Hugh Nguyen, Clerk-Recorder

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Notice of Determination

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Appendix D

To:

☒ Office of Planning and Research

U.S. Mail:
P.O. Box 3044
Sacramento, CA 95812-3044

Street Address:
1400 Tenth St., Rm 113
Sacramento, CA 95814

☒ County Clerk
County of: Orange
Address: 24031 El Toro Road
Laguna Hills, CA 92653

From:

Public Agency: Irvine Ranch Water District
Address: 15600 Sand Canyon Blvd
Irvine, CA 92618
Contact: Jo Ann Corey
Phone: (949) 453-5300

Lead Agency (if different from above):

Address:

Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

FILED

MAR 13 2018

ORANGE COUNTY CLERK-RECORDER DEPARTMENT

BY: NA DEPUTY

30-2018-02377

State Clearinghouse Number (if submitted to State Clearinghouse): 2010051055

Project Title: Baker Water Treatment Plant Project

Project Applicant: Irvine Ranch Water District (IRWD)

Project Location (include county): 21082 Wisteria, Lake Forest, Orange County, CA 92630

Project Description:
IRWD has prepared Addendum No. 3 to the Final Environmental Impact Report (EIR) for the Baker Water Treatment Plant Project. IRWD proposes to modify the Project to include construction and operation of a solar photovoltaic power generation system and energy storage system within the existing boundaries of the Baker WTP. The Project would supplement electricity provided by SCE with solar energy captured onsite to reduce the cost of power at the Baker WTP. The Project would also charge the storage system batteries from the grid during off-peak hours and discharge them during on-peak times.

This is to advise that the Irvine Ranch Water District has approved the above
(☒ Lead Agency or ☐ Responsible Agency)

described project on March 12, 2018 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
www.irwd.com

Signature (Public Agency): Title: Environmental Compliance Specialist

Date: March 13, 2018 Date Received for filing at OPR:

POSTED

MAR 13 2018

ORANGE COUNTY CLERK-RECORDER DEPARTMENT

BY: NA DEPUTY

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

Addendum No. 3 to the

BAKER WATER TREATMENT PLANT PROJECT

Environmental Impact Report (State Clearinghouse No. 2010051055)

Prepared for:

Irvine Ranch Water District

15600 Sand Canyon Avenue

March 6, 2018

ESA

Addendum No. 3 to the

BAKER WATER TREATMENT PLANT PROJECT

Environmental Impact Report (State Clearinghouse No. 2010051055)

Prepared for:
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, CA 92618

March 2018

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300
www.esassoc.com

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BAKER WATER TREATMENT PLANT PROJECT

Final Environmental Impact Report Addendum No. 3

1.0 Introduction

Irvine Ranch Water District (IRWD) proposes to modify the Baker Water Treatment Plant (WTP) Project (Project). The proposed modification includes construction and operation of a solar photovoltaic (PV) power generation system and energy storage system within the existing boundaries of the Baker WTP. The purpose of the solar system is to supplement electricity provided by Southern California Edison (SCE) with solar energy captured onsite to reduce the cost of power at the Baker WTP. The purpose of the energy storage system is to charge the batteries from the grid during off-peak hours and then discharge them during on-peak times to reduce the cost of power at the Baker WTP and reduce stress on SCE's electrical distribution grid. The potential environmental effects of the proposed modification to the Project are addressed in this Addendum No. 3 to the Baker WTP Project Final Environmental Impact Report (EIR) (SCH # 2010051055). All other planned Baker WTP facilities and project objectives outlined in the Final EIR and Addendum No. 1 and No. 2 remain unchanged. The proposed modification does not affect the changes to the Project that were analyzed in Addendum No. 1 and Addendum No. 2.

IRWD has prepared this Addendum pursuant to the California Environmental Quality Act (CEQA) Guidelines Section 15164, to describe the modifications to the Project and to evaluate whether the modifications present any new significant impacts not identified in the previously certified Final EIR, Addendum No. 1, and Addendum No. 2 that would require preparation of a subsequent or supplemental EIR. As documented in the analysis presented below, the proposed modifications would not result in substantial changes that warrant preparation of a subsequent or supplemental EIR pursuant to Sections 15162 and 15163 of the CEQA Guidelines.

2.0 Project Background

In April of 2011, IRWD's Board of Directors certified the Baker WTP Project Final EIR. The Final EIR evaluated the environmental effects of constructing and operating a new potable water treatment facility in the City of Lake Forest at the location of the former Baker Filtration Plant (BFP). The Project included other requisite offsite components, such as the Raw Water Pump Station located in the City of Orange. The Baker WTP Project enhances water supply reliability in southern Orange County and provide redundant treatment capacity to Metropolitan Water District of Southern California's (MWD) Diemer Treatment Plant by treating raw water at a normal operating capacity of 43.5 cubic feet per second (28 million gallons per day). The Project does not increase the capacity of regional treated water distribution pipelines, but rather improves

regional potable water system reliability and operational flexibility. The Project provides treated water to four partnering water agencies in southern Orange County: El Toro Water District (ETWD), Moulton Niguel Water District (MNWD), Santa Margarita Water District (SMWD), and Trabuco Canyon Water District (TCWD).

In March of 2012, IRWD's Board of Directors certified Addendum No. 1 to the Baker WTP Project Final EIR. Addendum No. 1 evaluated the environmental effects of modifying the alignment of the treated water pipeline that connects the Baker WTP to the South County Pipeline and changes to the mechanical design of the product water pump station.

In March of 2013, IRWD's Board of Directors certified Addendum No. 2 to the Baker WTP Project Final EIR. Addendum No. 2 evaluated the environmental effects of including an additional treatment process to the Baker WTP and two new electrical conduit alignments necessary for Southern California Edison (SCE) to service the Project. The treatment process at the Baker WTP was modified to include new residuals handling facilities to allow residuals processing to occur onsite at the Baker WTP rather than at Los Alisos Water Recycling Plant (LAWRP) as previously planned.

3.0 Purpose of Addendum

Under CEQA, the lead agency or a responsible agency shall prepare an addendum to a previously-certified Final EIR if some changes or additions are necessary to the prior EIR, but none of the conditions calling for preparation of a subsequent or supplemental EIR have occurred (CEQA Guidelines §§ 15162, 15164). Once an EIR has been certified, a subsequent EIR is only required when the lead agency or responsible agency determines that one of the following conditions has been met:

(1) Substantial changes are proposed in the project, or substantial changes occur with respect to the circumstances under which the project is undertaken, which require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects (CEQA Guidelines §15162(a)(1), (2));

(2) 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 previous EIR was certified as complete, shows any of the following:

   a. The project will have one or more significant effects not discussed in the previous EIR;

   b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

   c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

   d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative (CEQA Guidelines §15162(a)(3)).

If one or more of the conditions described above for a subsequent EIR exist, but only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation, then the lead agency may prepare a supplement to an EIR, rather than a subsequent EIR (CEQA Guidelines §15163(a)).

CEQA recommends that a brief explanation of the decision to prepare an addendum rather than a subsequent or supplemental EIR be included in the record (CEQA Guidelines §15164(e)). IRWD has evaluated the potential environmental impacts of the proposed modifications as set forth below in Section 6 of this Addendum No. 3. IRWD, acting as the Lead Agency, has determined that none of the above CEQA conditions apply and that Addendum No. 3 to the adopted Final EIR is the appropriate environmental documentation for the proposed modifications and fully complies with CEQA, as described in the CEQA Guidelines.

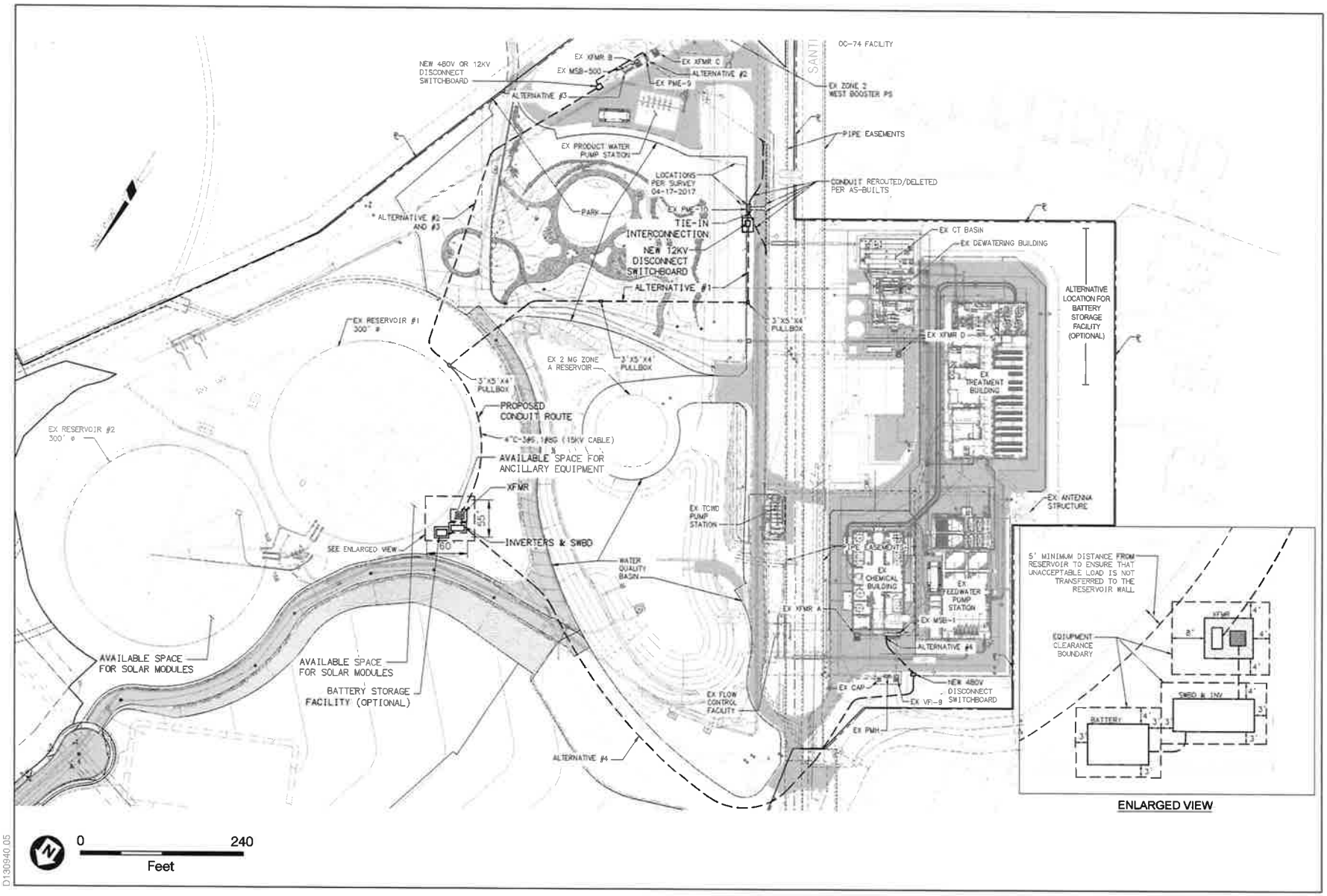
An addendum does not need to be circulated for public review, but rather can be attached to the Final EIR (CEQA Guidelines §15164(c)). Prior to initiating the modified Project, IRWD's Board of Directors will consider this Addendum No. 3 together with the adopted Final EIR and previous addendums (i.e., Addendum No. 1 and Addendum No. 2) and make a decision regarding the modified Project (CEQA Guidelines §15164(d)).

4.0 Proposed Modifications

4.1 Description of Proposed Energy Facilities

The Baker WTP Project Final EIR assumed power for the facility would be provided solely by SCE via existing grid infrastructure. The Final EIR further assumed no off-site improvements to the existing grid infrastructure would be necessary to provide enough energy to operate the WTP at full capacity. The proposed modification to the Baker WTP Project involves construction and operation of an on-site solar PV power generation system and an energy storage system. The purpose of the additional solar system is to supplement electricity provided by SCE with solar energy captured onsite to reduce the cost of power at the Baker WTP. The purpose of the energy storage system is to charge the batteries from the grid during off-peak hours and then discharge them during on-peak times to reduce the cost of power and reduce stress on SCE's electrical distribution grid. One or both of these additional systems would be constructed. The additional systems could be constructed at different times. In order to assess the worst-case scenario, this Addendum assumes both the solar PV generation system and the energy storage system would both be constructed at the same time. A detailed site plan showing the locations of the solar PV generation system and energy storage system is included as **Figure 1**. Each system is described further below.

Solar PV Generation System: The solar PV generation system would generate up to approximately 2.0 megawatts alternating current (MWac) and would include the following components: solar PV arrays; ancillary equipment including inverters, solar panelboards, switchboard, and telemetry panel.



SOURCE: Michael Baker International, 2017

IRWD Baker WTP EIR Addendum No. 3

Figure 1
Proposed Modifications – Detailed Site Plan

ESA

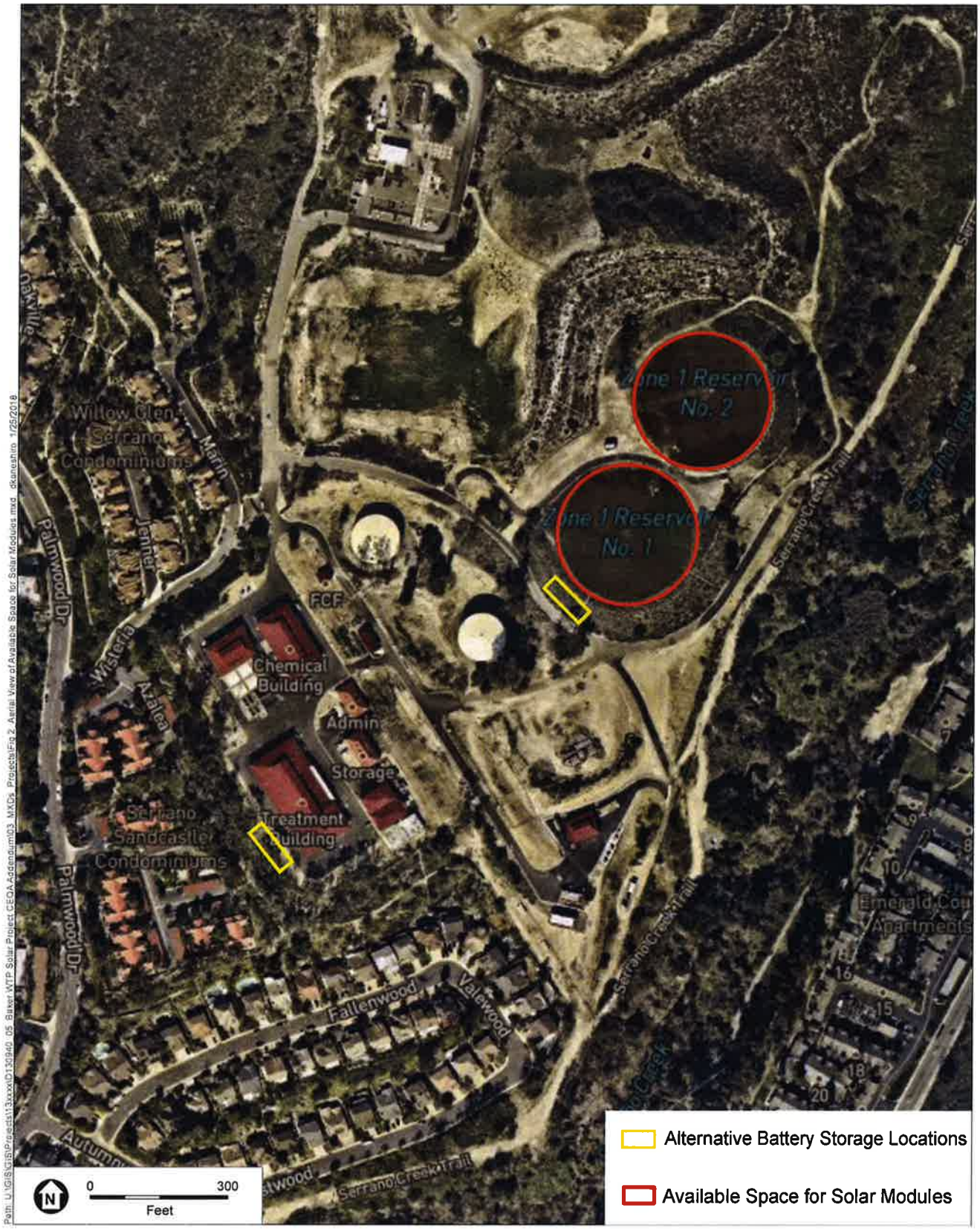
Fixed-tilt, ground-mounted solar PV arrays would be constructed atop two existing 16 million gallon (MG) buried reservoirs (i.e., Reservoir 1 and Reservoir 2), totaling up to approximately 3 acres for solar panels (**Figure 2**). Solar arrays would be approximately 6 feet in height and would be mounted to maintain the integrity of the buried reservoirs, likely using a ballast racking system. The layout of the solar arrays would allow sufficient space for operations staff to access and maintain the underlying reservoir equipment using a small pick-up truck. A woven ground cover and 4-inch aggregate base would be installed under and around the solar PV arrays to maintain a clean site. Ancillary equipment would be located adjacent to the solar arrays, likely on the west side of Reservoir 1 (see Figure 1).

Electrical collection and interconnection of the solar PV generation system to the existing WTP's electrical system will be required. Interconnection would be achieved through SCE's Rule 21 Generating Facility Interconnections process. The State of California requires that all inverters installed in 2018 shall comply with UL 1741 SA standards, meaning the solar system would not provide backup power during a utility outage. Thus, in the event of a utility outage, backup power would be provided via the three existing on-site diesel generators.

Preliminary solar production estimates presented in the Baker Water Treatment Plant Solar Project Constraints Memorandum, prepared by Michael Baker International, show that the site can support about a 1.25 MWac solar facility that would produce approximately 2,250,000 kilo-watt-hours per year (kWh/yr). The final capacity and production of the solar facility will be determined during final design and could be greater.

When operating at its design capacity, the Baker WTP will be capable of consuming all of the solar energy produced at the site. A Non-Exporting interconnection agreement with SCE may be pursued that will make it eligible to receive incentives through SCE's Local Capacity Requirement program. The selection of a Non-Exporting or a Net Energy interconnection agreement will be made in consultation with SCE as part of the project's final design and permitting process.

Energy Storage System: The energy storage system would include up to approximately a 1-megawatt or not significant greater, 6-hour battery storage system. The batteries would be located either on the west side of Reservoir 1 with the auxiliary equipment associated with the solar PV generation system or on the west side of the existing WTP's treatment building (refer to Figure 1). In general, the batteries would charge during off-peak hours and then discharge during on-peak times. The 6-hour battery storage system is expected to have about 2-hours dedicated to demand management at the WTP and about 4-hours dedicated to SCE's Demand Response Energy Storage program to reduce stress on SCE's electrical grid. Ancillary equipment including a switchboard, inverter and telemetry panel would be required to connect the battery system to the WTP's existing electrical service. The battery components of the energy storage system would produce a humming sound during operation. However, during the design phase, acoustic modeling of the energy storage facilities will be conducted to determine the design parameters required to attenuate operational noise below the City of Lake Forest's Noise Ordinance thresholds.



SOURCE: ESA, 2018

IRWD Baker WTP EIR Addendum No. 3

Figure 2

Aerial View of BAKER WTP and Available Space for Proposed Modifications

ESA

Electrical collection and interconnection of the batteries to the existing WTP's electrical system would be required. Similar to the solar PV generation system, the energy storage system would not provide backup power during a utility outage. Thus, in the event of a utility outage, backup power would be provided via the three existing on-site diesel generators.

4.2 Construction Characteristics

The construction equipment that is expected to be present onsite for the duration of construction is described on page 2-14 of the Final EIR, along with the expected number of construction workers. The proposed modifications would require similar equipment as described in the Final EIR, and the workforce would be well below the 60 workers assumed for construction of the WTP in the Final EIR. Construction of the solar PV generation and energy storage systems would specifically require pickups, forklifts, backhoe (for trenching), a small crane, and roughly 3-5 construction workers. Construction best management practices, including but not limited to construction activities being restricted to the hours between 7:00 a.m. and 8:00 p.m., excluding Sundays or federal holidays, and use of use noise control techniques (e.g., mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) on construction equipment and trucks, would be implemented to reduce noise levels during construction.

Construction of the solar arrays atop of the two buried reservoirs would not require substantial excavation or trenching. A ballast racking system for mounting the solar arrays allows for installation with minimal ground penetration. Small footings may be required for the racking system; however, excavated soils for the footings would be backfilled and there would be no change in soil export or input quantities reported in the Final EIR.

Both the solar PV generation and energy storage systems would require trenching for electrical conduits. Trenching would be performed consistent with techniques described in the Final EIR on pages 2-14 and 2-15, although trenching depths would be shallower than the maximum 10- to 12-foot depths assumed by the Final EIR. As described in the Final EIR, trenching would utilize a conventional cut and cover construction technique which would include trench excavation, conduit installation, electrical cable installation, backfill operations, and re-surfacing to the original condition. All electrical conduits would be buried, including any vault structures and boxes. Once installed, the disturbed areas would be returned to pre-construction conditions along the entire length of the alignments.

The energy storage system and other ancillary components of the solar and energy storage systems may be installed on new concrete pads, which would require minimal quantities of concrete. The amount of concrete previously used for the concrete pads for the energy storage system and ancillary components would not exceed the quantity of concrete assumed for construction of the Baker WTP in the Final EIR.

4.3 Operation Characteristics

Operation of the on-site solar system would not change work force or equipment requirements associated with the Project. Panel washing may be required to clean solar PV panels. Panel

washing is expected to be minimal (e.g., semi-annual basis) and would be performed using a pickup-mounted water trailer. Water for panel washing would be obtained from an on-site source and no chemicals would be used. Maintenance of vegetation around the solar panels would not be required as woven ground cover and 4-inch aggregate base would be installed under and around the solar PV arrays to maintain a clean site. Operational activities associated with the energy storage system would consist of routine maintenance occurring periodically and as necessary.

4.4 Project Phasing and Schedule

Construction of the Baker WTP was completed in January, 2017 and the WTP became operational in March, 2017. Construction of the proposed modifications would begin in summer 2018 and the duration of the construction modifications would be approximately six months. The solar and energy storage systems could be constructed at different times.

5.0 Incorporation by Reference

Consistent with Section 15150 of the CEQA Guidelines, the following documents were used in the preparation of this Addendum and are incorporated herein by reference:

- Baker Water Treatment Plant Project Draft Environmental Impact Report, January 2011 (State Clearinghouse No. 2010051055).
- Baker Water Treatment Plant Project Final Environmental Impact Report, April 2011 (State Clearinghouse No. 2010051055).
- Baker Water Treatment Plant Project Final Environmental Impact Report Addendum No. 1, February 2012 (State Clearinghouse No. 2010051055).
- Baker Water Treatment Plant Project Final Environmental Impact Report Addendum No. 2, March 2013 (State Clearinghouse No. 2010051055).
- Baker Water Treatment Plant Solar Project Constraints, September 2017, Prepared by Michael Baker International for Irvine Ranch Water District.

These documents are available for review during regular business hours at IRWD located at 15600 Sand Canyon Avenue, Irvine, California 92618-3102.

6.0 Analysis of Potential Environmental Impacts Associated with the Proposed Modifications

The proposed addition of the solar PV generation and an energy storage systems would not change the regulatory framework, impact discussion, mitigation measures, or significance conclusions for the following topic areas, as currently described in the adopted Final EIR: Agricultural and Forestry Resources; Biological Resources; Cultural Resources; Geology, Soils, and Mineral Resources; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use, Planning, and Recreation; and Transportation and Traffic. Therefore, these topic areas are not analyzed in this Addendum. Construction and operation of the proposed solar PV generation and energy storage systems at the Baker WTP site could, however, affect the following environmental issues previously described in the adopted Final EIR: Aesthetics, Air Quality and

Greenhouse Gas (GHG) Emissions, Noise and Vibration, and Public Services and Utilities. Each of these topic areas are addressed in the following subsections.

6.1 Aesthetics

The Final EIR (Chapter 3.1) concluded that potential impacts to aesthetics in the vicinity of the Baker WTP site would be less than significant after mitigation. This section provides an analysis of the potential aesthetics impacts associated with the construction and operation of the solar PV generation and energy storage systems on the Baker WTP site.

6.1.1 Setting

At the time of the preparation of the Final EIR, the Baker WTP site was characterized by the existing treatment facilities associated with the BFP. However, construction of the Baker WTP was completed in January 2017 and is now the existing condition on the site. Surrounding land uses primarily consist of low density residential, public facility, and community park/open space. Existing natural features in the vicinity of the Baker WTP site include Serrano Creek and Serrano Creek Trail. The City of Lake Forest has not designated any scenic roadways or scenic vistas/viewpoints in the area surrounding the Baker WTP site.

The proposed solar PV arrays would be constructed atop the buried Reservoirs 1 and 2 and ancillary equipment would be located adjacent to the solar arrays, likely on the west side of Reservoir 1. The energy storage system would likely be located either on the west side of Reservoir 1 with the ancillary equipment associated with the solar PV generation system or on the west side of the existing WTP's treatment building. The preliminary locations of the facilities are shown in Figure 1.

6.1.2 Summary of Potential Impact

As analyzed in the Final EIR, the original Project introduced new treatment facilities onsite at the Baker WTP site that would be visible from surrounding streets, including hilltop residential units located east of the Baker WTP site. There are no scenic highway corridors or City-designated scenic vistas in the vicinity of the Baker WTP site; thus, impacts to these resources did not occur. The proposed Baker WTP replaced existing water treatment facilities within the same general footprint of the previous Baker Filtration Plant, and aboveground facilities were designed to be similar to and compatible with existing buildings onsite. In addition, Mitigation Measure AES-1 was provided by the Final EIR to ensure that a landscape plan is implemented to screen Project facilities from neighboring streets and that landscape vegetation was maintained onsite to the extent feasible to screen Project facilities from scenic views from hilltop residences. The Final EIR concluded the Project would not introduce a new contrasting feature that would affect scenic vistas or alter the visual character of the site.

The proposed modification would add fixed-tilt, ground-mounted solar PV arrays atop the buried Reservoirs 1 and 2; ancillary equipment associated with the solar PV generation system to the west of Reservoir 1; and an energy storage system either on the west side of the existing WTP's treatment building or on the west side of the existing treatment building on the Baker WTP site. The PV arrays would be designed to industry standards and would be approximately 6 feet in

height. All of the PV arrays would be uniform and would have a similar industrial style as the other industrial buildings currently located on the Baker WTP site. Further, a woven ground cover and 4-inch aggregate base would be installed under and around the solar PV arrays to maintain a clean site, which would maintain the visual quality of the Baker WTP site. Installation of the proposed solar PV generation and energy storage systems would not substantially change or degrade the existing visual character of the Baker WTP site. Additionally, installation of the proposed systems would not impede existing public views or scenic vistas. The installation of landscape vegetation to screen the facilities would not be necessary and Mitigation Measure AES-1 would not apply for the proposed modifications. Impacts to aesthetics would be less than significant.

Construction of the underground facilities would involve trenching and excavation activities to install the conduit, electrical cables, vault structures and boxes. However, these activities would be temporary in nature and would cease once construction is complete. All disturbed areas would be back-filled and re-surfaced to the pre-construction conditions along the entire length of the alignments. Operation of the underground facilities would not affect the visual quality of the site as all of these facilities would be below ground and not visible from surrounding viewpoints. Therefore, visual impacts associated with the underground facilities would be less than significant.

The Final EIR also analyzed potential light and glare impacts resulting from permanent security lighting at the proposed Baker WTP. The Final EIR included Mitigation Measure AES-3 to ensure lighting would be shielded and directed downward away from neighboring properties and land uses. The Final EIR concluded that with incorporation of Mitigation Measure AES-3, impacts related to light and glare were reduced to less than significant.

Operation of the proposed solar PV generation and energy storage systems would not require additional permanent security lighting beyond what is already installed on the Baker WTP site and thus, Mitigation Measure AES-3 would not apply for the proposed modifications. While there is the potential for the PV arrays to result in glint (a momentary flash of bright light) or glare, the amount of glint and/or glare produced by solar PV panels is relatively low. Solar PV panels are constructed of dark-colored materials, usually blue or black, and are covered with an anti-reflective coating, where the main function of the PV solar panels are to absorb solar radiation rather than reflect it (Meister Consultant Group 2014). Further, modern PV panels reflect as little as two percent of incoming sunlight, which is similar to water and less than soil and even some wood-based materials (Meister Consultant Group 2014). For these reasons, impacts related to light and glare produced by the solar PV panels would be less than significant.

6.1.3 Applicable Mitigation Measures

None required.

6.1.4 Conclusion

The proposed modifications would not result in a new significant impact or substantially increase the severity of an impact identified in the Final EIR. No mitigation is required beyond the

existing commitments contained within the Mitigation Monitoring and Reporting Program (MMRP). Impacts to aesthetics would be less than significant.

6.1.5 References

Meister Consultant Group, 2014. *Solar and Glare.* Available at: http://solaroutreach.org/wp-content/uploads/2014/06/Solar-PV-and-Glare-_Final.pdf. Accessed January 24, 2018.

6.2 Air Quality and Greenhouse Gas Emissions

The Final EIR (Chapter 3.3) concluded that potential impacts to air quality and GHG emissions during construction and operation of the original Project would be less than significant after mitigation. This section provides an analysis of the potential air quality and GHG emissions impacts associated with the construction and operation of the solar PV generation and an energy storage system on the Baker WTP site.

6.2.1 Setting

The Baker WTP site is located in the City of Lake Forest, which is within the boundaries of the South Coast Air Basin (SCAB). SCAB, which is a subregion of the South Coast Air Quality Management District's (SCAQMD) jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The topography and climate of southern California combine to make the Basin an area of high air pollution potential. The air quality in the SCAB had exceeded thresholds for Ozone and Particulate Matter (PM) 10 and 2.5 in 2008, which was the latest reporting year used in the Final EIR.

The proposed modifications would be constructed and operated on the Baker WTP site and thus, would also be located within the SCAB. The proposed modifications are required to comply with the same air quality and GHG emission plans, standards and thresholds as the original Project.

6.2.2 Summary of Potential Impact

As described in the Final EIR, the original Project would neither conflict with applicable air quality management plans nor violate any air quality standard by exceeding any SCAQMD thresholds during construction and operation of the Project. Additionally, the Final EIR determined that while the original Project would not result in significant impacts to sensitive receptors from carbon monoxide (CO) or toxic air contaminants (TACs), IRWD will implement best management practices, as outlined in AQ-1 through AQ-4, to further decrease CO and TACs emissions during construction. Finally, the Final EIR concluded that the original Project would have less than significant impacts related to GHG emissions during operation of the Project, where GHG emissions generated from the original Project would be approximately 2,097 metric tons of CO2e per year less than the 10,000 metric tons of CO2e per year threshold.

Construction of the proposed modifications would specifically require pickups, forklifts, backhoe for trenching, a small crane, and roughly 3-5 construction workers, which is well below the 60 construction workers assumed for construction of the original Project. Construction of the

proposed solar PV generation and energy storage system would occur over an approximately six-month period starting in Summer 2018. Since the size and extent of construction activities required for the proposed modification are substantially less than those required for the original Project, it is reasonable to assume that air quality emissions generated during construction of the proposed modifications would also be less than those generated during construction of the original Project. Since the air quality emissions generated during construction of the original Project did not exceed the construction thresholds established by SCAQMD, it is logical to assume that air quality emissions generated by construction of the proposed modifications also would not exceed these thresholds. For these reasons, construction of the proposed solar PV generation and energy storage systems would not conflict with applicable air quality management plans or violate any air quality standards.

Further, since the Final EIR determined that the original Project would not exceed thresholds for CO or TACs during construction, it is rational to assume that construction of the proposed modifications would also not exceed CO or TACs thresholds. IRWD will continue to implement the air quality best management practices established in the Final EIR, as applicable, for the proposed modifications. The best management practices require the construction contractor to implement a fugitive dust control program, properly maintain all construction equipment, minimize exhaust emissions, and prohibit idling in excess of ten minutes both on- and off-site. Implementation of these best management practices would further reduce impacts associated with CO and TACs to a less than significant level.

Operation of the proposed solar PV generation and energy storage system would not generate local air quality or GHG emissions as the proposed systems would capture solar energy to be stored and used for operating the Baker WTP site. Therefore, operational impacts to air quality and GHG emissions would not occur.

With respect to nearby, related past, present and/or foreseeable future projects (either overlapping construction periods or on-going operation), it is possible that emission increases for certain air pollutants could exceed the SCAQMD's emission thresholds. However, per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other related projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable. Since construction and operation of the proposed modifications would not generate air quality and GHG emissions which exceed SCAQMD thresholds, impacts associated with the proposed modifications would not be considered to be cumulatively considerable.

6.2.3 Applicable Mitigation Measures

Best Management Practice AQ-1: General contractors shall implement a fugitive dust control program pursuant to the provisions of SCAQMD Rule 403.

Best Management Practice AQ-2: All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.

Best Management Practice AQ-3: General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues would turn their engines off when not in use to reduce vehicle emissions. Construction emissions should be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.

Best Management Practice AQ-4: All construction vehicles shall be prohibited from idling in excess of ten minutes, both on- and off-site.

6.2.4 Conclusion

The proposed modifications would not result in a new significant impact or substantially increase the severity of an impact identified in the Final EIR. No mitigation is required beyond the existing commitments contained within the MMRP. Impacts to air quality and GHG emissions would be less than significant.

6.3 Noise and Vibration

The Final EIR (Chapter 3.10) assessed potential impacts to sensitive receptors due to Project noise and vibration and concluded that construction and operation of the Project would have a less than significant impact with incorporation of mitigation. The following discussion addresses potential impacts from the proposed solar PV generation and energy storage systems.

6.3.1 Setting

Residential land uses are located to the east, south, and west of the Baker WTP site. The nearby residences qualify as noise sensitive receptors and would potentially be exposed to noise generated from Project activities. Construction activities at the Baker WTP site would get as close as 100 feet to residential units located on Wisteria and Forestwood.

The proposed solar PV generation system would be constructed atop and adjacent to the buried Reservoirs 1 and 2, which are located in the middle portion of the Baker WTP site toward the northern site boundary. The energy storage system may also be constructed to the west of Reservoir 1, if that option is selected. The closest residential uses to the buried reservoirs are approximately 0.15-miles to the south but are separated by a densely vegetated corridor. If the energy storage system is constructed on the west side of the existing WTP's treatment building, the nearest residential uses would be adjacent to the Baker WTP site, approximately 157 feet to the west.

6.3.2 Summary of Potential Impact

As described in the Final EIR, construction activities were anticipated to create a temporary increase in ambient noise levels in the immediate vicinity of the construction zone. Table 3.10-1 of the Final EIR shows that the greatest noise levels were anticipated to be associated with excavation and finishing and were estimated 89 A-weighted decibels (dBA) at a distance of 50 feet. Accordingly, attenuated at 100 feet, the closest residences to the Baker WTP site would experience noise levels up to 83 dBA Leq (average dBA) during excavation and finishing, the

loudest construction activities that would occur. The Final EIR concluded that with implementation of Mitigation Measures NOISE-1 and NOISE-2, potential construction noise impacts on sensitive receptors would be mitigated to less than significant levels. Mitigation to be implemented includes restrictions on days and times for construction activities in accordance with the City of Lake Forest's Noise Ordinance and use of noise control techniques.

The proposed modifications would construct solar PV generation and energy storage systems at the Baker WTP site. For the purposes of this analysis, it is assumed that both the solar PV generation system and energy storage system would be constructed simultaneously. Construction of the solar arrays atop of the two buried reservoirs would not require substantial excavation or trenching and all excavated soil would be backfilled onsite. Trenching would be performed consistent with techniques described in the Final EIR on pages 2-14 and 2-15, although trenching depths would be shallower than the maximum 10- to 12-foot depths assumed by the Final EIR. The energy storage system and other ancillary components may be installed on new concrete pads. Construction noise impacts would be similar or less than those already described in the Final EIR. Construction of the solar PV generation and energy storage systems would not require additional or different equipment or methods than those already described for the original Project in the Final EIR. Construction best management practices, including but not limited to construction activities being restricted to the hours between 7:00 a.m. and 8:00 p.m., excluding Sundays or federal holidays, and use of use noise control techniques (e.g., mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) on construction equipment and trucks, would be implemented to reduce noise levels during construction. Therefore, impacts related to construction noise would be less than significant.

Operation of the solar PV generation system and underground facilities would not generate noise during operation. The battery components of the energy storage system would produce a humming sound during operation, which could cause a nuisance to nearby sensitive receptors. However, the batteries of the energy storage system would be housed within an enclosed unit, which would be designed to attenuate operational noise levels below the thresholds established by the City's Noise Ordinance. For these reasons, impacts associated with operational noise would be less than significant.

6.3.3 Applicable Mitigation Measures

None required.

6.3.4 Conclusion

The proposed solar PV generation and energy storage systems would not result in a new significant impact or substantially increase the severity of a previously identified significant impact as previously described in the adopted Final EIR. No mitigation is required beyond the existing commitments contained within the MMRP. Impacts to sensitive receptors associated noise and vibration would be less than significant

6.4 Public Services and Utilities

The Final EIR (Chapter 3.11) assessed potential impacts to public services and utilities and concluded that construction and operation of the original Project would have a less than significant impact with incorporation of mitigation. The following discussion addresses potential impacts from the proposed solar PV generation and energy storage systems.

6.4.1 Setting

As described in the Final EIR, the Baker WTP site is located in southern Orange County in the City of Lake Forest. Fire and police protection services for the City are provided by the Orange County Fire Authority and Sheriff's Department, respectively. Lake Forest Elementary School is the closest school to the Baker WTP site, approximately 1.25 miles to the south, and the closest hospital is Saddleback Memorial Medical Center, approximately five miles away in the City of Laguna Beach.

Utilities in the City of Lake Forest are provided by the following providers based on the type of utility:

- IRWD, El Toro Water District, and Trabuco Canyon Water District provide water service to the city;
- Los Alisos Water Recycling Plant treats wastewater that is generated within the city;
- Orange County Flood Control District provides for the planning, development, operation, and maintenance of the flood control facilities on a Countywide basis;
- Orange County Integrated Waste Management Department owns and operates the Prima Deschecha Landfill, which primarily serves the City; and
- SCE provides electricity to the City, and the Baker WTP site.

The proposed solar PV generation and energy storage systems would be relatively small additions to the Baker WTP site and would not increase the need for additional public services to serve the site. All utility providers and services would remain the same as described in the Final EIR, except for energy use. Therefore, implementation of the proposed modifications would not change the regulatory framework, impact discussion, mitigation measures, or significance conclusions for public services and utilities as currently described in the adopted Final EIR, with the exception of energy use.

6.4.2 Summary of Potential Impact

As described in the Final EIR, the facilities included under the original Project would increase energy demand by approximately 26,700 mega-watt hours per year. The Final EIR assumed SCE would provide electricity to the Project through the existing grid infrastructure. The Final EIR concluded that the original Project would treat water at the Baker WTP instead of the existing Diemer Treatment Plant and would effectively redistribute the current energy used to treat the water. The Final EIR concluded impacts to regional energy capacity would be less than significant.

The purpose of the solar PV generation system is to supplement electricity provided by SCE with solar energy captured onsite to reduce the cost of power at the Baker WTP. Based on the preliminary solar production estimates included in the technical memorandum prepared by Michael Baker International (2017), the Baker WTP site can support about a 1.25 MWac solar facility that would produce approximately 2,250,000 kWh/yr. For the purposes of this analysis, it is assumed that the site could support up to a 2.0 MWac solar facility within the same approximately 3-acre site. The purpose of the energy storage system is charge the batteries from the grid during off-peak hours and then discharge them during on-peak times to reduce the cost of power at the Baker WTP and reduce stress on the SCE's electrical distribution grid. The energy storage system would include up to an approximately 1-megawatt or not significantly greater, 6-hour battery system. In the event of a utility outage, backup power would be provided via the three existing on-site diesel generators. Therefore, implementation of the proposed modifications would reduce reliance on electricity supplied by SCE. Thus, the proposed modifications would reduce impacts to the regional energy capacity compared to the original Project.

6.4.3 Applicable Mitigation Measures

None required.

6.4.4 Conclusion

The proposed modifications would not result in a new significant impact or substantially increase the severity of a previously identified significant impact. No mitigation is required beyond the existing commitments contained within the MMRP. Impacts to energy use are less than significant.

6.1.4 References

Michael Baker International. 2017. Baker Water Treatment Plant Solar Project Constraints. Prepared for Irvine Ranch Water District. September 2017.

7.0 Summary of Environmental Effects

As discussed in this Addendum No. 3, the proposed addition of the solar PV generation and energy storage systems would not change the conclusions of the certified Final EIR and Addendum No. 1 and Addendum No. 2. While construction and operation of the proposed solar PV generation and energy storage systems do not directly meet the same objectives of improving water reliability to areas of south Orange County, providing a reliable local water supply in the event of emergency conditions or scheduled maintenance of the MWD delivery system; and increased operational flexibility by creating redundancy within the raw water supply system, the proposed modifications allow IRWD to supplement electricity provided by SCE with a renewable energy source to operate the Baker WTP. By utilizing solar energy, the operation of the Baker WTP site would be more sustainable and help to reduce air quality and GHG emissions, both of which are beneficial.

The proposed addition of the solar PV generation and an energy storage system would not result in a new significant impact or substantially increase the severity of a previously identified

significant impact. No mitigation is required beyond the existing commitments contained within the MMRP for the adopted Final EIR. The proposed addition of the solar PV generation and an energy storage system to the previously-approved Project do not meet any of the conditions that would require the preparation of a subsequent or supplemental EIR as set forth in Sections 15162 and 15163 of the CEQA Guidelines.

8.0 Determination

Section 15164(a) of the CEQA Guidelines states the following:

> *The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of subsequent EIR have occurred.*

The proposed modifications to the original Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Furthermore, new information associated with the proposed addition of the solar PV generation and energy storage systems does not indicate that: the Project will have one or more significant effects not discussed in the adopted Final EIR; significant effects previously examined will be substantially more severe than shown in the adopted Final EIR; mitigation measures or alternatives previously found not to be feasible would in fact be feasible; or mitigation measures or alternatives which are considerably different from those analyzed in the adopted Final EIR would substantially reduce one or more significant effects on the environment, but the Project proponents decline to adopt the mitigation measures or alternative. Accordingly, an addendum has been prepared as opposed to a supplemental or subsequent EIR. IRWD is adopting this Addendum No. 3 in accordance with the CEQA Guidelines Section 15164.

Irvine Ranch Water District

Signature	3/6/18 Date
Jo Ann Corey Printed Name	Environmental Compliance Specialist Title