ADDENDUM TO ENVIRONMENTAL IMPACT REPORT (14 CCR 15164)

INDIAN WELLS VALLEY WATER DISTRICT

Project

Water Supply Improvement Project State Clearinghouse No. 2011071010

Lead Agency

Indian Wells Valley Water District (hereafter IWVWD)

Existing Environmental Impact Report

The <u>Draft Environmental Impact Report for the Water Supply Improvement Project</u>, dated October 2011 (referred to herein as the DEIR) and <u>Final Environmental Impact Report for the Water Supply Improvement Project</u>, dated February 2012 (referred to herein as the FEIR, collectively referred to herein with the DEIR as the EIR) were prepared to evaluate the environmental impacts of the Water Supply Improvement Project (WSIP). The FEIR was certified by the IWVWD Board of Directors (the Board) on February 23, 2012. The WSIP was subsequently approved by the Board on May 14, 2012.

Location

IWVWD's boundaries currently encompass an area of 38 square miles located within and adjacent to the City of Ridgecrest, which in turn lies within the Indian Wells Valley portion of California's Mojave Desert. Existing Wells 18 and 34 are located east and west of Brown Road and south of Bowman Road, just south of Inyokern. Proposed Well 35 would be located on the south side of Bowman Road between Moon Place and Star Place. The locations of said wells are shown on **Figure 2** of the Initial Study attached hereto and incorporated herein by reference.

Original WSIP

The WSIP as proposed in the EIR (Original WSIP) was intended to increase system capacity to meet the existing maximum day demand with a 20 percent redundancy in capacity (to cover maximum day demands with the largest well pumping plant, or production facility, out of service) through equipment improvements to existing Wells 18 and 34 (Phase 1). Phase 1 of the Original WSIP proposed increasing the pumping capacity of existing Wells 18 and 34 from 1,200 gallons per minute (gpm) to up to 2,200 gpm. The 20 percent redundancy in capacity is needed to continue serving customers in the case of a mechanical failure or water quality issues in one or more IWVWD production facilities on a maximum demand day. Phase 2 of the Original WSIP proposed construction and operation of new Well 35 with a capacity of up to 2,200 gpm to meet increased future demand within IWVWD.

Modified WSIP

Due to economic and operational considerations, IWVWD now desires to modify the WSIP. Phase 1 of the Modified WSIP would consist of increasing the nominal pumping capacity of existing Well 34 from 1,200 gpm to up to 2,000 gpm, as opposed to 2,200 gpm as proposed in the Original WSIP. In addition, under the Modified WSIP, the pumping capacity of existing Well 18 would not be increased from 1,200 gpm to 2,200 gpm, as proposed in the Original WSIP. In place of increasing the capacity of Well 18, new

Well 35 would be constructed in Phase 1 with a nominal pumping capacity of 1,200 gpm. As proposed, there would be no net increase in the total pumping capacity relative to the modified Phase 1 of the WSIP.

Well 35 would be drilled, and electrical service sized, for an anticipated future capacity of 2,200 gpm, as proposed for Phase 2 of the Original WSIP; however, it would initially be equipped for only 1,200 gpm using the existing pumping equipment from Well 34, with Well 34 being re-equipped for 2,000 gpm.

In addition, Phase 1 of the Modified WSIP will include a 33-kilovolt Southern California Edison (SCE) electrical service line extension approximately two miles long to provide power to the Well 34 and 35 sites. Said service line extension was not included in the Original WSIP as described in the EIR. The alignment of the electrical service line extension is described in detail in the Initial Study attached hereto and incorporated herein by reference, and is also shown graphically on **Figure 2** and in the drawings included in **Appendix A** of said Initial Study.

Phase 2 of the Modified WSIP consists of increasing the pumping capacity of Well 35 from 1,200 gpm to 2,200 gpm. Phase 2 will not be implemented unless and until maximum day production demand, with a 20 percent safety factor, reaches 14,350 gpm, per the Original WSIP EIR. No additional CEQA actions are anticipated for the Project through the completion of Phase 2, provided that (a) the conditions for proceeding with Phase 2 as described in the Original WSIP (increased demand) are met prior to proceeding with Phase 2, and (b) no significant changes are made to the original Phase 2 description (i.e., increase of nominal Well 35 pumping capacity to 2,200 gpm). Under said conditions the total Modified WSIP nominal pumping capacity through Phase 2 would be reduced by 1,200 gpm from that proposed in the Original WSIP. Therefore, the total impacts to groundwater of the Modified WSIP through Phase 2 as described above would be reduced from those of the Original WSIP, and no additional CEQA actions would be necessary.

Impacts of Modified WSIP

Since no facilities not already discussed in the EIR (other than the SCE electrical service line extension) will be constructed, and since the total proposed nominal pumping capacity for Phase 1 does not increase and the total nominal pumping capacity for Phase 2 is less than that proposed in the original WSIP, no significant changes to the environmental impacts of the project are anticipated.

To verify that these changes would not result in any impacts that would require preparation of a Subsequent EIR, Krieger & Stewart has prepared an Initial Study to evaluate the impacts of the Modified WSIP relative to the impacts of the Original WSIP, including any impacts of the SCE electrical service line extension. The Initial Study is included in **Exhibit A** attached hereto and incorporated herein by reference. The Initial Study indicates that the impacts of the proposed Modified WSIP relative to the Original WSIP will be minor; and in the case of impacts to groundwater, reduced, from those anticipated in the 2011 DEIR. Nevertheless, for an additional margin of assurance, Mitigation Measure H-1 (mitigation groundwater monitoring program), proposed for Phase 2 in the Original WSIP, will be implemented at the commencement of operation of Well 35 in Phase 1 of the Modified WSIP.

IWVWD's Board of Directors, having conducted a careful and independent review of the proposed changes to the Project described above, do hereby find and declare that said changes are minor in nature, and do not call for the preparation of a Subsequent EIR. The Board of Directors additionally finds that:

1. No substantial changes are proposed in the Project which will require major revisions of the EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

- 2. No substantial changes have occurred with respect to the circumstances under which the Project is undertaken which will require major revisions of the EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- 3. No new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR was certified as complete, has been discovered. Therefore, the Board of Directors concludes that:
 - a. The Project will have no significant effects that were not discussed in the EIR;
 - b. Significant effects previously examined will not be substantially more severe than shown in the EIR;
 - c. Mitigation measures or alternatives previously found not to be feasible remain infeasible, and would not substantially reduce one or more significant effects of the Project; and
 - d. There are no mitigation measures or alternatives which are considerably different from those analyzed in the EIR which would substantially reduce one or more significant effects on the environment.

IWVWD's Board of Directors, having conducted a careful and independent review of the proposed changes to the Project described above, does hereby find and declare that said changes are minor in nature, and do not call for the preparation of a subsequent EIR. A brief statement of the reasons supporting the Board's findings are as follows:

Increasing the nominal pumping capacity of existing Well 34 from 1,200 gpm to up to 2,000 gpm, and constructing new Well 35 (along with an electrical service line extension) at a nominal pumping capacity of 1,200 gpm and increasing to 2,200 gpm in Phase 2, in lieu of increasing the nominal pumping capacity of existing Well 34 from 1,200 gpm to up to 2,200 gpm and making improvements to existing Well 18, as proposed in the original Water Supply Improvement Project description, will have substantially similar physical, hydrological, environmental, and sociological impacts to the Project as originally described. The revised Project will not result in environmental impacts not covered by the original EIR.

The Board of Directors hereby finds that this Addendum to the EIR for the Modified WSIP reflects its independent judgment.

| DATED: | |
|--------|------------------------------------|
| | Leroy H. Corlett |
| | President, Board of Directors |
| | INDIAN WELLS VALLEY WATER DISTRICT |

EXHIBIT A

INDIAN WELLS VALLEY WATER DISTRICT INITIAL STUDY FOR MODIFIED WATER SUPPLY IMPROVEMENT PROJECT

PREPARED BY
KRIEGER & STEWART, INCORPORATED
DECEMBER 2015



INDIAN WELLS VALLEY WATER DISTRICT INITIAL STUDY FOR MODIFIED WATER SUPPLY IMPROVEMENT PROJECT

DECEMBER 2015

Prepared by



SIGNATURE

DATE

12/11/2015

No. 42922

Exp. 03/31/2016

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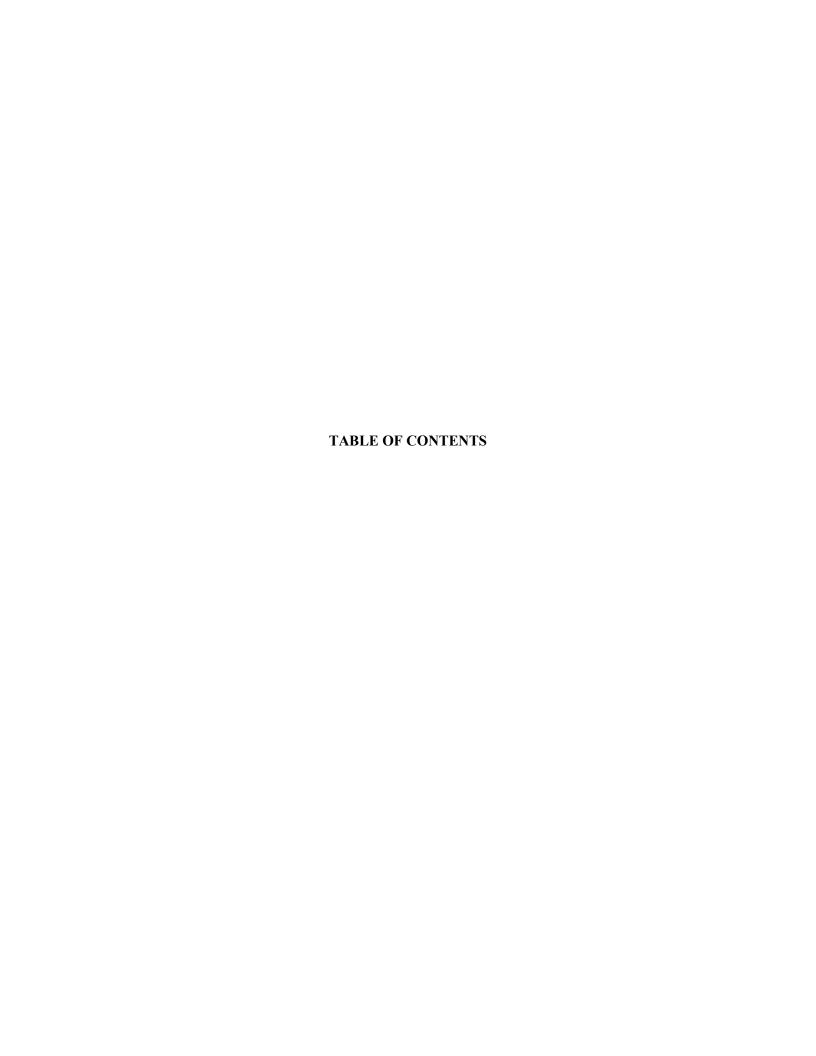




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PART 1 PROJECT INFORMATION



PART 1 - PROJECT INFORMATION

A. INTRODUCTION

1. Indian Wells Valley Water District

Indian Wells Valley Water District (IWVWD or the District) is the primary supplier of water service for domestic consumption, landscape irrigation, and fire protection for the City of Ridgecrest and surrounding areas in Kern County and San Bernardino County, California. IWVWD was formed in 1953 for the purpose of providing public potable water service to the residents of its service area.

IWVWD's service area comprises approximately 38 square miles, with a population of approximately 31,000 people, served through approximately 12,500 service connections. The sole source of supply for IWVWD is groundwater pumped from the Indian Wells Valley Groundwater Basin. This is also the case for all other water users in the Indian Wells Valley, including agricultural users, industry, and the federal government.

2. Project Background and Purpose

The Original Water Supply Improvement Project (Original WSIP) was intended to increase system capacity to meet existing and future maximum day demand with a 20 percent redundancy in capacity. The 20 percent redundancy in capacity represents the capacity that would be needed to supply maximum day demands with the largest well pumping plant or production facility out of service. This redundant capacity is needed to ensure continuous service to customers in the event of a mechanical failure or water quality issue in one or more IWVWD production facilities on a maximum demand day. The Original WSIP consisted of two phases, summarized as follows.

Phase 1 of the Original WSIP included increasing the pumping capacity of existing Wells 18 and 34 from 1,200 gallons per minute (gpm) to approximately 2,200 gpm by refitting said wells with new pumping units and related power and control equipment.

Phase 2 of the Original WSIP included construction of a new well (Well 35) with a nominal pumping capacity of up to 2,200 gpm, once maximum day demand within the District's service area (with a 20 percent redundancy) rose to approximately 14,350 gpm.





Phase 2 also included a 12 to 16-inch diameter pipeline, approximately 400 feet in length, to connect Well 35 to an existing pipeline in Bowman Road.

An Initial Study, titled Water Supply Improvement Project Draft Initial Study, dated July 2011 (Original WSIP Initial Study) was prepared by ECORP Consulting, Inc. for the Original WSIP. The Original WSIP Initial Study determined that several environmental factors would be potentially affected by the Original WSIP, and that an Environmental Impact Report would be prepared to address said issues, namely: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards/Hazardous Materials, Hydrology/Water Quality, Noise, Population and Housing, Utilities and Service Systems, and Mandatory Findings of Significance. The Original WSIP Initial Study determined that the remaining environmental factors (Aesthetics, Agriculture Resources, Land Use and Planning, Mineral Resources, Public Services, Recreation, and Transportation/Circulation) would not be significantly impacted by the Original WSIP and therefore did not warrant further analysis. The Original WSIP Initial Study is incorporated herein by reference.

The <u>Draft Environmental Impact Report for the Water Supply Improvement Project</u>, dated October 2011 (referred to herein as the Original WSIP DEIR) and the <u>Final Environmental Impact Report for the Water Supply Improvement Project</u> (referred to herein as the Original WSIP FEIR and collectively referred to herein with the Original WSIP DEIR as the Original WSIP EIR) were prepared by ECORP Consulting, Inc. to evaluate the environmental impacts of the Original WSIP that warranted further analysis based on the Original WSIP Initial Study. The Original WSIP FEIR was certified by the IWVWD Board of Directors (the Board) on February 23, 2012, and the Original WSIP was subsequently approved by the Board on May 14, 2012. The Original WSIP EIR is incorporated herein by reference.

Since 2012, four wells have been drilled in the area of the Wells 34 and 35 sites. The four completed wells consist of two domestic wells, one agricultural well, and one monitoring well. The production of the agricultural well has been included in the hydrogeological model scenarios that are referenced in the technical memorandum from Layne Hydro, a copy of which is included in **Appendix B** herein. The model scenarios are described further in **Issue IX** herein.





To date, the Original WSIP has not been constructed. Due to economic and operational considerations, IWVWD now desires to modify the Original WSIP. The proposed Modified Water Supply Improvement Project (Modified WSIP or the Project) is the subject of this Initial Study, which is intended to identify any environmental impacts of the Modified WSIP that were not previously addressed in the Original WSIP Initial Study or Original WSIP EIR. Environmental impacts previously addressed in the Original WSIP EIR, or determined to be insignificant in the Original WSIP Initial Study, are considered to be adequately addressed for the portions of the Project that were included as part of the Original WSIP and will not be further evaluated herein.

In addition to some phasing and operational changes, the Modified WSIP also includes an electrical service line extension that was not included in the Original WSIP. The electrical service line extension will be primarily constructed by Southern California Edison (SCE), and SCE has issued an environmental clearance document (SCE Environmental Clearance), a copy of which is included in **Appendix A** herein. The SCE Environmental Clearance includes environmental guidelines that are intended to avoid or reduce environmental impacts. Said environmental guidelines conform to the land disturbance mitigation measures included in the Original WSIP EIR.

B. PROJECT DESCRIPTION

1. Proposed Project

The Modified Water Supply Improvement Project (Modified WSIP or the Project) consists of two phases. Phase 1 of the Modified WSIP includes increasing the pumping capacity of existing Well 34, constructing and operating Well 35, and constructing and operating an electrical service line extension to provide power to the sites of Well 34 and Well 35. Phase 2 of the Modified WSIP includes increasing the pumping capacity of Well 35. The capacity of Well 18 would not be increased.





Construction of Phase 1 of the Modified WSIP consists of the following:

Well 34

- Refitting existing Well 34, having a current pumping rate of 1,200 gallons per minute (gpm), with a new pumping unit for a nominal pumping capacity of 2,000 gpm;
- Retaining the 1,200 gpm pumping equipment for installation at Well 35; and
- Installing the related power and control equipment needed for the increased pumping rate.

Well 35

- Clearing vegetation and conducting grading to prepare the site;
- Installing a chain-link, tortoise-proof fence with barbed wire or razor wire around the perimeter of the well site (approximately 250 feet by 250 feet);
- Staging construction equipment within the fenced area;
- Drilling the well to an anticipated depth of 900 to 1,400 feet below ground surface, with a diameter of approximately 16 to 20 inches;
- Installing steel screens, a 50-foot sanitary seal and conductor casing, and a concrete pump foundation within a well enclosure building;
- Developing and testing the well using diesel-driven air-lift and pumping equipment; Installing the pumping unit (1,200 gpm) that was previously used at Well 34, and installing motors, controls, and electrical switchgear based on a nominal pumping capacity of 1,200 gpm and on parameters determined during well drilling operations;
- Installing chlorination facilities consisting of a dosing pump and a sodium hypochlorite storage tank with secondary containment;
- Installing additional treatment facilities that may be indicated by water quality testing performed at the time of drilling;
- Constructing a discharge pond, up to one acre in area and up to six feet deep, immediately adjacent to the well; and





• Constructing a 12-inch to 16-inch diameter pipeline of up to 400 feet in length connecting Well 35 to an existing pipeline in Bowman Road.

Electrical Service Line Extension

- Preparing the site along the electrical service line extension alignment within a 15-foot wide easement;
- Installing approximately 50 wooden poles, each approximately 50 feet in height, spaced approximately 250 feet apart, along the 11,200-foot (2.1-mile) alignment by mechanically excavating (by auger) pole holes measuring approximately 2 to 3 feet in diameter and approximately 6 to 9 feet in depth;
- Installing 33-kilovolt electrical service line conduit extending from an existing service line in Ridgecrest Boulevard, continuing southeasterly and parallel to three existing service lines to Bowman Road, continuing thence westerly along Bowman Road to the Well 34 site;
- Trenching, installing conduit and wire, and backfilling along a portion of the alignment extending approximately 320 feet westerly from the easternmost portion of the alignment on Bowman Road;
- Trenching, installing conduit and wire, and backfilling along a 400± foot portion of the alignment that is located on and adjacent to the Well 34 site;
- Removing two existing 3-foot by 5-foot electrical pull boxes on the Well 34 site;
 and
- Constructing a concrete slab box with concrete slab dimensions of 8 feet by 10 feet and 6 inches thick and with pad-mounted transformer.

Construction of Phase 2 of the Modified WSIP consists of refitting Well 35 with a new pumping unit with a nominal pumping capacity of 2,200 gpm, as well as a new motor, controls, and electrical switchgear, as necessary. Phase 2 will be implemented once the District's maximum day demand with a 20 percent redundancy reaches approximately 13,350 gpm.





Project Operation

Operation of the Modified WSIP consists of operating Wells 34 and 35 in accordance with system demands and maintenance schedules. Wells 34 and 35 are anticipated to operate approximately 70 to 90 percent of the time during high-demand summer months and 20 to 40 percent of the time during the lower-demand winter months. Routine operation and maintenance at Wells 34 and 35 will be performed, and it is estimated that approximately one utility vehicle trip will be made to each well site daily. Maintenance of the electrical service line extension will be performed as needed by Southern California Edison (SCE) or its designee. For the purposes of evaluating environmental impacts herein, we have assumed (conservatively) that approximately one utility vehicle trip per day will be made to, and along the length of, the alignment of the electrical service line extension.

2. Differences Between Modified WSIP and Original WSIP

The primary differences between the Modified WSIP and the Original WSIP are as follows:

- The Modified WSIP includes construction of the electrical service line extension (power lines) needed to operate the proposed facilities at Wells 34 and 35. The electrical service line extension was not included in the Original WSIP or the Initial Study or EIR for same.
- The Modified WSIP includes construction of Well 35 in Phase 1 with a nominal pumping capacity of 1,200 gpm, to be increased to 2,200 gpm in Phase 2, while the Original WSIP included construction of Well 35 in Phase 2 at a nominal pumping capacity of 2,200 gpm.
- The Original WSIP included refitting Well 18 with a new pumping unit and related power and control equipment to increase nominal pumping capacity from approximately 1,200 gpm to 2,200 gpm; however, the Modified WSIP does not include any modifications to Well 18. Rather, in place of increasing the pumping capacity of existing Well 18 as was proposed by the Original WSIP, Well 35 would be constructed during Phase 1 with a nominal pumping capacity of 1,200 gpm.





• The Original WSIP would have increased the total maximum pumping capacity by 4,200 gpm at the completion of Phase 2. The Modified WSIP will increase the total maximum pumping capacity by 3,000 gpm, 1,200 gpm less than the Original WSIP.

The environmental impacts of all facilities proposed as part of the Modified WSIP, with the exception of the electrical service line extension, were included in the Initial Study or EIR for the Original WSIP. However, the initiation of pumping at the Well 35 site will occur earlier in the Project schedule than anticipated in the Original WSIP EIR.

C. ENVIRONMENTAL SETTING

1. Location

The Modified WSIP is located at the existing Well 34 site, the proposed Well 35 site, and the proposed electrical service line extension alignment. Locations of the proposed Modified WSIP facilities are depicted on **Figures 1 and 2** herein and are described below.

The Well 34 site is a District-owned parcel located east of Brown Road, south of Bowman Road, west of Sun Place, and north of Calsilco Avenue in Kern County, California, in Section 8, Township 27 South, Range 39 East, Mount Diablo Meridian (MDM).

The Well 35 site comprises two District-owned parcels located east of Moon Place, south of Bowman Road, west of Star Place, and north of Calsilco Avenue in Kern County, California, in Section 9, Township 27 South, Range 39 East, MDM.

The electrical service line extension alignment commences at an existing electrical service line along Ridgecrest Boulevard at a point located westerly of United States Highway 395 and easterly of Planet Street. The alignment continues thence southeasterly and parallel to three existing electrical service lines to Bowman Road, and continues thence westerly to the Well 34 site. The electrical service line extension will be placed aboveground (on poles) with the exception of two segments (320± feet and 400± feet in length) that will be placed underground along Bowman Road and on the Well 34 site. The location of the electrical service line extension is depicted in additional detail on the SCE drawings included in **Appendix A** herein.





2. Land Use

The Well 34 site is a District-owned parcel containing the District's existing Well 34, including an enclosure building and discharge pond, which is enclosed in a fenced area. The site contains vacant land outside the fenced enclosure. All streets surrounding the Well 34 site, with the exception of Brown and Bowman Roads, are unpaved. Parcels surrounding the Well 34 site on all sides are vacant land.

The Well 35 site consists of two District-owned parcels that are currently vacant land adjoined by Bowman Road to the north, Star Place to the east, Hood Avenue to the south, and vacant land to the west. Streets surrounding the Well 35 site, with the exception of Bowman Road, are all unpaved, and the parcels surrounding the site are vacant land.

The electrical service line extension will be placed in vacant land that is parallel to, and along the eastern side of, three existing electrical service lines; however, additional easements will be required for the proposed service line extension. The proposed electrical service line extension will also extend along Bowman Road, which is surrounded primarily by vacant land.

3. Climate

Climate in IWVWD's service area and the surrounding Indian Wells Valley is typical of the high desert of Southern California. The area is characterized by periodic high winds, high temperatures often exceeding 100 degrees Fahrenheit (°F) during summer months, and winter lows around 30°F. Rainfall is infrequent, averaging about 4 inches per year. Most rainfall in the area occurs between November and March, although there are occasional thunder showers during the summer months.

D. COMPLIANCE WITH CEQA

This document has been prepared in compliance with the provisions of the California Environmental Quality Act, codified in California Public Resources Code, Division 13, Section 21000 *et seq* (CEQA) and the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 *et seq*). Pursuant to CEQA and the State CEQA Guidelines, this Initial Study has been prepared to determine whether the Modified WSIP would have any potential significant





effect on the environment that was not previously described in the EIR (cited in **Part 1.A.2** herein) that was prepared and certified for the Original WSIP.

The electrical service line extension will be constructed by Southern California Edison (SCE), and SCE has conducted its own environmental analysis in accordance with its standard practices and procedures, and a copy of the *SCE Environmental Clearance* is included in **Appendix A** herein. Based on correspondence from SCE, the California Public Utility Commission (CPUC) is lead agency under CEQA for SCE projects; however, because SCE is not required to obtain CPUC or local discretionary approval for the electrical service line extension, said extension is not considered a "project" under CEQA. Because the electrical service line extension is required for operation of the Modified WSIP, it is considered a part of the Project described herein.

This Initial Study for the Indian Wells Valley Water District's Modified Water Supply Improvement Project has been prepared by Krieger & Stewart, Incorporated under contract with the District to comply with the provisions of CEQA.

E. LEAD AGENCY

IWVWD is lead agency for the Modified WSIP, as it is the public agency with the primary responsibility for preparing environmental documents and for approving, constructing, and operating the project.

IWVWD is organized in accordance with the provisions of the County Water District Law (California Water Code Section 30000 *et seq*) for the purpose of providing domestic water supplies. IWVWD is empowered to plan, construct, operate, maintain, repair, and replace water system facilities as needed to provide water service in compliance with applicable standards and regulations. IWVWD routinely plans and constructs new facilities, maintains them, and replaces them as necessary to maintain adequate, reliable, and safe water service for its customers. The Project is a continuation of the authority that IWVWD has exercised in the past.





F. PUBLIC INFORMATION DOCUMENT

This is a public information document prepared in accordance with CEQA and the State CEQA Guidelines. The purposes of this Initial Study are to provide IWVWD with information to use as a basis for identifying the potential environmental impacts of the Modified WSIP that were not previously described in the Original WSIP Initial Study or the Original WSIP EIR, for determining the appropriate CEQA document to prepare for the Modified WSIP, and to facilitate environmental assessment of the Modified WSIP.



PART 2 ENVIRONMENTAL EFFECTS AND CHECKLIST



PART 2 - ENVIRONMENTAL EFFECTS AND CHECKLIST

A. PROJECT INFORMATION

1. Project Title

Modified Water Supply Improvement Project

2. Lead Agency Name and Address

Indian Wells Valley Water District 500 West Ridgecrest Boulevard Ridgecrest, CA 93555

3. Contact Person and Phone Number

Reneé Morquecho, Chief Engineer (760) 375-5086 reneem@iwvwd.com

4. Project Location

The Modified WSIP is located at the existing Well 34 site, the proposed Well 35 site, and the proposed electrical service line extension alignment. Locations of the proposed Modified WSIP facilities are depicted on **Figures 1 and 2** herein and are described below.

The Well 34 site is a District-owned parcel located east of Brown Road, south of Bowman Road, west of Sun Place, and north of Calsilco Avenue in Kern County, California, in Section 8, Township 27 South, Range 39 East, Mount Diablo Meridian (MDM).

The Well 35 site comprises two District-owned parcels located east of Moon Place, south of Bowman Road, west of Star Place, and north of Calsilco Avenue in Kern County, California, in Section 9, Township 27 South, Range 39 East, MDM.

The electrical service line extension alignment commences at an existing electrical service line along Ridgecrest Boulevard at a point located westerly of United States Highway 395 and easterly of Planet Street. The alignment continues thence southeasterly and parallel to three existing electrical service lines to Bowman Road, and continues thence westerly past the Well 35 site and to (and within) the Well 34 site.





5. Project Sponsor's Name and Address

Indian Wells Valley Water District 500 West Ridgecrest Boulevard Ridgecrest, CA 93555

6. General Plan Designation

The Wells 34 and 35 sites and the electrical service line extension are all located within an area designated as "4.1 Accepted County Plan Areas" and are located within the Specific Plan for South Inyokern (1973).

7. Zoning

Well 34 and Well 35 Sites: E $(2\frac{1}{2})$ RS (Estate Residential with a minimum lot area of $2\frac{1}{2}$ acres) and the Residential Suburban Combining District

Electrical Service Line Extension: E (20) RS (Estate Residential with a minimum lot area of 20 acres) and the Residential Suburban Combining District

8. Description of Project

See Pages 3 through 6 herein.

9. Surrounding Land Uses and Setting

See Pages 6 through 8 herein.

- **10. Other public agencies whose approval may be required** (e.g., permits, financing approval, or participation agreement)
 - State Water Resources Control Board (amendment to existing water supply permit)
 - Kern County Environmental Health Services Department (well drilling permit)
 - California Department of Fish and Wildlife (Section 2081 Incidental Take Permit)





B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

| ☐ Aesthetics | ☐ Agriculture Resources |
|--------------------------------------|-----------------------------|
| ☐ Air Quality | ☐ Biological Resources |
| ☐ Cultural Resources | ☐ Geology/Soils |
| ☐ Hazards & Hazardous Materials | ☐ Greenhouse Gas Emissions |
| ☐ Land Use/Planning | ☐ Hydrology/Water Quality |
| ☐ Noise | ☐ Mineral Resources |
| ☐ Public Services | ☐ Population/Housing |
| ☐ Recreation | ☐ Transportation/Traffic |
| ☐ Mandatory Findings of Significance | ☐ Utilities/Service Systems |
| ☑ None Anticipated | |





| C. DETERMINATION (10 00 completed by the Lead rightly | C. | DETERMINATION (| (To | be com | pleted | by th | e Lead | Agency |): |
|---|----|------------------------|-----|--------|--------|-------|--------|--------|----|
|---|----|------------------------|-----|--------|--------|-------|--------|--------|----|

| On | the basis of this initial evaluation: |
|----|---|
| | I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. |
| | I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. |
| | I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. |
| | I find that the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. |
| | I find that although the managed project could have a significant affect on the anxionment |

I find that although the proposed project could have a significant effect on the environment, all potentially significant effects (a) have been analyzed adequately in the Original WSIP EIR (cited in Part 1.A.2 herein) pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to mitigation included in the Mitigation Monitoring Program in the Original WSIP EIR and environmental guidelines included in the SCE Environmental Clearance, including revisions, mitigation measures, and environmental guidelines that are imposed upon the proposed project. Further, the Project constitutes only a minor change to the original project as described in the Original WSIP EIR. Therefore, an Addendum to the Original WSIP EIR will be prepared.

David F. Scriven

KRIEGER & STEWART, INCORPORATED

District Consulting Engineer

INDIAN WELLS VALLEY WATER DISTRICT



 $\frac{(2/11/2015)}{\text{Date}}$



D. EVALUATION OF ENVIRONMENTAL IMPACTS

- 1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- All answers must take account of the whole action involved, including offsite as well as
 onsite, cumulative as well as project-level, indirect as well as direct, and construction as
 well as operational impacts.
- 3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
- 4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses", as described in paragraph 5 below, may be cross-referenced).
- 5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analyses Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document





pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

- c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7. Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significant.





E. ENVIRONMENTAL CHECKLIST

Issue I. Aesthetics

| | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-----------|
| a) | Would the project have a substantial adverse effect on a scenic vista? | | | × | |

Project facilities would be located within existing District-owned properties and within easements along existing power lines and Bowman Road, as depicted on Figure 2 herein. The Original WSIP Initial Study, as cited and described in Part 1.A.2 herein, determined that the Original WSIP would not result in a significant impact on aesthetics and that further analysis of impacts pertaining to aesthetics in the EIR (also cited in Part 1.A.2 herein) was not warranted. Facilities at the Wells 34 and 35 sites will not include any additional visual impacts beyond those described in the Original WSIP Initial Study.

The proposed electrical service line extension was not part of the Original WSIP. The lands surrounding the alignment of the electrical service line extension are unpopulated desert areas along three existing parallel electrical power lines and along Bowman Road, and visual impacts of the electrical service line extension would be less than significant. Visual impacts of construction equipment for constructing the proposed electrical service line extension would be less than significant and temporary.

| | Potentially | Less Than Significant with | Less Than | |
|--|-----------------------|----------------------------------|-----------------------|-----------|
| b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock | Significant Impact | Mitigation Incorporated | Significant Impact | No Impact |
| outcroppings, and historic buildings within a state scenic highway? | | | | X |

The Original WSIP Initial Study states that "There are no locally-designated scenic roads in the project area (County of Kern 2009). The nearest Eligible State Scenic Highway (State Route 14) is located approximately six miles west of the project site (Caltrans 2011)." As described in the Original WSIP Initial Study and the Original WSIP EIR, facilities proposed at the Wells 34 and 35 sites will not damage scenic resources.

The alignment of the electrical service line extension is not located within or adjacent to a state scenic highway. Additionally, the alignment would not require the removal or disturbance of any





trees, rock outcroppings, or historic buildings. For these reasons, there would be no impact. Refer also to **Issue I.a** herein.

Issue I. Aesthetics (continued)

| c) Would the project substantially degrade the existing visual character or quality of the site and | | | Dotontially | Less Than Significant with | Less Than | |
|---|----|---|-------------|----------------------------------|-------------|-----------|
| existing visual character or quality of the site and | c) | Would the project substantially degrade the | 0 | Mitigation | Significant | No Impact |
| | C) | | Impact | incorporated | Impact | No Impact |

The Original WSIP Initial Study found that Well 35 would not substantially degrade the existing visual character of the site or its surroundings because it would be painted to match the desert environment and would be visually similar to the existing wells in the area. The Modified WSIP does not include additional facilities at the Well 35 site that were not included in the Original WSIP; therefore, any visual impacts would remain less than significant.

Aboveground facilities proposed at the Well 34 site under the Modified WSIP will include those proposed under the Original WSIP plus the addition of facilities related to the electrical service line extension, particularly the concrete slab box with pad-mounted transformer. Said additional facilities are low-lying, unobtrusive, and will be located within the existing fenced Well 34 site; therefore, any visual impacts would be less than significant.

The Modified WSIP also includes construction of an electrical service line extension from an existing electrical service line to the Wells 34 and 35 sites. A large portion of the electrical service line extension is located parallel along the eastern site of three existing parallel electrical service lines, and the remaining length of the electrical service line extension is located along Bowman Road and within the Well 34 site. Considering the existing electrical service lines in the area, the addition of the electrical service line extension would not degrade the existing visual character or quality of the sites located along the alignment. Any impacts would be less than significant. Refer also to **Issue I.a** herein.





Issue I. Aesthetics (continued)

| d) | Would the project create a new source of substantial | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| | light or glare which would adversely affect day or nighttime views in the area? | | | × | |

The Original WSIP Initial Study states that "The Proposed Project would not create any new sources of light or glare other than security lighting. The proposed lighting for the new wells sites would be the same as at the existing well sites. Impacts would be less than significant." Impacts would not exceed those previously described in the Original WSIP Initial Study and the Original WSIP EIR.

No lights are proposed as part of the electrical service line extension. In the event that repairs or maintenance of said service line are required during non-daylight hours, then portable lights will be used, and said use would be temporary. Impacts would be less than significant. Refer also to **Issue I.a** herein.

Issue II. Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in forest protocols adopted by the California Air Resources Board.

| (Liarmiand) as sharry on the mone property | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------|-----------|
|--|--------------------------------------|--|------------------------------|-----------|

The Original WSIP Initial Study and the Original WSIP EIR stated that the project would have no impact upon agricultural resources, and that further analysis in the EIR was not warranted.

According to the map entitled <u>Kern County Important Farmland 2012</u>, <u>Sheet 3 of 3</u>, (published August 2014 by the State of California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program [FMMP]), the Project sites, including





the Wells 34 and 35 sites and the electrical service line extension alignment, are within land identified as "Nonagricultural and Natural Vegetation". As stated in the map legend, the FMMP defines this category of land as follows:

Nonagricultural and Natural Vegetation

"Nonagricultural and natural vegetation includes heavily wooded, rocky, or barren areas, riparian and wetland areas, grassland areas which do not qualify for grazing land due to their size or land management restrictions, small water bodies, and recreational water ski lakes. Constructed wetlands are also included in this category."

Additionally, none of the land on which the Project is located is currently being used for agricultural purposes. The Project would not convert any Farmland to non-agricultural use.

Issue II. Agriculture and Forest Resources (continued)

| | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | |
|--|----------------------------|---------------------------------------|--------------------------|-----------|
| h) Would the anciest conflict with existing poping for | Impact | Incorporated | Impact | No Impact |
| b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | | X |

Based on the map, <u>Kern County Williamson Act FY 2013/2014</u>, <u>Sheet 3 of 3</u>, published in 2013 by the California Department of Conservation, Division of Land Resource Protection, there are no Williamson Act contracts on land located on or adjacent to the Wells 34 and 35 sites or the electrical service line extension alignment. Further, none of the Project sites are zoned for agricultural use. Therefore, the Modified WSIP would not conflict with existing zoning for agricultural use or with a Williamson Act contract.

| c F t | Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), imberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|-------------|--|--------------------------------------|--|------------------------------------|-----------|
| | | | | | |

The Project is located in an area that is primarily desert and does not contain any areas zoned for forest land or timberland. Further, there are no areas of forest land or timberland located in the surrounding vicinity. For these reasons, the Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned as Timberland Production.





Issue II. Agriculture and Forest Resources (continued)

| d) Would the project result in the loss of forest land or conversion of forest land to non-forest use? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-----------|
| The Project would not result in the loss of forest land o forest use. Refer also to Issue II.c herein. | or the convers | sion of forest | land to non- | |
| e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | |

The Project does not involve changes in the environment that would result in the conversion of Farmland to non-agricultural use or the conversion of forest land to non-forest use. Refer also to Issues II.a through II.d herein.

Issue III. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

| | | Potentially | Less Than Significant with Mitigation | Less Than | |
|----|--|-----------------------|---------------------------------------|-----------------------|-----------|
| | | Significant Impact | Incorporated | Significant Impact | No Impact |
| a) | Would the project conflict with or obstruct implementation of the applicable air quality plan? | | | × | |

The Project is located within the Mojave Desert Air Basin (MDAB), which extends within portions of Kern, San Bernardino, Riverside, and Los Angeles Counties. The Project is located within the portion of the MDAB that is within Kern County, which is under the jurisdiction of the Eastern Kern Air Pollution Control District (EKAPCD).

Based on the Original WSIP EIR, "The Proposed Project would comply with applicable rules, and would not conflict with or obstruct implementation of the attainment plan". Likewise, the Modified WSIP will comply with all applicable rules adopted by the EKAPCD. The Project would not conflict with or obstruct implementation of any applicable air quality plan, and any





impacts would be less than significant. Potential impacts related to greenhouse gases are described in **Issue VII** herein.

Issue III. Air Quality (continued)

| b) Would the project violate any air quality standard or | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | No Invest |
|---|----------------------------|---------------------------------------|--------------------------|-----------|
| contribute substantially to an existing or projected air quality violation? | Impact | Incorporated | Impact | No Impact |

State and federal designations based on the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS) for MDAB are listed below. An attainment area is defined as a geographic area which is in compliance with the CAAQS, NAAQS, or both. A non-attainment area is an area which does not meet said standards.

Under the CAAQS, the Project area is classified as Non-Attainment for ozone (O_3) and for particulate matter measuring 10 microns or less in diameter (PM_{10}) . The area is classified as Attainment for sulfur dioxide (SO_2) , nitrogen dioxide (NO_2) , lead, and sulfates (SO_4) . The area is Unclassified for particulate matter measuring 2.5 microns or less in diameter $(PM_{2.5})$ and carbon monoxide (CO). Additional information about each of these pollutants and the CAAQS is available at the California Air Resources Board website at www.arb.ca.gov.

Under the NAAQS, the Project area is not classified as Non-Attainment for any of the pollutants. The area is classified as Attainment for PM_{10} and is classified as Unclassified/Attainment for O_3 , $PM_{2.5}$, CO, lead, and NO_2 . Additional information about these pollutants and the NAAQS is available on the United States Environmental Protection Agency's (USEPA's) website at www.epa.gov/air/criteria.html.

Quantities of air pollutant emissions estimated to be generated during construction and operation of the Original WSIP are set forth in Section 3.2 of the Original WSIP EIR. Based on the analysis provided therein, said EIR concluded that impacts on air quality would be less than significant.

The electrical service line extension that is proposed as part of the Modified WSIP was not included in the analysis in the Original WSIP EIR. The estimated quantities of construction air pollutant emissions for the Original WSIP, as set forth in the Original WSIP EIR, total less than half of the annual significance thresholds established by EKAPCD for a single project. Further, construction emissions that were estimated in the Original WSIP EIR will be reduced because the



Modified Water Supply Improvement Project Initial Study



facilities proposed at the Well 18 site are not included in the Modified WSIP. The short-term emissions that would be generated during construction of the electrical service line extension would not cause the Modified WSIP's construction emissions to increase to a level that would exceed the annual construction emissions thresholds.

Operation emissions are expected to include one vehicle trip per day to Well 34, Well 35, and along the alignment of the electrical service line extension. Emissions resulting from these vehicle trips would be minimal and are considered less than significant.

For the reasons described above, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Issue III. Air Quality (continued)

| , 1 | Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------|--|--------------------------------------|--|------------------------------------|-----------|
| | exceed quantitative thresholds for ozone precursors)? | | | X | |

The Project would not result in a cumulatively considerable net increase in O_3 , or PM_{10} , for which the region is designated non-attainment under the CAAQS. Refer also to **Issue III.b** herein.

| | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| d) | Would the project expose sensitive receptors to substantial pollutant concentrations? | П | | Impact ⊠ | |

As described in **Issues III.a and III.b** herein, the Project would not result in substantial air pollutant concentrations during construction or operation. Quantities of estimated air pollutant emissions are expected to increase during Project construction and operation; however, said increase would not exceed the annual emissions thresholds established by the EKAPCD and are considered less than significant.





Issue III. Air Quality (continued)

| | Potentially | Less Than Significant with | Less Than | |
|---|-----------------------|----------------------------------|-----------------------|-----------|
| | Significant Impact | Mitigation Incorporated | Significant Impact | No Impact |
| e) Would the project create objectionable odors affecting a substantial number of people? | | | X | ٦ |

The Original WSIP Initial Study states that "Odors from long-term operation of the Proposed Project would be similar to the existing condition at existing wells. A less than significant impact would occur."

The electrical service line extension was not included in the Original WSIP. Although air pollutant emissions generated during construction of the electrical service line extension may cause some odors, said odors would be short-term and would not affect a substantial number of people.

Based on the above, any odors generated during construction and operation of the Project would be less than significant.

Issue IV. Biological Resources

| a) | Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
|----|---|--------------------------------------|--|------------------------------------|-----------|

As described in the Original WSIP EIR, a general biological resources assessment, focused surveys for desert tortoise, and habitat assessments for burrowing owl and Mohave ground squirrel were completed for the Well 35 site in 2011. No surveys were conducted for the Well 34 site because it is an existing well site that has been previously disturbed and is currently fenced, and no disturbance of previously undisturbed areas is proposed.

The Mitigation Monitoring Program included in the Original WSIP EIR includes mitigation measures intended to avoid or reduce potential impacts upon biological resources at the Well 35 site. Said mitigation measures will be implemented by IWVWD at the Well 35 site as part of the Modified WSIP. Project impacts upon biological resources at the Wells 34 and 35 sites would not exceed those previously described in the Original WSIP EIR.



Modified Water Supply Improvement Project Initial Study



As part of the Modified WSIP, Southern California Edison (SCE) will construct the electrical service line extension and has incorporated into that portion of the Project a number of environmental guidelines for the protection of biological resources. These guidelines are set forth in the SCE Environmental Clearance document included in **Appendix** A herein and conform to the land disturbance mitigation measures included in the Original WSIP EIR.

With incorporation of the mitigation measures and environmental guidelines cited above, Project impacts upon sensitive or special status species would be less than significant.

Issue IV. Biological Resources (continued)

| b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------|-----------|
|--|--------------------------------------|--|------------------------------|-----------|

Based on the Original WSIP Initial Study and the Original WSIP EIR, there are no riparian habitats or other sensitive natural communities on the Well 34 or Well 35 site.

There is one drainage feature located near the southeast portion of the electrical service line extension alignment, near Bowman Road. The SCE Environmental Clearance (in Appendix A herein) specifies that avoidance measures will be implemented in that area.

For the reasons described above, the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community.

| c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-----------|
|--|--------------------------------------|--|------------------------------------|-----------|

According to the Original WSIP EIR, there are no jurisdictional waters on any of the sites of the Original WSIP. Based on the California Aquatic Resource Inventory (CARI) statewide map of wetlands, streams, and riparian areas (available at www.ecoatlas.org/regions/ecoregion/mojave) there are no wetlands present in the Project area. For these reasons, the Project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act.





Issue IV. Biological Resources (continued)

| d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|-----------|
| With incorporation of the mitigation measures set forth | in the Ori | ginal WSIP | EIR and the | |
| environmental guidelines set forth in the SCE Environment | al Clearance | e (Appendix A | 1 herein), the | |
| Project would not interfere with the movement of any nativ | e resident o | r migratory fi | sh or wildlife | |
| species, with any wildlife corridors, or with the use of | f native wi | ldlife nursery | sites. The | |
| environmental guidelines included in the SCE Environm | ental Cleard | ance conform | to the land | |
| disturbance mitigation measures included in the Original | WSIP EIR. | Refer also to | Issues IV.a | |
| and IV.b herein. | | | | |
| e) Would the project conflict with any local policies or | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | |
| ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | | No Impact |
| ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | | No Impact |
| | | | | - |
| tree preservation policy or ordinance? The Project would not conflict with any local policies or or resources. Refer also to Issues IV.a. through IV.d herein. f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural | | | | - |
| tree preservation policy or ordinance? The Project would not conflict with any local policies or or resources. Refer also to Issues IV.a. through IV.d herein. f) Would the project conflict with the provisions of an | dinances pro | Less Than Significant with Mitigation | gical Less Than Significant | ⊠ |

The Project is not located within an area covered by an adopted Habitat Conservation Plan, a Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; therefore, the Project would not conflict with the provisions of any such plan.





Issue V. Cultural Resources

| | | Potentially | Less Than Significant with | Less Than | |
|--|---|----------------------------|----------------------------------|-----------|--|
| a) Would the project cause a substantial adverse | Significant Impact | Mitigation Incorporated | Significant Impact | No Impact | |
| | change in the significance of a historical resource as defined in §15064.5? | | \boxtimes | | |

In 2011, ECORP Consulting, Inc. performed a cultural resources records search on the Original WSIP sites and a field survey on the Well 35 site. Based on its investigations of the sites, ECORP did not find any significant historical or archaeological resources (combined referred to as cultural resources) present on the sites. Because of the potential for the discovery of unknown cultural resources during ground-disturbing activities during Project construction, the Mitigation Monitoring Program included in the Original WSIP EIR sets forth measures to avoid or reduce impacts to cultural resources in the event that such resources are discovered during Project construction. Project impacts upon cultural resources at the Wells 34 and 35 sites would not exceed those previously described in the Original WSIP EIR.

Environmental guidelines included in the SCE Environmental Clearance, a copy of which is included in **Appendix A** herein, direct the construction crew to halt work and contact the project archaeologist or an on-call SCE archaeologist in the event that cultural resources are discovered during construction of the electrical service line. These environmental guidelines conform to the land disturbance mitigation measures included in the Original WSIP EIR.

With incorporation of the mitigation measures cited above, the Project would not cause a substantial adverse change in the significance of any cultural resources.

| b) Would the project cause a substantial adverse | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-----------|
| change in the significance of an archaeological resource pursuant to §15064.5? | | X | | |

As described in **Issue V.a** herein, impacts upon cultural resources would be less than significant with incorporation of the mitigation measures set forth in the Original WSIP EIR and environmental guidelines set forth in the SCE Environmental Clearance. The environmental guidelines included in the SCE Environmental Clearance conform to the land disturbance mitigation measures included in the Original WSIP EIR. Therefore, the Project would not result in a substantial adverse change in the significance of an archaeological resource.





Issue V. Cultural Resources (Continued)

| 2) | Would the against dimently on in dimently destroys | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | |
|----|---|----------------------------|--|--------------------------|-----------|
| c) | Would the project directly or indirectly destroy a | Impact | Incorporated | Impact | No Impact |
| | unique paleontological resource or site or unique geologic feature? | | X | | |

Based on a literature and records search performed for the Original WSIP by the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County, which also included a review of geologic maps, the Original WSIP EIR concluded that pipeline trenching at the Well 35 site has the potential to result in impacts to paleontological resources, if such resources are present on the site. The Original WSIP EIR also concluded that construction of Well 35 would have an insignificant potential to impact paleontological resources or unique geologic features, mostly due to the small diameter of the well. Said EIR further concluded that construction of facilities at the Well 34 site would not have the potential to result in a significant impact on paleontological resources or unique geologic features.

Potential impacts upon paleontological resources or unique geologic features at the Wells 34 and 35 sites would not exceed those described in the Original WSIP EIR. With incorporation of the mitigation set forth in the Mitigation Monitoring Program of the Original WSIP EIR, Project construction at the Wells 34 and 35 sites would have a less than significant impact on paleontological resources or unique geologic features that could be uncovered during Project construction.

Environmental guidelines included in the SCE Environmental Clearance, a copy of which is included in Appendix A herein, direct the construction crew to halt work and contact the project archaeologist or an on-call SCE archaeologist in the event that paleontological resources are discovered during construction of the electrical service line extension. The environmental guidelines conform to the land disturbance mitigation measures set forth in the Original WSIP EIR.

With incorporation of the mitigation measures and environmental guidelines cited above, the Project would not directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature.





Issue V. Cultural Resources (Continued)

| 10 | | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | |
|----|---|----------------------------|---------------------------------------|--------------------------|-----------|
| a) | Would the project disturb any human remains, including those interred outside of formal | Impact | Incorporated | Impact | No Impact |
| | cemeteries? | | \boxtimes | | |

There are no known cemeteries or burial grounds located within the vicinity of the Project site; however, if human remains are encountered during construction at the Wells 34 and 35 sites, then the construction contractor and IWVWD will initiate the appropriate steps outlined in the Mitigation Monitoring Program included in the Original WSIP EIR.

Environmental guidelines included in the SCE Environmental Clearance (in Appendix A herein) direct the construction crew to halt work and contact the project archaeologist or an on-call SCE archaeologist in the event that human remains are encountered during construction of the electrical service line extension. The environmental guidelines conform to the land disturbance mitigation measures set forth in the Original WSIP EIR. Therefore, with the incorporation of the mitigation measures and environmental guidelines cited above, impacts would not exceed those expected for the Original WSIP and any impacts would be less than significant. The Project will comply with Section 15064.5 of the State CEQA Guidelines.

Issue VI. Geology and Soils

| a) | Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-------------|
| | i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Coology Special | | | | |
| | Division of Mines and Geology Special Publication 42. | | | \boxtimes | |
| | ii) Strong seismic ground shaking? | | | \boxtimes | |
| | iii) Seismic-related ground failure, including liquefaction? | | | | X |
| | iv) Landslides? | | | | \boxtimes |

i) The Original WSIP Initial Study and Original WSIP EIR found that facilities proposed at the Wells 34 and 35 sites would not result in the risk of loss, injury, or death involving rupture of a known earthquake fault and that any impacts would be less than significant.





- Based on the earthquake fault zone maps available on the California Department of Conservation website, there are no earthquake fault zones mapped on or adjacent to the Well 34 site, the Well 35 site, or the electrical service line extension alignment.
- ii) As stated in **Issue VI.a.ii** herein, there are no earthquake fault zones located on or adjacent to the proposed Project facilities. However, there are numerous fault zones located within the Indian Wells Valley; therefore, the Project sites are subject to strong seismic ground shaking. The Project does not include structures suitable for human occupation, and the Project would not expose people or structures to a substantial risk of loss, injury, or death as a result of strong seismic ground shaking.
- iii) The Original WSIP Initial Study states that "The well and pipeline locations are not in areas subject to liquefaction due to the lack of shallow or perched groundwater in the area of the Proposed Project." Because the Original WSIP Initial Study concluded that there would be no impact, liquefaction was not further addressed in the Original WSIP EIR. Due to the close proximity of the Modified WSIP facilities to the Original WSIP facilities, soil and groundwater conditions along the electrical service line extension alignment are expected to be similar to those described at the Wells 34 and 35 sites. Therefore, no impacts related to liquefaction are expected to occur with the Modified WSIP. For these reasons, the Project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure or liquefaction.
- iv) The Wells 34 and 35 sites and the electrical service line extension are located in an area of relatively flat topography. The Original WSIP Initial Study concluded that there would be no impact related to landslides because the facilities are not located in areas that are at risk for landslides or other steep slope hazards. Because there was determined to be no impact, landslides were not further addressed in the Original WSIP EIR. Based on Figure 12 of Chapter 4 of the Kern County General Plan, the electrical service line extension is not located in an area that is at risk for landslides. There would be no impact.





Issue VI. Geology and Soils (Continued)

| | | Potentially | Less Than Significant with | Less Than | |
|----|--|-----------------------|----------------------------------|-----------------------|-----------|
| | | Significant Impact | Mitigation Incorporated | Significant Impact | No Impact |
| b) | Would the project result in substantial soil erosion or the loss of topsoil? | | \boxtimes | | |

The Original WSIP EIR determined that construction of facilities proposed for the Well 35 site "includes several activities that have the potential to cause erosion and remove topsoil from disturbed areas". These activities include grading, excavation, trenching, and stockpiling of soils. No impacts were expected to occur at the Well 34 site at the time that the Original WSIP EIR was prepared; however, the Modified WSIP includes grading at the Well 34 site for construction of a concrete slab box with pad-mounted transformer (as described in the drawings included in the SCE Environmental Clearance in Appendix A herein) and trenching at and adjacent to the Well 34 site for placing a 400± foot portion of the electrical service line extension below ground. Additionally, a 320± foot portion of the electrical service line extension along the easternmost portion of the alignment will be placed underground as well. Trenching would be performed by IWVWD, while the electrical service line would be placed by SCE.

Those additions to construction at the Well 34 site as part of the Modified WSIP, as well as the additional trenching activities, are expected to be of similar effect on site soils and topsoil as the proposed activities at the Well 35 site; however, in order to avoid or reduce potential impacts, the mitigation proposed for the Well 35 site will also be implemented, as applicable, at the Well 34 site and at the areas to be trenched for installation of the underground portions of the electrical service line extension.

With incorporation of the mitigation cited above, and for the reasons described above, Project impacts would be less than significant.

| c) | Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| | or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | | | | X |

The Original WSIP Initial Study determined that the Wells 34 and 35 sites are not located on unstable soils, based on Figure 12 of Chapter 4 of the <u>Kern County General Plan</u>. Based on said figure, the electrical service line extension is not located on unstable soils. For these reasons, the



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Project would not be located on a geologic unit or soil that is unstable or that would become unstable as the result of the Project.

Issue VI. Geology and Soils (Continued)

| | | | Less Than Significant | | |
|---|--|--------------------------------------|------------------------------------|------------------------------------|-----------|
| / | Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building | Potentially Significant Impact | with Mitigation Incorporated | Less Than Significant Impact | No Impact |
| | Code (1994), creating substantial risks to life or property? | | | | X |

Based on the Original WSIP EIR, soils in the area consist of "hard silty sandy soils with gravel and rock fragments", and there is a lack of clayey soils in the area. Due to the proximity of the electrical service line extension to the Wells 34 and 35 sites, soils along the electrical service line extension alignment are expected to be of similar consistency to those at the Wells 34 and 35 sites. The Project would not create substantial risks to life or property resulting from expansive soils.

| e) | Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-----------|
| | water? | | | | X |

The Project does not include septic tanks or alternative wastewater disposal systems.

Issue VII. Greenhouse Gas Emissions

| a) | Would the project generate greenhouse gas | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-----------|
| | emissions, either directly or indirectly, that may have a significant impact on the environment? | | | X | |

At the time that the Original WSIP EIR was prepared, neither the Eastern Kern Air Pollution Control District (EKAPCD) nor the County of Kern had adopted specific CEQA significance thresholds related to emissions of greenhouse gases (GHGs), and an interim threshold of 10,000 metric tons of CO₂E per year for an individual industrial facility, as proposed by the South Coast Air Quality Management District (SCAQMD), was used. Currently, in accordance with the Eastern Kern Air Pollution Control District Policy Addendum to CEQA Guidelines Addressing GHG Emission Impacts for Stationary Source Projects When Serving As Lead CEQA Agency,





adopted by the EKAPCD Board on March 8, 2012, EKAPCD considers projects that emit less than 25,000 metric tons of CO₂E per year to have a less than significant impact with regard to GHG emissions. Therefore, this current threshold is used herein to determine the Project's significance with regard to emissions of GHGs.

Like the Original WSIP, the Modified WSIP will generate GHG emissions during construction and operation. Based on the analysis set forth in the Original WSIP EIR, construction emissions were estimated to total 343 metric tons CO_2E , resulting from construction equipment and passenger vehicles. The Modified WSIP includes construction at the Well 34 site and the Well 35 site, but does not include construction at the Well 18 site. Additionally, the Modified WSIP includes construction of the electrical service line extension. GHG emissions generated by construction of the electrical service line extension would result from operation of an auger truck, a crane, a utility truck, and passenger vehicles for approximately three weeks, conservatively. Quantities of GHGs generated by said construction are expected to be less than significant. Even if addition of the electrical service line extension to Project construction would triple the quantities of total construction GHG emissions (343 x 3 = 1,029 metric tons CO_2E), quantities of GHG emissions generated during construction of the Modified WSIP would remain well below EKAPCD's significance threshold of 25,000 metric tons per year of CO_2E . Therefore, impacts resulting from construction GHG emissions would be less than significant.

Operation emissions for the Original WSIP (ultimate, through Phase 2), which included operation of Wells 18, 34, and 35, would generate approximately 2,598 metric tons CO₂E per year resulting from energy use (pumping), vehicle emissions, and amortized construction emissions. Operation of the Modified WSIP would generate GHGs from the same activities as for the Original WSIP; however, annual quantities of GHGs generated by operation of the Modified WSIP are anticipated to be less than those estimated for operation of the Original WSIP due to the fact that pumping units installed as part of the Modified WSIP will have an overall lower pumping capacity compared to those that would have been included in the Original WSIP. The total nominal pumping capacity of Wells 18, 34, and 35 at Phase 2 of the Original WSIP would have been 6,600 gpm, while the Modified WSIP includes a total nominal pumping capacity (at Phase 2) of 5,400 gpm. Operation of the electrical service line extension would generate GHGs from one daily utility vehicle trip (conservatively) along the alignment, and said quantities of GHGs emitted would be less than significant. For these reasons,, the impacts of GHGs generated by Project operation would not exceed those described in the Original WSIP EIR and would be less than significant.





Issue VII. Greenhouse Gas Emissions (Continued)

| | | Potentially | Less Than Significant with | Less Than | |
|----|---|-----------------------|----------------------------|-----------------------|-----------|
| b) | Would the project conflict with an applicable plan, | Significant Impact | Mitigation Incorporated | Significant Impact | No Impact |
| | policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases? | | | × | |

As described in **Issue VII.a**, greenhouse gas emissions estimated to be generated by construction and operation of the Project are minimal when compared to the significance threshold of 25,000 metric tons of CO_2E per year set forth by EKAPCD. The Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Issue VIII. Hazards and Hazardous Materials

| | Potentially | Less Than Significant with | Less Than | |
|---|-----------------------|----------------------------------|-----------------------|-----------|
| a) Would the project create a significant hazard to the | Significant Impact | Mitigation Incorporated | Significant Impact | No Impact |
| public or the environment through the routine transport, use, or disposal of hazardous materials? | | | X | |

Based on the Original WSIP EIR, some hazardous materials, such as diesel fuel, would be used during construction at the Wells 34 and 35 sites; however, this use would be short-term and any impacts would be less than significant. As stated in the Original WSIP EIR, chlorination facilities proposed at the Well 35 site include secondary containment, and all related materials would be properly contained, handled, and transported in compliance with all applicable regulations. Any accidental spills would be cleaned up by licensed contractors in accordance with IWVWD's emergency response protocols.

As further described in the Original WSIP EIR, groundwater produced during the development and testing of Well 35 would be discharged to the ground surface to allow it to percolate back into the ground; however, the discharged water would not contain any residual chlorine. For these reasons, the Original WSIP EIR concluded that any impacts to the public or the environment related to hazards or hazardous materials would be less than significant, and no mitigation would be required.

Construction of the electrical service line extension as part of the Modified WSIP is expected to pose the same safety risks as those expected during construction at the Wells 34 and 35 sites, and any impacts would be less than significant. Operation of the electrical service line extension





includes vehicle trips along the alignment, which would not result in any additional impacts beyond those described in the Original WSIP EIR. Any impacts would be less than significant.

Issue VIII. <u>Hazards and Hazardous Materials</u> (Continued)

| , | Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|--------------------------------------|--|------------------------------------|-----------|
| | the release of hazardous materials into the environment? | | | X | ۵ |

As described in **Issue VIII.a** herein, Project design has incorporated measures, such as secondary containment and fencing, to reduce the impacts of any hazardous materials (i.e. sodium hypochlorite) spills at the Well 35 site. In the event that a spill occurs, IWVWD will respond in accordance with its Emergency Response Plan. With the exception of fuel for the vehicles used by SCE or District personnel to reach the electrical service line extension during operation and maintenance, no hazardous materials would be used during operation of the electrical service line extension. For these reasons, any impacts would be less than significant.

| c) | Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-----------|
| | substances, or waste within one-quarter mile of an existing or proposed school? | | | | X |

Based on the Original WSIP Initial Study, there are no schools located within one-quarter mile of the project facilities. The school nearest the Modified WSIP is Mariposa Christian School, which is located approximately 1.15 miles northwesterly of the northernmost portion of the electrical service line extension. Said school is located approximately 1.5 miles northwesterly of the Well 34 site. Therefore, the Modified WSIP would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Refer also to Issues VIII.a and VIII.b herein.





Issue VIII. Hazards and Hazardous Materials (Continued)

| d) | Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-----------|
| | 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | | | | X |

Based on the Original WSIP Initial Study and the California Department of Toxic Substances Control (DTSC) publicly-accessible database, EnviroStor, online at http://www.envirostor.dtsc.ca.gov/public, the Project sites are not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The sites listed in the EnviroStor database that are nearest the Modified WSIP sites are located within the China Lake Naval Air Weapons Station (NAWS) property. NAWS is located greater than two miles northerly of the northernmost portion of the electrical service line extension. NAWS is an open military base with confirmed releases of contaminants from some of its onsite facilities. The Project will have no impact on, and will not be impacted by, NAWS.

| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--|------------------------------|-----------|
|--|--|------------------------------|-----------|

The Original WSIP Initial Study determined that there would be no impact and that this issue did not require further evaluation in the Original WSIP EIR.

The Project sites are not located within an airport land use plan. The nearest airport is the Inyokern Airport, which is located approximately three miles northwesterly of the northernmost portion of the electrical service line extension. The Project would not result in a safety hazard for people residing or working in the Project area.





Issue VIII. Hazards and Hazardous Materials (Continued)

| | | | Less Than Significant | | |
|--|---|-------------|--------------------------|-------------|-----------|
| | | Potentially | with | Less Than | |
| 0 | | Significant | Mitigation | Significant | |
| 1) | For a project within the vicinity of a private airstrip, | Impact | Incorporated | Impact | No Impact |
| | would the project result in a safety hazard for people residing or working in the project area? | | | | × |
| The Original WSIP Initial Study determined that there is no private girstrip in the vicinity and | | | | | |

The Original WSIP Initial Study determined that there is no private airstrip in the vicinity, and that there would be no impact. The electrical service line extension that is part of the Modified WSIP is not located within the vicinity of a private airstrip. There would be no impact.

| physically interfere with an adopted emergency | a) | Would the project impair implementation of or | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | N. L. |
|--|----|---|----------------------------|---------------------------------------|--------------------------|-----------|
| | , | 1 0 1 | Impact | Incorporated | Impact | No impact |

The Original WSIP Initial Study states that "Proposed Project activities would not alter emergency evacuation routes. Transportation corridors would remain open throughout construction, and would not be affected by the Proposed Project operation once the completed facilities are placed into service. The Proposed Project would not impair implementation of or physically interfere with the IWVWD's adopted Emergency Response Plan or an emergency evacuation plan. No impact would occur." The Original WSIP Initial Study determined that this issue did not require further evaluation in the Original WSIP EIR.

The electrical service line extension is located parallel to existing electrical service lines and to Bowman Road and would not obstruct any transportation corridors. The electrical service line extension would not impair or interfere with IWVWD's adopted Emergency Response Plan.

For the reasons described above, the Modified WSIP would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.





Issue VIII. Hazards and Hazardous Materials (Continued)

| h) | Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| | adjacent to urbanized areas or where residences are intermixed with wildlands? | | | | X |

The Original WSIP Initial Study determined that the Original WSIP would not expose people or structures to a significant risk of loss, injury, or death from wildland fires, and that this issue did not require further evaluation in the Original WSIP EIR. Construction of the electrical service line extension as part of the Modified WSIP would not increase the risk of loss, injury, or death from wildland fires. For these reasons, the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Issue IX. Hydrology and Water Quality

| | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | |
|---|----------------------------|--|--------------------------|-----------|
| a) Would the project violate any water quality | Impact | Incorporated | Impact | No Impact |
| a) Would the project violate any water quality standards or waste discharge requirements? | | | × | |

The Original WSIP EIR determined that the Original WSIP would not result in any violations of water quality standards or waste discharge requirements, and that impacts would be less than significant. The Modified WSIP, including the electrical service line extension, would not result in any additional impacts to water quality standards or waste discharge requirements.

| b) | Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| | planned uses for which permits have been granted)? | | \boxtimes | | |

The total proposed nominal pumping capacity of the District's wells in Phase 1 of the Modified WSIP would be comparable to the total proposed nominal pumping capacity of Phase 1 of the Original WSIP (see **Table 1** herein). The total proposed nominal pumping capacity of the District's wells in Phase 2 of the Modified WSIP would be lower than was proposed for Phase 2 of the Original WSIP, as depicted in **Table 1** herein.





Table 1
IWVWD Nominal Capacity of Well Pumping Plants for
Original WSIP and Modified WSIP

| | Pha | ise 1 | Pha | se 2 |
|-------------------------------|----------|----------|----------|----------|
| Well | Original | Modified | Original | Modified |
| 9A | 1,000 | 1,000 | 1,000 | 1,000 |
| 10 | 1,100 | 1,100 | 1,100 | 1,100 |
| 11 | 1,000 | 1,000 | 1,000 | 1,000 |
| 13 | 1,100 | 1,100 | 1,100 | 1,100 |
| 17 | 1,200 | 1,200 | 1,200 | 1,200 |
| 30 | 1,400 | 1,400 | 1,400 | 1,400 |
| 31 | 1,200 | 1,400* | 1,200 | 1,400* |
| 18 | 2,200 | 1,200 | 2,200 | 1,200 |
| 33 | 1,200 | 1,200 | 1,200 | 1,200 |
| 34 | 2,200 | 2,000 | 2,200 | 2,000 |
| 35 | 0 | 1,200 | 2,200 | 2,200 |
| Total Nominal Capacity | 13,600 | 13,800 | 15,800 | 14,800 |

Different for Original WSIP and Modified WSIP

To verify that these changes would not result in any significant hydrological impacts that would require preparation of a Subsequent EIR, IWVWD contracted with Layne Water Resources (Layne) to conduct a modeling study to supplement the modeling study that Layne had prepared for the Original WSIP DEIR and included in Appendix G thereof. The results of Layne's 2015 study are included in Appendix B herein. Figures 4 and 5 in said report depict a comparison of the pumping impacts of Phase 1 of the Modified WSIP to those of Phase 2 of the Original WSIP. Figures 2 and 3 depict a comparison of the pumping impacts of Phase 2 of the Modified WSIP (plus a safety factor of 200 gpm) to those of Phase 2 of the Original WSIP. Said report demonstrates that completion of Phase 2 of the Modified WSIP would result in less drawdown than that of Phase 2 of the Original WSIP. These results indicate that any changes to the impacts of the Original WSIP to groundwater levels resulting from the Modified WSIP will be minor and not adverse. In addition, Mitigation Measure H-1 (mitigation groundwater monitoring program), proposed for Phase 2 in the Original WSIP EIR, was commenced in 2012 to establish baseline water quality and depth data prior to implementation of the Project.



^{*} Well 31 capacity corrected in Layne model scenarios.



Issue IX. Hydrology and Water Quality (Continued)

| c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------|-----------|
| erosion or siltation on- or off-site? | _ | J | | _ |

The Original WSIP Initial Study states that there would be no impact and that "The Proposed Project would not alter existing drainage patterns or alter any stream courses in a manner that would cause erosion or siltation. After well construction and pipeline installation are completed, the ground surface would be graded and compacted to match the surrounding areas such that surface runoff would occur in the same manner in which it did prior to the construction activities."

There is a drainage feature near the southeastern corner of the electrical service line extension. With implementation of the avoidance measures referenced in the SCE Environmental Clearance (copy included in Appendix A herein), the electrical service line extension would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation, onsite or offsite.

| d) | Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------|-----------|
| | flooding on- of off-site? | _ | _ | 15.51 | _ |

The Original WSIP Initial Study states that there would be no impact and that "The Proposed Project would not alter existing drainage patterns, alter any stream courses, or increase the rate or amount of surface runoff. After well construction and pipeline construction are completed, the ground surface would be graded and compacted to match the surrounding areas such that surface runoff would occur in the same manner in which it did prior to the construction activities."

The electrical service line extension, which is part of the Modified WSIP, does not include any features or facilities that would substantially alter the existing drainage pattern of the site or area in a manner that would result in flooding, onsite or offsite.





Issue IX. <u>Hydrology and Water Quality</u> (Continued)

| e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-----------|
| • | | | | |
| The Original WSIP Initial Study states that there would | • | | • | |
| Project would not create or contribute to runoff. Water g | | | | |
| wells would be percolated into the ground using sprinkler | • | | • | |
| the well installation, and pipeline construction, storm water | er runoff woi | ild be the sam | e as current, | |
| baseline, conditions." | | | | |
| The Modified WSIP also includes the electrical service lin | ne extension. | Said extensi | on would not | |
| create or contribute runoff water that would exceed | the capacity | v of existing | or planned | |
| stormwater drainage systems or provide substantial source | • | | 1 | |
| substantial additional sources of polluted runoff. | | | | |
| | | Less Than Significant | | |
| | Potentially Significant Impact | with Mitigation Incorporated | Less Than Significant Impact | No Impact |
| Would the project otherwise substantially degrade water quality? | | | | × |
| Construction and operation of the Project would com | ply with all | applicable v | vater quality | |
| requirements and would not substantially degrade wate | er quality. | Refer also to | Issues IX.a | |
| through IX.e herein. | | | | |
| | | | | |
| | | Less Than Significant | | |
| | Potentially Significant | Significant with | Less Than Significant | |
| g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or | Potentially Significant Impact | Significant | Less Than Significant Impact | No Impact |

The Project does not include the construction of housing.





Issue IX. Hydrology and Water Quality (Continued)

| h) Would the project place within a 100-year flood | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-------------|
| hazard area structures which would impede or redirect flood flows? | | | | \boxtimes |
| The Original WSIP Initial Study states that impacts we | ould be less | than signific | ant and that | |
| "Proposed Project components are not located within a 10 | 00-year flood | hazard area, | according to | |
| [the Federal Emergency Management Agency] FEMA 106029C1019E." | Flood Map | Sheets 06029 | C1575E and | |
| The electrical service line extension and the Wells 34 and | nd 35 sites ar | re located wit | thin the area | |
| shown on FEMA Map Number 06029C1575E, effective a | s of Septemb | per 26, 2008. | None of the | |
| Project sites are located within a 100-year flood hazard | area and wo | uld not impea | le or redirect | |
| flood flows. | | | | |
| i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
| of a levee or dam? | | | | X |
| The Original WSIP Initial Study states that "The Proconstruction of any levees or dams and is not located down." The electrical service line extension is not located downs would be no impact. | islope from a | ny levees or a | lams." | |
| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
| j) Would the project expose people or structures to | I | | | _ |
| inundation by seiche, tsunami, or mudflow? | | | | × |

The Original WSIP Initial Study states that "The Proposed Project is not located near any standing water features that would be capable of producing a seiche or a tsunami. The Proposed Project is not located near any steep slopes subject to mudflows."



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The electrical service line extension is located in the same general area as the Original WSIP sites. The electrical service line extension is not located within the vicinity of any bodies of water large enough to generate a seiche or a tsunami. The Project area is relatively flat and is not subject to mudflows.

For the reasons described above, the Project would not expose people or structures to inundation by seiche, tsunami, or mudflow.

Issue X. Land Use and Planning

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-----------|
| a) Would the project physically divide an established community? | | | | X |

The Original WSIP Initial Study states that "The Proposed Project would not divide an established community", and this issue was not considered further in the Original WSIP EIR. The Modified WSIP also includes the electrical service line extension, which would not physically divide an established community. The electrical service line extension would be located parallel to existing electrical service lines, along an existing road (Bowman Road), and within the Well 34 site and would not physically divide an established community. There would be no impact.

| b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact ⊠ |
|---|--------------------------------------|--|------------------------------------|----------------|
|---|--------------------------------------|--|------------------------------------|----------------|

The Original WSIP Initial Study states that "General Plan designations and zoning restrictions are not applicable to water facilities, per Section 53091 of the California Government Code. The Proposed Project would not conflict with any land use plan, policy, or regulation." Since there would be no impact, this issue was not evaluated as part of the Original WSIP EIR. The Modified WSIP, including the electrical service line extension, would not result in a conflict with any applicable land use plan, policy, or regulation. There would be no impact.





Issue X. Land Use and Planning (Continued)

| , | W 1141 ' | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | |
|----|---|----------------------------|---------------------------------------|--------------------------|-----------|
| c) | Would the project conflict with any applicable | Impact | Incorporated | Impact | No Impact |
| | habitat conservation plan or natural community conservation plan? | | | | X |

The Project is not located within an area covered by an adopted Habitat Conservation Plan, a Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; therefore, the Project would not conflict with the provisions of any such plan. There would be no impact.

Issue XI. Mineral Resources

| a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact ⊠ |
|--|--------------------------------------|--|------------------------------------|----------------|
|--|--------------------------------------|--|------------------------------------|----------------|

The Original WSIP Initial Study states that "The project sites are not currently used for mineral resource recovery and do not fall within a Mineral Resource Zone per the General Plan (County of Kern 2009). No impact to mineral resources would occur." Based on the determination that there would be no impact, mineral resources were not further evaluated in the Original WSIP EIR.

The Modified WSIP, including the electrical service line extension, is not located within a Mineral Resource Zone and the proposed locations of Project facilities are not known to contain valuable mineral resources. For these reasons, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. There would be no impact.





Issue XI. Mineral Resources (Continued)

| b) | Result in the loss of availability of a locally- important mineral resource recovery site delineated | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| | on a local general plan, specific plan or other land use plan? | | | | X |

The Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Refer to **Issue XI.a** herein.

Issue XII. Noise

| a) | Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-----------|
| | ordinance, or applicable standards of other agencies? | | | X | |

Noise standards set forth by County of Kern, specify that noise shall not exceed 65 dB at the exterior of a residence. As cited and summarized in the Original WSIP EIR, a noise study was prepared for the Original WSIP by Wieland Acoustics in 2011, and a copy of said noise study is included in Appendix H of the Original WSIP EIR. Based on said noise study, construction of project facilities at Well 35 would increase noise at the nearest receptor by 4 dB, and construction of project facilities at Well 34 would increase noise at the nearest receptor by 0 dB. As stated in the Original WSIP EIR, ambient noise levels at the nearest receptor to Wells 34 and 35 are 53 dB; therefore, even if construction at both the Wells 34 and 35 sites were to take place simultaneously (worst-case assumption), construction noise at the nearest receptor would be approximately 57 dB, which remains below the 65 dB threshold established by the County of Kern. Therefore, the Modified WSIP would not result in a substantial change in construction noise at the Wells 34 and 35 sites over that described in the Original WSIP EIR.

The electrical service line extension will result in noise generated during construction as a result of construction equipment, including a truck-mounted auger, a crane, and utility and passenger vehicles. At an estimated rate of installing 10 poles per day, each pole located approximately 300 feet from the next, and a total of 50 proposed poles, construction activities will remain





stationary for only a short period of time. While it is possible that construction noise will be perceptible at the nearest residence, said noise would be short-term and less than significant.

Based on the Original WSIP EIR, noise expected to result from ongoing project operation includes noise generated at the Wells 18, 34, and 35 sites; however, the Modified WSIP also includes operation of the electrical service line extension. The electrical service line extension is expected to generate insignificant noise resulting from daily (conservative estimate) vehicle trips along the electrical service line extension alignment. Said vehicle noise would be periodic in nature and would be less than significant.

Operation of Project facilities at the Wells 34 and 35 sites would not result in an increase in noise levels above those described in the Original WSIP EIR at the nearest noise-sensitive receivers, because the capacity of the proposed well pumps is lower in the Modified WSIP than that which was proposed for the Original WSIP, thereby requiring pumps with less horsepower than in the Original WSIP. Therefore, since the well pumping units will not be increased in size in the Modified WSIP, operational noise at the Wells 34 and 35 sites is expected to be roughly the same as that described in the Original WSIP EIR. For these reasons, the Project's operational noise impacts would not exceed those described in the Original WSIP EIR and said impacts would be less than significant

Issue XII. Noise (Continued)

| | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | |
|--|----------------------------|---------------------------------------|--------------------------|-----------|
| b) Would the project result in exposure of persons to or | Impact | Incorporated | Impact | No Impact |
| generation of excessive groundborne vibration or groundborne noise levels? | | | \boxtimes | |

Based on the Original WSIP EIR, construction at the Well 34 site would not generate noticeable groundborne vibration because it includes only surface construction and does not include the use of heavy machinery. As described in the Original WSIP EIR, construction at the Well 35 site could generate groundborne vibration due to the use of heavy machinery in grading, trenching, and drilling activities. Based on calculations performed using standard techniques provided by the Federal Transit Administration, the Original WSIP EIR concluded that the potential levels of groundborne vibration generated by construction at the Well 35 site would be less than significant.



Modified Water Supply Improvement Project Initial Study



Construction of the electrical service line extension as part of the Modified WSIP could generate groundborne vibration during mechanical excavation by auger for installation of the new power poles and during trenching for the underground portions of the electrical service line extension. These activities are not expected to generate any groundborne vibration at levels exceeding that of the construction activities at the Well 35 site. Therefore, any groundborne vibration generated by construction of the electrical service line extension would be insignificant.

For the reasons described above, the Project would not result in the exposure of persons to, or the generation of, excessive groundborne vibration or groundborne noise levels.

Issue XII. Noise (Continued)

| c) | Would the project result in a substantial permanent | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| | increase in ambient noise levels in the project vicinity above levels existing without the project? | | | \boxtimes | |

The Original WSIP EIR concluded that "There are no significant noise impacts associated with construction or operation of the Proposed Project. No mitigation measures are required."

Noise generated during construction of the electrical service line extension would be less than significant and short-term. Any noise resulting from operation of the electrical service line extension would be minimal and is expected to be imperceptible at the nearest residences.

For the reasons described above, the Project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project.

| d) Would the project result in a substor periodic increase in ambient no | | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact | |
|--|----------------|--|------------------------------------|-----------|--|
| project vicinity above levels existi project? | ng without the | | × | ۵ | |

The Project is expected to temporarily generate increased noise levels during construction activities. Although the construction noise levels may be perceptible at the nearest residences, said levels will be less than significant and short-term. Construction noise impacts would not exceed those described in the Original WSIP EIR and would be less than significant. Refer also to **Issue XII.a** herein.





Issue XII. Noise (Continued)

| e) | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-------------|
| | would the project expose people residing or working in the project area to excessive noise levels? | | | | \boxtimes |

The nearest public use airport is the Inyokern Airport, which is located approximately three miles northwesterly of the northernmost portion of the electrical service line extension (refer also to Issue VIII.e herein). The Project would generate noise during construction and by daily vehicle trips for Project operation and maintenance (as discussed in Issues XII.a and XII.d herein); however, said noise would be insignificant, and the Project would not expose people residing or working in the Project area to excessive noise levels.

| | | Potentially Significant | Less Than Significant with Mitigation | Less Than Significant | |
|----|--|----------------------------|---------------------------------------|--------------------------|-------------|
| 1) | For a project within the vicinity of a private airstrip, | Impact | Incorporated | Impact | No Impact |
| | would the project expose people residing or working in the project area to excessive noise levels? | | | | \boxtimes |

The Project is not located within the vicinity of a private airstrip.

Issue XIII. Population and Housing

| a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------|-----------|
|--|--------------------------------------|--|------------------------------|-----------|

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

Based on the Original WSIP EIR, the Project would support an annual population increase of 1%, which is the rate of population increase estimated by the Kern Council of Governments (Kern COG). The <u>City of Ridgecrest General Plan</u> (2009) estimates that population growth in



Modified Water Supply Improvement Project Initial Study



the City could range from 1% to 3% per year through 2030. The <u>Kern County General Plan</u>, in its Land Use Element (2009), estimates overall population growth within Kern County at less than 2%. The <u>South Inyokern Specific Plan</u> (1973) does not include population estimates.

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

The electrical service line extension does not have the potential to induce population growth. There would be no impact.

Issue XIII. Population and Housing (Continued)

| b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | 1 | Significant Mitigation Significant | | | |
|---|-----------------|------------------------------------|--|---|--|
| | construction of | | | X | |

The Project is located within existing District-owned sites, along Bowman Road, and along the alignment of existing power lines. Said locations do not contain any housing. The Project does not have the potential to displace existing housing and does not include construction of any housing.

| | | | Less Than | | |
|-------|--|-------------------------|--------------------|-----------------------|-----------|
| | | | Significant | | |
| , | | Potentially Significant | with Mitigation | Less Than Significant | |
| c) | Would the project displace substantial numbers of | Impact | Incorporated | Impact | No Impact |
| 1 1 , | people, necessitating the construction of replacement housing elsewhere? | | _ | | × |
| | | | | | |

The Project is located within existing District-owned sites, within Bowman Road, and along the alignment of existing power lines. The Project would not displace any people and does not necessitate the construction of housing. Refer also to Issues XIII.a and XIII.b herein.





Issue XIV. Public Services

| a) | Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| | i) Fire protection? | | | | X |
| | ii) Police protection? | | | | X |
| | iii) Schools? | | | | X |
| | iv) Parks? | | | | X |
| | v) Other public facilities? | | | | X |

- i) The Project does not include any features or facilities that would require additional or unusual fire protection resources.
- *ii)* The Project does not include any features or facilities that would be occupied or that would otherwise require enhanced levels of police protection.
- iii) The Project would not require the District to add a substantial number of employees; it is expected that the Project would be managed by existing IWVWD personnel. The Project does not have the potential to increase or decrease the Project area's population, and would therefore not result in a greater or lesser demand for schools.
- iv) The Project would not require the District to add a substantial number of employees; it is expected that the Project will be managed by existing IWVWD personnel. The Project does not have the potential to increase or decrease the Project area's population, and would therefore not result in a greater or lesser demand for parks.
- v) The Project will have no effect upon other public facilities.





Issue XV. Recreation

| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|-----------|
| deterioration of the facility would occur or be accelerated? | ۵ | | | X |

The Original WSIP Initial Study determined that there would be no impact related to recreational facilities, and the Modified WSIP does not include any facilities that would result in an adverse impact upon recreational facilities.

The Project would not require the District to add a substantial number of employees; Project facilities will be managed by existing IWVWD personnel. The Project does not have the potential to increase or decrease the Project area's population, and would therefore not result in increased or decreased use of parks or other recreational facilities. Refer also to **Issue XIII.a** herein.

| | | | Less Than Significant | | |
|----|---|--------------------------------------|------------------------------------|------------------------------------|-----------|
| re | Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical | Potentially Significant Impact | with Mitigation Incorporated | Less Than Significant Impact | No Impact |
| | effect on the environment? | | | | X |

The Project does not include recreational facilities and would not require the construction or expansion of any recreational facilities. Refer also to **Issue XV.a** herein.

Issue XVI. Transportation / Traffic

| a) | Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-----------|
|----|--|--------------------------------------|--|------------------------------------|-----------|

As described in the Original WSIP Initial Study, construction at the Wells 34 and 35 sites would result in minor traffic increases that would cease upon completion of construction. Additionally, operation of facilities at the Wells 34 and 35 sites would result in vehicle trips to the site (approximately once daily) for operation and maintenance. The electrical service line extension



Modified Water Supply Improvement Project Initial Study



would, conservatively, result in similar increases in traffic during construction and operation, and said increases would be less than significant and short-term.

For the reasons described above, the Project would not conflict with an applicable plan, ordinance, or policy relating to traffic or circulation systems. Any traffic impacts would be less than significant.

Issue XVI. <u>Transportation / Traffic</u> (Continued)

| b) Would the project conflict with an applicable congestion management program, including, but r limited to, level of service standards and travel demand measures, or other standards established the county congestion management agency for designated roads or highways? | Significant | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|-------------|--|------------------------------|-----------|
|--|-------------|--|------------------------------|-----------|

Traffic increases resulting from the Modified WSIP would be similar to those described in the Original WSIP Initial Study, except that there would be some additional traffic resulting from construction and operation of the electrical service line extension. This additional traffic consists of construction equipment and vehicles during construction and approximately one additional vehicle trip per day to each Project site during operation and maintenance. The Project would not conflict with a congestion management program and would not result in an exceedance of level of service standards designated for the Project area. The level of traffic generated by Project operation would be minimal and less than significant.

| c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|-----------|
| | | | | × |

As described in the Original WSIP Initial Study, the Project would have no effect on air traffic patterns, levels, or safety. The electrical service line extension will reach approximately 50 feet above the ground surface and would not reach or exceed the height of the existing electrical lines that are parallel to the alignment of said extension. For these reasons, the Modified WSIP would have no impact upon air traffic patterns or safety.





Issue XVI. Transportation / Traffic (Continued)

| Potentially Significant Impact | with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------------------------------------|--|--|---|
| | | | \boxtimes |
| t substantial | ly increase ha | ızards due to | |
| any road or | lane closures | s are needed | |
| rs are requ | ired to provi | ide safe and | 1 |
| | | | |
| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
| | | | |
| _ | | | |
| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
| | Impact t substantially any road or rs are reques Potentially Significant Impact d during conemergency accepted to the control of the contr | Impact Incorporated t substantially increase had any road or lane closures are required to provide the substantially significant and any substantially significant and and amergency access. There Less Than Significant and amergency access. There Less Than Significant with significant with Mitigation | Impact Incorporated Impact at substantially increase hazards due to any road or lane closures are needed are are required to provide safe and Less Than Significant With Less Than Significant Impact Incorporated Impact Adduring construction and operation of the emergency access. There would be no Significant Potentially with Less Than Significant Potentially with Less Than Significant Mitigation Significant Significant Mitigation Significant |

Based on the Original WSIP Initial Study, the Original WSIP would have no impact on policies, plans, or programs regarding transportation. The Modified WSIP does not include any features or facilities that would conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or the performance or safety of such facilities.





Issue XVII. Utilities and Service Systems

| a) | Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|-------|--|--------------------------------------|--|------------------------------|-----------|
| and . | | 1 .1 1 . | 1 0 1 | | |

The Project will not generate sanitary wastewater. As described in the Original WSIP Initial Study, any water discharged would include groundwater pumped from Wells 34 and 35 to start, develop, test, or treat the wells. Such discharge would be in compliance with the requirements of the Regional Water Quality Control Board, Lahontan Region. The Project would not exceed wastewater treatment requirements of the Regional Water Quality Control Board.

| b) | construction of new water or wastewater treatment facilities or expansion of existing facilities, the | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|---|--------------------------------------|--|------------------------------------|-----------|
| | construction of which could cause significant environmental effects? | | | | × |

The Project may include the installation of additional treatment facilities if such facilities are indicated by water quality testing performed at the time of drilling Well 35. This was included as part of the Original WSIP, and no additional impacts beyond those described in the Original WSIP Initial Study would result from implementation of the Modified WSIP. Refer also to Issue XVII.a herein.

| c) | Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-------------|
| | of which could cause significant environmental effects? | | | | \boxtimes |

The Original WSIP Initial Study states that "The Proposed Project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. No impact would occur." The Modified WSIP does not add any components to the Project that would require construction of new stormwater drainage facilities or the expansion of existing facilities.





Issue XVII. <u>Utilities and Service Systems</u> (Continued)

| d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? In making this determination, the Lead Agency shall consider whether the project is subject to the water supply assessment requirements of Water Code Section 10910 et seq (SB 610), and the requirements of Government Code Section 66473.7 (SB 221). | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|-----------|
| The Project does not meet the definition of a "project" as | set forth in S | Section 10912 | of the Water | |
| Code, and is therefore not subject to the water supply as | ssessment red | quirements of | Water Code | |
| Section 10910 et seq (SB 610). Further, the Projec | t is not a | "subdivision" | pursuant to | |
| Government Code Section 66473.7 (SB 221) and is then | refore not su | bject to the p | provisions of | |
| Government Code Section 66473 et seq. | | | | |
| Water needed during Project construction and operation supplies and facilities. The Project does not require any needs | | | Ü | |
| e) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
| the provider's existing commitments? | | | | |
| | | | | X |
| The Project will not generate sanitary wastewater. Refer of | also to Issue | XVII.a hereir | 1. | ☒ |
| f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |

As stated in the Original WSIP Initial Study, "Construction debris related to the Proposed Project would be disposed of at the Boron Landfill. A less than significant impact would occur." Although there may be some additional construction debris with the addition of the electrical service line extension, quantities will be minimal and will be disposed of at a local landfill. Any impacts would be less than significant.





Issue XVII. Utilities and Service Systems (Continued)

| g) Would the project comply with federal, state, and | | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|----|--|--------------------------------------|--|------------------------------------|-----------|
| local statutes and regulations related to solid waste? | g) | Would the project comply with federal, state, and local statutes and regulations related to solid waste? | | | | × |

The Project would comply with all federal, state, and local statutes and regulations related to solid waste. Refer also to **Issue XVII.f** herein.

Issue XVIII. Mandatory Findings of Significance

| a) | Does the project 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|----|--|--------------------------------------|--|------------------------------------|-----------|
| | animal or eliminate important examples of the major periods of California history or prehistory? | | X | | |

With incorporation of the mitigation measures set forth in the Mitigation Monitoring Program that is part of the Original WSIP EIR and the environmental guidelines set forth in the SCE Environmental Clearance (which conform to the land disturbance mitigation measures included in the Original WSIP EIR; copy of SCE Environmental Clearance included in Appendix A herein), the Project does not 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, substantially 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.

| | | Less Than | | |
|--|-------------|--------------|-------------|-----------|
| | | Significant | | |
| | Potentially | with | Less Than | |
| | Significant | Mitigation | Significant | |
| b) Does the project have the potential to achieve | Impact | Incorporated | Impact | No Impact |
| short-term environmental goals to the disadvantage | _ | _ | _ | _ |
| of long-term environmental goals? | u | u | u | \times |
| | | | | |

The Project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.





Issue XVIII. Mandatory Findings of Significance (Continued)

| effects of probable future projects.) | c) | Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact ⊠ | |
|---------------------------------------|----|---|--------------------------------------|--|------------------------------------|----------------|--|
|---------------------------------------|----|---|--------------------------------------|--|------------------------------------|----------------|--|

Based on the Original WSIP EIR, the Original WSIP did not have any impacts that were cumulatively considerable, and the Modified WSIP would not change this.

| | | Potentially | Less Than Significant with | Less Than | |
|--|---|-----------------------|----------------------------------|-----------------------|-----------|
| d) Does the project have environmental effects w will cause substantial adverse effects on huma beings, either directly or indirectly? | Does the project have environmental effects which | Significant Impact | Mitigation Incorporated | Significant Impact | No Impact |
| | | | \boxtimes | | |

With incorporation of the mitigation measures set forth in the Mitigation Monitoring Program that is part of the Original WSIP EIR and the environmental guidelines set forth in the SCE Environmental Clearance (which conform to the land disturbance mitigation measures included in the Original WSIP EIR; copy of SCE Environmental Clearance included in Appendix A herein), none of the potential environmental effects of the Project would cause substantial adverse effects on human beings.



PART 3 REFERENCES AND SOURCES

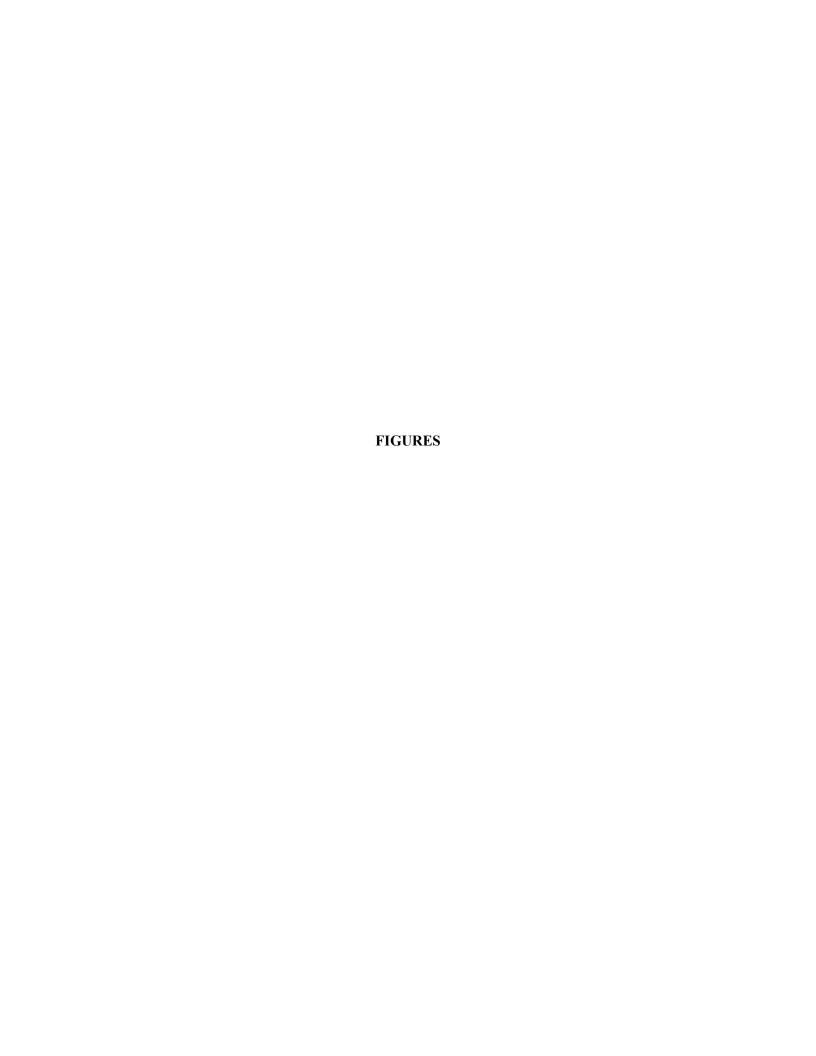
Modified Water Supply Improvement Project Initial Study

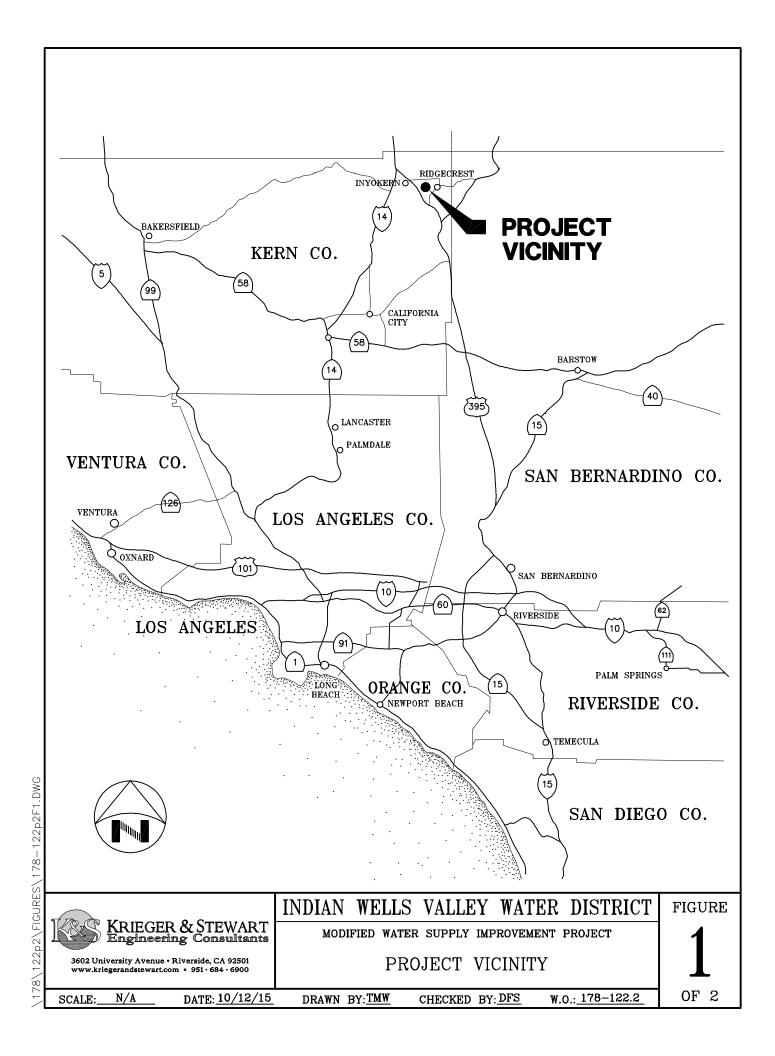


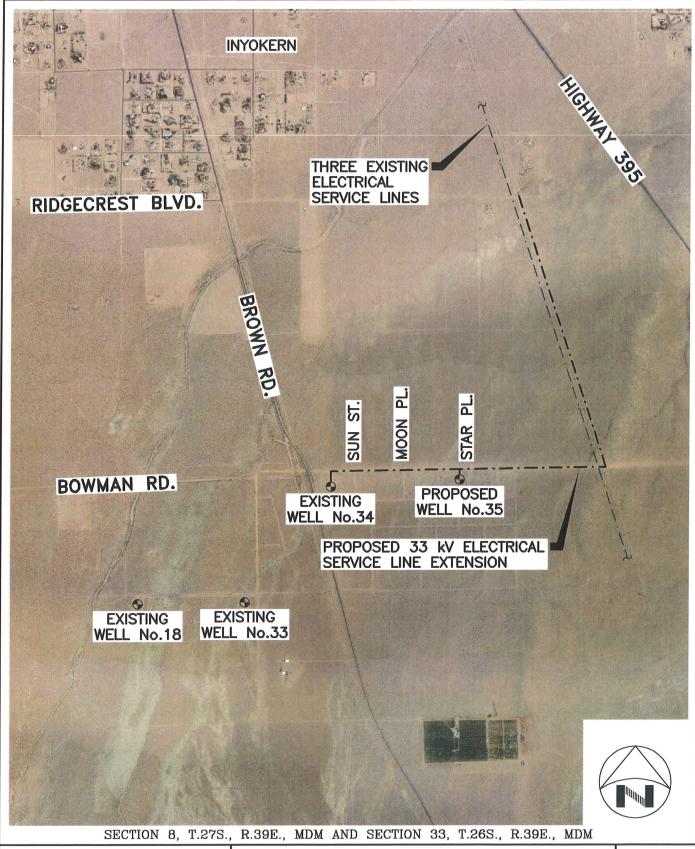
PART 3 - REFERENCES AND SOURCES

- California Air Resources Board Website for California Ambient Air Quality Standards, www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm
- California Aquatic Resource Inventory Website, www.ecoatlas.org/regions/ecoregion/mojave
- California Code of Regulations, Title 14, Division 6, Chapter 3; <u>Guidelines for Implementation of the California Environmental Quality Act</u>, Section 15000 *et seq*; as amended in 2012
- California Department of Toxic Substances Control Website, EnviroStor Database, www.envirostor.dtsc.ca.gov/public
- California Scenic Highways Mapping System Website, <u>www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm</u>
- <u>Draft Environmental Impact Report for the Water Supply Improvement Project</u>, ECORP Consulting, Inc., October 2011
- Eastern Kern Air Pollution Control District Policy Addendum to CEQA Guidelines Addressing GHG Emission Impacts for Stationary Source Projects When Serving As Lead CEQA Agency, adopted March 8, 2012
- Eastern Kern Air Pollution Control District Website, www.kernair.org
- <u>Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Kern County, California and Incorporated Areas, Map Number 06029C1575E</u>, FEMA National Flood Insurance Program, Map Effective September 26, 2008
- Federal Emergency Management Agency (FEMA) Map Service Center Website, www.msc.fema.gov
- <u>Final Environmental Impact Report for the Water Supply Improvement Project</u>, ECORP Consulting, Inc., February 2012
- <u>Kern County General Plan</u>, County of Kern, September 22, 2009
- <u>Kern County Important Farmland 2012, Sheet 3 of 3</u>, California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, August 2014
- <u>Kern County Williamson Act FY 2013/2014, Sheet 3 of 3</u>, California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, 2013
- United States Environmental Protection Agency Website for National Ambient Air Quality Standards, www.epa.gov/air/criteria.html
- Water Supply Improvement Project Draft Initial Study, ECORP Consulting, Inc., July 2011
- Western Regional Climate Center Website, www.wrcc.dri.edu











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INDIAN WELLS VALLEY WATER DISTRICT

MODIFIED WATER SUPPLY IMPROVEMENT PROJECT

PROJECT LOCATION

SCALE: 1"=2000'± DATE: 10/12/15

DRAWN BY: TMW

CHECKED BY: DFS

W.O.: 178-122.2

FIGURE

OF 2

APPENDIX A SCE ENVIRONMENTAL CLEARANCE

SCE ENVIRONMENTAL CLEARANCE



| ESF | Proj | ject | Details: | |
|-----|------|------|----------|--|
|-----|------|------|----------|--|

Change Request: TD819375 LINE EXTENSION

ESF #: 31274

Type: Maintenance Order Object: TD819375 LINE EXTENSION

Detailed Description

Project Type: Distribution

Distribution Activity Type: Line Extensions

Transmission Activity Type:

Circuit / Facility Name: KENNEDY 33KV

Region: Rural District: Ridgecrest

Transmission Grid:

Project Coordinates

| Unique Id | Coordinates Label | Latitude DD | Longitude DD | Long Deg | | Long Sec | Lat Deg | Lat Min | Lat Sec | Serv Ter | PL | СР | EZ |
|--------------|----------------------|-------------|--------------|-------------|----|-------------|---------|---------|---------|-------------|-----|----|----|
| 001 | 819375 OVE | 0 | 0 | 0 | 00 | 0 | 0 | 00 | 0 | IN | OUT | IN | IN |
| 002 | 819375 OVE | 0 | 0 | 0 | 00 | 0 | 0 | 00 | 0 | IN | OUT | IN | IN |
| 003 | 819375 TRE | 0 | 0 | 0 | 00 | 0 | 0 | 00 | 0 | IN | OUT | IN | IN |

Clearance: Environmental Clearance Issued

Southern California Edison Company (SCE) proposes to install 50 new poles and 4 new anchors and trench along the Kennedy 33kV circuit near Kern County. The pole is accessible from Bowman Rd. and then overland. Ground disturbance includes mechanical excavation by auger of a new pole hole measuring approximately 2-3 feet in diameter by 6-9 feet deep and backfilling of the old hole.

Notes

- -The Environmental Coordinator for the Downs Substation Projectmust be notified of the construction start date. Contact Heather Neely (heather.neely@sce.com or 626-476-7839) at least two weeks prior to the start of construction.
- -A pre-construction survey must be conducted prior to ground-disturbing activities. Any special-status species identified may require a monitor for the duration of the job. Contact the biologist listed below at least 2 weeks prior to the start of construction to arrange for a pre-construction survey.
- -A biological monitor must be present on the first day of ground-disturbing activities, and potentially for all work activities.

Contact the biologist listed at least 2 weeks prior to the start of construction to arrange for a biological monitor. -All field crew members must have received desert tortoise training in the last two years. If they have not, contact the biologist listed below at least 2 weeks in advance to schedule the desert tortoise training. -If you encounter a desert tortoise or burrowing owl, stop work and contact the biologist listed below immediately. -Check for desert tortoise underneath parked vehicles/equipment. -Burrows found within the project area**must**be avoided during all project activities. -Disturbance of shrubs or other desert tortoise habitat shall be avoided to the greatest extent possible. -Vehicles must remain on existing roads to the greatest extent possible and maintain a speed of no more than 15 mph on unpaved roads. No new roads can be created. -Since this project is within an SCE-defined Eagle Zone, please construct any new structures to be eagle safe according to DDS 10 and DOH DC 535. Please call Kara Donohue in CES (PAX 74613) or Tom Fieldse in TDBU Construction Methods (PAX 15228) if you have any questions regarding eagle safe design. -Crews shall thoroughly cover all holes and trenches at the end of every day. Crews should look in holes that have been covered to make sure nothing has become trapped overnight. -Contain and remove all trash from the job site. Special attention should be given to leaving no micro-trash (screws, nuts, bolts, pop-tops, washers, etc.) at the jobsite. -Food related trash (wrappers, cans, bottles, etc.) will be disposed of in closed containers and removed from the work site each day. -If cultural or paleontological resources or human remains are encountered, halt work and contact archaeologist Sara Bholat (sara.bholat@sce.com or 909-229-3677) or the SCE Operator and ask for an on-call SCE Archaeologist.

People Involved

| Role | Business Partner | Name | E-Mail | Telephone |
|-----------------|---------------------|------------|------------------------|--------------|
| Initiator | 10168270 | Hugo Ayala | HUGO.AYALA@SCE.COM | 760-375-1853 |
| ESF Coordinator | 10168726 | Casey Quon | CASEY.QUON@SCE. COM | |

| SME - BIO Subject Matter Expert | 10166810 | Molly Peters | MOLLY.PETERS@SCE. COM | |
|---|----------|-----------------|-----------------------------|--------------|
| SME - ARCH Subject Matter Expert | 10059802 | Sara Bholat | SARA.BHOLAT@SCE. COM | 626-462-2597 |
| SME - WATER Subject Matter Expert | 10133802 | Richard Haywood | RICHARD. HAYWOOD@SCE.COM | 6264628632 |

Compile Requirements and Issue Final Clearance

Please answer the following question. Provide comments as necessary.

Pre-construction condition exists?

Choose Yes

Related Objects

Leading Object of the Change Request:

Type: Maintenance Order Object: TD819375 LINE EXTENSION

| Object Type | Object | Description | Added by |
|-------------------|----------|----------------|------------|
| Maintenance Order | TD819375 | LINE EXTENSION | Hugo Ayala |

Attachments

| Name | Description | Created by | Created on |
|------|-----------------------------------|------------|---------------------|
| | OVERHEAD POLE AND TRENCHING PATH. | AYALAH | 10/13/2015 15:40:26 |

Status Log

| Previous | New | Changed by | Changed on |
|------------------------|------------------------|--------------|---------------------|
| Submitted | Awaiting Approval | ACWYECCWSUSR | 10/13/2015 16:16:31 |
| Awaiting Approval | Environmental Analysis | Casey Quon | 10/15/2015 12:40:44 |
| Environmental Analysis | Cleared | Casey Quon | 11/04/2015 08:50:34 |

October 29, 2015

BIOLOGICAL CLEARANCE KENNEDY 33KV LINE EXTENSION INYOKERN, KERN COUNTY TD819375

Project Description

Scope:

• Appx. 50 poles new install, trenching 375' approximately, overland driving and earthen roadside access. Customer driven project, EIR does not cover SCE scope of work.

Pole & Resource Summary

CNDDB State or Federal Species within 3 miles (not extirpated or possibly extirpated):

- Desert Tortoise
- Burrowing Owl
- Mohave Ground Squirrel

Water Resources: One feature in southeast corner of project component, avoidance measures included in EHSvnc water requirements task

Veg Communities: none Critical Habitat: none

Capital Project: Downs Substation overlaps north/south - J. Goldfarb confirmed preconstruction survey, desert tortoise training and monitoring during ground disturbing activities appropriate given location and previous scope of all overhead. Addition of trenching component was not double checked with the capital project.

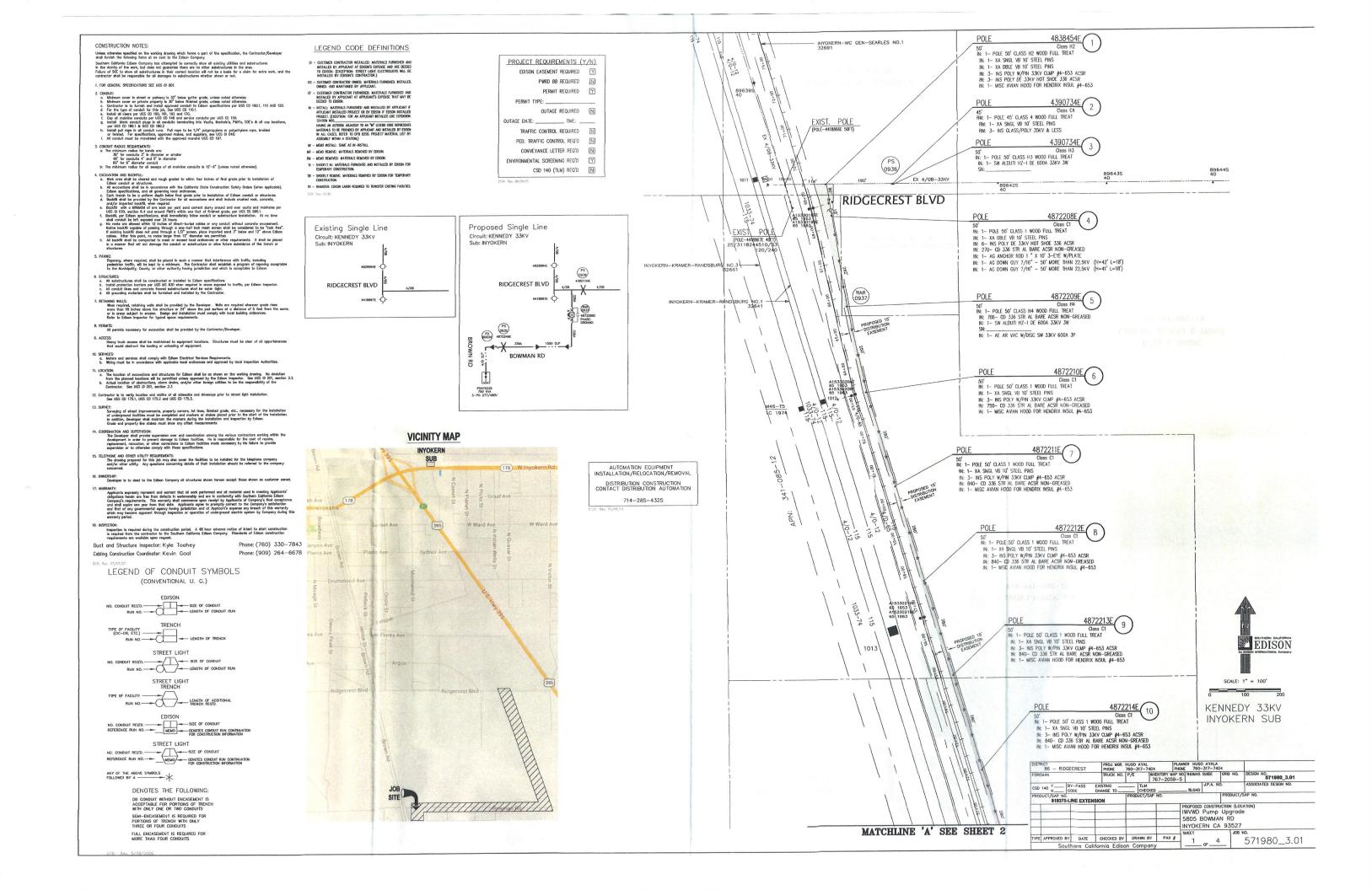
Pole specific measures: Potential DT and MGS habitat. Precon survey req'd, monitor must be present for all ground disturbing activities.

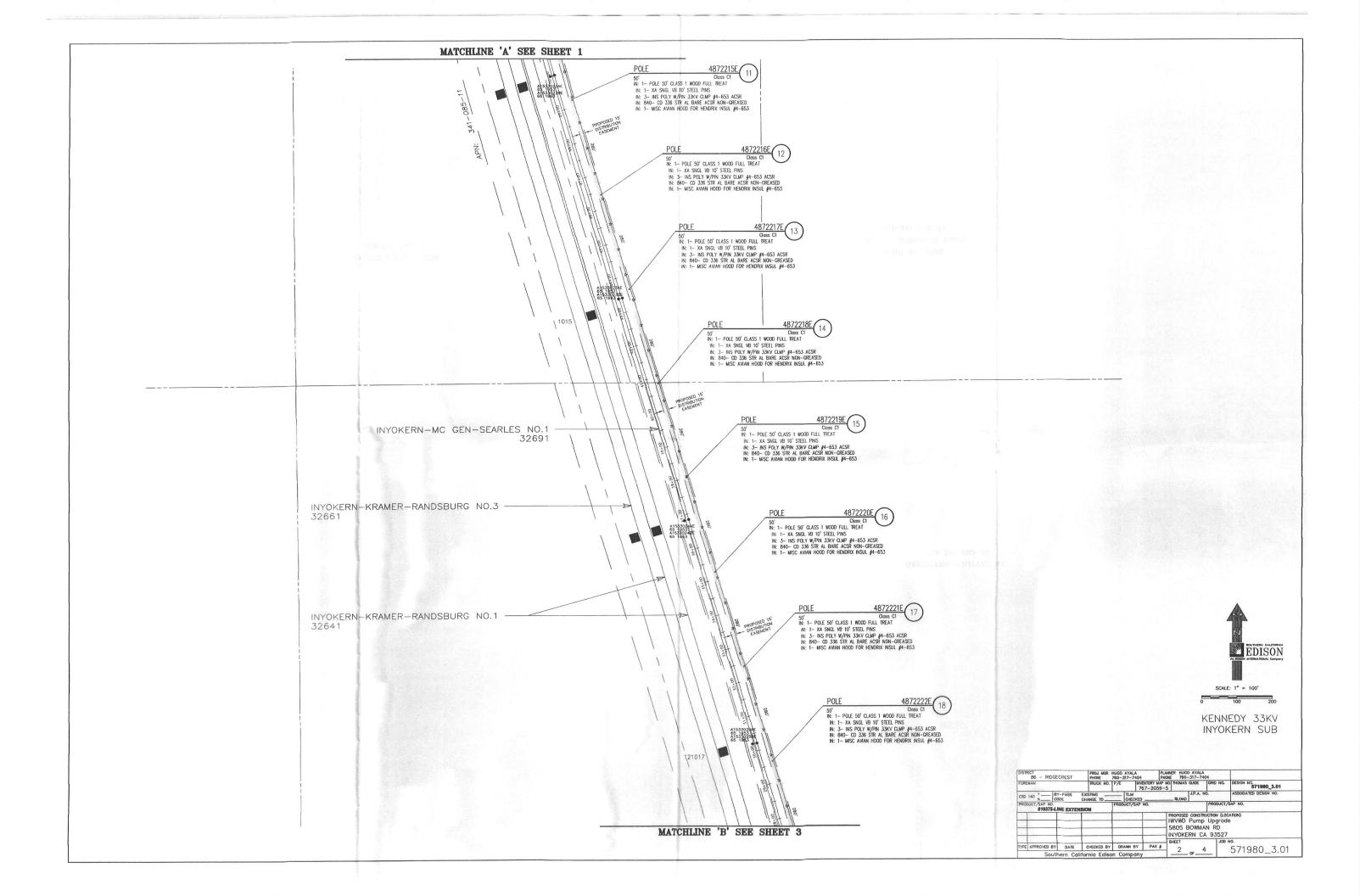
Conclusions and Management Measures

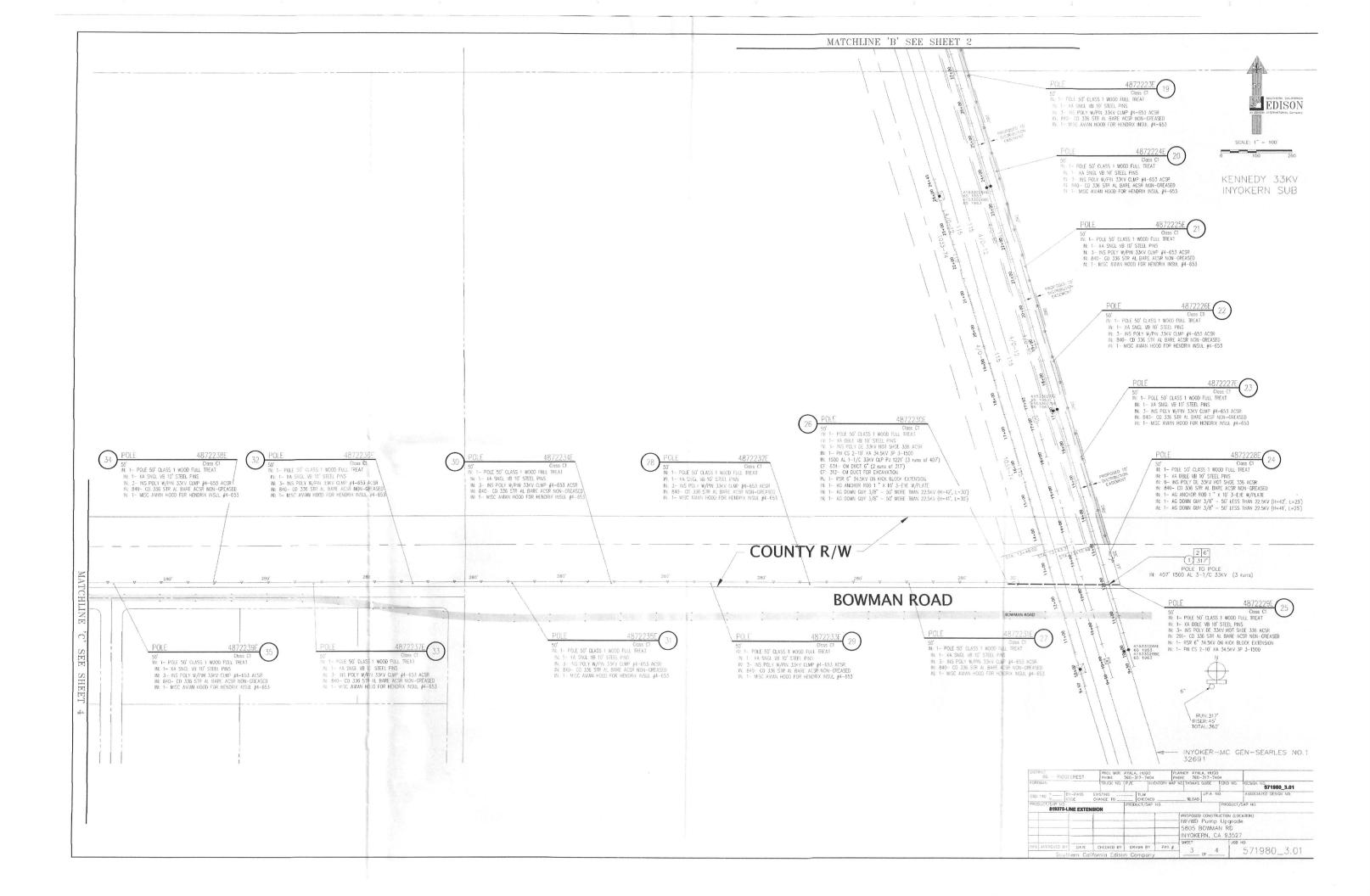
Based on a review of project design plans and proposed scope of work, a review of maps and aerial photography, and a records search of the California Natural Diversity Database (CNDDB) for sensitive species occurrences, this project is not expected to have significant impacts to biological resources if the following guidelines are met:

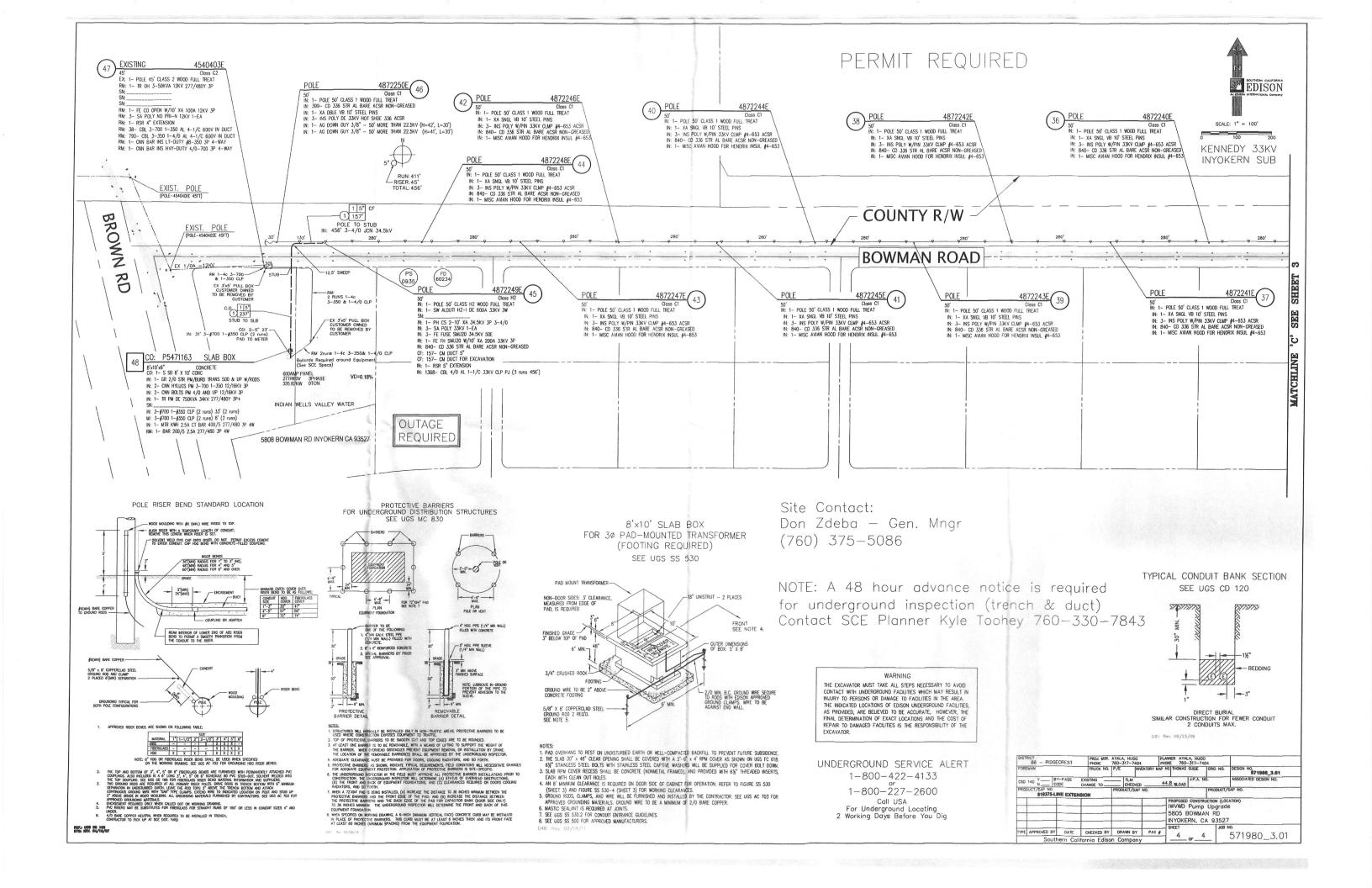
- A pre-construction survey must be conducted prior to ground-disturbing activities. Any
 special-status species identified may require a monitor for the duration of the job.
 Contact the biologist listed below at least 2 weeks prior to the start of
 construction to arrange for a pre-construction survey.
- A biological monitor must be present on the first day of ground-disturbing activities, and
 potentially for all work activities. Contact the biologist listed at least 2 weeks prior
 to the start of construction to arrange for a biological monitor.
- All field crew members must have received desert tortoise training in the last two years.
 If they have not, contact the biologist listed below at least 2 weeks in advance to schedule the desert tortoise training.
- If you encounter a desert tortoise or burrowing owl, stop work and contact the biologist listed below immediately.
- Check for desert tortoise underneath parked vehicles/equipment.
- Burrows found within the project area **must** be avoided during all project activities.

- Disturbance of shrubs or other desert tortoise habitat shall be avoided to the greatest extent possible.
- Vehicles must remain on existing roads to the greatest extent possible and maintain a speed of no more than 15 mph on unpaved roads. No new roads can be created.
- Since this project is within an SCE-defined Eagle Zone, please construct any new structures to be eagle safe according to DDS 10 and DOH DC 535. Please call Kara Donohue in CES (PAX 74613) or Tom Fieldse in TDBU Construction Methods (PAX 15228) if you have any questions regarding eagle safe design.
- Crews shall thoroughly cover all holes and trenches at the end of every day. Crews should look in holes that have been covered to make sure nothing has become trapped overnight.
- Contain and remove all trash from the job site. Special attention should be given to leaving no micro-trash (screws, nuts, bolts, pop-tops, washers, etc.) at the jobsite.
- Food related trash (wrappers, cans, bottles, etc.) will be disposed of in closed containers and removed from the work site each day.









APPENDIX B

SIMULATED IMPACT OF PRODUCTION SCHEDULES AT IWVWD WELLS 34 AND 35 TECHNICAL MEMORANDUM FROM LAYNE HYDRO



June 25, 2015

To: Don Zdeba (IWVWD)

Renee Morquecho (IWVWD)

From: Vic Kelson (Layne Hydro)

MEMORANDUM

SIMULATED IMPACT OF PRODUCTION SCHEDULES AT IWVWD WELLS 34 AND 35

Over the past several years, Indian Wells Valley Water District (IWVWD) has contracted with Layne to implement groups of model runs that assess the regional impacts that would result from changing the geographical distribution of groundwater withdrawals. These modeling exercises have been conducted in support of the EIR process for the IWVWD water supply improvement plan (WSIP). All of the model runs are based on the most-recent modeling study conducted by Brown and Caldwell (BC) facilitated with the Groundwater Vistas modeling framework (Environmental Simulations, Inc.).

In previous modeling efforts, Layne has refined the BC model grid in the local field to improve the quality of the results, particularly the predictions of well interference that will result from modified pumping schedules at IWVWD wells. The total withdrawals in all model runs are based on the population estimates and baseline percapita demand set forth in the Urban Water Management Plan (UWMP) report dated August 1, 2011 by Krieger and Stewart, as provided to Layne by Renee Morquecho of IWVWD on August 17, 2011.

In June of 2015, IWVWD contracted with Layne to conduct three additional simulations, which study modified withdrawals at IWVWD wells 34 and 35. This memorandum describes the changes that were made to the model, and presents the model results.

CHANGES TO THE BROWN AND CALDWELL MODEL

All model runs are based on the Indian Wells Valley Groundwater Model published by Brown and Caldwell on December 11, 2013. The Brown and Caldwell model simulates conditions in the aquifer from pre-development times until 2057; our simulation period covers the years 2015-2024.

The changes to the model are discussed in detail below.

CHANGES TO THE MODEL GRID

For this modeling effort, no new changes were made to the model grid. The model grid corresponds to the configuration that was used in the June, 2014 model runs (Layne, 2014).

ADDITION OF NEW WELLS AND MODIFIED PUMPING SCHEDULES

The original Brown and Caldwell model did not include IWVWD wells 34 and 35. Layne modified the BC model for the June 2014 model runs, adding wells 34 and 35. The pumping rates assumed for all IWVWD wells vary, depending on the specific modeling scenario, as described below.

Three pumping scenarios were developed, each corresponding to a unique arrangements of wells and their rated capacities. In each scenario a capacity has been assigned to each well (Table 2). However, the sum of the rated well capacities exceeds the anticipated demand in each year of the simulation. As in our previous investigations, we assume that within any given year, all wells will pump for the same amount of time; the total annual withdrawals are the sum of the withdrawals at all wells. In other words, the portion of the total annual withdrawals that is assigned to each well is proportional to the rated capacity of each well. For each scenario, and in each year, the total annual demand (Table 3) is allocated among the wells in the scenario, weighted by their respective specified pumping rate (distribution factor). The scaled pumping rate for each well in each specific year is calculated based on the fraction that the well contributes to the total. The sum of the individual wells pumping continuously at their scaled rates for the year, will meet the annual demand.

For all "non-status quo" scenarios, the rates are the same as the "status-quo" rates up until 2010. After 2010, the modified rates are used for all the "non-status-quo" scenarios. Values entered into the groundwater flow model were computed by converting the production rates to units of ft³/d. In order to account for the entire regional withdrawal rates, the model includes all non-IWVWD wells that were included in the Brown and Caldwell model.

NOTE ABOUT THE "STATUS QUO" SIMULATION

It is important to note that the "Status Quo" simulation does not hold pumping rates constant through time. All simulations are configured to produce sufficient water to meet the demand schedule in each year of the planning period. The design capacities of wells in the various scenarios (including the "Status Quo" scenario) are used to allocate the aggregate pumping rate across the array of District wells. As demand increases, it is assumed that the various wells will be used for longer periods of time, or be pumped for longer periods, in order to meet the demand.

RESULTS

As described above, the three new model scenarios were configured and run for the entire period of the Brown and Caldwell model, assuming that the changes in withdrawals from the IWVWD begin in 2015. Results are provided after the first year of modified withdrawals (end of 2015) and after ten years (end of 2024). The ultimate objective was to compare the short-term and long-term impact on regional water levels of each proposed configuration to the impacts of the current "Status Quo" configuration. After the model runs were complete, grids of the simulated potentiometric head were extracted in SURFER format at the time steps that correspond to the end of 1 and 10 years of operation for the new configuration. For each of the four proposed scenarios, SURFER was used to compute grids of the difference in head between the scenario and the "Status Quo" scenario at the end of

2011 and 2020. It is important to note that the resulting grids are not "drawdown" plots of the transient response of the system. Rather, they represent the water-level decline or increase resulting from new wells and changes in pumping at existing wells for each proposed scenario, as compared to current operations (Status Quo scenario). The simulated decline or increase includes any interference with other wells in the model. Figures 2 and 3 provide the computed water-level changes from the 2011 EIR modeling, as solid contour lines. In the figure, red contours indicate a water-level decline relative to the status quo; green lines indicate a water-level recovery. For comparison with the new simulations, these lines are included on the drawdown color-flood figures that follow (see below).

For each scenario, contour plots of water-level declines are provided in Figures 2-7. In each figure, the contour interval is 2 ft. Color shading is provided to illustrate the magnitude of water-level declines. In regions where the water level increases (arising from reduced pumping at existing wells as compared to the Status Quo), green shading is used. The darker green regions indicate a larger increase in the water level. In regions where the water level increase or decline is smaller than 2 ft, no shading is used. In regions where the water level decline exceeds 2 ft, shades of red are used, with the darker red colors indicating larger water-level declines.

Table 1. Scenarios as developed from the provided pumping schedules.

| Scenario Name | Changes to Well Configuration |
|---------------|-------------------------------|
| scen0 | Status Quo |
| scen1 | Well 34 at 2200 gpm, |
| | Well 35 at 2200 gpm |
| scen2 | Well 34 at 2000 gpm, |
| | Well 35 at 1200 gpm |
| scen3 | Well 34 at 2200 gpm, |
| | Well 35 at 1000 gpm |

Table 2. Specific well capacities for each scenario.

| Well | scen0 Status | scen1 | scen2 | scen3 |
|------|--------------|-------|-------|-------|
| | Quo | | | |
| 9A | 1000 | 1000 | 1000 | 1000 |
| 10 | 1100 | 1100 | 1100 | 1100 |
| 11 | 1000 | 1000 | 1000 | 1000 |
| 13 | 1100 | 1100 | 1100 | 1100 |
| 17 | 1200 | 1200 | 1200 | 1200 |
| 18 | 1200 | 1200 | 1200 | 1200 |
| 30 | 1400 | 1400 | 1400 | 1400 |
| 31 | 1400 | 1400 | 1400 | 1400 |
| 33 | 1200 | 1200 | 1200 | 1200 |
| 34 | 1200 | 2200 | 2000 | 2200 |
| 35 | 0 | 2200 | 1200 | 1000 |

Table 3. Total annual pumping demand for IWVWD. These values are the same in all scenarios.

| Year | Demand (ac-ft/yr) | Demand (gpm) |
|------|-------------------|--------------|
| 2008 | 8496 | 5267 |
| 2009 | 8401 | 5208 |
| 2010 | 7570 | 4693 |
| 2011 | 8910 | 5524 |
| 2012 | 9380 | 5815 |
| 2013 | 9468 | 5870 |
| 2014 | 9557 | 5925 |
| 2015 | 9646 | 5980 |
| 2016 | 9734 | 6035 |
| 2017 | 9823 | 6090 |
| 2018 | 9912 | 6145 |
| 2019 | 10001 | 6200 |
| 2020 | 10089 | 6255 |
| 2021 | 10143 | 6288 |
| 2022 | 10196 | 6321 |
| 2023 | 10249 | 6354 |
| 2024 | 10302 | 6387 |

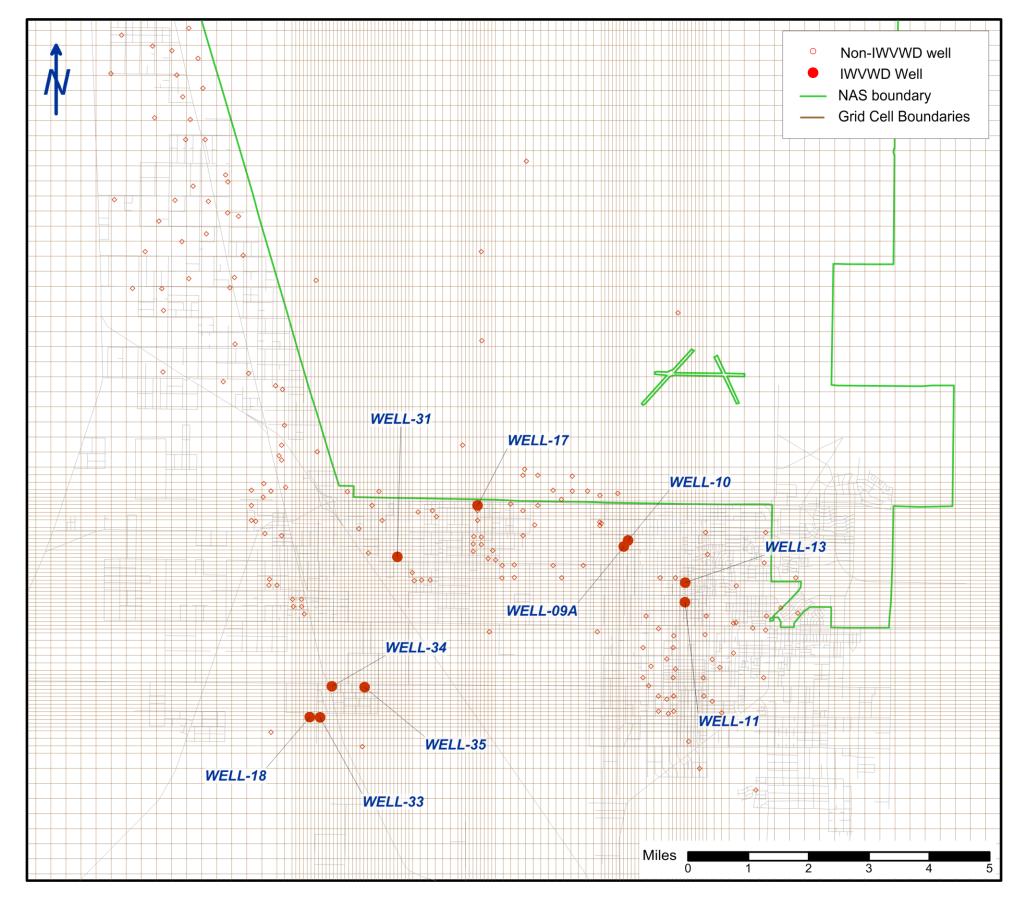


Figure 1. Layout of IWVWD wells and revised grid spacing for the predictive model.

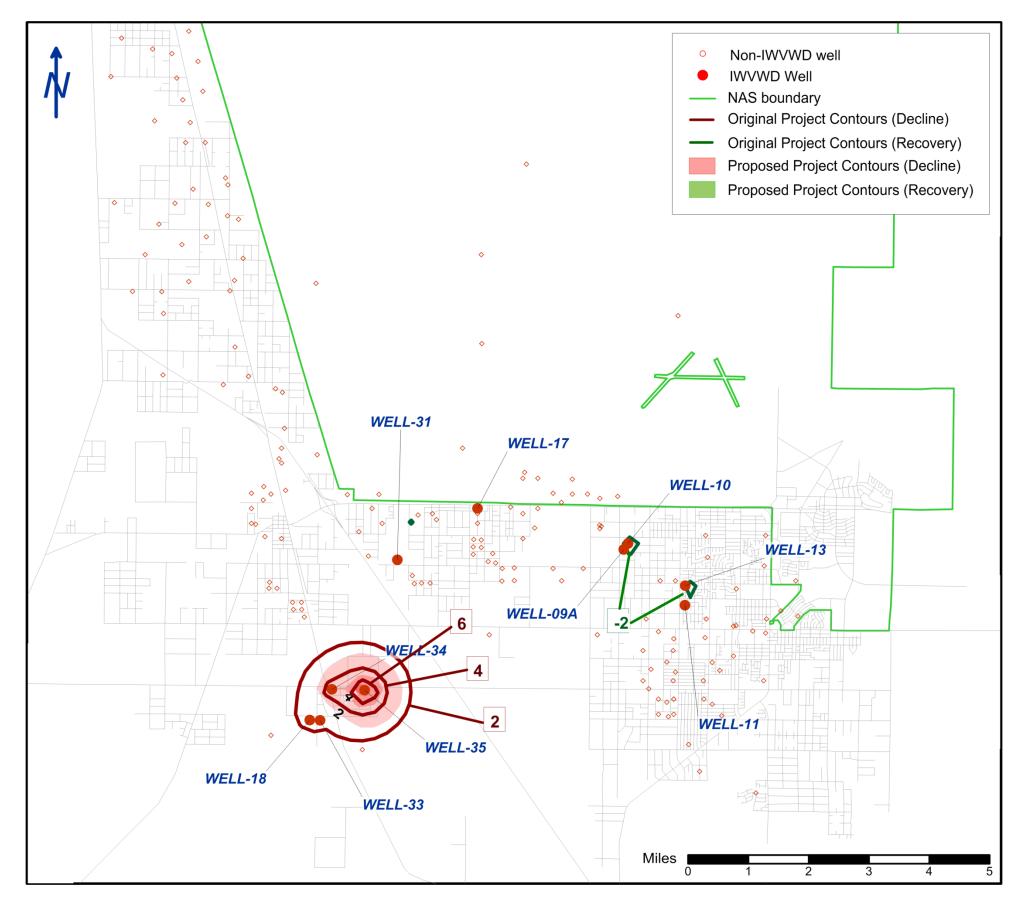


Figure 2. Simulated water-level difference after 1 year for scenario scen1 (Well 34 at 2200 gpm, Well 35 at 2200 gpm). Contour interval 2 ft.

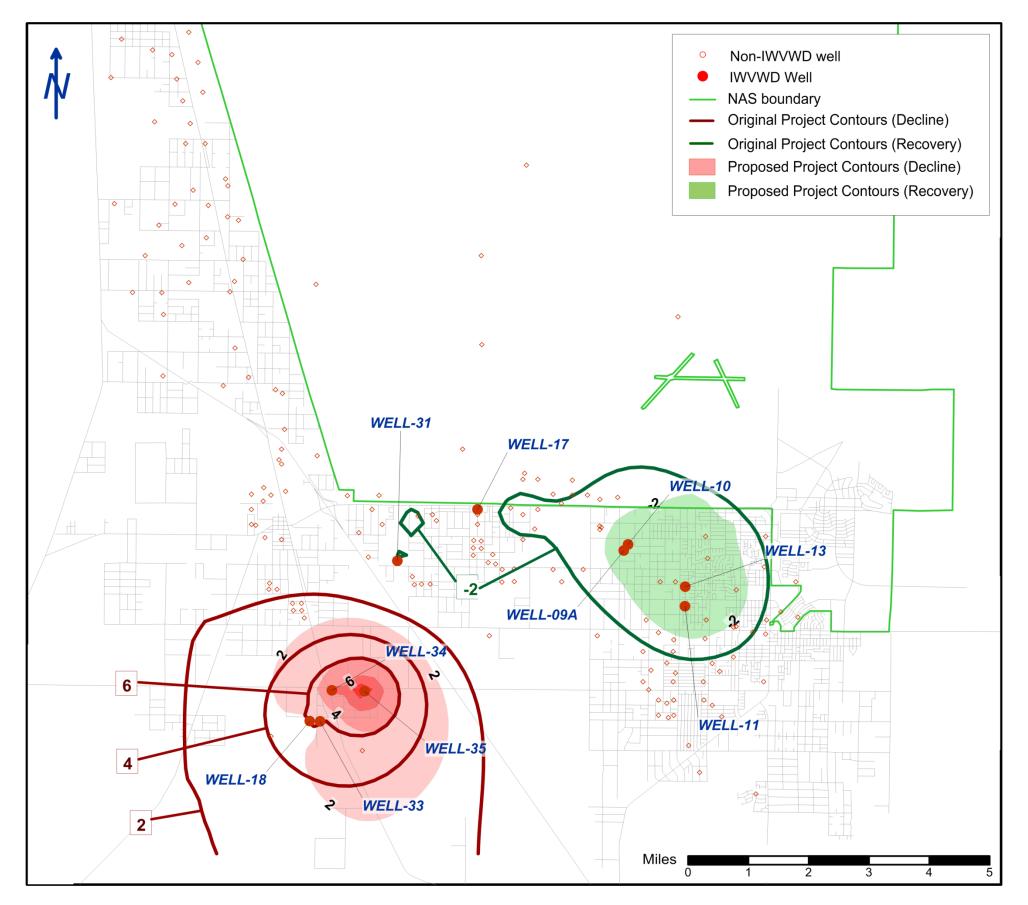


Figure 3. Simulated water-level difference after 10 years for scenario scen1 (Well 34 at 2200 gpm, Well 35 at 2200 gpm). Contour interval 2 ft.

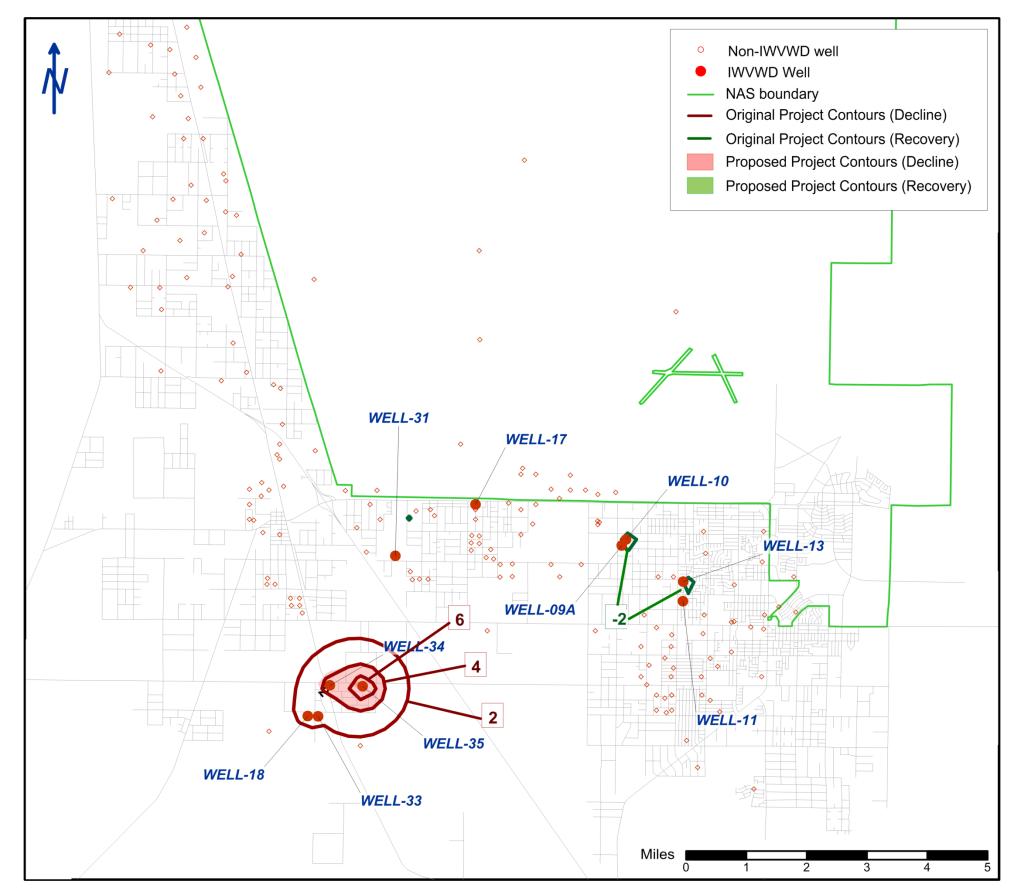


Figure 4. Simulated water-level difference after 1 year for scenario scen2 (Well 34 at 2000 gpm, Well 35 at 1200 gpm). Contour interval 2 ft.

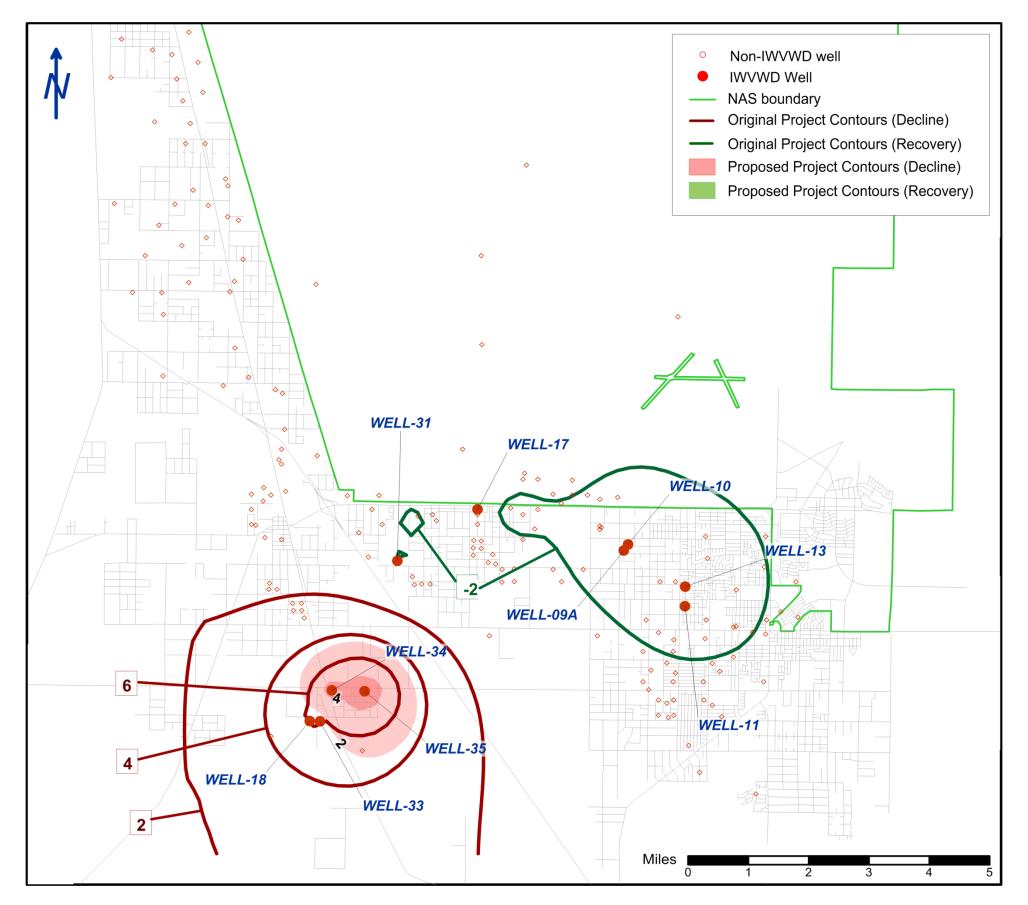


Figure 5. Simulated water-level difference after 10 years for scenario scen2 (Well 34 at 2000 gpm, Well 35 at 1200 gpm). Contour interval 2 ft.

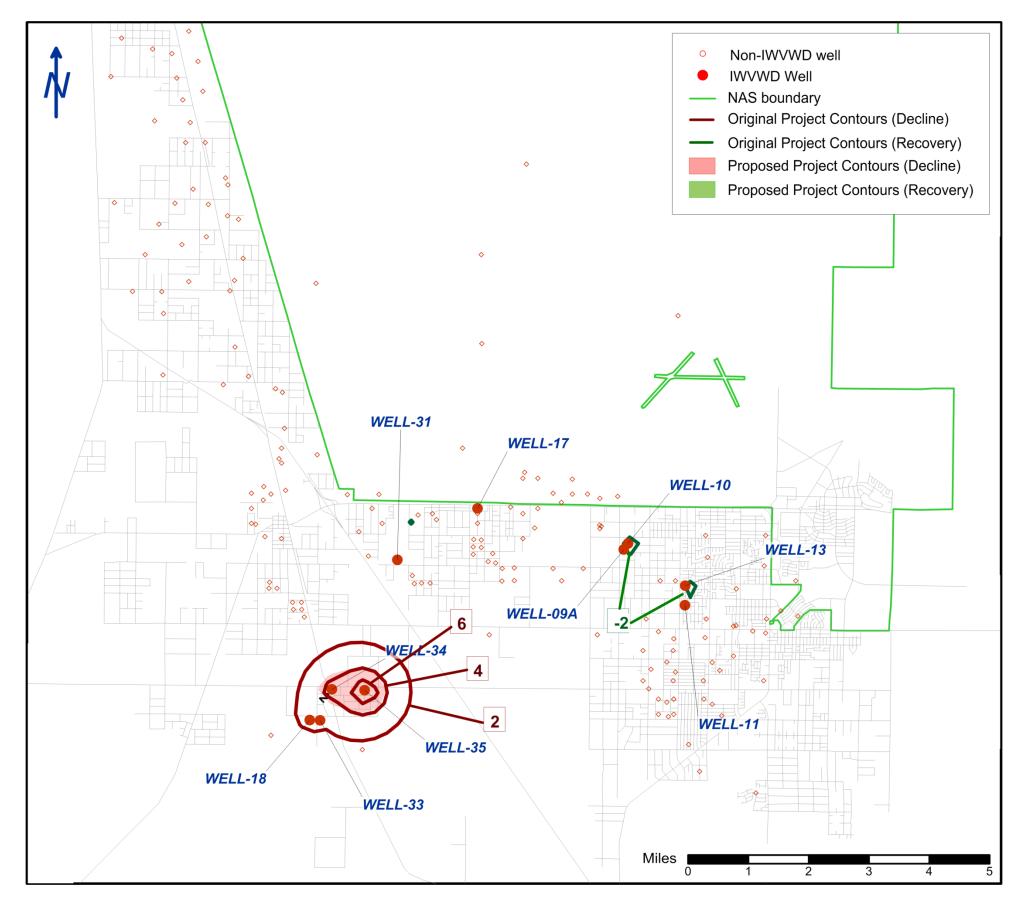


Figure 6. Simulated water-level difference after 1 year for scenario scen3 (Well 34 at 2200 gpm, Well 35 at 1000 gpm). Contour interval 2 ft.

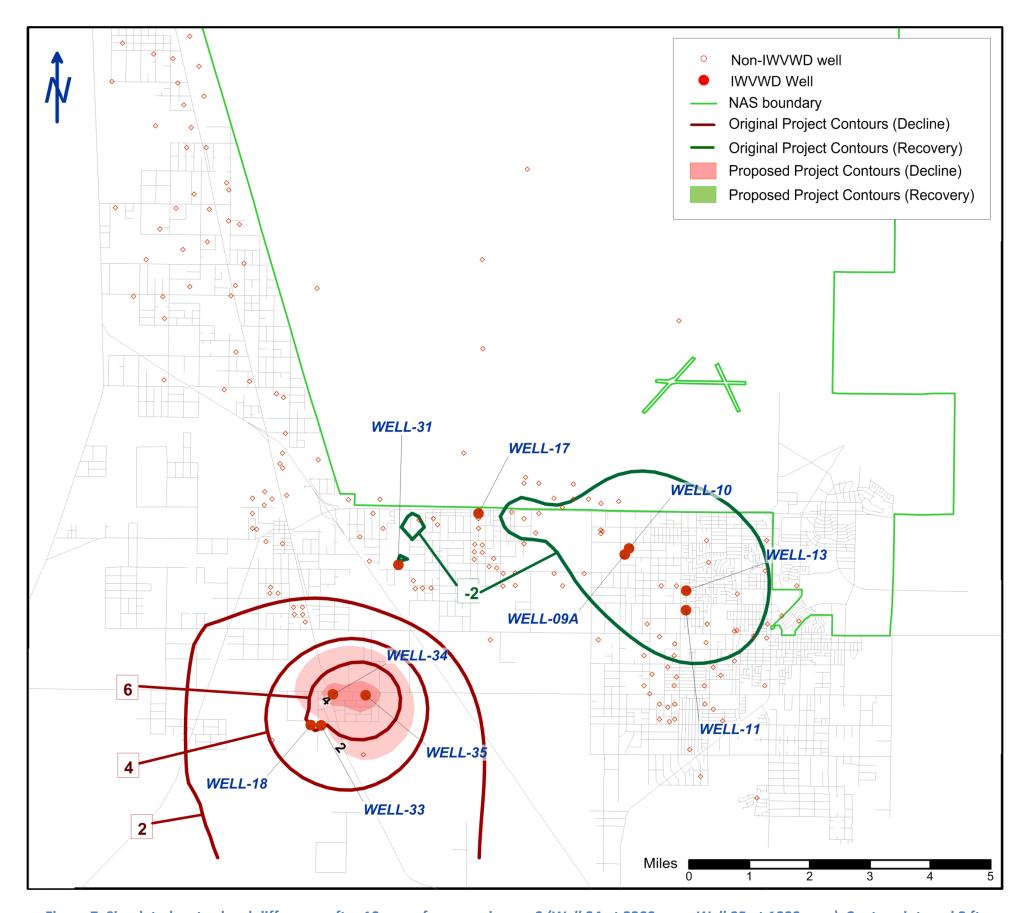


Figure 7. Simulated water-level difference after 10 years for scenario scen3 (Well 34 at 2200 gpm, Well 35 at 1000 gpm). Contour interval 2 ft.