Hingtgen, Robert J

From: Howard Cook <howwcook@yahoo.com>
Sent: Monday, February 10, 2014 2:24 PM
To: Hingtgen, Robert J
Cc: Howard Cook; Danielle Thomas; Donna Tisdale; Mark Ostrander
Subject: Soitec Solar Development PEIR Impact Report Comments
Attachments: 01-30-14 SOITEC EIR Response.doc .doc; 08-13-13 substat official water incrse.pdf

Dear Robert,

Attached are my 12 page comments on the Soitec PEIR. A **portion** of this was covered at the meeting in Boulevard Last Feb. 6.

Also attached is the referenced Exhibit -A in the comments. This is the Eco substation change order of 10/11/2013.

Please call me if you have any questions or if I can assist you in any way.

Regards,

Howard W Cook - 619-766-4640

RESPONSE AND COMMENTS TO SOITEC SOLAR DEVELOPMENT DRAFT EIR REPORT
RE: Soitec Solar Development Program Impact Report, Log No. PDS2012-3910-120005 ER; 3800-12-010, GPA, Tierra Del Sol,3300-12-010 MUP, 3600-12-005 REZ, 3921-77046-01, AP, Rugged Solar, 3300-12-00 MUP, SCH No. 201212108

This response and comments to the "Soitec Solar Development Program Environmental Impact Report" issued January 02, 2014 is prepared by Howard W Cook of 1243 Jacumba Street Jacumba Hot Springs, CA 91934. He can be contacted at 619-766-4640, howwcook@yahoo.com. A team of neighbors and experts living in and near the impacted areas also assisted with the report.

The report is divided into sections. Some of the subjects are in multiple sections, because, of the interrelation of the subject matter, for example the interrelation of water and wildlife topics. The sections of this document are:

- SUMMARY RECOMMENDATION
- PROJECT SIZE AND EXPERMENTAL NATURE OF THE PLANNED CPV PRODUCT AND LOCATION
- WATER USAGE PROJECTIONS, IMPACTS ON AQUIFERS AND ANALYSIS.
- IMPACTS ON WILDLIFE, FLORA AND FAUNA
- PROJECT GLARE AND IMPACTS ON THE VISUAL, AESTHETICS AND CULTURAL ENVIRONMENT

SUMMARY RECOMMENDATION

The "No Project alternative" Is the only recommendation possible at this time. Project size, severe environmental impacts, the experimental nature of the key CPV product, major impacts to water and aquifers in the face of the worst drought in California history and the rushed broad brush nature of the EIR, makes this the only alternative possible at this time. An unlisted alternative project might include a dozen experimental CPV solar units, but located away from traveled areas is all the county should risk at this juncture. The facts and analysis borne out in the balance of this response and comments report will bear out this recommendation.

PROJECT SIZE, EXPERMENTAL NATURE OF THE CPV PRODUCT AND THE SELECTED LOCATION

The PEIR does not comment nor analyze the risks inherent on the fact that the selected Soitec CPV product has no proven large-scale commercial installation in the United States. The small Newberry Springs 24 unit (as of 12/13) soon to be a seventy five-unit farm is still not operational according to Patrick Brown of Soitec. This author called Patrick and requested statistics on the frequency of module cleaning at Newbery Springs. He replied that he had none because the Newbery Springs farm was still "experimental". This is also borne out by multiple report team visits there in December and January. This team noted that most of the modules were in non-operational mode and many appeared to be

out of alignment. The Newberry Springs Newspaper in July 2013 announced the farm operational, but the facts indicate that as of this date Soitec was still having problems with its modules.

The county should not approve an enormous 7500 CPV, 1500-acre commercial solar farm using commercially unproven units. The certain very large environmental costs to the people and the East County environment would make this a huge wager.

The Soitec CPV modules also have not been commercially installed and proven in the San Diego Mountains and the over 3500 foot environment that exists here. The 2014 Soitec website under "Products and Services" says "Soitec solar energy solutions, are the optimal choice for power generation in high DNI regions" it goes on to write under Soitec CPV Operations and Maintenance " The modules must be cleaned periodically" also it continues "Module cleaning frequency depends very much on the amount of dust and humidity at the location where the system is installed". The projects are all located at or on the immediate East high side of the "Tecate Divide". This area is frequently hot and dry AND it is also frequently snowy, spitting rain, in the clouds, cold. It also is a very dusty high wind area (Gusts of 60 and 70 mph are common). The Soitec barren project area and the projected multiple others scrapped earth wind and solar projects will exacerbate the wind driven dust problem. The area is also exposed to summer rain monsoons, summer smoke from across the border fires, seasonal oak and cotton wood pollens. This will cause frequent necessary washing, frequent flat nonoperational high wind modes. This in turn, will cause high operational water use and more glare as the units are frequently moving to a washing or flat operational mode. See the next section.

WATER USAGE PROJECTIONS, IMPACTS ON AQUAFIRS AND ANALYSIS

A. Water Usage and impacts Summary

The writer and contributors to this report reviewed the Soitec PEIR conclusions section in 3.1.5 as well as the underlying reports found in the Appendices and the Administrative sections. We also consulted with independent geologists and other specialists associated with our independent team. In addition, We investigated actual water usage figures reported in the more than half completed two substations and tie line project s (SDG&E's Tule and Eco project).

We found some **grossly underestimated and misleading projected water use estimates for both the major Construction and Operating phases**. Greater water usage estimates led us to examine the effect on the upstream and the downstream water aquifers and we again found **misleading conclusions and superficial analysis. These are also detailed in the following sections:**

B. Soitec PEIR Incomplete and incorrect construction water usage estimates.

RESPONSE AND COMMENTS TO SOITEC SOLAR DEVELOPMENT DRAFT EIR REPORT
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The Soitec PEIR construction water estimates are currently defined in the PEIR Chapter One, page 41, and in table 1-6. These estimates use a construction work breakdown activity based estimating method. The PEIR Construction Water estimates for all four project locations total: 42,851,000 gallons.

We (the report team) were astonished by the significant number of construction water work activities we found missing in Table 1-6. Some of these missing activities are, however, reflected in the "Construction Schedule" shown in PEIR Chapter One, tables 1- 8 and 1- 9, page 43. The missing Construction water activities that are reflected in the Schedule tables are shown below with the PEIR time estimate in days. These are shown after the missing work item (Tierra Del Sol first separated by a dash and then Rugged). The **missing** construction water work activity estimates are:

- Road building, (shown in the table 8-9 construction schedule, but are mixed with other activities)
- Underground Electric, 70-100 days
- Site Substation Construction, 25-35 days
- Operations and Maintenance Buildings, 60-80 days
- Punch list and cleanup, 20 – 60 days
- Fencing, drainage and culvert construction, missing from both water and schedule tables
- Electrical Equipment foundations **other** than Trackers and Substation (such as transformers, invertors, electrical pole foundations), missing from both water and schedule tables.
- 10 acre cement and rock crushing plant on Rugged site operating 6 days a week over a 2 year period, missing from both water and schedule tables. **This plant uses a huge amount of water, but is not estimated.**
- 14-acre cement plant and rock crusher, about a mile from the 10-acre plant, shared with Tule Wind for gen tie line. Missing from both water and schedule table. **Huge amount of water, but is not estimated.**
- Seven mile Gen Tie line between the Boulevard substation and the Tierra Del Sol site, missing from both water and schedule tables. **A major water use, but is not estimated**
- Gen Tie Line between Rugged and Substations, missing from both water and schedule tables.

- Increased Construction for Lan West and Lan East scaled to Rugged and TDS. The missing construction items above for other two projects must be projected to Lan East and West, missing from both water and schedule tables.

We have difficulty in assigning gallons of water estimates to the "Missing construction water work activities" shown above. Given the magnitude of these missing construction activities **we must, therefore suspect major under estimating for the water gallonage estimates.**

We therefore, to measure the water usage, have developed a reasonable total project construction water estimating method. This method uses SDG&E's published 10/11/13 water usage projections to complete the Eco/Boulevard substation project (Tule Wind) with a Gen Tie Line. This SDG&E "Project Refinement" document with "projected water to complete" data follows as Exhibit A.

C. Alternate total construction water usage method and poor estimating record on water usage

The two substations (Eco, Boulevard) and the gen-tie between them are an integral part of the Soitec electrical delivery system as pointed out in the Soitec PEIR. This Eco/Boulevard substation and gen-tie project are over half complete and the early heavy water using activities of the project are drawing to a close. **We therefore use the actual water history for the Eco/Boulevard project in projecting a total Soitec project water construction estimate**. A comprehensive Work (activity) Breakdown is always best for estimating, but as shown above in our Water Section B we don't have a good or reasonably accurate work (activity) breakdown estimate.

The official SDG&E work change form for the Eco/Boulevard is attached as Exhibit A. It shows an initial water estimate from the Eco/Boulevard Project EIR of **30 million gallons of water**. After construction was well along and actual water use was compiled, the 10/11/2013 SDG&E change order records a new projection of **90-95 million gallons of water to complete**. It is instructive, to determine the reasons for the over three times increase in construction water. This will be done later. We, however, use the Eco/Boulevard Project projected actual construction water usage in the Eco/Boulevard and project these to a NEW Soitec Construction water estimate. This new estimate is based on the following elements:

- Every one of the five construction activities reflected in the Soitec PEIR table 1-6 plus 10 of the twelve "missing" activities reported in our Section B are also reflected in the mostly complete Eco/Boulevard construction effort, including gen-tie lines. The two "missing" activities not seen in the Eco/Boulevard project are the two cement batch plants planned on site for The Soitec Project since the Eco/Boulevard Project purchased their cement.

- The Eco/Boulevard Project roughly totals 100 acres. The projected construction water usage based on actuals to date is 100 million gallons (100,000,000).

- **Therefore, the total projected construction water use for the 1500 acre Soitec Project (without two cement batch plants) = 1,500,000,000 (One billion five hundred million) gallons.**

- **The water usage of two cement and rock crushing plants covering 25 acres on the Tule/Walker Creek watershed aquifers both operating at an estimated 15 hours a day for two years must be in the multiple hundreds of millions of gallons of water. This estimate must also be added to the over a billion gallons total above.**

The question of why the SDGE Eco/Boulevard project water use **jumped by over three hundred percent** after actual experience was discovered, is instructive for the Soitec Project construction water estimates. Both Eco/Tule and Soitec projects used the same consultants/engineers (Dudek and Aecom) and the County Engineering/hydrology teams. The SDG&E change document says that errors in judging the depth and the dryness of the alluvial ground of the project were at fault. This does not speak well to the carefulness or the experience level of the consultant/county construction water estimating team who did the Soitec Project PEIR. Another reason to not believe the PEIR construction water estimates.

The huge increase in construction water usage estimates and the surrounding facts bring the PEIR estimates further in to question and cause us to insist that the Soitec PEIR team move the Water and Hydrology section of the PEIR from "'Not Significant to the Environment" to the "Significant to the Environment" category. In addition that the Board vote NO PROJECT to this entire project

D. Estimated operational water usage and analysis

The Soitec PEIR in table 1-7 projects a total of 5,698,267 gallons of operational water a year. We believe that the operational estimates are also grossly underestimated and therefore will cause further depletion and environmental damage to our aquifers and therefore to our local environment and to our water supplies.

We question the PEIR Table 1-7 estimates of nine tracker washings a year. We provide the following factors to show that the true CPV washing interval estimates should be closer to 52 times a year:

- The absence of any other operational Soitec CPV farms in the U.S. means that all operational estimates are also "experimental".

- The 2014 Soitec website under Soitec CPV Operations and Maintenance says " The modules must be cleaned periodically" also it says "Module cleaning frequency depends very much on the amount of dust and humidity"

- The selected sites are frequently hot and dry. In the winter, because of its ridge location above 3500 feet it is also frequently in the clouds, snowy, spitting rain. It is also is a very dusty high wind area (Gusts of 60 and 70 mph are common). Summer rain monsoons also occur.

- The Soitec and other close green projects will have scrapped the earth, which will exacerbate the wind driven dust problems.

- Summer smoke from across the border fires and the high altitude seasonal oak and cottonwood tree pollens will also create significant air particulates.

- Most important, our team made multiple visits to Newberry Springs where Soitec has an experimental demonstration CPV installation of 24-75 CPV modules. Members of our team have observed and talked with neighbors of the installation and both confirm an approximate **once a week washing** of the modules.

We also believe that the 24 gallons per washing is not adequate. Since the washing is planned at night using a mobile lighting system there is bound to be a lot of water wasted by accident. The freezing cold nights and the frequent dry nature of the air are bound to also create heavier water usage. We believe that the prudent conservative water per washing figure should be closer to forty-five gallons. It could be more, given the harsh climatic nature of the sites planned.

Using fifty two washings per year and the forty five gallons per year times the 7500 CPV modules, annual washing water usage = 15,000,000 gallons per year for washing the giant CPV units. Substituting this figure for the total PEIR washing allocation and going with the other PEIR operational water usage figures, **we calculate a new approximate 22,350,000 operational gallons a year. A word of caution, since the Soitec CPV technology is still commercially unproven in the U.S. and also since the CPV technology works best in a drier more desert environment, these operational estimates may prove to be much to low.**

E. Impact of Soitec Project water draws plus other projects on local as well as down stream aquifers

A construction water use of over a billion gallons, ongoing operational use of over twenty million gallons or higher a year, plus the removal of 1500 acres water absorbing acres from the Tecate Divide

watershed add up to a major impact to the environment. The following impacts to our aquifers and the environment are listed and analyzed below:

- The California Drought, PEIR Construction Water assumptions and total reliance on Ground water
- The PEIR water study mentions but fails to factor and analyze the impact of the planned other area projects
- Marginal water supply for all areas of The Eastern Tecate Divide watershed and current water supply shortages at various sites
- Hydrology analysis for the most part ignores the Soitec Project impact on local and downstream aquifers and its users.

The California Drought, PEIR Construction Water assumptions and total reliance on ground water

The County Board of Supervisors must make a decision on the over a billion gallons of water needed for the planned Soitec Project construction. The Soitec Project construction is scheduled, according to the PEIR in late 2014. HELLO, those involved in the Soitec Project decision, Governor Brown has declared a water state of emergency this year in California. The California Water Resources Board has declared that they **will not be** supplying State Water System water to any California water agency, including San Diego's. **Rather than approving NEW huge water sucking electrical projects such as the Soitec Project, the Board of Supervisors should be inventorying all available excess ground water supplies and saving them for all San Diego area residents and essential industries in case the drought continues,** as many experts are predicting.

Adding even more electrical projects to Tule Wind and the already huge 1500-acre Soitec Project is easier for new applicants, since the Board of Supervisors has already approved a Programmatic Fast Track approach to additional electric projects. **This Programmatic, Fast Track approach should be repealed by the Board, if they want to be prudent about water usage. The Board should also vote No PROJECT to be prudent on water usage. At a minimum, they should at least delay any approval of The Soitec Project until the Water State Of Emergency has been repealed.**

When the Eco / Boulevard Substation project in late 2013 found a water usage three times the initial estimate, they could find not find additional ground water supplies in East County. SDG&E, therefore turned to trucking in water from San Diego City water sources. We would guess that City water sources will not be available to Soitec for construction purposes, given that the State Water Board has denied any State water to the San Diego Water Agency in 2014. **The County decision makers must announce**

their stance and water priorities on these issues when they make their Soitec Project decision. In addition, The Board of Supervisors, given that Soitec Project water usage estimates are grossly in error as shown in this report, The Board must, if the Soitec Project is to move forward require a new water study and a new EIR.

The PEIR water study mentions but fails to analyze and factor in the impact of other projects

The Soitec PEIR water study mentions but fails to analyze and factor in the total impact of other planned East Tecate Divide projects on the East Tecate Divide watershed and the downstream aquifers. This is especially true of projects, starting in the late 2014, 2015, 2016 Soitec Construction Period. **This new EIR must also list and analyze the cumulative impact of all these other electrical projects on East County wells, local and downstream aquifers, businesses and residential users and also to area flora and fauna. To OK this project, without analyzing the cumulative effect of all the projects would be negligent especially in view of the State's drought condition.** The known additional projects include:

- Tule Wind – The writer of this report has copies of December, 2013 correspondence from Harley McDonald of the Tule Wind Ibredola developer describing a 2014 fall Tule Wind start date. Also The Soitec PEIR reflects a 10-30-12 Jim Bennett to Pat Brown E-Mail in which a 20-acre foot construction water usage is planned. We assume that this estimate does not include the Rough Acres Ranch rock crushing and cement plant slated for The Tule Wind Farm Project (additional hundreds of millions of gallons water usage). Hundreds of acres of previous aquifer increasing plant cover will also be turned into bare land or covered with non-permeable stuff.

- Rough Acres Rock Crushing and Cement Plant- See above. Still pending County approval per the Soitec PEIR.

- Fox Solar by Inffigen – Located at HWY 94 and Tierra Del Sol Road.

- Infigen Kumeyaa Solar – I-8 and Williams Road

- Solar farm – 132-acre solar farm at Mc Cain Valley Road and I-8 (Chapman Ranch?

- Phase One Sempra 47 wind turbine Jacume Mexico Wind farm (Sierra Juarez) - Grading and road building already underway. This will affect Jacumba and Carrizo Creek downstream aquifer water supplies as described in the Soitec PEIR Jacumba Water study.

- Much larger Phase Two and Three Jacume Mexico, Sierra Juarez Wind Farms – See above.

Marginal water supply at most Eastern Tecate Divide watershed and current deficiencies

The water supply on the Eastern slope of the Tecate Divide is extremely marginal and has little excess capacity. Most people in Boulevard know of wells that have suddenly gone dry for little reason, except for the natural dryness of the region and its reliance on "fractured rock" wells. The effect of even a mild drought on the two main bands of endangered Bighorn Sheep has proven major in the past. The impact on aquifers even the smaller water drawdowns can be severe. Evidence abounds everywhere. For instance, Bornt farms, a 450-acre farm in Jacumba Hot Springs have now abandoned that farm. Alan Bornt, the farmer cites a lack of water in his wells as a reason for abandoning the farm. De Anza Resort, a 500-acre resort close to the intersection of Tule Creek and Carrizo Creek in Jacumba has experienced recent well water shortage problems. The Mexican Town of Jacume just across the border from Jacumba Hot Springs has residents who had to abandon ranches because of water shortages. The Campo Indian Tribe, Mission Band, according to a UT article of 11-13-13 on heavy water usage caused by water sales to the Eco/Boulevard Substation Project reported water quality problems as a result of water sales to the Eco Substation Project. The Tribe recently suspended water sales to that project.

The Eco/Boulevard Substation and Gen Tie Project had to go all the way to San Diego City for water, when their water usage tripled beyond their original estimate and the Jacumba Community Serrvices District well six could not meet all of their needs.

The Soitec PEIR is ambiguous about the amount of water available from the Jacumba Community Services District well six. JCSD has limited the amount available from Jacumba well six to 40,000 gallons a day, not the 80,000 a day defined in PEIR 3.1.5-54. In addition JCSD has written Ibredola (Tule Wind Project) December 2013 stating that Ibredola can share the non guaranteed currently available 40,000 gallons per day allocation. JCSD also has stated that this water allocation for sale can be cancelled at anytime, a likely possibility because of the drought and due to planned heavy Soitec use upstream and heavy Sempra use in Mexico.

Reliance only on the East side of Tecate Divide Watershed ground water supplies in the middle of an historic drought for both the Soitec and the other planned major projects in this area is beyond belief. We therefore repeat our recommendation for NO PROJECT. If the County risks going ahead with this Soitec project, they risk an environmental catastrophe to residents, businesses and wildlife.

Hydrology analysis mostly ignores overall aquifer and downstream aquifer impacts.

Most of the water usage studies of the four Soitec sites in the PEIR focus only on specific well impacts and to other wells close to them. They, for the most part, ignore the impact on the aquifers on the East side of the Tecate Divide and the additional downstream aquifers. We assume that because the PEIR erroneously classifies the effect of water usage by the project as "not significant" that they believed

they could ignore its impact to our aquifers. The water usage estimates shown elsewhere in this report of way over a billion gallons for construction and over 20 million gallons annually after construction Certainly tells us that the impact of the Soitec Project is "Significant".

We understand, from reading the Volker law firm letters shown in the Administrative section of the Soitec Project PEIR that CEQUA rules require a complete hydrology aquifer with water sources based study. This comprehensive hydrology study therefore must be performed and included as part of a revised EIR before the Project can move forward.

A CEQUA compliant hydrology report is the only way that we can truly understand the massive impacts of the projected Soitec water usage on East Side Of The Tecate Divide aquifers as well as the downstream aquifers.

Examples of these mostly ignored downstream aquifers in the PEIR are those, which usually descend down the East side of the Divide. These are roughly adjacent to Boundary, Tule and Walker Creeks. The aquifers then flow mostly underground through Jacumba Hot Springs and then Jacumba Valley. This downstream aquifer flow then becomes Carrizo Creek that flows through Carrizo Gorge; a major home of the Federally endangered Peninsular Bighorn Sheep. Then through Anza Borrego Desert to the ecologically vital six square mile San Sebastian Marsh in Borrego Valley. This marsh is the major home of the federally endangered Borrego Pup fish and is also a major stopping place on the Pacific flyway. This Marsh according to the book "Anza Borrego Desert Region" by Lowell and Diane Lindsay says "San Felipe, Fish and Carrizo Creeks are generally dry washes except when flash floods rush down their winding courses. But beneath the sandy surfaces of these washes underground streams flow east and surface about 80 feet below sea level to form small streams and ponds. The verdant San Sebastian Marsh with a unique desert riparian- aquatic habitat is formed at the confluence of these three creeks. It is a dependable source of water used by the wildlife that abounds in the area, migratory birds that have a dependable watering stop in their annual flights". ..... "This marsh has been designated a Natural Landmark by The National Park Service and is a designated "ACEC by BLM".

This important contribution by Carrizo Creek is ignored by the Soitec PEIR, which calls it "Carrizo Wash" despite the Creek designation on all major maps. The Soitec Peir then dismisses any impact by saying "it (Carrizo Wash) disappears into the sands of Anza Borrego State Park".

The Soitec PEIR ignores the probable downstream impacts on: Jacumba Hot Springs tourist oriented Spa, hotel and restaurant businesses, the Jacumba Airport, The Jacumba Truck Stop and tourist stop adjacent to Interstate 8. The Jacumba Valley Farm and Ranch, The water dependent JVA sand and rock business, the town water supply of Jacumba Hot Springs. Also the impacted De Anza Resort, with a

major tourist business and home to about two hundred full time and even more part time residents. The County Highway Two town of Cane Break is also possibly in the impacted area.

There are hundreds of wells serving ranches, and farms in Boulevard, Tierra Del Sole and along Old Highway Eighty between Boulevard and Jacumba Hot Springs. Boulevard restaurants and stores will be impacted by the heavy draws on aquifers. We should not forget the impacts on the new Border Patrol facility and the Organic Sage Wind farms from this heavy draw on our aquifers.

IMPACTS ON WILDLIFE, FLORA AND FAUNA

The drawdown of over a billion gallons of water by the construction and operational use of the four Soitec Projects will have a negative effect on the plant life and wildlife on the East Slope of the Tecate Divide. This heavy water usage will change the nature and have a negative impact on of the current plant life of the entire Eastern Tecate Divide area. The drying up of water seeps and seasonal streams and the diminishment of the few ponds will also affect certain Endangered and Species of Special Concern as follows:

Endangered Peninsular Bighorn Sheep – The Carrizo Gorge Mountain Sheep band populate the Walker Canyon, Tule Creek and Carrizo Gorge areas adjacent to the Rugged, the Lan East and Lan West developments. East County Magazine on January 2nd showed a picture of two rams in the Sacatone/Tule area.

The Carrizo Band of Bighorn Sheep rely on Carrizo Creek Water and also on grasses that grow because of the water seeps close to or below the proposed Soitec developments. The heavy water draw down by these developments in the opinion of Mark Jorgenson, former Superintendent of Anza Borrego State Park, will impact the Bighorn sheep band near and in Carrizo Gorge. Mark wrote in the Desert News about this endangered Carrizo Band as follows: "In Carrizo Gorge, we have documented a drop from about 120 sheep in 1972 to less that 40. Off-road vehicles, trespassing cattle, poaching in the 1960s and early '70s, drought, disease and Mountain Lion predation have worked together to push this population to the edge. We hope we can save this group before it is too late".

Endangered Quino Checkerspot Butterfly – This endangered species will likely be impacted by loss of plants stressed or eliminated by the lower water tables.

Endangered Golden Eagle – The Soitec PEIR reports that nesting and loss of habitats are likely to affect this critical species.

Species of Special Concern Tri Colored Blackbird- The Soitec PEIR Biological Report records that this bird uses the Rugged site for foraging. They also report them nesting at adjacent Tule Lake, and

Jacumba Lake. The expected aquifer drawdown by the Soitec Project will certainly negatively affect Tule Lake and Jacumba Lake nesting sites. The Soitec PEIR includes a Jacumba Hydrology report. This report failed to document the existence of the approximately six-acre Jacumba Lake. The lake is adjacent to the targeted Jacumba Well Six. The lake is fed by all three known aquifers (cold water, hot water and warm water). This lake hosts a very large (several hundred) Tricolored Blackbird nesting population. The general aquifer drawdown, expected by the Soitec Project, will affect or destroy the Lake. At a minimum, it deserves special monitoring to protect it and Tricolored Blackbird viability.

The No Project Recommendation especially in this time of a declared drought is important in protecting the biology of this area and also Endangered and Species of Special Concern shown.

PROJECT GLARE AND IMPACTS ON THE VISUAL, AESTHETICS AND CULTURAL ENVIRONMENT

On January 2, 2014 The County of San Diego released an Environmental Impact Report (EIR) covering a massive industrial solar (CPV tracker technology) project destined for the Boulevard area of the County. 7,500 of these trackers are proposed at four sites covering 1500 acres; three of the sites border Scenic designated Interstate 8 and Historic Old Highway 80. Each of the Soitec trackers is 30 feet high and fifty feet wide.

Unprecedented size and density of massive trackers will industrialize this scenic rural area lining Old Highway 80; a state designated scenic and historic highway and the entry to McCain Valley, a federal recreation area. Bulldozing will destroy plants, wetlands, meadows, wildlife habitat and scenic views.

San Diego City and County attract "Nature Tourists" with beaches, Mission Bay, Balboa Park and Zoo etc. The major tourist corridor serving Arizona, Utah and further east is Interstate 8. Huge glaring CVP trackers and industrial structures adjacent to I-8 for several miles as tourists enter our County is not beneficial to our tourist economy or to local San Diego residents. These projects only benefit a foreign company, Soitec and absentee land owners. Neither have any skin in our San Diego Environment.

Glare will also invade the land, create safety hazards and ruin vistas on I-8 and Old 80. These massive glaring panels are proposed just 100 feet from homes, some surrounded on two, three or even four sides. In the Mojave Desert community of Newbury Springs, Supervisors passed a moratorium to protect residents from glare due to impacts of the Soitec CPV solar project there. It's wrong to force residents who value rural tranquility to be thrust into the middle of an industrial energy zone.

Howard W Cook

EAST COUNTY SUBSTATION PROJECT
MINOR PROJECT REFINEMENT
REQUEST FORM

Date Submitted:	09-20-13 (Originally Submitted) 10-01-13 (Resubmitted)	**Request #:**	8
Date Approval Required:	10-01-13	**Landowner:**	Not Applicable (N/A)
APN:	N/A		

Refinement from (check all that apply):

☐ Mitigation Measure	☐ APM	☑ Project Description	☐ Drawing	☐ Other

Identify source (mitigation measure, project description, etc.):

Pages B-3 and B-37 of Section B Project Description of the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and the Construction Water Supply Plan, which was approved by the California Public Utilities Commission on January 31, 2013, for the East County (ECO) Substation Project (Project) describe the water usage required during construction of the Project. The information in this Minor Project Refinement (MPR) request describes a change in the amount of construction water consumption that was previously estimated in the Final EIR/EIS and the Construction Water Supply Plan. A description of and justification for the requested refinement are provided on pages 1 and 2 of this MPR request.

Attachments (check all that apply):

☑ Refinement Screening Form (provided as Attachment A: Minor Project Refinement Request Screening Form)

Under Order 3 of the Decision Granting SDG&E Permit to Construct the East County Substation Project (D.12-04-022), the CPUC may approve minor project refinements under certain circumstances. In accordance with Order 3 of the Decision, respond "yes" or "no" to the following questions (a) through (d).

(a) Is the proposed refinement outside the geographic boundary of the EIR/EIS study area? No. The proposed refinement requests a change to the Project description than what was presented in the Final EIR/EIS, which provided an estimated volume of water to be used during construction, and will not result in any change in geographic location.

(b) Will the proposed refinement result in a new significant impact or a substantial increase in the severity of a previously identified significant impact based on the criteria used in the EIR/EIS? No. No change in impacts to any resource area evaluated in the Final EIR/EIS is anticipated to result from the requested refinement. The following resource areas apply to the Project's construction water usage and are discussed in detail in Attachment A: Minor Project Refinement Request Screening Form: air quality, climate change, water resources, public services and utilities, and transportation and traffic.

(c) Does the proposed refinement conflict with any mitigation measure or applicable law or policy? No.

(d) Does the proposed refinement trigger an additional permit requirement? No. Construction water usage was contemplated in Section B. Project Description of the Final EIR/EIS. No additional permits will be required.

Describe refinement being requested (attach drawings and photos as needed):

SDG&E is requesting an increase in the total water usage that will be needed throughout construction of the Project. This MPR request proposes that the total construction water usage be increased to an estimated 90 million gallons. While the Final EIR/EIS included an estimate of 30 million gallons for total construction water use, SDG&E increased this estimate to 50 million gallons prior to the start of construction as part of its January 2013 Construction

Water Supply Plan. This increase was found to be consistent with the language in the Final EIR/EIS in light of the selection of the ECO Partial Underground 138 kV Transmission Route Alternative (UG Alternative).

Provide need for refinement (attach drawings and photos as needed):

This MPR request has been prepared as a result of the necessity to increase the Project's overall construction water usage in order to continue to meet soil compaction standards and dust control requirements associated with the Project's Mitigation Monitoring, Compliance, and Reporting Program. The conditions at the ECO Substation site, which is currently under construction, have differed from what was originally anticipated, resulting in a higher Project demand for construction water. Based on the geotechnical report, the contractor estimated that remedial removal and recompaction of alluvial soil at the ECO Substation site was expected to reach a maximum depth of 10 feet. However, during mass-grading of the ECO Substation site, remedial removal and recompaction of alluvium in excess of 20 feet in depth across most of the site was necessary to reach the formational, hard pan soils under the 230/138 kilovolt (kV) and 500 kV pad areas. The deeper than expected alluvial removal also triggered the need to construct a buttress slope outside of the grading limits on the south side of 500 kV pad to accommodate proper compaction of the soils within the grading limits.

In addition, the moisture content of the in-situ soils were lower than anticipated, resulting in higher water usage for recompaction and dust control. The anticipated amount of water to provide the optimum moisture content for compaction prior to the start of construction was estimated at 30 gallons per cubic yard, based on a typical project at this elevation with similar soils and climate, but the actual water required to achieve the optimum moisture content for compaction has been approximately 45 gallons per cubic yard. In total, SDG&E's construction contractor now estimates handling approximately 50 percent more material than was originally planned in order to complete grading at the ECO Substation site. These differing site conditions will result in the use of approximately 50 to 55 million gallons of water during mass grading of the ECO Substation site alone.

Accordingly, an increase in the water needed to complete construction of the ECO Substation along with the other Project components is necessary. SDG&E's construction contractor estimates that approximately 40 to 45 million additional gallons of water will be needed to complete construction of the ECO Substation following mass grading and for construction activities at the Boulevard Substation, the underground and overhead portions of the transmission line, the SWPL Loop-in, and the other associated Project components, such as the construction yards. At the end of August 2013, the Project had used approximately 42 million gallons of water. Therefore, approximately 40 million gallons of water, in addition to the 50 million gallons already approved through the January 2013 Construction Water Supply Plan, will be needed to complete construction of the Project.

Date refinement is expected to be implemented:	10-02-13

SDG&E Approvals

Title	Name	Approval Initials	Date	Conditions (see attached)	
Environmental Project Manager	Don Houston	DH	09/19/13	☐ Yes	☑ No
Environmental Compliance Lead	Kirstie Reynolds	KR	09/19/13	☐ Yes	☑ No
Substation Project Manager	Matt Huber	MH	09/19/13	☐ Yes	☑ No
Environmental Field Supervisor	Jeffry Coward	JC	09/19/13	☐ Yes	☑ No

Landowner Approval (if required)

Landowner Name	Signature or Other Consent
No landowner approvals are required as a result of the requested refinement.	

Resource Agency Coordination				
Resource Agency	**Name**	**Action Required**	**Date**	**Documentation (see attached if yes)**
No resource agency coordination will be required as a result of the requested refinement.				

ATTACHMENT A: MINOR PROJECT REFINEMENT REQUEST SCREENING FORM

MINOR PROJECT REFINEMENT REQUEST SCREENING FORM

RESOURCE EVALUATION

The proposed Minor Project Refinement request was evaluated to verify that it will not result in a new significant impact or a substantial increase in the severity of a previously identified significant impact based on the criteria used in the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The following table provides a brief summary of the potential impact for each resource area analyzed in the Final EIR/EIS.

EIR/EIS Section	Summary of Potential Impacts
Air Quality and Climate Change	*No Change.* The Impact AIR-1 discussion in Section D.11.3.3 of the Final EIR/EIS recognizes that "…water for dust control and other purposes during construction would be transported by water trucks from off-site locations within San Diego County, potentially as far away as San Diego." Combined with emissions associated with other construction activities (such as mass grading), Impact AIR-1 was classified as Class 1 significant and unmitigable. Section D.9.3.3 of the Final EIR/EIS stated that "Construction of the ECO Substation would require up to 30 million gallons of water. If enough water cannot be located on site or purchased from nearby sources, water would be imported from the City of San Diego or the Sweetwater Authority." The following assumptions were made regarding water deliveries: 4,000-gallon water trucks would be used to delivery water, with a maximum of 43 truck trips per day over 8 months, resulting in "an additional 7,500 truck trips" to transport water to the ECO Substation Project site. In this same paragraph on page D.9-22, the Final EIR/EIS states that "All vehicles and equipment would enter the ECO Substation site from Old Highway 80." From reviewing the detailed discussion in this section of the Final EIR/EIS, it is apparent that the estimate of 30 million gallons of water was for construction of only one Project component—the ECO Substation during its period of peak demand (i.e., grading). This is evidenced by the specific references to transportation routes and construction duration of just eight months. Using the assumptions in Section D.9.3.3 and those found in "Appendix 8- Air Quality and Greenhouse Gas Revisions to Applicant's Environmental Information" (Appendix 8), the total mileage associated with water deliveries to the ECO Substation during mass grading can be calculated as 1,155,840 miles, assuming water would be supplied from the City of San Diego (approximately 140 miles round trip) at 43 trips per day for a total of 6,020 vehicle-miles traveled per day for approximately 192 days (32 weeks times 6 days per week). The table below summarizes the Project's current water usage through the end of August 2013, which coincides with the period of mass grading for the ECO Substation. The table demonstrates that the total mileage through August 2013 remains less than the 1,155,840 miles contemplated in the Final EIR/EIS analysis. This is in part due to the fact that closer sources have been used, reducing the mileage required for the deliveries, and because haul trucks with capacities of 5,000 to 7,000 gallons have been used, reducing the number of trips required to make the deliveries. Based on these actuals, SDG&E predicts that the total mileage, and therefore the associated emissions, for the period of peak demand will remain consistent with that contemplated in the Final EIR/EIS.

EIR/EIS Section	Summary of Potential Impacts

Source Name	Total Gallons as of 8/31/2013	Approximate # of Loads	Average Gallons Per Load	Average Miles per Load (roundtrip)	Total Miles as of 8/31/2013
City of San Diego	31,767,494	5,528	5,747	140	773,873
Campo	4,792,587	805	5,950	46	37,052
JCSD*	8,251,839	2,997	2,753	8	23,979
LOS*	243,575	131	1,859	30	3,931
TOTAL	**45,055,495**	**9,462**	**16,309**	**88.65710489**	**838,835**

*Water spray trucks with a capacity of approximately 3,500 gallons are being used at these locations; tanker trucks with capacities of 5,000 to 7,000 gallons are not being used.

Further, "Appendix 8- Air Quality and Greenhouse Gas Revisions to Applicant's Environmental Information" (Appendix 8) states "Later phases that would require water deliveries would result in lower combined emissions than this period." Thus, the analysis indicates that additional water would be required for the Project, but emissions resulting from this water transport were not calculated due to the fact that they would be lower than the peak transport period required for the ECO Substation component of the Project (which represents the worst-case scenario).

Because the analysis was based on a worst-case scenario (with grading of the substation and peak water deliveries occurring at the same time), even if the water remained at the peak level for the whole Project (16-months), which is not anticipated, the emissions would still be under the criteria air pollutant and GHG thresholds analyzed in the Final EIR/EIS.

SDG&E's Amended Construction Water Supply Plan, which was submitted to the CPUC on September 13, 2013, includes an updated water estimate of 90 million gallons, which represents a 40-million-gallon increase in SDG&E's prior water usage estimate of 50 million gallons. As described in the Plan, SDG&E is obtaining construction water from a variety of sources, some as close as four miles from the ECO Substation Site. SDG&E is committed to reducing emissions for water hauling on the Project. Therefore, once mass grading at the ECO Substation is complete, SDG&E will utilize water from the two closest water sources—Campo Indian Reservation and Jacumba Community Services District—to the maximum extent feasible while remaining compliant with the protections for local water sources required by MM HYD-3 and the Project's Construction Water Supply Plan. Utilization of these closer sources will reduce emissions as well as allow SDG&E the flexibility to use additional water above the 90 million gallon estimate included in the September 30, 2013 Amended Construction Water Supply Plan, if necessary, to respond to differing site conditions and/or implementation of mitigation measures associated with dust control and fire prevention.

As long as mileage associated with water truck deliveries for the remainder of construction remains less than the 1.15 million miles assumed in the Final EIR/EIS to be expended during mass grading at the ECO Substation, the Project's emissions will remain consistent with the impacts previously contemplated by the Final EIR/EIS. As demonstrated in the table below, the potential to obtain an additional 48 million gallons of water (90 million gallons requested in the Plan minus 42 million gallons already consumed) needed to complete construction over the approximately 12 months that remain can be accomplished while limiting mileage for water deliveries to less than approximately 35 percent of the total mileage (an approximate 400,000 thousand mile estimate for total additional mileage

<table>
<tr><th>EIR/EIS Section</th><th>Summary of Potential Impacts</th></tr>
<tr><td></td><td>to deliver 48 million gallons divided by 1.15 million miles assumed in the Final EIR/EIS) expended during the mass grading activities at the ECO Substation site. Note that actual trips, gallons per load, and the distribution of sources may vary from that provided below, which is for illustration purposes only.
<table>
<tr><th>Source Name</th><th>Estimate of Loads per Month</th><th>Average Gallons per Load*</th><th>Estimated Gallons for 12 months</th><th>Average Mileage per Load</th><th>Total Mileage</th></tr>
<tr><td>City of San Diego</td><td>48</td><td>5,747</td><td>3,310,272</td><td>140</td><td>80,640</td></tr>
<tr><td>Campo</td><td>450</td><td>5,950</td><td>32,130,000</td><td>46</td><td>248,400</td></tr>
<tr><td>JCSD</td><td>400</td><td>2,753</td><td>13,214,400</td><td>8</td><td>38,400</td></tr>
<tr><td>TOTAL</td><td>898</td><td>4,800</td><td>48,654,672</td><td>125</td><td>367,440</td></tr>
</table>
*The gallons per load averages are based on actuals as of August 27, 2013.

As a result, the total emissions for the requested refinement will be consistent with what was analyzed in the Final EIR/EIS, and the requested refinement will not trigger an exceedance of the greenhouse gas emissions threshold. Therefore, the requested refinement will not result in a new, significant impact or a substantial increase in the severity of a previously identified impact to air quality, which was evaluated as significant and unavoidable (Class I) in the Final EIR/EIS, or to climate change, which was evaluated as less than significant (Class III) in the Final EIR/EIS.</td></tr>
<tr><td>Water Resources</td><td>No Change. The Impact HYD-4 discussion in Section D.12.3.3 of the Final EIR/EIS analyzes whether the Project could deplete local water supplies. The Impact HYD-4 analysis focuses on whether water use during construction would affect groundwater levels in the vicinity of the Project, not the amount of water necessary for construction. The Final EIR/EIS concludes that this impact is significant but able to be mitigated to a less than significant level (Class II). The Final EIR/EIS further proposes the implementation of Mitigation Measure (MM) HYD-3 to "…mitigate impacts to groundwater within the Project area by ensuring that groundwater availability would not be adversely affected" and "… ensure that use of local groundwater during construction would not impact the production rates of groundwater wells within a 1-mile radius." MM HYD-3 also requires SDG&E to provide the "…total gallons of water needed through construction…" along with evidence that the water is available from both purchased water sources and/or groundwater wells.

As demonstrated throughout the Impact HYD-4 analysis in the Final EIR/EIS, the Class II significance level for impacts to water resources are not dependent on the amount of water used, but rather whether construction would impact groundwater in the Project area and whether water demand could be met by area sources. Accordingly, any increase, even a substantial increase, in the amount of water used for construction would be consistent with the analysis in the Final EIR/EIS as long as groundwater in the area is not affected and sufficient water can be supplied.

SDG&E's implementation of MM HYD-3 and the Project's Amended Construction Water Supply Plan, including Section 7 Monitoring Plan requirements for the Campo Indian Reservation, will continue to demonstrate that SDG&E is able to meet construction water demands from a combination of sources and its use of construction water will not adversely impact groundwater in the area.

As a result, the requested refinement will not result in a new, significant impact nor a</td></tr>
</table>

EIR/EIS Section	Summary of Potential Impacts
	substantial increase in the severity of a previously identified impact to water resources, which was evaluated as significant but able to be mitigated to less than significant (Class II) in the Final EIR/EIS.
Public Services and Utilities	*No Change*. The Impact PSU-3 discussion in Section D.14.3.3 of the Final EIR/EIS discusses the availability of water in amounts sufficient to meet the substantial demands necessary for construction so as not to adversely impact area sources of water. The Final EIR/EIS concludes that this impact is significant but able to be mitigated to a less than significant level (Class II). As demonstrated throughout the Impact PSU-3 analysis in the Final EIR/EIS, the Class II significance level for impacts to public services and utilities are not dependent on the amount of water used, but rather whether construction would impact groundwater in the Project area and whether water demand could be met by area sources. As described in the Water Resources evaluation of this Minor Project Refinement Request Screening Form, SDG&E's implementation of MM HYD-3 and the Project's Amended Construction Water Supply Plan, including Section 7 Monitoring Plan requirements for the Campo Indian Reservation, will continue to demonstrate that SDG&E is able to meet construction water demands from a combination of sources and its use of construction water will not adversely impact groundwater in the area. Therefore, the proposed refinement will not result in an additional impact to any public water supply. The maximum total volumes of 50 million gallons from the City of San Diego, 15 million gallons from the Jacumba Community Service District, and 35 million gallons from Live Oak Springs Water Company will remain consistent with the originally confirmed volumes that were reported in the Construction Water Supply Plan, which was approved by the CPUC on January 31, 2013. Confirmation letters from all three sources of construction water were provided in the September 2013 Amended Construction Water Supply Plan. No public services will be disrupted as a result of the proposed refinement as no additional construction activities from what was described in the Final EIR/EIS will be associated with the requested increase in construction water usage. The duration of construction will not be greater than what was originally anticipated, and no different types or additional volumes of waste as was analyzed for in the Final EIR/EIS will be generated. Because no public services, utilities, or water supplies will be interrupted as a result of the requested refinement, the requested refinement will not result in a new, significant impact nor a substantial increase in the severity of a previously identified impact to public services and utilities, which was evaluated as significant but able to be mitigated to less than significant (Class II) in the Final EIR/EIS.
Transportation and Traffic	*No Change.* As discussed in the Air Quality and Climate Change evaluation of this Minor Project Request Screening Form, the mileage associated with water truck deliveries during construction will not exceed the 1.15 million miles assumed in the Final EIR/EIS as a result of the proposed refinement. In addition, all construction activities associated with the requested refinement will be conducted in accordance with the Project's Traffic Control Plans. Therefore, the requested refinement will not result in a new, significant impact nor a substantial increase in the severity of a previously identified impact to transportation and traffic, which was evaluated as significant but able to be mitigated to less than significant (Class II) in the Final EIR/EIS.