significant effects that could not be mitigated to a less than significant level. However, it was determined that, when the project was considered in combination with other projects in the region, the proposed project had the potential to result in a contribution to a potentially significant cumulative impact based on present (2015), past, and reasonable foreseeable projects in the Antelope Valley. To minimize the potential for cumulative impacts, **Mitigation Measure CUM-1** would be implemented. Mitigation Measure CUM-1 required PRWA to consult with local jurisdictions and other regional agencies to coordinate construction schedules and location of other related projects in the vicinity, and to minimize potential conflicts or compounding effects.

With regard to substantial adverse effects to humans, the 2015 MND determined that implementation of all mitigation measures described in Sections 9.1 through 9.18 would reduce both direct and indirect impacts to humans to a less-than-significant level.

5.19.2 Environmental Setting

As described in previous sections, the proposed modifications to the project would not change the project location to the extent that the project area would be larger or drastically different. The proposed modifications would add a new recycled water pipeline to nearby streets in the City. However, any updated environmental standards described for the project area in local and regional regulatory documents, as described in the Environmental Settings for the impact discussions above, would apply to the modified project. Additionally, the proposed modifications to the project would be analyzed in combination with any past, present, and reasonably foreseeable projects in Antelope Valley for cumulatively considerable impacts. The 2015 MND included a list of projects in Section 9.18. Since adoption of the MND Amendment No. 1, the list of local projects has expanded as follows:

- Varied water main replacements as part of PWD's ongoing capital improvement program;
- Expansion of the PWRP, LWRP, and RWWTP by LACSD No. 20, LACSD No. 14, and Rosamond Community Services District, respectively;
- Various roadway and/or storm drainage improvement projects by Caltrans,

- Los Angeles County Department of Public Works, City of Palmdale, and City of Lancaster;
- Antelope Valley-East Kern Water Agency Eastside Water Bank Expansion Project
- Antelope Valley-East Kern Water Agency High Desert Water Bank Arsenic Treatment Facility
- City of Palmdale Antelope Valley Commerce Center
- Palmdale Water District Pure Water Antelope Valley Advanced Water Purification Demonstration Facility Project
- Palmdale Water District Well No. 36 Project

5.19.3 Consistency Analysis

As described in Section 5.4, *Biological Resources*, of this Addendum, construction and operation of the proposed facility sites would remain within previously developed areas throughout the PRWA's service area. There have been new special-status plant or wildlife occurrences that have been recorded for the modified project area. However, by following mitigation measures outlined in 2015 MND, the biological resource impacts during construction would be reduced to a less than significant level. No Joshua trees or other desert vegetation are expected to be disturbed removed by project activities; however, if Joshua trees are not avoidable and are needed to be disturbed or removed within the City's limits as a consequence of construction activities, the PRWA must fulfill one of the requirements outlined in Mitigation Measure BIO-10 to reduce potential impacts to Joshua trees to a less than significant level. All other Mitigation Measures outlined in the 2015 MND are adequate to reduce biological resource impacts during construction to a less than significant level.

As described in Section 5.5, *Cultural Resources*, of this Addendum, an updated records search for cultural, archaeological, and paleontological resources in the project area described in Section 5.5, above, do not indicate that there are any such resources in the immediate vicinity of the modified Phases 7 and 8 addition. Therefore, the proposed Phase 7 and 8 addition modifications would not result in any additional impacts or more severe impacts with implementation of mitigation. Mitigation Measures CUL-1 through CUL-4 would be implemented as described in the 2015 MND and would reduce impacts of the modified project related to cultural, archaeological, and paleontological resources to less-than-significant levels.

Since the modified project remains primarily a pipeline project, and does not add any components that vary from those analyzed in the 2015 MND, once the project is constructed there would be no long-term operational impacts to biological and cultural resources in the project area. Therefore, potentially significant impacts to biological resources and cultural resources as a result of settings changes and modified components would remain **Less than Significant with Mitigation**.

The 2015 MND determined that many of the potential environmental impacts of the project would occur during construction. However, since construction related impacts of the project were found to be temporary and localized, impacts were found to only be potentially significant if they were combined with similar impacts, or if projects occurred at the same time and proximity to other projects in the region. As described in other sections, the proposed modifications to Phases 7 and 8 would not significantly change the location or character of the pipeline project to the extent that new or more significant impacts would occur in the local project area. As a result, construction impacts related to the Phase 7 and 8 modifications would remain temporary and localized. Therefore, impacts would only be considered potentially significant if other similar impacts occur at the same time and proximity of the modified project, or other projects occur at the same time and proximity of the modified project. Since the list of projects in the region that was included in the 2015 MND may be outdated, the environmental settings above include an updated list in order to describe any new projects in the region that have begun or have been planned since adoption of the 2015 MND. Although the number of projects in the project region has grown since adoption of the 2015 MND, most nearby projects would not include construction in the same location as the modified project, and are not anticipated to include construction that would occur at the same time as construction of the modified project. Therefore, no new or more significant impacts related to the proposed modifications would occur as a result of the proposed modifications or environmental settings changes. Impacts would remain Less than Significant with Mitigation.

As described previously, the proposed modifications to Phases 7 and 8 would not significantly change the location or character of the pipeline project. Impacts would primarily occur during construction, and the project area would not be modified to the extent that project construction would occur in areas that would have the potential to have additional or more significant effects on human beings. Implementation of all mitigation measures described in this Addendum would reduce potentially significant impacts to less-than-significant levels. Therefore, the proposed modifications would not introduce environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly, as a result of the proposed modifications or environmental settings changes. Impacts would remain Less than Significant with Mitigation.

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SNAME	CNAME	Direction	Dist_MI FEDLIST
Accipiter cooperii	Cooper's hawk	W	 1.15 None
Agelaius tricolor	tricolored blackbird	S,SW	2.69 None
Agelaius tricolor	tricolored blackbird	W	9.65 None
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	W,SW	6.52 None
Anaxyrus californicus	arroyo toad	S,SE	7.00 Endangered
Anaxyrus californicus	arroyo toad	S,SE	8.41 Endangered
Anniella pulchra	Northern California legless lizard	S	2.20 None
Anniella pulchra	Northern California legless lizard	SE	3.73 None
Anniella spp.	California legless lizard	S,SE	8.35 None
Aquila chrysaetos	golden eagle	S,SW	9.00 None
Arizona elegans occidentalis	California glossy snake	S,SW	5.17 None
Arizona elegans occidentalis	California glossy snake	SE	7.89 None
Artemisiospiza belli belli	Bell's sparrow	W	7.79 None
Astragalus hornii var. hornii	Horn's milk-vetch	S,SW	1.96 None
Astragalus preussii var. laxiflorus	Lancaster milk-vetch	N,NW	7.07 None
Athene cunicularia	burrowing owl	Ν	2.58 None
Athene cunicularia	burrowing owl	NW	9.94 None
Bombus crotchii	Crotch bumble bee	W,SW	0.48 None
Bombus crotchii	Crotch bumble bee	S,SE	7.14 None
Buteo regalis	ferruginous hawk	N,NE	5.35 None
Buteo regalis	ferruginous hawk	W	6.31 None
Buteo swainsoni	Swainson's hawk	W,SW	0.48 None
Buteo swainsoni	Swainson's hawk	NE	3.56 None
Calochortus clavatus var. gracilis	slender mariposa-lily	W,NW	9.33 None
Calochortus striatus	alkali mariposa-lily	N,NW	7.66 None
Calochortus striatus	alkali mariposa-lily	N,NW	9.90 None
Canbya candida	white pygmy-poppy	N,NW	7.07 None
Canbya candida	white pygmy-poppy	S,SE	8.41 None
Charadrius montanus	mountain plover	N,NE	2.29 None
Charadrius montanus	mountain plover	N,NE	4.31 None
Chorizanthe parryi var. parryi	Parry's spineflower	N,NW	7.07 None
Corynorhinus townsendii	Townsend's big-eared bat	SW	9.03 None
Emys marmorata	western pond turtle	W	7.84 None
Emys marmorata	western pond turtle	W	8.19 None
Falco mexicanus	prairie falcon	S,SW	6.32 None
Helminthoglypta fontiphila	Soledad shoulderband	Potentially within Project Area	0.00 None
Helminthoglypta fontiphila	Soledad shoulderband	S,SE	6.55 None
Lanius Iudovicianus	loggerhead shrike	NW	2.89 None
Lanius ludovicianus	loggerhead shrike	SW	5.10 None
Loeflingia squarrosa var. artemisiarum	sagebrush loeflingia	SE	5.16 None

CALLIST	GRANK	SRANK	RPLANTRANK	CDFWSTATUS	OTHRSTATUS	KEYQUAD	KQUADNAME	KEYCOUNTY
None	G5	S4		WL	IUCN_LC	3411851	Palmdale	LAX
Threatened	G1G2	S2		SSC	BLM_S; IUCN_EN; USFWS_BCC	3411851	Palmdale	LAX
Threatened	G1G2	S2		SSC	BLM_S; IUCN_EN; USFWS_BCC	3411853	Sleepy Valley	LAX
None	G5T3	S3		WL		3411852	Ritter Ridge	LAX
None	G2G3	S2		SSC	IUCN_EN	3411841	Pacifico Mountain	LAX
None	G2G3	S2		SSC	IUCN_EN	3411841	Pacifico Mountain	LAX
None	G3	S2S3		SSC	USFS_S	3411851	Palmdale	LAX
None	G3	S2S3		SSC	USFS_S	3411851	Palmdale	LAX
None	G3G4	S3S4		SSC		3411841	Pacifico Mountain	LAX
None	G5	S3		FP; WL	BLM_S; CDF_S; IUCN_LC	3411842	Acton	LAX
None	G5T2	S2		SSC		3411851	Palmdale	LAX
None	G5T2	S2		SSC		3411758	Littlerock	LAX
None	G5T2T3			WL		3411852	Ritter Ridge	LAX
None	GUT1	S1	1B.1		BLM_S	3411851	Palmdale	LAX
None	G4T2	S1	1B.1			3411862	Lancaster West	LAX
None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	3411861	Lancaster East	LAX
None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	3411862	Lancaster West	LAX
Candidate Endangered	G2	S2			IUCN_EN	3411851	Palmdale	LAX
Candidate Endangered	G2	S2			IUCN_EN	3411841	Pacifico Mountain	LAX
None	G4	S3S4		WL	IUCN_LC	3411861	Lancaster East	LAX
None	G4	S3S4		WL	IUCN_LC	3411852	Ritter Ridge	LAX
Threatened	G5	S4			BLM_S; IUCN_LC	3411851	Palmdale	LAX
Threatened	G5	S4			BLM_S; IUCN_LC	3411861	Lancaster East	LAX
None	G4T2T3		1B.2		SB_CalBG/RSABG; USFS_S	3411853	Sleepy Valley	LAX
None	G3	S2S3	1B.2		BLM_S; SB_CalBG/RSABG; USFS_S	3411862	Lancaster West	LAX
None	G3	S2S3	1B.2		BLM_S; SB_CalBG/RSABG; USFS_S	3411872	Rosamond	LAX
None	G3G4	S3S4	4.2		SB_CalBG/RSABG; USFS_S	3411862	Lancaster West	LAX
None	G3G4	S3S4	4.2		SB_CalBG/RSABG; USFS_S	3411841	Pacifico Mountain	LAX
None	G3	S2S3		SSC	BLM_S; IUCN_NT; USFWS_BCC	3411861	Lancaster East	LAX
None	G3	S2S3		SSC	BLM_S; IUCN_NT; USFWS_BCC	3411861	Lancaster East	LAX
None	G3T2	S2	1B.1		BLM_S; SB_CalBG/RSABG; USFS_S	3411862	Lancaster West	LAX
None	G4	S2		SSC	BLM_S; IUCN_LC; USFS_S	3411842	Acton	LAX
None	G3G4	S3		SSC	BLM_S; IUCN_VU; USFS_S	3411852	Ritter Ridge	LAX
None	G3G4	S3		SSC	BLM_S; IUCN_VU; USFS_S	3411852	Ritter Ridge	LAX
None	G5	S4		WL	IUCN_LC	3411842	Acton	LAX
None	G1	S1				3411851	Palmdale	LAX
None	G1	S1				3411841	Pacifico Mountain	LAX
None	G4	S4		SSC	IUCN_NT	3411852	Ritter Ridge	LAX
None	G4	S4		SSC	IUCN_NT	3411852	Ritter Ridge	LAX
None	G5T3	S2	2B.2		BLM_S	3411851	Palmdale	LAX

PLSS	TAXONGROUP
T06N, R12W, Sec. 26, E (S)	Birds
T05N, R12W, Sec. 03 (S)	Birds
T06N, R13W, Sec. 21, NW (S)	Birds
T05N, R13W, Sec. 01, NW (S)	Birds
T05N, R11W, Sec. 27 (S)	Amphibians
T04N, R11W, Sec. 03 (S)	Amphibians
T05N, R12W, Sec. 01 (S)	Reptiles
T05N, R11W, Sec. 3, W (S)	Reptiles
T05N, R11W, Sec. 34, SW (S)	Reptiles
T04N, R12W, Sec. 08 (S)	Birds
T05N, R12W, Sec. 22 (S)	Reptiles
T05N, R10W, Sec. 18, SW (S)	Reptiles
T06N, R13W, Sec. 27 (S)	Birds
T05N, R12W, Sec. 3 (S)	Dicots
T07N, R12W, Sec. 15 (S)	Dicots
TOTN D1214/ Car 12 NE (C)	Birds
T07N, R13W, Sec. 13, NE (S)	Birds
T06N, R12W, Sec. 26 (S)	Insects
T05N, R11W, Sec. 34 (S) T07N, R11W, Sec. 28, SW (S)	Insects Birds
T06N, R13W, Sec. 25, NE (S)	Birds
T06N, R12W, Sec. 26 (S)	Birds
T06N, R11W, Sec. 10, NW (S)	Birds
T06N, R13W, Sec. 10, SW (S)	Monocots
T07N, R12W, Sec. 15, SW (S)	Monocots
T08N, R12W, Sec. 10 (S)	Monocots
T07N, R12W, Sec. 15 (S)	Dicots
T04N, R11W, Sec. 03 (S)	Dicots
T06N, R11W, Sec. 09, N (S)	Birds
T07N, R11W, Sec. 32, SE (S)	Birds
T07N, R12W, Sec. 15 (S)	Dicots
T05N, R13W, Sec. 36 (S)	Mammals
T06N, R13W, Sec. 23, NW (S)	Reptiles
T06N, R13W, Sec. 15, S (S)	Reptiles
	Birds
T06N, R12W, Sec. 26 (S)	Mollusks
T05N, R11W, Sec. 27 (S)	Mollusks
T06N, R12W, Sec. 11, SW (S)	Birds
T05N, R12W, Sec. 08, E (S)	Birds
T05N, R11W, Sec. 10, SE (S)	Dicots

Mojave Riparian Forest	Mojave Riparian Forest	S,SE	7.00 None
Myotis yumanensis	Yuma myotis	S,SE	7.53 None
Opuntia basilaris var. brachyclada	short-joint beavertail	S	4.05 None
Opuntia basilaris var. brachyclada	short-joint beavertail	S,SE	9.47 None
Perognathus inornatus	San Joaquin pocket mouse	W,SW	0.48 None
Phrynosoma blainvillii	coast horned lizard	NW	1.27 None
Phrynosoma blainvillii	coast horned lizard	W,NW	9.00 None
Rana draytonii	California red-legged frog	W	9.67 Threatened
Rana muscosa	southern mountain yellow-legged frog	S,SE	9.58 Endangered
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	W	9.57 None
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	S,SE	9.33 None
Stylocline masonii	Mason's neststraw	S,SW	9.66 None
Symphyotrichum greatae	Greata's aster	SW	9.03 None
Thamnophis hammondii	two-striped gartersnake	W	7.85 None
Thamnophis hammondii	two-striped gartersnake	W	8.20 None
Thysanocarpus rigidus	rigid fringepod	S	8.35 None
Toxostoma lecontei	Le Conte's thrasher	W,SW	0.48 None
Toxostoma lecontei	Le Conte's thrasher	E,NE	9.07 None
Vireo bellii pusillus	least Bell's vireo	S,SW	2.78 Endangered
Vireo bellii pusillus	least Bell's vireo	N,NW	9.96 Endangered
Xerospermophilus mohavensis	Mohave ground squirrel	Potentially within Project Area	0.00 None
Xerospermophilus mohavensis	Mohave ground squirrel	N,NW	5.18 None

None None None None None None Endangered None None None None None None None None	G1 G5 G5T3 G2G3 G4 G4 G2G3 G1 G3 G4 G1 G2 G4 G4 G2 G4 G4 G2 G4 G4 G5T2 G5T2	S1.1 S4 S3 S2S3 S4 S4 S2S3 S2 S3.2 S3.2 S3 S3 S3 S3 S3 S3 S3 S3 S3 S3 S3	1B.2 1B.2 1B.1 1B.3 1B.2	SSC SSC WL SSC SSC SSC SSC	BLM_S; IUCN_LC BLM_S; SB_CalBG/RSABG; USFS_S BLM_S; SB_CalBG/RSABG; USFS_S BLM_S; IUCN_LC BLM_S; IUCN_LC BLM_S; IUCN_LC IUCN_VU IUCN_EN; USFS_S USFS_S SB_CalBG/RSABG BLM_S; IUCN_LC; USFS_S BLM_S; IUCN_LC; USFS_S BLM_S; IUCN_LC; USFWS_BCC BLM_S; IUCN_LC; USFWS_BCC	3411841 3411841 3411851 3411851 3411851 3411852 3411853 3411853 3411853 3411853 3411748 3411852 3411852 3411852 3411851 3411758 3411851 3411851 3411862	Pacifico Mountain Pacifico Mountain Palmdale Pacifico Mountain Palmdale Palmdale Ritter Ridge Sleepy Valley Pacifico Mountain Sleepy Valley Juniper Hills Acton Acton Ritter Ridge Ritter Ridge Pacifico Mountain Palmdale Littlerock Palmdale Lancaster West	LAX LAX LAX LAX LAX LAX LAX LAX LAX LAX
Endangered Threatened Threatened	G5T2 G3 G3	S3 S2 S2			BLM_S; IUCN_NT BLM_S; IUCN_NT	3411862 3411851 3411861	Lancaster West Palmdale Lancaster East	LAX LAX LAX



Search Results

53 matches found. Click on scientific name for details

Search Criteria: County or Island is one of [LAX], 9-Quad include [3411768:3411861:3411758:3411851:3411748:3411841:3411852:3411862:3411842]

SCIENTIFIC NAME	Common Name	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK		CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	рното
<u>Monardella</u> <u>australis ssp.</u> gabrielensis	San Gabriel Mountains monardella	Lamiaceae	shrub	Jul-Sep	None	None	G4T2	S2	1B.2		2022- 05-23	No Photo Available
<u>Lycium torreyi</u>	Torrey's box- thorn	Solanaceae	perennial shrub	(Jan- Feb)Mar- Jun(Sep- Nov)	None	None	G4G5	S3	4.2		2015- 05-05	No Photo Available
<u>Eriastrum</u> <u>rosamondense</u>	Rosamond eriastrum	Polemoniaceae	annual herb	Apr- May(Jun- Jul)	None	None	G1?	S1?	1B.1	Yes	2013- 12-04	No Photo Available
<u>Yucca brevifolia</u>						СС	GNR	SNR	CBR		2011- 12-13	No Photo Available
<u>Thysanocarpus</u> <u>rigidus</u>	rigid fringepod	Brassicaceae	annual herb	Feb-May	None	None	G2	S2	1B.2		2011- 03-17	No Photo Available
<u>Nemacladus</u> <u>secundiflorus var.</u> robbinsii	Robbins' nemacladus	Campanulaceae	annual herb	Apr-Jun	None	None	G3T2	S2	1B.2	Yes	2010- 06-25	No Photo Available
<u>Clinopodium</u> <u>mimuloides</u>	monkey-flower savory	Lamiaceae	perennial herb	Jun-Oct	None	None	G3	S3	4.2	Yes	2007- 05-04	No Photo Available
<u>Acanthoscyphus</u> parishii var. parishii	Parish's oxytheca	Polygonaceae	annual herb	Jun-Sep	None	None	G4? T3T4	S3S4	4.2	Yes	2007- 04-05	© 2014 Keir Morse
<u>Astragalus hornii</u> <u>var. hornii</u>	Horn's milk- vetch	Fabaceae	annual herb	May-Oct	None	None	GUT1	S1	1B.1		2006- 12-01	No Photo Available
<u>Arctostaphylos</u> parryana ssp. tumescens	interior manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr	None	None	G4T3T4	S3S4	4.3	Yes	2001- 01-01	No Photo Available
<u>Diplacus</u> johnstonii	Johnston's monkeyflower	Phrymaceae	annual herb	May-Aug	None	None	G4	S4	4.3	Yes	2001- 01-01	No Photo Available

<u>Quercus durata</u> <u>var. gabrielensis</u>	San Gabriel oak	Fagaceae	perennial evergreen shrub	Apr-May	None None G4T3	S3	4.2	Yes	2001- 01-01	No Photo Available
<u>Acanthoscyphus</u> parishii var. abramsii	Abrams' oxytheca	Polygonaceae	annual herb	Jun-Aug	None None G4? T1T2	S1S2	1B.2	Yes	1994- 01-01	© 2007 Steve Matson
<u>Androsace</u> <u>elongata ssp.</u> acuta	California androsace	Primulaceae	annual herb	Mar-Jun	None None G5? T3T4	S3S4	4.2		1994- 01-01	© 2008 Aaron Schusteff
<u>Arctostaphylos</u> g <u>landulosa ssp.</u> gabrielensis	San Gabriel manzanita	Ericaceae	perennial evergreen shrub	Mar	None None G5T3	S3	1B.2	Yes	1994- 01-01	© 2016 Neal Kramer
<u>Calochortus</u> palmeri var. palmeri	Palmer's mariposa-lily	Liliaceae	perennial bulbiferous herb	Apr-Jul	None None G3T2	S2	1B.2	Yes	1994- 01-01	No Photo Available
<u>Calochortus</u> <u>plummerae</u>	Plummer's mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None None G4	S4	4.2	Yes	1994- 01-01	No Photo Available
<u>Chorizanthe</u> parryi var. parryi	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	None None G3T2	S2	1B.1	Yes	1994- 01-01	No Photo Available
<u>Erigeron breweri</u> <u>var. jacinteus</u>	San Jacinto Mountains daisy	Asteraceae	perennial rhizomatous herb	Jun-Sep	None None G5T3	S3	4.3	Yes	1994- 01-01	No Photo Available
<u>Goodmania</u> <u>luteola</u>	golden goodmania	Polygonaceae	annual herb	Apr-Aug	None None G3	S3	4.2		1994- 01-01	© 2007 Steve Matson
<u>Hulsea vestita</u> <u>ssp.gabrielensis</u>	San Gabriel Mountains sunflower	Asteraceae	perennial herb	May-Jul	None None G5T3	S3	4.3	Yes	1994- 01-01	© 2013 Anuja Parikh and Nathan Gale
<u>Juglans</u> californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None None G4	S4	4.2	Yes	1994- 01-01	© 2020 Zoya Akulova

<u>Phacelia</u> <u>mohavensis</u>	Mojave phacelia	Hydrophyllaceae	annual herb	Apr-Aug	None	None	G4Q	S4	4.3	Yes	1994- 01-01	No Photo Available
<u>Stylocline</u> <u>masonii</u>	Mason's neststraw	Asteraceae	annual herb	Mar-May	None	None	G1	S1	1B.1	Yes	1994- 01-01	No Photo Available
<u>Astragalus</u> preussii var. laxiflorus	Lancaster milk- vetch	Fabaceae	perennial herb	Mar-May	None	None	G4T2	S1	1B.1		1988- 01-01	No Photo Available
<u>Muilla coronata</u>	crowned muilla	Themidaceae	perennial bulbiferous herb	Mar- Apr(May)	None	None	G3	S3	4.2		1988- 01-01	No Photo Available
<u>Frasera neglecta</u>	pine green- gentian	Gentianaceae	perennial herb	May-Jul	None	None	G4	S4	4.3	Yes	1980- 01-01	No Photo Available
<u>Opuntia basilaris</u> <u>var. brachyclada</u>	short-joint beavertail	Cactaceae	perennial stem	Apr- Jun(Aug)	None	None	G5T3	S3	1B.2	Yes	1980- 01-01	No Photo Available
<u>Sidotheca</u> caryophylloides	chickweed oxytheca	Polygonaceae	annual herb	Jul- Sep(Oct)	None	None	G4	S4	4.3	Yes	1980- 01-01	©2021 Keir Morse
<u>Calochortus</u> <u>striatus</u>	alkali mariposa- lily	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G3	S2S3	1B.2		1974- 01-01	No Photo Available
<u>Calystegia</u> peirsonii	Peirson's morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	None	None	G4	S4	4.2	Yes	1974- 01-01	No Photo Available
<u>Canbya candida</u>	white pygmy- poppy	Papaveraceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	4.2	Yes	1974- 01-01	No Photo Available
<u>Castilleja</u> g <u>leasoni</u>	Mt. Gleason paintbrush	Orobanchaceae	perennial herb (hemiparasitic)		None	CR	G2	S2	1B.2	Yes	1974- 01-01	No Photo Available
<u>Castilleja</u> plagiotoma	Mojave paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Jun	None	None	G4	S4	4.3	Yes	1974- 01-01	No Photo Available
<u>Chorizanthe</u> spinosa	Mojave spineflower	Polygonaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2	Yes	1974- 01-01	© 2011 Benjamin Smith
<u>Claytonia</u> peirsonii ssp. peirsonii	Peirson's spring beauty	Montiaceae	perennial herb	(Mar)May- Jun	None	None	G2G3T2	S2	1B.2	Yes	1974- 01-01	No Photo Available
<u>Eriogonum</u> umbellatum var. minus	alpine sulfur- flowered buckwheat	Polygonaceae	perennial herb	Jun-Sep	None	None	G5T4	S4	4.3	Yes	1974- 01-01	No Photo Available

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jakanzowi bedstraw Link in the second s	<u>Galium jepsonii</u>		Rubiaceae	rhizomatous	Jul-Aug	None None G	3 S3	4.3	Yes	
cacespitosa alumroet rhizomatous rhizomatous reference Legentinizi fragrant pitcher Lamiaceae perennial Mar-Oct None None G3 S3 4.2 Yes 1974 Saustine Liluum parryi lemon lily Lilaceae perennial Mu-Oct None None G3 S3 4.2 Yes 1974 Saustine Linarthus San Gabrie pelemoniacee anual herb Apr-Jup None None G3 S3 1.82 Yes 1974 Saustine Linarthus San Gabrie pelemoniacee anual herb Apr-Jup None None G3T S2 1.82 1974 None Linarthus sagebrush Caryophyllaceae anual herb Apr-Jup None None G3T S2 2.82 1974 None Linarthus leefingia innerin Saustingene Aprophyllaceae Apr-Jup None None G3T S2 2.82 1974 Nore Linarthus leefingia innerin Apr-Jup None None G3T S3 1.83 No 1974 Nore Linarthus leefingia innerin Apr-May None None G3T			Rubiaceae	perennial herb	Jun-Jul	None None G	4 S4	4.3	Yes	
fragrams sage shrub Image <			Saxifragaceae	, rhizomatous	May-Aug	None None G	3 S3	4.3	Yes	
Linanthus concinnus San Gabriel linanthus Polemoniaceae multinanthus annual herb annual herb Apr-Jul None None G2 S2 18.2 Yes 19.74 Vision to compare concinnus Linanthus concinnus San Gabriel linanthus Polemoniaceae annual herb Apr-May None None G2 S2 18.2 Yes 19.74 Vision to compare to compare to compare to compare Linanthus Garyophyllaceae squerrosz var. artemisiorum Garyophyllaceae perennial shrub Apr-May None None G4T S2 28.2 28.1 19.74 No Photo Aprilabilitozat interior Lupinus abitrizati squerrosz var. uridus Interior bush lupine Fabaceae perennial shrub May-Jul None None G4T S3 4.3 Yes 19.74 No Photo Aprilabilitozat Maribabilitozat Lupinus abitrizati squerrosz var. uridus Fabaceae perennial herb Apr-Jun None None G3 S3 18.3 Yes 19.74 No Photo Aprilabilitozat Aprilabilitozat Monardella viridis green Lamiaceae monardella perennial herb Mar-Sup None None G3 S3 18.3 Yes 19.74 </td <td></td> <td></td> <td>Lamiaceae</td> <td>-</td> <td>Mar-Oct</td> <td>None None G</td> <td>3 S3</td> <td>4.2</td> <td>Yes</td> <td>Debra L.</td>			Lamiaceae	-	Mar-Oct	None None G	3 S3	4.2	Yes	Debra L.
Linanthus cancinuusSan Gabriel inanthusPolemoniaceae annual herbApr-JulNone None G2 subS218.2Yes1974 tubNone None G2 subS218.2Yes1974 tubNone None G2 subS218.2Yes1974 tubNone None G2 subS218.2Yes1974 tubNone None G2 subS218.2Yes1974 tubNone None G2 subS218.2Yes1974 tubNone None G2 subS228.2S2	<u>Lilium parryi</u>	lemon lily	Liliaceae	bulbiferous	Jul-Aug	None None G	3 S3	1B.2		Thomas
squarross var. artemisiarumloeflingiaIone INo Phote AvailableLupinus altifram var. johnstoniiinterior bush lupineFabaceae shrubperennial shrubMay-Jul NoNone None G4T4S44.3Yes1974 NoNo Phote AvailableLupinus altiframs var. johnstoniiPerson's lupineFabaceae perennial herbper-Jun NorNone None G3S318.3Yes1974 No Phote AvailableLupinus peirson's lupineFabaceae monardellaperennial herb mizomatous herbJun-SepNone None G3S34.3Yes1974 No Phote AvailableMonardella viridisgreen monardellaLamiaceae monardellaperennial herb hizomatous herbNone None G3S34.3Yes1974 No Phote AvailableMonardella viridiswolly mountain- parsleyAplaceae perennial herbJun-SepNone None G3S318.3Yes1974 No Phote AvailableReckera grangohyllaTehchapi 			Polemoniaceae	annual herb	Apr-Jul	None None G	2 S2	1B.2	Yes	© 2019 RT
var. jahnstoniilupineshrubShrubOn Poto AvailableLupinus peirsoniiPeirson's lupineFabaceaeperennial herbApr-JunNone None G3S318.3Yes1974Monardella viridisgreen monardellaLamiaceae monardellaperennial herbJun-SepNone None G3S34.3Yes1974- NoNo Photo AvailableOreonana vesitiri ionophyllawoolly mountain- parsleyApiaceae mountain- parsleyperennial herbMar-SepNone None G3S318.3Yes1974- No Photo AvailableEdekera ionophyllaAbiaceae mountain- parsleyApiaceae mountain- parsleyperennial herbJun-JulNone None G4S4S4Yes1974- No Photo AvailableEdiderindia grangeliaAbiaceae mountain- parsleyAsteraceae perennial herbJun-JulNone None G4S4S4Yes1974- No Photo AvailableEdiderindia grangeliaAbiaceae mountain- parsleyperennial herbJun-JulNone None G4S4S4Yes1974- No Photo AvailableEdiderindia grangeliaAbio spainee mountain- parsleyApiaceae perennial herbApr- Jun(Jul)None None G4S4 <td< td=""><td><u>squarrosa var.</u></td><td></td><td>Caryophyllaceae</td><td>annual herb</td><td>Apr-May</td><td>None None G</td><td>5T3 S2</td><td>2B.2</td><td></td><td></td></td<>	<u>squarrosa var.</u>		Caryophyllaceae	annual herb	Apr-May	None None G	5T3 S2	2B.2		
Monardella viridis green monardella Lamiaceae rhizomatous herb perennial rhizomatous herb Jun-Sep science None None G3 S3 4.3 Yes 1974- No Photo Available Oreonana vestici mountain- parsley wolly mountain- parsley Apiaceae perennial herb Mar-Sep None None G3 None None G3 S3 4.3 Yes 1974- No Photo Available Packera ianophylla Tehachapi ragwort Asteraceae perennial herb Jun-Jul None None G4 S4 4.3 Yes 1974- No Photo Available Perideridia gringlei tehachapi ragwort Asteraceae perennial herb Jun-Jul None None G4 S4 4.3 Yes 1974- No Photo Available Perideridia gringlei adobe yampah Apiaceae perennial herb Jun-Jul None None G4 S4 4.3 Yes 1974- No Photo Available Selaginella gringlei adobe yampah Apiaceae perennial herb Apir- Jun(Jul) None None G4 S4 4.3 Yes 1974- No Photo Available Selaginella gringlei bluish spike- mos Selaginellace			Fabaceae	1	May-Jul	None None G	4T4 S4	4.3	Yes	
viridis nerbmonardellarhizomatous herbstrate herbNone None G3S318.3Yes1974 10-01No Photo AvailableOreonana vestite mountain- parsleywoolly mountain- parsleyApiaceae resumentperennial herbMar-SepNone None G3S3S44.3Yes1974 10-01No Photo AvailableBackera ionophyllaTehachapi ragwortAsteraceae resumentperennial herbJun-Jul LowNone None G4S44.3Yes1974- No Photo AvailablePerideridia pringleiadobe yampa horsApiaceaeperennial herb perennial herbApr- Jun(Jul)None None G4S44.3Yes1974- No Photo AvailableSelaginella agprellabluish spike- mossSelaginellace perennialJulNone None G4S44.3Yes1974- No Photo Available	<u>Lupinus peirsonii</u>	Peirson's lupine	Fabaceae	perennial herb	Apr-Jun	None None G	3 S3	1B.3	Yes	
mountain-parsley 01-01 No Photo Packera ionophylla Tehachapi ragwort Asteraceae perennial herb Jun-Jul None None S4 4.3 Yes 1974- No Photo Perideridia pringlei adobe yampah Apiaceae perennial herb Apr- Jun(Jul) None None S4 4.3 Yes 1974- No Photo Selaginella asprella bluish spike- moss Selaginellaceae perennial rhizomatous Jul None None S4 4.3 Yes 1974- No Photo Available Perinderidia pringlei adobe yampah Apiaceae perennial herb Apr- Jun(Jul) None None S4 4.3 Yes 1974- No Photo Available Peringlei Jun(Jul) None None S4 4.3 Yes 1974- No Photo Available Peringlei Jun(Jul) None None S4 4.3 Yes 1974- Internet Internet Jul None None S4 4.3 1974- No		5	Lamiaceae	rhizomatous	Jun-Sep	None None G	3 S3	4.3	Yes	
ionophylla ragwort No Photo Available Perideridia pringlei adobe yampah Apiaceae perennial herb Jun(Jul) None None G4 S4 4.3 Yes 1974- No Photo Available Selaginella asprella bluish spike- Selaginellaceae perennial Jul None None G4 S4 4.3 Yes 1974- No Photo Available Selaginella bluish spike- Selaginellaceae perennial Jul None None G4 S4 4.3 Yes 1974- No Photo Available Selaginella bluish spike- Selaginellaceae perennial Jul None None G4 S4 4.3 Yes 1974- No Photo Available Mone None G4 S4 4.3 Yes 1974- None None G4 S4 None None G4 None None G4<	<u>Oreonana vestita</u>	mountain-	Apiaceae	perennial herb	Mar-Sep	None None G	3 S3	1B.3	Yes	
pringleiJun(Jul)01-01No Photo AvailableSelaginellabluish spike-SelaginellaceaeperennialJulNone None G4S44.31974-asprellamossrhizomatousrSelaginellaceaeperennialJulNone None G4S44.31974-asprellamossrhizomatousrS4MailS4MailMail			Asteraceae	perennial herb	Jun-Jul	None None G	4 S4	4.3	Yes	
asprella moss rhizomatous 01-01 No Photo		adobe yampah	Apiaceae	perennial herb		None None G	4 S4	4.3	Yes	
	-		Selaginellaceae	rhizomatous	Jul	None None G	4 S4	4.3		

<u>Symphyotrichum</u> g <u>reatae</u>	Greata's aster	Asteraceae	perennial rhizomatous herb	Jun-Oct	None None G2	S2	1B.3	Yes	1974- 01-01	No Photo Available
<u>Syntrichopappus</u> <u>lemmonii</u>	Lemmon's syntrichopappus	Asteraceae	annual herb	Apr- May(Jun)	None None G4	S4	4.3	Yes	1974- 01-01	No Photo Available

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