APPENDIX 1
SEELEY WASTEWATER RECLAMATION FACILITY IMPROVEMENTS

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1. INTRODUCTION

Stirling Energy Systems Solar Two, LLC (Applicant) filed an Application for Certification (AFC) with the California Energy Commission and Bureau of Land Management (BLM) for its proposed Stirling Energy Systems Solar Two (SES Solar Two) Project in June 30, 2008. The Application was deemed adequate on October 8, 2008. This report provides additional information about the upgrades to the Seeley Wastewater Reclamation Facility (SWWRF) that are related to the SES Solar Two Project.

1.1 BACKGROUND

According to the original AFC filing, the Imperial Irrigation District (IID) would provide the water supply for the project from its Westside Main Canal raw canal water, which was to be treated to provide an appropriate quality of water for mirror wasting and to meet the standards for on-site drinking water. The applicant estimated approximately 33 acre-per-feet per year (afy) of water would be used annually for mirror washing and domestic use. There were no provisions in the AFC for a backup water supply.

In the first set of data requests, the California Energy Commission (Energy Commission) and the U.S. Bureau of Land Management (BLM) asked the Applicant for additional information on the reliability of the SES Solar Two Project water supply from IID and the source of back-up water in the event that there are future interruptions in the primary water. In considering the responses to these questions, an in-depth evaluation of the SES Solar Two water supply options in terms of reliability, cost, and environmental impact was performed. After extensive research, in June 2009 SES Solar Two provided a Supplement to the AFC to report the Applicant's new primary source of water: reclaimed water from the SWWRF.

The June 2009 Supplement analyzed the 12-mile water pipeline that will transport water from SWWRF to the SES Solar Two site. The impacts of constructing the water line were analyzed in Sections C and D of the SES Solar Two SA/DEIS (published on February 12, 2010). Since the publication of that supplement, Seeley County Water District (SCWD) released a Draft Mitigated Negative Declaration (MND) for the SWWRF Improvements. These improvements are necessary to ensure that no discharges from the facility exceed established effluent limits in the future. The SES Solar Two Project is anticipated to take up to 200,000 gallons-per-day (gpd) of the treated effluent. Other possible users of the tertiary-treated effluent include existing and new uses identified and evaluated in Imperial County's General Plan.

Rather than adopting the MND, SCWD is preparing an Environmental Impact Report (EIR). The Energy Commission Staff Assessment (SA) for the SES Solar Two Project assumed that the MND would be adopted. Because the MND was not adopted, this Appendix provides an independent analysis of the potential impacts of the SWWRF

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improvements. The EIR prepared for the SCWD will be used by the District to evaluate the impacts and to support the District's decision on the upgrades. The Energy Commission and BLM present this information in order to disclose the types and extent of impacts of the facility upgrades.

2. DESCRIPTION OF SEELEY WASTEWATER RECLAMATION FACILITY IMPROVEMENTS

2.1 LOCATION

The SCWD proposed an upgrade of an existing facility, located along the western boundary of the unincorporated community of Seeley in Imperial County, California. The project area is located within the existing Seeley Wastewater Treatment Plant, located along the western boundary of the unincorporated community of Seeley in Imperial County, California (see **Appendix 1, Figures 1 and 2**).

The community of Seeley is located approximately eight miles west of El Centro, 10 miles north of the border between the United States and Mexico, and approximately 100 miles east of San Diego. The Seeley Wastewater Treatment Facility is located immediately east of the New River, south of El Centro Street and west of New River Blvd. (see **Appendix 1, Figure 2**).

2.2 AGREEMENT TO SERVE SES SOLAR TWO PROJECT

After evaluating the currently available water supply options, the Applicant concluded that the primary source of water for the Project would be furnished by the SWWRF. SES Solar Two would finance upgrades to the existing treatment plant so its effluent meets Title 22 requirements for recycled water. In exchange, SES Solar Two would have access to approximately 150,000 gpd and up to 200,000 gpd of reclaimed water for use in all construction and operation activities except for potable water.

SCWD serves customers in the town of Seeley, which is located in the unincorporated area of Imperial County, California, with certain utility services, including sewage collection and treatment services. Currently, sewage collected in Seeley's system is treated and, thereafter, flows into the New River via an unlined channel approximately 800 feet long by 50 feet wide. The current influent rate to the SWWRF is approximately 112,000 to 150,000 gpd and the current discharge rate to the unlined channel is approximately 0.15 cubic feet per second (cfs) or approximately 110 acre feet per year.

SCWD has agreed to make reclaimed water available to SES Solar Two (see Attachment A to the June 2009 Supplement – Will Serve Letter). An agreement between SCWD and SES Solar Two was signed at the Seeley Board Meeting on May 18, 2009.

2.3 FACILITY UPGRADES REQUIRED

Wastewater treatment facility improvements would be located at the existing WWTP, at the northwestern side of the community of Seeley. Improvements will be made within the existing treatment facility on an approximately 5-acre area which has been previously disturbed in association with construction of the original facility.

Current Operation

The District operates a wastewater treatment facility that is permitted for 250,000 gpd and capable of treating 250,000 gpd. The treatment plant currently houses a series of five treatment ponds, including two 0.12-acre "reactor" ponds and three 0.14-acre sedimentation ponds.

The treatment facility discharges effluent treated to secondary standards via an unlined channel to the New River. The facility operates under a New River discharge permit from the Regional Water Quality Control Board (RWQCB), Colorado River Basin which includes effluent limits for a number of pollutants, including Total Suspended Solids and Biochemical Oxygen Demand (Order No. R7-2007-0036, NPDES No. CA0105023). Over the past several years, discharge from the facility has exceeded these effluent limits, and the District has received notices of violations.

Proposed Facility Improvements

The District proposed to carry out the project to upgrade the existing facility to Title 22 standards, with tertiary effluent suitable for unrestricted recycled uses. This upgrade is needed to help ensure that no discharges from the facility exceed established effluent limits in the future.

Tertiary treatment processes are those processes that remove additional suspended solids from the secondary effluent by filtration followed by disinfection.[1] As stated above, the current influent rate to the SWWRF is about 112,000 to 150,000 gpd (104 gpm or 168 afy). The proposed SWWRF upgrades along with a newly constructed pipe delivery system from Seeley to the Project and proposed onsite storage will be adequate to provide a reliable source of water for the SES Solar Two Project.

To achieve tertiary treatment, the following steps would be taken:

- Modify two of the existing treatment ponds to accommodate an activated sludge process, a microfiltration system, and ultraviolet disinfection.
- Convert two existing treatment ponds to in-ground earthen basins lined with a synthetic flexible membrane and a floating cover for storage of at least 300,000 gallons of recycled water
- Abandon the remaining treatment pond.
- Discharge the treated recycled water to the New River via the unlined channel. Onsite pump stations would convey process flows and product water. Piping between the various treatment processes will be undergrounded.
- Install a new backup generator as part of the project; additionally, generators may be required temporarily during project construction.
- Sludge wastes from the process would be dried on open-air drying beds and disposed of offsite at a landfill with sufficient capacity and permitted to accept

[1] Primary treatment includes using primary clarifiers to separate heavy material (sludge) from light material (scum) from the influent. The sludge and scum removed are generally directed to a solid handling facility. Secondary treatment generally uses an aerobic biological process to degrade the biological content of the sewage which is derived from human waste, food waste, soaps, and detergent.

geosolids. The sludge drying beds would consist of a 12-inch sand layer underlain with drain piping.

- Discharge of the treated effluent via the unlined channel to the New River, unless and until approvals are issued that would allow disposal of the tertiary-treated effluent elsewhere.
- If the effluent is disposed elsewhere, it would likely be made available by the District at a point that would eliminate the discharge along the unlined channel into the New River.
- The SES Solar Two Project is anticipated to take up to 200,000 gpd of the treated effluent. Other possible users of the tertiary-treated effluent include existing development and new development identified and evaluated in Imperial County's General Plan.
- The proposed tertiary treatment facilities would not expand the current capabilities of the WWTP, and there is not indication that the upgrades would result in a change in outflow from the WWTP (Dudek 2009).

Construction

To access the treated water, SES Solar Two will construct approximately 12 miles of pipeline from the Seeley facility to the solar project's water treatment plant along the Evan Hewes Highway. The environmental analysis of the pipeline can be found in Section C and D of the SA/DEIS. The location of the water pipeline is illustrated in **Appendix 1 Figure 3**.

Wastewater Treatment Facility Construction

The construction of the Seeley Wastewater Treatment Plant (SWWTP) will utilize typical construction methods for this type of work including:

- Earthwork including excavation/shoring, hauling, backfill/compaction, rough site grading.
- Forming and placing cast-in-place concrete structures and slabs at grade.
- Installation of treatment plant equipment.
- Installation of interconnecting piping, valves, sewer maintenance holes, etc.
- Installation of electrical conduits, feeders, handholes, and a new main service/transformer and emergency back-up generator.
- Delivery of equipment and materials to the site.
- Haul off of excess materials.

It is anticipated that the SWWTP upgrades project will be implemented parallel to the existing plant process with plant cutover occurring after the upgraded plant has been commissioned and is operational. The following discussion presents a typical strategy for the implementation of the project with an estimate of the duration and staging for each phase of construction (Dudek 2010).

The construction phasing for a wastewater treatment plant generally begins with initial procurement of equipment and materials that coincide with physical mobilization on the project site. Following the start of the procurement phase, general site civil work can begin focused on rough grading, installation of yard piping, and preparation for structural work. As the general civil progresses, structural work will commence including foundation slabs and concrete structures. When foundations slabs are complete, equipment deliveries begin and mechanical installation will commence. As equipment is installed, the electrical work will continue, tying each plant area to the on-site electrical system. After all mechanical equipment is complete, the facility will start up, be tested, and commissioned. This process can take between four and six weeks. Each of these phases is described in more detail below.

The critical path for the SWWTP upgrades project is believed to be procurement of long lead time equipment, mechanical and electrical installation, and start-up and commissioning services. The overall construction phase duration could take between six and ten months.

The average on-site crew size for the duration of the project will be approximately 20 workers with peak days between 30 and 40 workers. The crew size will tend to be smaller the first quarter of the construction period, peaking during the second and third quarter, and then tailing off toward the end of the construction period.

Procurement and Mobilization

Procurement of materials and equipment will include mostly office-based or off-site work consisting of equipment and material review/approvals, manufacture of materials and delivery. Procurement is anticipated to take approximately six months (26 weeks) from issuance of Notice to Proceed to the construction contractor. As equipment is delivered, it will be installed such that the procurement tasks will overlap other construction phases described below.

Concurrent with the procurement process, the contractor can begin general civil and structural work that is not dependent on long lead time items. Site investigation, utility coordination, permitting, and site preparation will also take place during this initial phase.

General Civil

General civil work includes earthwork, yard piping, pre-cast concrete structures, on-site sewer facilities, surface improvements (asphalt concrete, concrete walkways/sidewalks, and gravel access roads), and rough and final grading. The most significant civil work for the SWWTP project is the installation of the sludge drying bed facilities including underdrains and block partition walls.

Earthwork associated with the SWWTP upgrades project will include minimal grading for foundation of proposed structures and miscellaneous excavation, backfill, and compaction for the plant facilities. Pads will be graded and compacted for proposed buildings and structures. Yard piping (buried) will be installed consisting of trenching, pipe fitting, backfill, and compaction. The last earthwork task is final grading to restore/maintain drainage within the site.

The general civil work for the project will utilize conventional construction equipment including excavators, loaders, dump trucks, bulldozer, vibro compactors, water trucks, equipment/material delivery trucks, concrete transit mixers, concrete pumper, asphalt concrete paving machines, cranes, conveyors, compressors, and generators. Equipment and materials will be delivered to the site via Evan Hewes Highway and New River Boulevard. The haul trucks will access the site from the driveway on the east side of the site through the existing plant entrance.

Deep excavations for the recycled water pumps and interconnecting piping, on-site sewer facilities, and utility connections will likely utilize sloped trench wall construction and/or trench shields or pre-engineered shoring systems. The excavations associated with installation of on-site appurtenances are anticipated to be traditional cut/cover with minimal haul-off quantities.

The typical excavation crew size is anticipated to vary from 20 to 25 workers during the initial construction period with smaller crews varying between 5 and 10 workers completing the yard piping installation and final grading.

Structural

Structural work will include cast-in-place structural concrete and erection of pre-fabricated steel buildings.

The structural work for the project will utilize conventional construction equipment including cranes, forklifts, water trucks, equipment/material delivery trucks, concrete transit mixers, concrete pumper, conveyors, compressors, and generators. Equipment and materials will be delivered to the site with access from Evan Hewes Highway and New River Boulevard. The construction vehicles will access the site from the driveway on the east side of the site through the existing plant entrance.

The typical structural crew size is anticipated to vary from 10 to 15 workers during the concrete forming, placement, and curing.

The typical structural crew for the building erection is anticipated to vary from 10 to 15 workers. The two pre-fabricated buildings are anticipated to take approximately three weeks on-site for erection followed by two to three weeks for interior finishes.

Mechanical

Mechanical work will include installation of equipment, piping, and appurtenances.

The mechanical work for the project will utilize conventional construction equipment including, cranes, forklifts, equipment/material delivery trucks, compressors, generators, and pneumatic tools. Equipment and materials will be delivered to the site with access from Evan Hewes Highway and New River Boulevard. The construction vehicles will access the site from the driveway on the east side of the site through the existing plant entrance.

The typical mechanical fitting crew size is anticipated to vary from 20 to 25 workers. The installation of the mechanical work will reach full production approximately three months into the construction period and last for approximately three months.

Electrical

Electrical work will include installation of the new electrical service to the site, new main switchboard, emergency generator, duct banks between plant areas and installation of switchboards, panelboards, and control panels.

The electrical work for the project will utilize conventional construction equipment including forklifts, loaders, excavators, vibro-compactors, and generators. Equipment and materials will be delivered to the site with access from Evan Hewes Highway and New River Boulevard. The construction vehicles will access the site from the driveway on the east side of the site through the existing plant entrance.

The typical mechanical fitting crew size is anticipated to vary from 20 to 25 workers. The installation of the mechanical work will reach full production approximately three months into the construction period and last for approximately three months.

Start-up, Testing, Commissioning, and Training

After all mechanical systems are installed, the individual unit processes will be started up and tested. When mechanical, electrical, and instrumentation components are confirmed operational, the complete plant will be tested as a unit and the treatment process started up. Concurrent with the start-up and testing process, the District staff will be trained for operations and maintenance of the facility.

Start-up, testing, and commissioning usually takes between four and six weeks. A project team of between four and eight workers, plus District staff and engineers will be involved in the process. When operations have been successfully demonstrated and effluent is in compliance, the facility will be considered substantially complete and water production can commence.

Operations and Maintenance

The operations and maintenance of the SWWTP will be typical of tertiary treatment works. The project site contains an existing wastewater treatment facility and also serves as the Seeley County Water District administration facility (main office and board room). All District staff (collections, distribution, water treatment, wastewater treatment, admin, management, etc.) report to the facility throughout the course of the typical daily routine. Public access for bill payment or attendance at board meetings takes place at the project site. It is anticipated that the District may need to increase staff by up to two dedicated staff specific to the upgraded (Tertiary) SWWTP operations and maintenance requirements.

The project does not expand treatment capacity but does add sophistication to the process. The existing plant is staffed between 7am and 5pm, Monday through Friday with designated staff “on-call” on the weekends for emergencies. The upgraded plant will contain necessary monitoring and alarm systems such that remote monitoring will be feasible. The need for an increased operational schedule is not anticipated.

New Long-term operational deliveries for the upgrades may include:

- Chemical (Sodium Hypochlorite) delivery - once per 2 or 3 months, scheduled if feasible to coincide with delivery to the nearby water treatment plant.

- Chemical (Citric Acid) delivery – once or twice per year. Delivered in chemical tote on flatbead truck.
- Additional equipment maintenance deliveries, several times per year, relative to upgraded equipment.
- Sludge removal, estimated at several truckloads annually. Sludge will be stockpiled on the site until sufficiently dried and then hauled to an appropriate landfill or disposal site.

The proposed facility upgrades are illustrated on **Appendix 1 Figures Ap.1-1 and Ap.1-2** (at the end of this section).

3. ENVIRONMENTAL INFORMATION

3.1 INTRODUCTION

This section presents a discussion of the existing resources and site conditions, the existing information about the potential environmental consequences of the SWWRF upgrades, any identified mitigation measures.

This analysis draws conclusions as to the likelihood that the SWWRF upgrades project could be accomplished with no significant environmental impacts, and identifies types of mitigation measures that could be enacted to reduce impacts or to ensure the project would not cause significant impacts. Because the potential for impacts in several technical areas would not occur, several of the areas normally studied in a Staff Assessment have been eliminated from this analysis. The areas not included are Transmission Line Safety and Nuisance, Facility Design, Power Plant Efficiency, and Power Plant Reliability.

3.2 AIR QUALITY

This section presents a discussion of the potential impacts related to air quality during construction and operations of the SWWRF upgrades related to the SES Solar Two Project. The discussion below includes the affected environment, environmental consequences, cumulative impacts, mitigation measures, and applicable LORS. Public health is addressed separately.

Environmental Setting

The affected environment resulting from the upgrades at the SWWRF is the same as that described in Section C.1 in this SA/DEIS. The facility upgrades would be located 12 miles east of the proposed SES Solar Two project, and are located in the same air basin regulated by the same management district.

Environmental Impacts

This section describes the potential air quality impacts from the upgrade to the SWWRF. A discussion of the potential emission sources during construction and operation of the upgrade to the SWWRF is presented in this section.

Construction Emissions

The primary emission sources during construction of the proposed SWWRF Improvements would include exhaust from heavy construction equipment and vehicles and fugitive dust generated in areas disturbed by grading, excavating, and erection of facility structures. The projected construction schedule is of a few months. Different areas within the proposed SWWRF site would be disturbed at different times over this period. Estimated land disturbance for construction activities is assumed to be five acres.

Fugitive dust emissions from the construction of the SWWRF would result from:

- Site grading/excavation activities at the construction site;
- Installation of new structures and water line; and
- Onsite travel on unpaved surfaces.

Combustion emissions during construction would result from:

- Exhaust from the off-road construction equipments, including diesel construction equipment used for site grading, excavation, and construction of onsite structures, and water trucks used to control construction dust emissions;
- Exhaust from on-road construction vehicles, including pickup trucks and diesel trucks used to transport workers and materials around the construction site, and from diesel trucks used to deliver concrete, equipment, and construction supplies to the construction site; and,
- Exhaust from vehicles used by workers to commute to the construction site.

The analysis conducted by Dudek for the Draft MND for the SWWRF upgrades identified measures to minimize dust emissions, including use of soil stabilizers, a high wind dust control plan, implementing limits to disturbance areas during high winds, disturbed area stabilization, watering exposed surfaces and haul roads, covering stock piles, replacing vegetative ground cover in disturbed areas quickly, and reducing speeds on unpaved roads to less than 15 miles per hour (mph). These measures should be imposed as mitigation measures on the project to ensure less than significant impacts.

Construction equipment and vehicle exhaust emissions estimates based on equipment lists and construction scheduling information were not available at the time of submittal of this supplemental document. However, because of the short duration of the construction activities, the expected small construction equipment roster, and implementation and mitigation measures no significant impacts from the construction of the SWWRF are expected.

Operations Emissions

The only new source of air pollution associated with operation of the upgrades to SWWRF would be one emergency diesel backup generator. The backup generator engine planned for the SWWRF would be no larger (and most likely smaller) than the generator planned for installation at the SES Solar Two facility, which is rated at 335 horsepower. Generator testing is project to follow the standard practice planned for the SES Solar Two Project, at 15 minutes per week for a total of 13 hours per year.

Operation at this level would result in emissions of all pollutants of less than 50 pounds per year (see Section C.1, page C.1-16).

The maximum emission rate of each pollutant from a generator similar to the SES Solar Two generator, are presented in Table Ap.1-1. It is expected that the emissions from the generator associated with the SWWRF Project will be lower. As shown in Table 2.2-1, these emissions are substantially lower than the thresholds of significance for project operations from the Imperial County Air Pollution Control District (ICAPCD) CEQA Air Quality Handbook, thus, no significant impacts are expected from the operations of SWWRF Project.

Table Ap.1-1
Maximum Predicted Backup Diesel Generator Emission Rates

Pollutant	Daily Emissions (lbs)	Annual Emissions (lbs)	ICAPCD Threshold of Significance Emissions (lb/day)
NO_x	0.79	41.03	55
CO	0.06	3.17	550
VOC	0.03	1.44	55
SO_x	0.02	1.15	150
PM_{10}	0.01	0.58	150

Notes: Based on emissions from the Solar Two generator which is tested 15 minutes per week for a total of 13 hours per year.
CO = carbon monoxide
lb/yr = pounds per year
NO_x = nitrogen oxide
PM_{10} = particulate matter less than 10 microns in diameter
SOx = sulfur oxide
VOC = volatile organic compounds

Greenhouse Gas Emissions

In 2006, the California Assembly passed a law (AB32) directing the California Air Resources Board to develop regulations to achieve the goal of reducing statewide greenhouse gas (GHG) emissions to 1990 levels by 2020. Potential greenhouse gas emissions from the diesel generator associated with the upgrade to the SWWRF were calculated using the California Climate Action Registry protocol. The estimated annual greenhouse gas emissions from the diesel generator are 2.65 tonnes per year, although it is expected that the emissions from the generator associated with the SWWRF Project will be lower.

Odors

The upgrades to the SWWRF may have the potential to cause an increase in odorous activities, due to the tertiary treatment of additional wastewater. The existing facility already has odorous activities and generally small increases in odorous activities are not perceptible to most people (Dudek 2009). Thus, the change in odors from the SWWRF Project may not result in significant impacts.

Mitigation

Mitigation measures that are recommended for construction of the SWWRF upgrades include the dust control measures to limit fugitive dust emissions, as described in the Draft MND. Given the proximity of residences to the existing facility, if odors become objectionable, mitigation measures should be required. Odor reducing mitigation for wastewater treatment plants include chemical scrubbers to remove hydrogen sulfide and other sulfur compounds, scrubbers for ammonia removal using caustic/hypochlorite, and a gas capture system on anaerobic cells for odor control. Air sampling around the various treatment plant facilities can be used to ensure the odor control systems are in operation.

Conclusion

The SWWRF upgrade and associated activities will result in emissions due to construction equipment and fugitive particulate matter (dust) emissions from activity on unpaved surfaces. With comprehensive control measures such as those recommended by the mitigation measures incorporated into the MND, dust and equipment exhaust impacts would be reduced to a less than significant level.

3.3 BIOLOGICAL RESOURCES

This section presents a discussion of the potential impacts related to biological resources during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

According to the Draft MND for the SWWRF upgrades (Dudek 2009), the SWWRF site includes only developed/disturbed land with limited to no vegetative growth, and discharges up to 0.15 cubic feet per second (cfs) of effluent to the New River through an unlined channel that is approximately 800 feet long and 50 feet wide (0.92 acre). However, according to the USFWS comment letter on the Draft MND, the unlined channel (Wildcat Drain) supports 2 acres of wetland habitat (February 2010).

The federally listed Yuma clapper rail (*Rallus longirostris yumamensis*), has been reported in marsh vegetation elsewhere in Imperial County; the nearest documented occurrence is about two miles north of the SWWRF near where the New River empties into the Salton Sea (Dudek 2009). Burrowing owl (*Athene cunicularia*) and vermillion flycatcher (*Pyrocephalus rubinus*) are also known from the general vicinity. The channel supports narrow-leaved cattail (*Typha latifolia*), salt cedar (Tamarix sp.), arrow weed (*Pluchea sericea*), and Emory's baccharis (*Baccharis emoryi*), but because of the small patch size of suitable habitat, it was considered sub-optimal for breeding use by Yuma clapper rail and other riparian bird species (Dudek 2009). Further information regarding the special status plant and animal species is provided in section C.2.4.1 of the SA/DEIS.

General reconnaissance surveys were conducted on the SWWRF site in May 2002 and July 2009, and no special-status species were detected. Wildlife species observed from previous surveys included yellow-rumped warbler (*Dendroica coronata*), song sparrow (*Melospize melodia*), house finch (*Carpodacus mexicanus*), western kingbird (*Tyrannus*

verticalis), killdeer (*Charadrius vociferous*), red-winged blackbird (*Agelaius phoeniceus*), and lesser nighthawk (*Chordeiles acutipennis*) (Dudek 2009).

Environmental Impacts

The analysis conducted by Dudek for the Draft MND indicated that surface water is supplied to the wetland by agricultural return flows and underdrain flow from a separate drinking water treatment plant, and that this water will be adequate to maintain the wetland after water supply from the SWWRF, totaling 0.15 cfs, is discontinued (Dudek 2009). However, as was highlighted in comments on the Draft MND, the volume of the agriculture return flows and underdrain flow was not provided and the SWWRF MND/ Environmental Assessment (2003) stated that loss of effluent flows from the SWWTF could result in significant impacts to wetlands. A hydrologic study is necessary to quantify how withholding water from the emergent wetland will affect the wetland habitat and any listed species that may occupy the affected habitat, including the federally-listed endangered Yuma clapper rail. This study may identify significant impacts, but mitigation measures may be able to reduce the impacts to less than significant. Mitigation measures would include activities such as providing restoration and compensation for affected jurisdictional areas.

Focused surveys for sensitive bird species will be completed during the appropriate spring/summer survey periods in 2010 to determine whether the emergent wetland is occupied by sensitive species as part of the studies associated with the EIR for the SWWRF upgrades. The analysis conducted by Dudek for the Draft MND indicated that no sensitive species would be affected by the SWWRF improvements (Dudek 2009). However, numerous comments on the Draft MND expressed concern regarding impacts to sensitive species due to impacts to wetland habitat and the USFWS recommended completion of protocol level surveys for the Yuma clapper rail along the 2-acre channel wetland (February 2010). The results of the protocol level surveys may identify significant impacts and appropriate mitigation would be required.

Mitigation

The analysis conducted by Dudek for the Draft MND indicated that adequate water will remain to maintain the wetland after water supply from the SWWRF is discontinued and that no special status species would be affected (Dudek 2009). However, mitigation may be required that would include avoidance of native habitat disturbance during bird breeding season and construction noise abatement measures during the bird breeding season. Additionally, mitigation may be required that would provide restoration and compensation for affected jurisdictional areas should any be impacted by the SWWRF upgrades.

Mitigation to reduce impacts to bird species includes activities such as:

- conducting pre-construction surveys and monitoring for breeding birds;
- avoiding construction during avian breeding seasons;
- if construction must occur during breeding seasons, providing appropriate distances between construction work and active nests and ensure that noise levels are appropriate at the edge of nesting territories as determined by a qualified biologist in coordination with a qualified acoustician;

- devising methods to reduce noise and disturbance in the vicinity such as installing protective barriers between the nesting site and the construction activities.

Mitigation for affected jurisdictional areas would include activities such as:

- providing restoration and compensation for affected jurisdictional areas by creation, restoration, or preservation of suitable jurisdictional or equivalent habitat;
- in general, at least a 1:1 ratio of the mitigation would include creation of jurisdiction habitat so there would be no net loss of jurisdictional habitat;
- maintenance and monitoring of the mitigation of habitat.

Conclusion

The SWWRF upgrade and associated activities would potentially result in impacts to wetlands and wetland dependant sensitive species, including the federally-listed endangered Yuma clapper rail. Further hydrologic study is required to complete the analysis. If the project would impact wetlands, comprehensive mitigation measures are available that would mitigate the impact to less than significant.

3.4 CULTURAL RESOURCES

This section presents a discussion of the potential impacts related to cultural resources during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

Based on information contained in the Draft MND for the SWWRF Improvements (Dudek 2009), a cultural resources pedestrian survey and a cultural record search were conducted for the Final MND/Environmental Assessment for the Proposed Seeley Water/Wastewater Master Plans (2003), and no significant cultural resources were identified within the project area.

Cultural Resources Survey Results

A records search was conducted February 18, 2009, for a quarter-mile radius around the centerline of the survey corridor for the waterline project, which included the existing SWWRF project site. The records search revealed that cultural resources investigations had been previously conducted for 11 projects and 21 cultural resource locations had been previously documented in the records search buffer area. Table Ap.1-2 lists the previously performed investigations within the water line records search buffer, which includes the SWWRF project site as it is within the buffer of the record search area. Table Ap.1-3 presents the cultural resources previously documented within the records search boundary. The record search for the waterline project covered a larger area than the SWWRF. No previously recorded cultural resources sites were documented within the boundaries of the SWWRF.

Table Ap.1-2
Previously Performed Cultural Resources Investigations

Project Name	NABD #	Produced by	Produced for	Date
Archaeological Examination for the Seeley, California Wastewater Facilities Plan	1100070	Jay and Sherilee Von Werlhof Imperial Valley College Museum	Design Sciences	May 1976
Cultural Resource Investigation for 30 Proposed Asset Management Parcels in Imperial Valley, CA	1100301	Patrick Welsh	BLM	July 1983
Review of Alamosa PCS Site #82502020 County of Imperial, CA	1100757	Environmental Biologists, Inc/SBA	Imperial County, CA	September 2000
Cultural Resource Assessment AT&T Wireless Services Facility No. IM004, Imperial County, CA	1100804	Curt Duke, LSA Associates	GeoTrans Inc.	March 2002
Cultural Resources Survey and Assessment of a Cellular Phone Tower Replacement and Associated Access road Along Old U.S. Highway 80 Near Dixieland, Imperial County, CA	1100820	Philip de Barros, Ph.D. Professional Archaeological Services	Phase One Inc.	May 2000
Section 106 consultation Request Cell Site CA-7 New Site # 58 Seeley, Imperial County, CA	1100916	Joseph M. Nixon, Ph.D., Tierra Environmental Services	BRG Consulting Inc.	May 2002
Archaeological Examination of A Proposed County Waste Disposal Site near Calexico, CA	1100071	Jay and Sherilee Von Werlhof	Department of Public Land Works, Imperial County	May 1976
Phase 1 Archaeological Survey of the Proposed Imperial Site, New Mental Health Treatment Facility Project	1101071	Mark C. Robinson, Applied EarthWorks, Inc.	State of California Real Estate Services Division	January 2000
Cultural Resources Study of the Mount Signal and Dixie Ranch Imperial County Prison Alternatives, Imperial County, CA	1101057	Andrew Pigniolo, ERC Environmental and Energy Services Company, Inc.	California Department of Corrections	January 1990
Volume I Phase II Archaeological Survey o the La Rosita 230 kV Interconnection Project	1100251	Cultural Systems Research, Inc.	San Diego Gas & Electric	November 1987
Cultural Resource Survey for the Seeley Water and Wastewater Treatment Master Plan Project, City of Seeley, Imperial County, CA	1101036	Joseph M. Nixon Ph.D. Tierra Environmental Services	BRG Consulting, Inc.	May 2002a

A cultural resource survey was previously conducted for the SWWRF Master Plan Project and included a field survey of 2.5 acres of the existing project site as well as a one-linear mile survey for associated facilities. The survey was negative and no cultural resources were identified (Nixon 2002a).

Table Ap.1-3
Previously Recorded Cultural Resource Sites

Site Name	Cultural Affiliation	Description	Comments
CA-IMP-321	Prehistoric	Cremation	Site location has not been verified since initial recording.
4-IMP-453	Prehistoric	Potter shards	Site location has not been verified since initial recording.
4-IMP-1425	Prehistoric	Isolated find – pottery sherd	
4-IMP-1426	Prehistoric	Village site – extensive pottery and lithic materials	Site location has not been verified since initial recording.
4-IMP-4193H	Historic	Refuse deposit	
4-IMP-4389	Prehistoric	Pottery scatter – pot drop	Site location has not been verified since initial recording.
4-IMP-4390H	Historic	Refuse deposit	Site location has not been verified since initial recording.
4-IMP-4391H	Historic	Refuse deposit	No further information available.
4-IMP-4602	Prehistoric	Isolate – basalt flake	Salton Buff; site location has not been verified since initial recording.
4-IMP-4603	Prehistoric	Isolate – basalt flake	
CA-IMP-7816H	Historic	Refuse deposit	Potentially related to the railroad; site location has not been verified since initial recording.
U.S. Highway 80	Historic	Linear highway	Reevaluated with the SES Solar Two Class III Cultural Resources Technical Report.
San Diego and Arizona Easter Railway	Historic	Linear railroad	Reevaluated with the SES Solar Two Class III Cultural Resources Technical Report.
P-13-009129	Prehistoric	Isolate – Brownware pottery sherd	
CA-IMP-8427	Prehistoric	Open camp with lithic tools and flakes, ceramics, and three features and groundstone	No further information available
P-13-009221	Prehistoric	Isolate – two secondary porphyry flakes	
P-13-00922	Historic	Isolate – glass insulator cap	

Site Name	Cultural Affiliation	Description	Comments
CA-IMP-8658	Prehistoric	Temporary camp lithic tools and flakes, ceramics groundstone and a feature.	No further information available
P-13-009727	Prehistoric	Isolate-single gray metavolcanic flake	
CA-IMP-8729	Prehistoric	Lithic and ceramic scatter	No further information available
CA-IMP-8730	Prehistoric	Lithic ceramic scatter	No further information available

A survey buffer of 150 feet on either side of the waterline center was established for the waterline cultural resource survey. The waterline survey area did not include the SWWRF plant site. However, as addressed above, the plant site had previously been surveyed (Nixon 2002a) with negative results.

The result of the survey was the recordation of one previously recorded cultural resource site, three newly recorded cultural resource sites, and five newly recorded prehistoric isolated artifacts along the waterline route. The tabular results of the survey are presented in Table Ap.1-4. None of these sites are located in proximity to or within the boundaries of the SWWRF project area.

Table Ap.1-4
Cultural Resource Survey Results

Site Name	Cultural Affiliation	Description
Previously Recorded Site		
IMP-4391/H	Historic	Refuse deposit
Newly Recorded Sites		
KRM- SLY-1	Historic	Linear site, 17 highway markers, 12 historic refuse deposit locations
KRM-SLY-3	Prehistoric	Ceramic and lithic scatter
KRM-SLY-5	Prehistoric	Possible open camp
Newly Recorded Isolates		
SLY-ISO-2	Prehistoric	Metavolcanic hammerstone
SLY-ISO-4	Prehistoric	Tested metavolcanic cobble
SLY-ISO-6	Prehistoric	Metavolcanic secondary flake
SLY-ISO-7	Prehistoric	Sandstone mano fragment
SLY-ISO-8	Prehistoric	Metavolcanic secondary flake

Environmental Impacts

The Class III pedestrian survey of The Seeley Water Line Extension Corridor results in the recording of three sites, one historic and two prehistoric; five isolated finds; and the reevaluation of one previously recorded site. One of the sites is recommended as requiring further investigation to determine if subsurface deposits exist and eligibility for nomination to the NRHP or the CRHR. The remaining sites are recommended as requiring no further work. Previously recorded site IMP-4391H was unevaluated. URS

recommends the site as not eligible for nomination to the NRHP or CRHR. None of these sites is within the boundaries of the SWWRF project area.

Because no previously recorded cultural resource sites were documented within the boundaries of the SWWRF and not new cultural resources sites were documented within the boundaries of the SWWRF, the proposed project is not expected to impact any cultural resources.

The potential for the project to impact cultural resources would be limited to undiscovered below-ground cultural deposits. It is possible that buried cultural deposits could be encountered during ground disturbing project activities including grading or any ground disturbance associated with new or modified treatment ponds.

Mitigation

Mitigation should include development of procedures for actions to be taken in the event of discovery of resources during construction. In the event of a site discovery during project implementation, all work would stop in the immediate area in order to afford time for documentation, evaluation, and consultation between the lead federal agency, the California State Historic Preservation Officer (SHPO), and all consulting tribes if a discovery is aboriginal in origin. Consultation with the above entities would ensue regardless of whether the discovery is located on private or federal lands. If consultation determines that the discovery is eligible for the NRHP, a consideration of effects should be undertaken pursuant to 36 CFR 800.5 of the National Historic Preservation Act (NHPA, 1966, as amended). If consultation results in a determination of adverse effects to a historic property, mitigation measures would be proposed and implemented following consultation with the California SHPO, the lead federal agency, the Advisory Council on Historic Preservation (ACHP), and all consulting Tribes, if necessary. Avoidance would be the preferable mitigation measure in all instances.

Types of mitigation measures that are typically used include evaluation of cultural resources, data recovery including sample excavation and/or surface artifact collection and site documentation and historical documentation, photography, collection of oral histories, architectural or engineering documentation, and preparation of a scholarly work.

Conclusion

The SWWRF upgrade and associated activities would potentially result in impacts to unknown cultural resources from construction activities. With mitigation measures such as those detailed above, impacts would be reduced to a less than significant level.

3.5 GEOLOGIC RESOURCES

This section presents a discussion of the potential impacts related to geologic hazards and resources during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

The SWWRF upgrades would be located in the Imperial Valley region of the Salton Trough. The regional setting of the Imperial Valley region of the Salton Trough can be found in Section C.4.4.1 of the SA/DEIS. This region is primarily underlain by the lake deposits of the ancient Lake Cahuilla. Estimated peak ground acceleration at the SWWRF site would be 0.5g to 0.6g, and the nearest active fault line is Superstition Hills Fault (CPUC 2008).

The Imperial Valley experiences natural subsidence at a rate of nearly two inches per year at the center of the Salton Sea and decreasing toward zero near the United States/Mexico border (Imperial County 2006). This includes gradual, local settling of the earth's surface with little or no horizontal motion. It is generally uniform but local depressions have formed such as the Mesquite Sink (Imperial County 2006).

Environmental Impacts

Construction-related impacts to the geologic environment primarily are related to terrain modification (cuts, fills, and grading) and dust generation. No major unique geologic or physical features have been identified at the SWWRF site, as it would occur on an already disturbed site.

The project area is subject to ground shaking from nearby and distant earthquakes. Design criteria for the SWWRF would be in accordance with a design-level geotechnical report and California Building Code (2007) standards. Adequate design parameters for the facility would need to be determined through a site-specific evaluation by a Certified Engineering Geologist or Geotechnical Engineer. Impacts due to seismic hazards and soil conditions, such as subsidence, would be addressed by compliance with the requirements and design standards of the California Building Code.

Mitigation

Mitigation measures for geologic hazards and resources are described in Section C.4 for the SA/DEIS and include mitigation to any groundshaking impacts through facility design. No additional mitigation measures are expected to be required for the SWWRF upgrades.

Conclusion

The SWWRF upgrade and associated activities would potentially result in impacts from groundshaking. With mitigation measures such as those detailed above, impacts would be reduced to a less than significant level.

3.6 PALEONTOLOGICAL RESOURCES

This section presents a discussion of the potential impacts related to paleontological resources during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

As stated above, the SWWRF upgrades would be located in the Imperial Valley on the lake deposits of the ancient Lake Cahuilla. The Cahuilla Lake Beds are generally

composed of thinly bedded, poorly sorted, fine-grained, light grayish-brown fluvial sediments intervening with a lacustrine sequence of tan and gray fossiliferous clay, silt, sand, and gravel. These sediments are widespread and were deposited during the last seven high stands of the ancient Lake Cahuilla, believed to have existed intermittently from 270 years ago to at least 6,000 years ago. Fossil remains discovered in the Cahuilla Lake Beds include freshwater diatoms, sponges, terrestrial plants, mollusks, fish, ostracodes, and small terrestrial vertebrates. The Cahuilla Lake Beds are determined to have a high potential for paleontological resources (CPUC 2008).

Environmental Impacts

The proposed construction and operations of the SWWRF upgrades is not likely to result in significant impacts to paleontological resources. The SWWRF upgrades would result in minor amounts of ground disturbance on already disturbed land. As with the proposed SES Solar Two site, the potential for exposure of paleontological resources would increase with depth of excavations. Although minimal excavations and ground disturbance would occur with the project upgrade, the project is located on the Ancient Lake Cahuilla which has a high potential for paleontological resources. Impacts to unknown paleontological resources would be significant without mitigation..

Mitigation

Mitigation measures for paleontological resources should be imposed, similar to those described in Section C.4 of the SA/DEIS. No additional mitigation measures are recommended based on this analysis for the upgrades to the SWWRF related to the SES Solar Two Project.

Conclusion

The SWWRF upgrade and associated activities are expected to result in less than significant impacts to paleontological resources.

3.7 HAZARDOUS MATERIALS MANAGEMENT

This section presents a discussion of the potential impacts hazardous materials handling during construction and operation of the SWWRF upgrades.

Environmental Setting

The SWWRF upgrades would be located at the existing Seeley Wastewater Reclamation Facility. As with the proposed SES Solar Two project, the purpose of this section is to determine if the proposed upgrades could potentially cause significant impacts [pursuant to the California Environmental Quality Act (CEQA)] on the public from the use, handling, storage, or transportation of hazardous materials at the proposed project site.

Meteorological conditions at the SWWRF site would be similar to the conditions presented for SES Solar Two in SA/DEIS Section C.5.4.1. Terrain conditions would also be similar to the SES Solar Two site and essentially flat. The nearest populations and sensitive receptors would be located in the town of Seeley, which is immediately adjacent to the wastewater site. The nearest school, the Seeley Elementary School, is located approximately 1,900 feet east of the site.

Environmental Impacts

Small amounts of hazardous materials would be used during construction of the SWWRF upgrades and operation of the SWWRF. These materials are likely to be similar to those used at most construction projects including paint, cleaners, solvents, gasoline, diesel fuel, motor oil, welding gases, and lubricants. Any impact of spills or other releases of these materials would be limited to the site because of the small quantities involved, the infrequent use and hence reduced chances of release, and/or the temporary containment berms used by contractors.

The analysis conducted by Dudek for the Draft MND for the SWWRF upgrades did not identify any additional construction or operation related impacts to hazardous materials (Dudek 2009). The project proposes to use ultraviolet disinfectant for the tertiary treatment process, so minimal use of other disinfectants is expected. However, a list of the hazardous materials that would be used for the tertiary treatment would be required. As highlighted by the Department of Toxic Substances Control, if hazardous wastes would be generated by the operations of the project, the wastes would need to be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5).

Mitigation

Implementation of mitigation measures similar to those described in Section C.5 of the SA/DEIS would reduce impacts to less than significant levels. These include implementation of a Safety Management Program, with both engineering and administrative controls.

Conclusion

The SWWRF upgrade and associated activities would potentially result in impacts from hazardous materials release. With mitigation measures such as those detailed above, impacts would be reduced to a less than significant level.

3.8 PUBLIC HEALTH AND SAFETY

This section presents a discussion of the potential impacts related to public health during construction and operation of the SWWRF upgrades.

3.14 Environmental Setting

The meteorology and existing air quality would be the same for the SWWRF upgrades as for the proposed SES Solar Two project and are presented in Section C.6 in the SA/DEIS. The nearest residence is located less than 100 feet east of the proposed project on New River Boulevard. The nearest sensitive receptor is located approximately 1,900 feet east of the SWWRF upgrades, the Seeley Elementary School.

Environmental Impacts

This section describes the potential public health impacts from the upgrade to the SWWRF. A discussion of the potential emission sources during construction and operation of the upgrade to the SWRF is presented in this section. The SWWRF upgrade and associated activities will result in minor changes that will not cause significant construction or operations related impacts to public health.

Project Construction Emissions

The only source of toxic air contaminants (TAC) emissions from the construction of the upgrades to the SWWRF would be the diesel particulate matter (DPM) in the exhaust from the diesel construction equipment. Due to the relatively short duration of the SWWRF upgrade construction phase (less than one year), and the expected small construction equipment roster, significant public health effects are not expected.

Project Operations Emissions

The only new source of TAC emissions associated with the upgrades to SWWRF will be one emergency diesel backup generator. The backup generator engine planned for the SWWRF would be no larger (and most likely smaller) than the generator planned for installation at the SES Solar Two facility, which is rated at 335 horsepower. If the generator associated with SWWRF Project is the same size and is tested the same amount, 15 minutes per week for a total of 13 hours per year, emissions of DPM will be less than 1 pounds per year. It is expected that the emissions from the generator associated with the SWWRF Project will be lower. The Section C.6 of the SA/DEIS concluded that no significant impacts are expected from the operation of the generator at the SES Solar Two Project, and while the environmental setting is not exactly the same, it is similar enough that no significant impacts from the operation of the generator at the SWWRF project are expected.

Mitigation

No mitigation measures are expected to be required for the SWWRF upgrades for health and safety impacts.

3.9 SOIL RESOURCES

This section presents a discussion of the potential impacts related to soil resources during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

Two primary soil types occur at the SWWRF site. The two soil types are badlands, adjacent to the New River, and Holtville silty clay. The construction activities are anticipated to occur within the area located on Holtville silty clay. Holtville silty clay's parent material includes Alluvium derived from mixed sources and the texture is silty clay. The depth to the water table is greater than 80 inches.

The Land Capability Class, or suitability for soil for most kinds of field crops, is 2s for irrigated lands and 7s for nonirrigated lands for the Holtville silty clay. Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat. The Badlands are classified as 8e, or areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes. Because the SSWRF site is located within the Imperial Irrigation District Boundaries, the site has available water for irrigation. Wind erodability for the Holtville Silty Clay is 4 (moderate erodibility) and it is 8 (low erodibility) for the Badlands. The erosion factor (K) is .28 (moderate) for the Holtville Silty Clay and .15 (low) for the Badlands. The Erosion

Harzard, Roads and Trails, is slight for the Holtville and severe for the Badlands. (SSR, 2010)

Environmental Impacts

As stated above, the construction required for the SWWRF upgrades would occur primarily on the Holtville silty clay. Some grading will be required for foundation of the proposed structures and some excavation, backfill, and compaction for plant facilities would be required. Because some soil disturbance would be required, the proposed SWWRF upgrades could result in a temporary increase in erosion and sedimentation. Potential storm water impacts could result if increased runoff flow rates and volume discharge from the site were to increase flooding and sedimentation downstream. The soils on the project site have a moderate to low wind erosion factor under normal conditions. While only minor amounts of erosion are expected, this could result in a significant impact if soil were to be displaced onto adjacent properties or the adjacent New River. Construction of the SWWRF upgrades would be required to comply with National Pollutant Discharge Elimination System (NPDES) regulations, a Storm Water Pollution Prevention Plan (SWPPP) and use Best Management Practices (BMPs) defined in the SWPPP. Adherence to these construction measures would ensure that impacts to soil resources would be less than significant.

Mitigation

The NPDES regulations, SWPPP, and standard BMPs include soil-erosion minimization measures such as:

- exposed soil treatment including dust palliatives, soil bonding, and weighting agents;
- measures designed to prevent wind and water erosion including application of dust palliatives after ground disturbance;
- erosion control drawings.

With compliance with the NPDES regulations, the SWPPP and use of standard BMPs, no additional mitigation measures would be recommended for the upgrades to the SWWRF related to the SES Solar Two Project.

Conclusion

With the compliance with relevant regulations and BMPs, the SWWRF upgrade and associated activities are expected to result in no significant impacts to soils.

3.10 WATER RESOURCES

The purpose of this analysis is to update the currently provided information to evaluate potential impacts associated with implementation of SWWRF upgrades in relation to water resources and particularly the SWWRF outlet channel that is tributary to the New River (Wildcat Drain). Additionally, this analysis provides updated information regarding SWWRF permitted operational capacity and current effluent discharge rates. Note that under the current RWQCB Waste Discharge Requirements for SWWRF (RWQCB Order No. 2007-07-0036) the SWWRF is currently permitted for up to 250,000 gpd of secondary treated water. This is an increase from the previous permit (RWQCB Order No. R7-2002-0126) which provided a permitted capacity of 200,000 gpd of secondary

treated water. Proposed improvements to the SWWRF include upgrades to move from secondary to tertiary level treatment.

Environmental Setting

The project site lies within the Imperial Subregion of the Colorado River RWQCB. There are no perennial or intermittent drainages on the project site. The closest perennial drainage to the project site is the New River and Wildcat Drain tributary. The New River was created in the early 1900's when the Colorado River overflowed a dike, and with the Alamo River further east, flowed through the Imperial Valley to form the Salton Sea. Currently, the highly polluted New River obtains its flow primarily from agricultural irrigation return. This Subregion is described in more detail in Section C.7 of the SA/DEIS.

The SWWRF site is located in the Imperial Valley Groundwater Basin. The Imperial Valley Groundwater Basin is discussed in detail in Section C.7 of the SA/DEIS. The nearest water body to the SWWRF is the New River, which is located immediately west of the SWWRF site. The New River water quality is discussed in Section C.7 of SA/DEIS. The SWWRF discharges to a minor tributary to the New River, locally referred to as Wildcat Drain. Additional discussion of the Wildcat Drain channel for the SWWRF discharge is provided in the Biological Resources section of this report.

As stated above, the facility operates under a New River discharge permit from the Regional Water Quality Control Board (RWQCB), Colorado River Basin which includes effluent limits for a number of pollutants, including Total Suspended Solids and Biochemical Oxygen Demand (Order No. R7-2007-0036, NPDES No. CA0105023). Over the past several years, discharge from the facility has exceeded these effluent limits, and the District has received notices of violations.

Environmental Impacts

At this time, it is uncertain from a regional water resources perspective, what environmental consequences use of SWWRF recycled water as the sole water supply source for the SES Solar Two project would be. Previous analyses indicated a minor amount of flow reduction to the New River and Salton Sea as a result of SWWRF flow diversion (0.15% reduction of flow to the New River and 0.05% reduction to the Salton Sea). Additionally, the 150 to 200 cfs average annual flow at the border does not account for additional agricultural return flows to the New River between the border and the SWWRF (located approximately 15 miles downstream of the international border) which would reduce the anticipated percentage reduction in flows to the Salton Sea (URS 2009). However, a number of commenters expressed concerns with the reduction of water flow into the New River and Salton Sea. The Imperial Irrigation District stated that the loss would have potential direct impacts on the hydrology of the region and indirect impacts to biology and habitat, including loss or reduction of drain flows and any cumulative drainage impacts that might occur during the development and operation of the facility. The Imperial Irrigation District expressed concern with the impacts that the loss of water would have on the overall water conveyance system, water conservation programs, and Salton Sea restoration efforts. A hydrologic study of the redirected flow from the SWWRF upgrades is underway and would be required prior to any definite conclusions on the impacts.

Project components for use of SWWRF recycled water as the sole water supply source for the project include a water pipeline along Evan Hewes Highway to SWWRF as well as onsite distribution of the raw water supply. The proposed water pipeline and onsite distribution at the solar facility were analyzed in the SES Solar Two SA/DEIS published in February 2010.

Water Supply and Use

Based on existing, available information, the current average influent rate to the SWWRF is about 112,000 to 150,000 gpd (78-104 gpm or 125-168 aft), which is capable of meeting the anticipated project operations phase water demand of approximately 30,000 gpd (33 afy). The proposed SWWRF upgrades along with a proposed pipe delivery system from SWWRF to the Project and proposed onsite storage will be adequate to provide a reliable source of water for the SES Solar Two Project. There are not expected to be any reductions or temporary interruptions of water from the SWWRF. If an unforeseen interruption were to occur, SES Solar Two would temporarily suspend mirror washing operations.

Water Quality

Construction activities would involve earth disturbance that would increase the potential for erosion, but would not occur within any watercourses reducing the impact to water quality during construction. Mitigation was included into the Draft MND and incorporated in the SES Solar Two SA/DEIS to reduce any impacts to water quality during construction to less than significant. The mitigation measures are detailed in Section C.7.4.2 of the SA/DEIS.

As stated above, the current discharge from the facility has exceeded the effluent limits set by the RWQCB and has received notices of violations. The District proposed to carry out the project to upgrade the existing facility to Title 22 standards, with tertiary effluent suitable for unrestricted recycled uses. This upgrade is needed to help ensure that no discharges from the facility exceed established effluent limits in the future reducing impacts to water quality from project operations.

Storm Water Runoff and Flooding Hazards

Storm water runoff from the site during construction could include excess sediment, trash, oils, solvents, paints, cleaners, spilled fuel, vehicle fluids and other construction-related contaminants from the construction activity. The applicant would be required to collect and remove construction waste, including hazardous wastes, according to a regular schedule. The site construction would require a Stormwater Pollution Prevention Plan which would specify Best Management Practices (BMPs) that would prevent all construction pollutants including erosion products from contacting stormwater, eliminate or reduce non-storm water discharges to waters of the nation, and provide for inspection and monitoring of BMPs.

Mitigation

The mitigation measures and other discussion presented in Section C.7.2 of the SA/DEIS are applicable. No additional mitigation measures are recommended based upon the SWWRF upgrades related to the SES Solar Two Project at this time. However,

as stated above, concerns regarding impacts to the hydrology of the region were expressed during the comment period for the MND resulting in a hydrologic study and further investigation. As such, additional mitigation to reduce regional effects to water supply may be required to reduce any impacts to water to less than significant levels. The SWWRF Upgrades would be required to comply with a number of Laws, Ordinances, Regulations, and Standards and would be required to attain a number of Agency permits prior to construction. The following table provides a summary of these.

Table 2.5.2
Summary of LORS – Water Resources

LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Federal Jurisdiction				
CWA §402; 33 USC §1342; 40 CFR Parts 110, 112, 116	Requires NPDES permits for construction and industrial storm water discharges. Requires preparation of a SWPPP and Monitoring Program.	Coverage under NPDES industrial storm water permit maybe required. NOI for coverage under NPDES construction storm water permit will be filed before construction.	SWRCB and RWQCB	J. Carmona
CWA §311; 33 USC §1342; 40 CFR Parts 122-136	Requires reporting of any prohibited discharge of oil or hazardous substance.	Project will conform by proper management of oils and hazardous substances both during construction and operation. If an accidental release or unintended spill occurs it will promptly be reported.	RWQCB and DTSC	J. Carmona
CFR, Title 40, Parts 124, 144 to 147	Requires protection of underground water resources.	Underground water resources will be protected due to the lined evaporation pond.	Environmental Protection Agency	
State Jurisdiction				
CWC §13552.6	Use of potable domestic water for cooling towers and air conditioning is unreasonable use if suitable recycled water is available.	Recycled water will be the sole source of water for the project. No cooling towers area proposed.	SWRCB and RWQCB	J. Carmona / J. Snyder
California Constitution Article 10 §2	Avoid the waste or unreasonable uses of water. Regulates methods of use and diversion of water.	Project includes appropriate water conservation measures, during both construction and operation.	SWRCB and RWQCB	J. Carmona
State Water Resources Control Board Resolution	Addresses sources and use of cooling water supplies for power plants that depend on inland waters for cooling and in areas subject to general water shortages.	Recycles water will be the sole source of water for the project. No cooling towers are proposed.	SWRCB and RWQCB	J. Carmont (RWQCB), J. Kassel (SWRCB)

LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Porter-Cologne Water Quality Act of 1972; CWS § 13000-14957, Division 7, Water Quality	Requires State and Regional Water Quality Control Boards to adopt water quality initiatives to protect state waters. Those criteria include identification of beneficial uses, narrative and numerical water quality standards.	Project will conform to applicable state water standards, both qualitative and quantitative, before and during operation. Applicable permits will be obtained from Regional Water Quality Control Board.	SWRCB and RWQCB	J. Camona
Title 22, CCR	Addresses the use of recycled water for cooling equipment.	Recycled water will be the sole source of water for the project. No cooling towers are proposed.	California Department of Health Services and RWQCB	J. Stone (DEH) / C. Raley (RWQCB)
The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), Health & Safety Code 25241.5 *et seq.*	Prohibits the discharge or release of chemicals known to cause cancer or reproductive toxicity into drinking water sources.	Project will conform to all state water quality standards, both qualitative and quantitative. Project will not discharge into any drinking water source. If an unintended spill occurs, reporting of spill will be prompt.	California Department of Health Services	J. Crisologo
CWC Section 461	Encourages the conservation of water resources and the maximum reuse of wastewater, particularly in areas where water is in short supply.	Recycled water will be the sole source of water for the project. No cooling towers are proposed.	SWRCB and RWQCB	J. Carmona / J. Snyder
CWC Section 5002	Requires a “Notice of Extraction and Diversion of Water” to be filed with the State Water Resources Control Board on or before March 1 of the succeeding year.	Notice will be filed as required by state law.	SWRCB and RWQCB	C. Raley (RWQCB), J. Kassel (SWRCB)
CWC Section 13751	Requires a “Report of Completion” to be filed with the State Water Resources Control Board within 60 days of well construction.	A groundwater well is not proposed.	SWRCB and RWQCB	J. Snyder / J. Carmona

LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
California Public Resources Code §25523(a); 20 CCR §§1752, 1752.5, 2300-2309, and Chapter 2 Subchapter 5, Article 1, Appendix B, Part 1	The code provides for the inclusion of requirements in the Energy Commission's decision on an AFC to assure protection of environmental quality and requires submission of information to the Energy Commission concerning proposed water resources and water quality protection.	Project will comply with the requirements of the Energy Commission to assure protection of water resources.	Energy Commission and RWQCB	J. Snyder and J. Carmona (RWQCB)
CWC §§13271-13272 ; 23 CCR §§2250-2260	Reporting of releases of reportable quantities of hazardous substances or sewage and releases of specified quantities of oil or petroleum products	No releases of hazardous substances are anticipated; however, Project will conform to all State water quality standards, both qualitative and quantitative. If an unintended spill occurs, reporting of spill will be prompt.	SWRCB and RWQCB	J. Snyder and J. Carmona (RWQCB)
CWC §13260-13269l 23 CCR Chapter 9	Requires the filing of a Report of Waste Discharge and provides for the issuance of WDRs with respect to the discharge of any waste that can affect the quality of the waters of the state.	An ROWD will be filed for the RO Unit discharge waste. The RO Unit will be constructed and monitored in accordance with RWQCB requirements.	SWRCB and RWQCB	J. Snyder and J. Carmona (RWQCB)
CEQA, Public Resources Code §21000 *et seq,*; CEQA Guidelines, 14 CCR §15000 *et seq,*; Appendix G	The CEQA Guidelines (Appendix G) contain definitions of projects that can be considered to cause significant effects to water resources.	Project will comply with the requirements of the Energy Commission to assure protection of water resources.	Energy Commission	
Title 27, CCR Division 2, §20375, SWRCB – Special Requirements for Surface Impoundments (C15:§2548)	This regulation governs the design requirements for surface impoundments.	The evaporation pond for wastewater disposal will be designed and operated in accordance with the requirements of this section.	SWRCB and RWQCB	J. Snyder and J. Carmona (RWQCB)
Local Jurisdiction				
Imperial County Ordinance, Title 9, §91605.00–91605.06	These codes regulate flood hazard reduction.	The Project will be designed by a licensed engineer and meet all floodplain design standards.	Imperial County	P. Valenzuela

LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Imperial County Ordinance, Title 9, §90515.00 – 90515.11	The codes classify the Project as light industrial development and regulates its uses.	The Project will conform to all code standards.	Imperial County	P. Valenzuela
Imperial County APCD, Regulation VIII, Fugitive Dust Rules		The Project will conform to all code standards.	Imperial County	

Source: URS Corporation, 2008.
Notes:
APCD = Air Pollution Control District
CEQA = California Environmental quality Act
CFR = Code of Federal Regulations
CWA = Clean Water Act
CWC = California Water Code
LORS = Laws, Ordinances, Regulations, and Standards
NOI = Notice of Intent
NPDES = National Pollutant Discharge Elimination System
RWQCB = Regional Water Quality Control Board
SWRCB = State Water Resources Control Board
SWPPP = Storm Water Pollution Prevention Plan
USC = United States Code

Table 2.5-3
Agency Contact List for LORS – Water Resources

Agency	Contact	Title	Telephone
California Regional Water Quality Board, Colorado River Basin Region	John Carmona	NPDES, 401 Certification, Storm Water	760-346-7491
California Regional Water Quality Board, Colorado River Basin Region	Jennie Snyder	Chapter 15 and Non-Chapter 15	760-776-8962
State Water Resources Control Board	Jim Kassel	Water Rights	916-341-5446
California Department of Health Services	Jeff Stone	Recycled Water	805-566-9767
California Department of Health Services	Joseph Crisologo	Water Security	213-580-5723
Imperial County Planning/Building Development Department	Patricia A. Valenzuela	Planner II	760-482-4320
California Department of Water Resources, Division of Planning and Local Assistance, Southern District	Tim Ross		818-500-1645

Source: Colorado River Basin RWQCB, 208; CDPH, 2008a, CDPH, 2008b (References per Section 5.5 of Project AFC)

Conclusion

At this time it is uncertain whether the SWWRF upgrade and associated activities would result in significant impacts to water. Additional hydrologic studies are required.

3.11 LAND USE

This section presents a discussion of the potential impacts related to land use during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

The SWWRF upgrades would occur on the SWWRF site. This site is dedicated to an industrial use and is identified as an urban area by the Imperial County Land Use Plan (2007). The Seeley Elementary School is located approximately 1,900 feet east of the SWWRF upgrades.

Residential housing is located immediately east of New River Boulevard, less than 100 feet from the SWWRF property boundary. However, the upgrades to the SWWRF would occur on the western side of the property.

The town of Seeley is surrounded by agricultural lands. The New River is located west of SWWRF site.

No wilderness areas, recreation areas, nor agriculture lands occur on site. No recreational areas are located within 1,000 feet of the SWWRF site.

Environmental Impacts

The SWWRF upgrades would not impact agricultural or range lands, nor would they impact recreation or wilderness. Because the proposed upgrades would occur entirely within the boundaries of the existing SWWRF, they would not physically divide an established community, nor conflict with any land use plans or policies. Impacts to nearby residences related to construction noise, traffic, and air emissions (dust) are addressed in other sections of this analysis.

Mitigation

No mitigation measures appear to be required for land use impacts resulting from the upgrades to the SWWRF.

LORS Compliance

The LORS are presented in Section C.8 of the SA/DEIS. No additional LORS are recommended for the upgrades to the SWWRF related to the SES Solar Two Project.

Conclusion

The SWWRF upgrade and associated activities are expected to result in no significant impacts to land use.

3.12 NOISE AND VIBRATION

This section presents a discussion of the potential impacts related to noise during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. Community noise is constantly changing throughout the day due to short duration single event noise sources, such as aircraft flyovers, vehicle passbys, sirens, etc.

The SWWRF is located in a rural environment with expected low ambient noise. The New River is located west of the project, and the community of Seeley is located immediately east of the project. The nearest sensitive receptors are located on New River Boulevard, less than 100 feet east of the project site.

Environmental Impacts

Based on information provided in Section 4.2.11 of the Draft MND for the SWWRF Improvements (Dudek 2009), construction of upgrades at the SWWRF would be expected to cause temporary increases in ambient noise levels at nearby residential receivers. Upgrade construction would occur during allowable hours as dictated by the Imperial County Noise Ordinance, and would be temporary in nature. However, because the nearest sensitive receptors are less than 100 feet from the property boundaries mitigation similar to the mitigation for the proposed SES Solar Two property would be required to mitigate impacts to less than significant.

The MND does not provide information regarding the existing operational noise impacts of the SWWRF nor the expected increase in noise from the SWWRF upgrades. Without this information it is not possible to estimate if any increases in noise would occur at the nearest sensitive receptors. However, if there were a significant increase of 5dBA or greater at the nearest sensitive receptors, mitigation would likely be required.

Mitigation

The mitigation measures for temporary impacts related to construction presented in Section C.9 would require notification of all residents within a 2 mile range at least 15 days prior to the start of construction. Additionally, the project owner would be expected to establish a telephone number for use of the public to report any undesirable noise conditions associated with construction.

If operations of the SWWRF upgrades resulted in a significant increase in ambient noise impacts at the nearest sensitive receptors, mitigation to reduce this impact to less than significant would include noise reduction activities such as building a noise wall surrounding the site.

Conclusion

With the implementation of mitigation measures to reduce noise at nearby residences, if determined to be required, the SWWRF upgrade and associated activities are expected to result in no significant impacts to noise.

3.13 SOCIOECONOMICS

This section presents a discussion of the potential impacts related to socioeconomics during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

The SWWRF is located in the town of Seeley in Imperial County. The demographic characteristics of Imperial County are described in the Socioeconomics and Environmental Justice section of the PSA/DEIS.

Environmental Impacts

Because of the limited population in the town of Seeley, construction workers would most likely be from larger nearby cities such as El Centro. Approximately 30 to 40 workers would be required during peak work days with an average of approximately 20 workers for the six to ten month construction period. While there is limited housing in the town of Seeley, workers could easily commute from cities and towns within the El Centro region. Because of the limited number of workers required during for the project, and the available workers and high unemployment rate, it is expected that there would be no potentially significant socioeconomic impacts.

Mitigation

No additional mitigation measures are recommended based on this analysis for the upgrades to the SWWRF related to the SES Solar Two Project.

Conclusion

The SWWRF upgrade and associated activities are expected to result in no significant impacts to socioeconomic resources.

3.14 TRAFFIC AND TRANSPORTATION

This section presents a discussion of the potential impacts related to traffic and transportation during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

The SWWRF upgrades project is located at 1898 West Main Street in Seeley, California. The main access road would be the New River Boulevard off of Evan Hewes Highway. Additional roads likely to be used include Drew Road and Interstate 8. The Evan Hewes Highway and Interstate 8 are discussed in Section C.11.4.2 of the SA/DEIS. New River Boulevard and Drew Road are local roads in the Seeley region.

No public transportation facilities, or designated bicycle and pedestrian facilities, airport, or railroads are in the nearby vicinity. Residential housing is located along Main Street and as such, it is likely that Main Street is used by bicycles and pedestrians.

Environmental Impacts

Construction would result in a slight increase in traffic associated with the delivery of equipment and construction workers. While the exact number of vehicle trips that would be required for the project is unknown, there would be an average of 20 workers commuting to the construction site with a peak number of between 30 and 40 workers. Additionally, delivery trucks would be required at each phase of the construction as detailed above in the project description. Because this increase in traffic would be minor, it is likely that the roads would remain within the Level of Service thresholds identified by the local jurisdictions. However, a traffic study would be required to ensure this is the case. Additional mitigation would likely be required to ensure that no impacts to roads would be caused by the additional traffic and use of heavy vehicles for delivery. Operations of the project is expected to result in a very minor increase in yearly traffic from the maintenance activities includes scheduled chemical deliveries, additional maintenance deliveries, and sludge removal. This minor traffic is not expected to result in additional impacts to traffic or transportation.

Mitigation

Mitigation measures similar to those presented in Section C.11 of the SA/DEIS would reduce impacts related to traffic and transportation to less than significant. The mitigation measures would include activities such as:

- providing a copy of the construction traffic control plan to the town of Seeley and Imperial County for review and approval prior to construction;
- informing Imperial County and service providers of the schedule of delivery of heavy equipment and building materials;
- ensuring adequate access for emergency vehicles; and
- documenting the existing condition of the primary roadways that would be used by construction workers and heavy vehicle deliveries prior to construction and either directly reconstructing or reimbursing the County for needed repairs.

Conclusion

The SWWRF upgrade and associated activities are expected to result in no significant impacts to traffic and transportation resources.

3.15 VISUAL RESOURCES

This section presents a discussion of the potential impacts related to visual resources during construction and operations of the SWWRF upgrades related to the SES Solar Two Project.

Environmental Setting

The SWWRF is located at 1898 West Main Street in Seeley, California which is an existing industrial facility located on the western edge of the town of Seeley. The SWWTP is designated as a Government/Special Public use, according to the Seeley Urban Area Plan (Dudek 2009). It is surrounded by agriculture lands to the north and south and residential housing immediately east. The New River is located immediately west of the project.

Environmental Impacts

The SWWRF upgrades would require up to ten months of construction and would result in modification of two existing treatment ponds, conversion of two existing treatment ponds to in-ground earthen basins, an onsite pump station, a new backup, and open-air drying beds. The construction would occur at an already existing water treatment facility with similar baseline considers and would not result in taller structures than currently occur on site. Additionally, minimal changes to the existing landscape would be expected from the SWWRF upgrades. As such, no significant impact would be expected and mitigation similar to the mitigation required for the proposed SES Solar Two Project would reduce the impacts to less than significant.

Conclusion

The SWWRF upgrade and associated activities are expected to result in no significant impacts to visual resources.

3.16 WASTE MANAGEMENT

This section presents a discussion of the potential impacts from waste management during construction and operation of the SWWRF upgrades.

Environmental Setting

According to the California Department of Toxic Substances Control, State Environmental Database Envirostor, no existing hazardous releases occurred within a one miles radius of the SWWRF upgrades site. Agriculture lands are located north and south of the project and it is possible that the region has been contaminated by agriculture residues. Additionally, as mentioned by the Imperial County Department of Toxic Substances Control, prior to any construction any previously contaminated sites must be identified. As such, it is likely that a Phase 1 Environmental Site Assessment report would be required.

Environmental Impacts

Small amounts of non-hazardous and hazardous wastes could be generated during construction of the SWWRF upgrades. Waste generated during construction will be segregated, where practical, for recycling. Non-hazardous waste that cannot be recycled will be placed in covered dumpsters and removed on a regular basis by a certified waste handling contractor for disposal at a Class III landfill. Hazardous waste generated during construction will be taken offsite for recycling or disposal by a permitted hazardous waste transporter to a permitted treatment, storage, and disposal facility or Class I landfill.

Small amounts of non-hazardous and hazardous waste could be generated during operation of SWWRF. In addition, operation of the SWWRF will generate dried sludge that will require disposal in a landfill. Without a comprehensive program to manage hazardous wastes and a hazardous waste generator identification number (required by law for any generator of hazardous wastes), the project could result in a significant impact. The types of mitigation presented below would reduce this impact to a less than significant level.

Mitigation

Mitigation measures as described in Section C.14 would provide waste management procedures for handling non-hazardous and hazardous wastes and would likely reduce impacts to less than significant levels.

Conclusion

The SWWRF upgrade and associated activities are expected to result in no significant impacts to waste management.

3.17 WORKER SAFETY AND FIRE PROTECTION

This section addresses safety and health issues and describes or outlines systems and procedures that provide occupational safety and health protection for the Project workers, proposed worker safety mitigation methods to minimize impacts to workers, and applicable LORS. All applicable elements of the Title 8 California Code of Regulations (CCR), General Industry Safety Orders (GISO), Construction Safety Orders (CSO), and Electrical Safety Orders (ESO), are addressed in Section C.15 of the SA/DEIS.

Environmental Setting

As with the proposed SES Solar Two Project, fire support services to the SWWRF upgrades site would be provided by the El Centro Fire Department (EFD) located at 900 South Dogwood in El Centro. The response time to the SWWRF site would be less than to the Solar Two facility from the EFD, less than 30 minutes. The EFD would also respond to hazardous materials incidents at the Solar 2 facility.

Environmental Impacts

Construction, operation, and maintenance activities may expose workers to the hazards identified in Section C.15 of the SES Solar Two SA/DEIS. Exposure to these hazards can be minimized through adherence to appropriate engineering, design criteria and administrative controls, use of applicable personal protective equipment (PPE), and compliance with all applicable health and safety LORS. The programs, regulations, and hazards such as those described in SECT C.15 encompass a comprehensive health, safety, and fire prevention program and an accident/injury prevention protection program intended to ensure healthful and safe operations at the Project site. The upgrades to the SWWRF will not create additional construction or operation related impacts to worker safety.

To protect the health and safety of workers during construction and operation activities, the SWWRF upgrade Project will ensure compliance with a Health and Safety Program, and all federal, state and local health standards that pertain to worker health and safety. Similar to the proposed SES Solar Two project, it would be appropriate for a solar plant at the Agricultural Lands alternative site to provide a Project Demolition and Construction Injury and Illness Prevention Program and a Project Operations Safety and Health Program in order to ensure adequate levels of industrial safety. The Imperial County fire department would be contacted to assure that the level of staffing, equipment, and response time for fire services and emergency medical services are adequate.

Mitigation

Mitigation similar to that required for the SES Solar Two Project, presented in Section C.15, including requiring a copy of the Project Construction Safety and Health Project be submitted to the agency with jurisdiction over the project would reduce impacts to less than significant.

Conclusion

The SWWRF upgrade and associated activities are expected to result in no significant impacts to worker safety and fire protection.

3.18 CUMULATIVE IMPACTS

Section 15126.2(d) of the CEQA Guidelines states that a cumulative impact should consider "…the ways in which the proposed project could foster economic or population growth, or the construction additional housing either directly or indirectly, in the surrounding environment." For NEPA, the purpose of cumulative impact analysis is to identify past, present, and reasonably foreseeable actions in the vicinity of the SWWRF that could affect the set of resources examined for direct and indirect impacts.

Environmental Setting

The affected environment for Cumulative Impacts was discussed in Section B.3 of the SES Solar Two SA/DEIS and included the SWWRF. Supplemental cumulative information includes an estimate of impacts for Projected Urban Development for eastern San Diego and Imperial County completed by the California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program (Cal DLRP [2009]). The CA DLRP projections are based on extrapolations of current population and urban development trends. In the supplemental cumulative analysis, results from the Cal DLRP study are used to illustrate past, present and future urban development from 1984 to 2020 in the area surrounding the SWWRF. The forecast of urban development was used to define the past, present, and future geographic extent of "urban" types of development including residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures such as the SWWRF upgrade.

Environmental Impacts

The Supplemental Cumulative Analysis found that urban development in Imperial County is expected to increase by about 19,000 acres between 2006 and 2020. Renewable energy development in Imperial County is expected to change the land use status of about 34,000 acres during that same time period. Based on these forecasts, the total estimated "developed" land area in Imperial County is expected to increase from about 1 percent to more than two percent by 2020, essentially doubling the developed land area in 14 years. This rate of development is much faster than in the past and renewable energy development is the major contributor to the acceleration.

The Cumulative analysis for the SWWRF upgrades would be similar to the Cumulative Analysis for the SES Solar Two project, presented in Sections C and D of the SA/DEIS. However, as stated above, further study is required to comprehensively analyze the

potential for more extensive regional effects related to hydrological impacts of the SWWRF upgrades in order to accurately characterize cumulative impacts.

4. CONCLUSION

While it is expected that the majority of the environmental impacts that would result from the SWWRF project would be less than significant or reduced to less than significant with mitigation, further studies would be required to conclude with certainty that the project would not result in significant impacts to biological resources, specifically impacts to wetlands and wetland dependent species, and to water resources.

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APPLICATION FOR CERTIFICATION FOR THE
IMPERIAL VALLEY SOLAR PROJECT
(formerly known as SES Solar Two Project)
IMPERIAL VALLEY SOLAR, LLC

Docket No. 08-AFC-5
PROOF OF SERVICE
(Revised 3/9/10)

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DECLARATION OF SERVICE

I, Maria Santourdjian, declare that on March 18, 2010, I served and filed copies of the attached, Appendix 1 Seeley Wastewater Reclamation Facility Improvements, dated, March 18, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:
[http://www.energy.ca.gov/sitingcases/solartwo/index.html].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

FOR SERVICE TO ALL OTHER PARTIES:

__x__ sent electronically to all email addresses on the Proof of Service list;

__x__ by personal delivery;

__x__ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

__x__ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

_____ depositing in the mail an original and 12 paper copies, as follows:

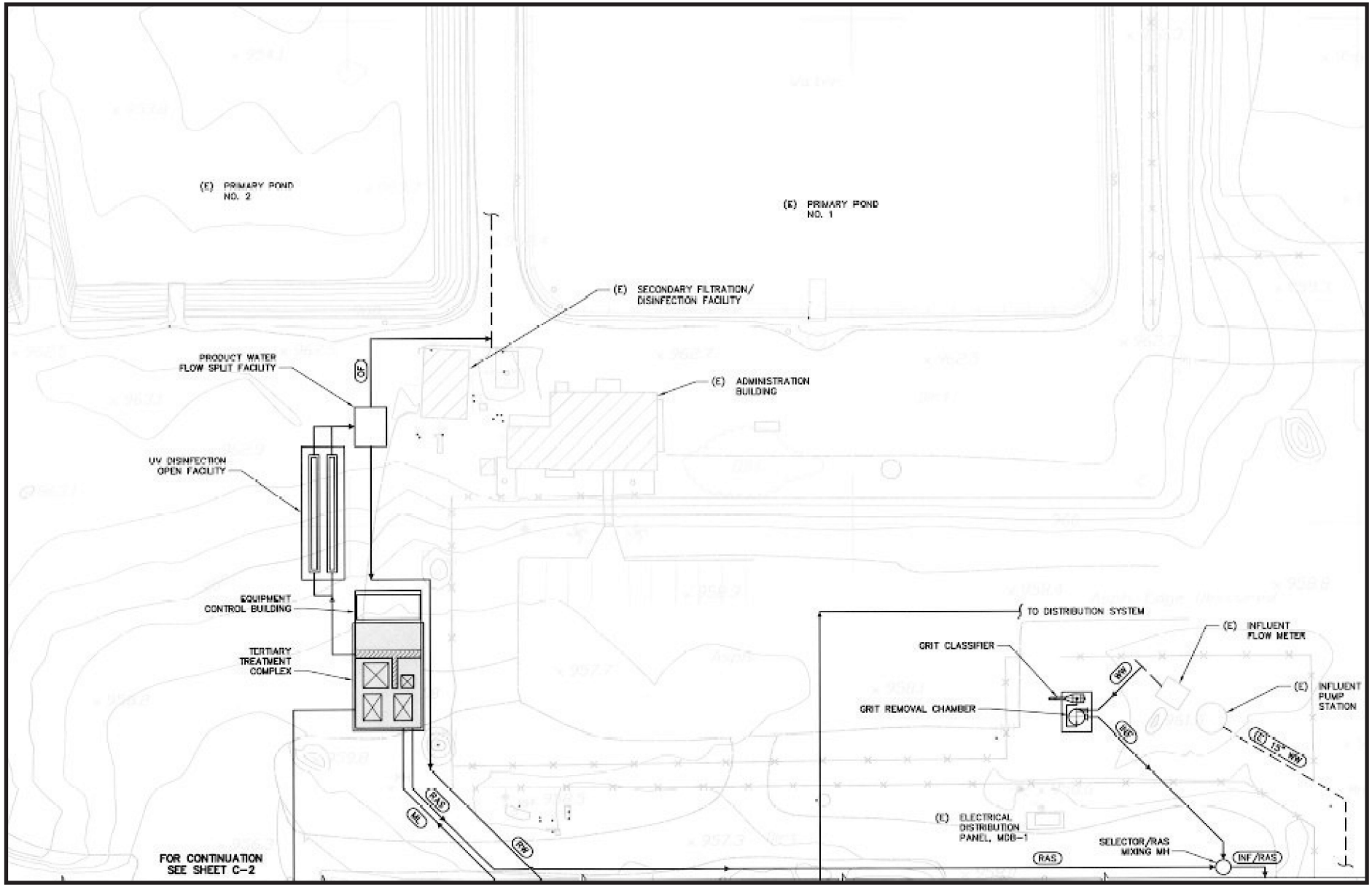
CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-5
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Originally Signed by
Maria Santourdjian

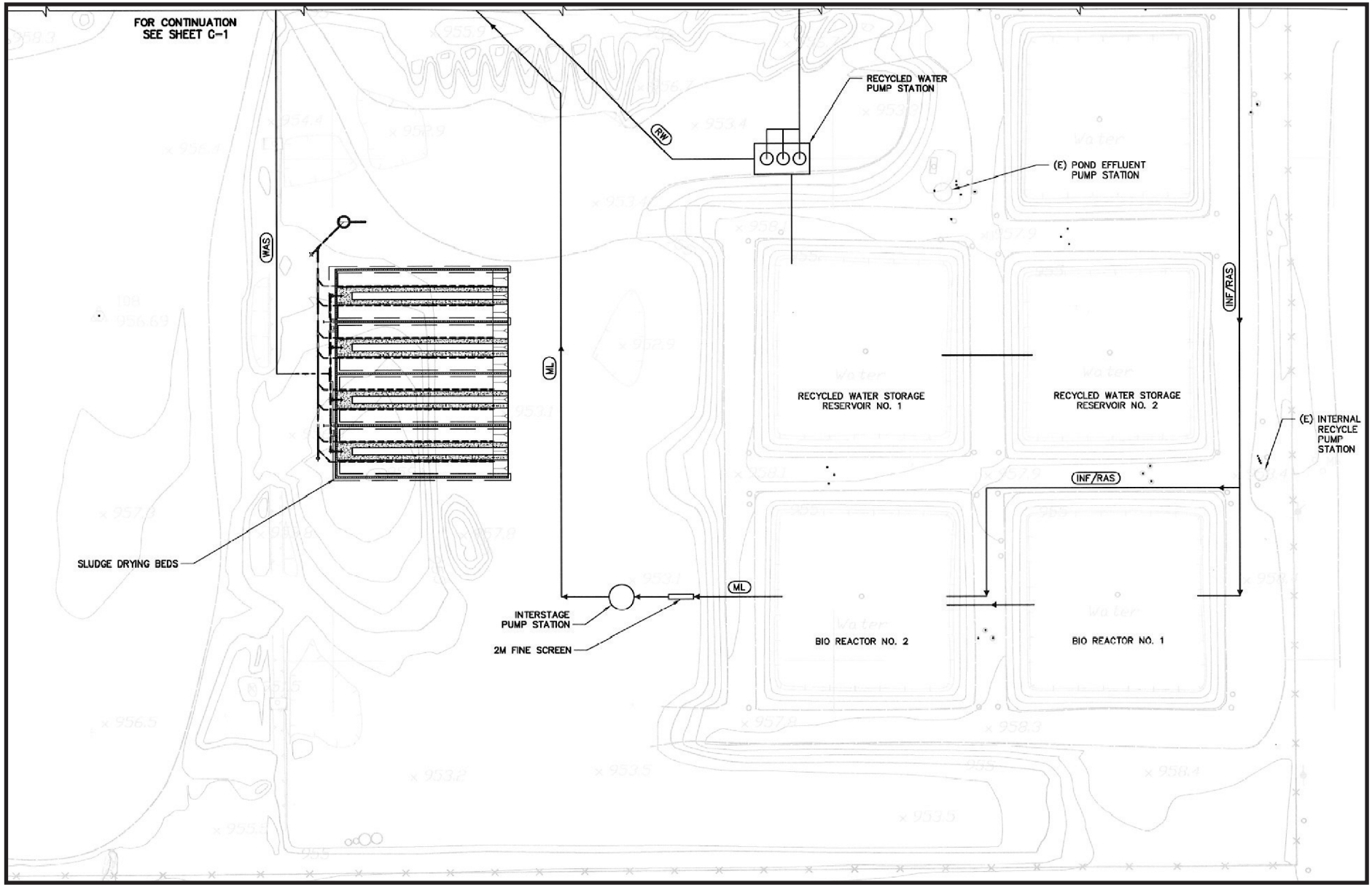
*indicates change

APPENDIX 1 - FIGURE 1
SWWRF Upgrades Site Plan



CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION, MARCH 2010
SOURCE: Dudek 2009

APPENDIX 1 - FIGURE 2
SWWRF Upgrades Site Plan Details



CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION, MARCH 2010
SOURCE: Dudek 2009