

BACKCOUNTRY AGAINST DUMPS

P.O. BOX 1275, BOULEVARD, CA 91905

May 27, 2010

CEC/BLM

Energy Commission Docket Unit

Docket No. 08-AFC-5

1516 Ninth Street, MS -4

Sacramento, CA 95814

VIA :cmeyer@energy.state.ca.us , Jim_Stobaugh@ca.blm.gov and the US Mail

RE: Imperial Valley Solar Project (SES Solar Two) SA/DEIS comments

Dear Sirs,

These comments are being submitted on behalf of myself as an individual, my extended family that resides in the Imperial Valley, and Backcountry Against Dumps (BAD), an all-volunteer public benefit non-profit I co-founded in 1989. Our attorney is also filing comments on our behalf. Just like agency staff, we are overwhelmed with these many fast tracked large-scale energy / transmission projects, and a lack of adequate time and money.

Our group originally formed to fend off a private 600 acre landfill on tribal land abutting private properties reliant on well water. To date, that landfill has not been built despite repeated efforts. We have since expanded our efforts to address other inappropriate development that negatively impacts rural and communities and the natural resources that sustain them and the wildlands and open spaces that surround them that add value and beauty to rural properties and quality of life. These scenic resources support an abundant and diverse wildlife population. They also provide a much needed respite from urban sprawl, traffic, hustle, and noise levels, allowing one to commune with nature and get a sense of what our ancestors and the ancient ones saw, knew, and enjoyed. They also generate recreational tourism and much needed income for our local businesses. It has been reported that gazing upon an open vista can reduce a person's blood pressure by 10 degrees.

We support increased energy conservation and efficiency and renewable energy at or close to the point of use that utilizes existing structures and already disturbed lands, and that do not need extensive, expensive and destruction transmission lines and corridors, like SDG&E's Sunrise Powerlink, that fragment and degrade sensitive habitat, dissect rural communities, take land through eminent domain, displace an /or kill wildlife, and introduce new threats of wildfire ignition in high fire danger areas with dense vegetation that are prone to high wind events. Powerlines have started numerous catastrophic wildfires in Eastern San Diego County in 2003, 2007, 1970 and more. More remote renewables means

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more powerlines strung through our ruggedly beautiful and fire prone Eastern San Diego wildlands and rural neighborhoods, including the McCain Valley Resource Conservation Area, McCain Valley recreation area the Cleveland National Forest, and more.

We offer these comments in the hope that our state and federal decision makers will experience an epiphany and recognize that these large scale remote energy projects are not the best, the shortest, the least expensive, or the least damaging path to reach stated goals of weaning our state and our country from reliance on fossil fuels.

Cold project "location description" leaves out beauty of the area

If you did not know the area, you would never know from the project description that the area is a gently rolling desert landscape with glistening desert pavement made up of millions of small and individually unique and beautiful multi-colored stones, criss-crossed with braided desert washes that carry storm water to the Sony Bono Salton Sea National Wildlife Refuge, with the most diverse array of bird species of any national wildlife refuge. Nature's storm channels are ripe with diverse and wonderful desert vegetation that survives blistering summers and droughts yet bursts into amazingly lush bloom when the rains come at the right time and in the right amount. Their rippled sandy bottoms show evidence of many tiny feet and tail trails leading to secret burrows in the channel banks and under sheltering bushes. The vegetation is tempting enough to entice the Bighorn sheep that were photographed on the site last spring and who no doubt have returned, and will return, for many more meals. The area also serves as forage for many and varied raptors and other species.



photos by Tom Budlong taken on-site 4-25-10



The project description also leaves out the soul-soothing distant views to the Coyote Mountain Wilderness, sacred to Native Americans and others who revere these significant desert landscapes, the Jacumba Mountain Wilderness, the In-Ko-Pahs, the Lagunas, and the Sierra Juarez Mountains that leap up dramatically from the desert floor to La Rumorosa and vanish into the distant Baja horizon, and more. These well-loved vistas will be forever, destroyed, altered, transformed, and blocked from view by 30,000 forty-foot tall rotating, humming and hydrogen sucking SunCatchers marching across a currently uncluttered and open landscape, marred only by the Southwest Powerlink and the US Gypsum plant.



Late Submittal of 1,021 pages and outstanding data requires recirculation for public comment

The following issues support this justified request for a re-circulated SA/DEIS:

- The May 10 posting of an additional 1,021 pages of information.
- Despite the late posting, the still long list of outstanding issues as raised by CEC staff, CURE and others at the May 24-25 evidentiary hearings.
- Those outstanding issues include the lack of a fully vetted, secured, and approved water source.
- The May 24-25 evidentiary hearings and expert testimony were incomplete due to outstanding data, surveys, environmental reviews.
- The project review is being piecemealed and presented in a serial manner. Which makes for difficult review and comment.
- The Sunrise Powerlink, transmission source for Phase II and part of the "whole of the project", is still undergoing legal challenge and issued a Project Modification Report on May 15th with major changes since the project was unlawfully approved in late 2008 (PUC) and early 2009 (BLM). The Forest Service decision on Sunrise is still outstanding.
- Decision makers and the public need, and the law requires, adequate time to review and respond to all the new and outstanding information regarding the whole of the project--especially when it entails the yet-to-be-vetted backup water supply for the project that is now proposed as the main supply "*for 6 months to 3 years*" (Supplemental 1-3), or for the *life of project*, and the other significant changes.

Late stage name change from SES Solar Two to Imperial Valley Solar

Project name changes can create problems for the public to follow the project and/or to conduct research on previous project reviews / issues / articles. Unfortunately, this tactic is a not uncommon practice for controversial projects. Once a project starts the environmental review process they should not be allowed to change the name.

Applicant's pressure to move the CEC/BLM process forward without critical data for the "whole of the project", and for "overrides" is unconscionable

The CEC/BLM should deny the applicant's repeated request made at the May evidentiary hearings to move forward with project review /approval without waiting for the EIR for the Seeley Waste Water Treatment Facility (proposed permanent water source), the resolution of the legality and viability of exporting 40 acre feet per year of at risk desert ground water resources (backup water source) from the Ocotillo/Coyote Wells Sole Source Aquifer for industrial use, and the US Army Corps determination of the Least Environmentally Damaging Practicable Alternative project. The issues represent the whole of the project along with the other outstanding information and should be reviewed and analyzed by staff and the public.

We Support the No Action / No Project / CDCA Plan Amendment to make the area *unavailable* for future solar or other development. It is not the best use of public lands and /or funds

For the reasons stated in this letter, and those stated by others during this process, this project should not move forward. It is not needed and is not the best and highest benefit use of public lands. Nor is it in the best interest of the public, taxpayers, ratepayers, the environment, wildlife, historic, cultural, visual, and / or recreational resources. The land and resources should be protected from development and remain open for limited public use and enjoyment as is currently allowed.

- If the project moves forward, a smaller demonstration project should be required prior to transforming environmentally and culturally sensitive public recreation lands and sacred sites into a privately owned industrial facilities--at the expense of tax and rate payers.
- Disturbed farmland identified east of Dunaway Road on both sides of I-8 could be used for the demo project. It is close to an existing substation near Evan Hewes Hwy and is closer to potential water sources.

Alternative Drainage Avoidance:

- The Army Corps Least Environmentally Damaging Practicable Alternative analysis must be completed before the close of public comment and / or project approval so those decisions and proposed mitigation measures can be reviewed by the decision makers and the public.
- All washes should be avoided, they are nature's storm channels that serve multiple services and species.
- A hybrid of Alternative Figures 1 B & 1C should also be considered for a much reduced project size and degree of impacts to critical water ways and sensitive resources.
- I personally visited the project site on April 25th, in the company of other witnesses, and found flood debris lodged about 3 feet up in Smoke Trees in one of the many desert washes. There was obvious evidence of flooding in excess of 1 foot in many of the desert washes.
- This flood level evidence is contrary to testimony of the applicant witness Dr Chang where he stated that his *modeling* showed flood waters were not expected to exceed approximately 1 foot. When I approached Dr. Chang after his testimony to inform him our information, he just smiled and said "that's interesting".
- Those who know this desert, and others know, too, that desert storms can be unpredictable and devastating. Many of us have seen white caps on flood waters in local desert washes. It is awe inspiring and can be very dangerous.



Smoke Tree flood debris near top right of cane. Photo by Tom Budlong, taken on-site 4-25-10).

The photo below shows aerial view of flood damage to Ocotillo from Hurricane Kathleen in 1976 that took out sections of I-8 and the railroad near Ocotillo. Sections of Ocotillo neighborhoods stand starkly vacant in the flood path. Ocotillo sits approximately 3 miles west of the project site. (photo source: http://commons.wikimedia.org/wiki/File:Damage_from_hurricane_kathleen.JPG)



SunCatcher questions / issues:

- CEQA / NEPA Document still shows the old SunCatcher design
- SunCatchers have new design which qualifies as new information at this late date. Even the photos show the old design which is now a misrepresentation.
- New design is just being tested in AZ with 60 new SunCatchers
- Suncatchers are now 5,000 pounds lighter: http://www.sandia.gov/news/resources/news_releases/new-suncatcher-power-system-unveiled-at-national-solar-thermal-test-facility-july-7-2009/
- How will that impact their stability and function during high wind and violent weather events like the chubasco that impacted the proposed site and surrounding area in September 2009 and Hurricane Kathleen that struck the area in 1976?
- Do Suncatchers generate more noise or vibrations in certain weather conditions above and beyond the noise generated by the motors?
- Operation noise level was reported as 75 db by applicant witnesses at the May 24-25 hearings. This was compared to a passing car at 100ft. However, the baseline ambient noise levels on the site, away from the adjacent roadways, and passing vehicles, is much less.
- My visits to the site have been very quiet and enjoyable with minimal noise trespass throughout the majority of the site, unless one strays closer to I-8.
- What is the maximum wind / sand storm and / or seismic event that Suncatchers can survive intact?
- Where is the on-site weather station / anemometer that document the types of wind that the SunCatcher will need to tolerate?

D.3.13 Power plant efficiency (SA/DEISpg D.3-12): If constructed and operated as proposed SES Solar Two would occupy approximately eight acres per MW of power output, almost double that of other solar technologies. *"Staff believes Solar Two represents one of the least land use-efficient solar technologies currently available."* This impact alone should stop the project.

Fast tracking should be rejected: NEPA / CEQA compliance is required including the "whole of project"

- This project should not be fast-tracked--and should not receive ARRA funds or other tax-payer or rate-payer based funding.
- Federal funds are not allowed when a project has the potential to contaminate the federally designated Ocotillo /Coyote Wells Sole Source Aquifer. See comments " water source" comments below.
- There are too many outstanding issues and unanswered questions including a fully vetted and secured water source.
- CEQA requires CEC to determine "whole project" compliance with the law, including direct and indirect impacts.
- NEPA has similar requirements.

- Outstanding information includes "whole project" impacts--connected actions, direct, indirect and cumulative impacts--to hydrology, biology, including environmental, biological, air, cultural, visual, historic, recreation, wildlife corridor and foraging impacts, environmental justice, and more.
- The "whole project" includes SDG&E's connected action projects: Sunrise Powerlink, IV Substation, ECO/Boulevard Substation and more (See Sunrise Powerlink FEIR/EIS Figure ES-1)
- Backup generation is needed for wind and solar. See SDG&E's comments in news article dated 5-23-10: <http://www.signonsandiego.com/news/2010/may/23/renewables-need-helping-hand-from-gas>: *"People need to understand the intermittency challenge we have," said SDG&E's Niggli. "The wind comes and goes, and on the hottest days of the year, there's no wind, and you still need to provide power to your customers ... These resources are not under our control, but under the control of nature." Gas plants can take up the slack."*
- What is the source of necessary back up generation for Solar Two / IV Solar?
- Gas-fired backup generation, and related Green House Gases should also be considered and analyzed as part of the "whole of the project".
- The project and any mitigation measures cannot be analyzed or approved until all the outstanding information is available for public review and comment *prior* to close of public comment.
- How can we make a fully informed decision and comments without all the information on the 'whole of the project" and related impacts, including cumulative impacts.

Sunrise Powerlink is a "Connected Action" and must be included in review

- **ES-39** states that the Sunrise Powerlink is required for Phase II.
- **Project Overview Map (Supplemental Figure 1-3)** does not show the Sunrise Powerlink alignment through the project even though this project was considered a "Connected Action" in the Sunrise Powerlink EIR/EIS
- **D.5.2.1 Transmission System Engineering:** Staff analysis states that under CEQA, the CEC must review "whole of the action". Since SES Solar Two/IV Solar relies on Sunrise Powerlink, that should be considered as part of the "whole action".
- Under **Transmission Line Safety and Nuisance**, **ES-39** erroneously states that *"each line would traverse undisturbed desert land with no nearby residents..."*.
- The Sunrise Powerlink traverses, public land including Cleveland National Forest, the McCain Valley Resource and Conservation Area and McCain Valley Recreation Area, private and conserved lands, and organic farmland.
- Sunrise Powerlink is the subject of unresolved CEQA & NEPA legal challenges.
- San Diego County has formally asked the PUC to reopen and amend the Sunrise CEQA document to address unsecured water sources and temporary construction and lay down yards that are in different places than reported in the FEIR/EIS and were not properly analyzed.

- San Diego County staff has informed this author that they do not intend to issue permits for those uses on land under County jurisdiction until they are proven compliant with CEQA
- Congressman Filner sent a letter to the Secretary of Interior on April 13, 2010 expressing his concerns with BLM feeling compelled to short circuit NEPA for reasons that are not in the public interest.
- Congressman Filner also expressed concern with David Hayes current position at Department of Interior and former employment as lobbyist for Sempra and SDG&E, and potential for undue pressure to approve these projects. See letter at : http://protectourcommunities.org/wp-content/uploads/2009/05/13-apr-10_congressman-bob-filner_ltr-to-doi-sec-salazar.pdf
- The PUC released the Sunrise Powerlink Project Modification Report (5-14-10) with public comment ending June 7. <http://www.cpuc.ca.gov/environment/info/aspen/sunrise/sunrise.htm>
- An agency memorandum will be prepared by CPUC and BLM to document the changes presented in the final PMR document and to determine whether additional CEQA/NEPA review is required.
- A determination will be made on the need to reopen the CEQA/NEPA process.
- The US Forest Service has not yet approved the Sunrise Powerlink route through the Cleveland National Forest.
- On May 15, 2010 the US Forest Service announced a 45-day comment period to determine if a Supplemental EIS is needed. <http://www.fs.fed.us/r5/cleveland/projects/sunrise-powerlink/index.shtml>

Lack of need for project:

- The PUC's Assigned Administrative Law Judge proposed decision on Sunrise Powerlink denied the CPCN stating that

"The proposed decision denies San Diego Gas & Electric Company's (SDG&E) application for a certificate of public convenience and necessity (CPCN) to build the Sunrise Powerlink Transmission Project (Sunrise) for the following reasons:

- *"It is not needed to meet SDG&E's renewable portfolio standard (RPS) obligation of 20% by 2010;*
- *Assuming a 20% RPS, it is not economic and will potentially generate significant ratepayer costs;*
- *It will have many significant and unmitigable impacts on the environment; and*
- *Other alternatives will meet SDG&E's eventual reliability needs more economically and with fewer significant and unmitigable impacts on the environment."* (<http://docs.cpuc.ca.gov/efile/PD/93071.pdf>) "
- Sunrise FEIS/EIR selected the Environmentally Superior New In-Area All-Source Alternative: Description: One baseload and four peaking gas-fired power plants with fossil fuel fired

distributed generation facilities (about 800 MW) plus San Diego County renewable generation (about 200MW).

- SCE has demonstrated that 200 MW of renewable energy can be achieved by using existing warehouse type rooftops. SDG&E can do the same.
- The BLM selected the so-called Environmentally Superior Southern Route which required a Plan Amendment to the just revised Eastern San Diego County Resource Management Plan. They violated the Administrative Procedure Act by using the Sunrise EIR/EIS to amend that RMP.

Distributed renewable generation is now more cost efficient than large scale remote renewables -- does not require new expensive transmission. Rooftop PV generally does not require CEQA/NEPA review

- The SA/DEIS erred in dismissing the Distributed PV alternative (B.2-114) based on the limited number of projects and lack of confidence that it will happen in the timeframe required for the SES Solar Two project. The Solar Two timeframe is an artificial timeline based on ARRA funding deadlines. **New information on the SCE rooftop PV, dated March 2010, after the SA/DEIS was released is a game changer.**
- **Southern California Edison (SCE) has unveiled plans to install 16,300 solar panels on the roof of a 436,000sqft facility in Rialto, California, owned by an affiliate of AMB Property**
SCE said that the new solar rooftop facility will be completed in time to help meet this summer's peak power needs of SCE customers. It will join SCE installations already online in Fontana and Chino, California, with a combined generating capacity of three million watts. The company plans to install a total of 250 million watts of solar generation at up to 100 Southern California sites during the next five years. John Fielder, president of SCE, said: "We are pleased to be working with AMB to turn their valuable rooftop real estate into a clean new power station serving our Inland Empire customers." Aaron Binkley, director of sustainability at AMB, said: "We actively pursue solar energy opportunities across our global portfolio. This project presents a timely opportunity to add value to our property portfolio while supporting SCE's substantial commitment to renewable energy." The one million watts of solar generating capacity to be installed on the AMB facility will be connected to SCE's nearest neighborhood distribution circuit. http://solar.energy-business-review.com/news/sce_to_install_solar_panels_in_rialto_california_100319/

More information demonstrating that distributed PV is now more cost efficient than remote renewables can also be found in the following documents:

- **Natural Gas & Electricity, August 2009:** CEC cancels gas-fed peaker suggesting rooftop Photovoltaic is equally cost-effective: Bill Powers, P.E.
- **Ivanpah Solar Electric Generating System, Docket 07-AFC-5,** Testimony of Bill Powers, P.E., December 16, 2009

- **SDG&E's ECO Substation:** Scoping comments on PUC/BLM EIR/EIS , February 10, 2010, Bill Powers, P.E., another Sunrise Powerlink "connected action" and "Indirect Effect".
- **Southern California Edison (SCE) has unveiled plans to install 16,300 solar panels on the roof of a 436,000sqft facility in Rialto, California:** http://solar.energy-business-review.com/news/sce_to_install_solar_panels_in_rialto_california_100319/

PUC Press Release: Docket A 08-03-015: Edison's 500 MW Solar Roof program: quoted Commissioner John A. Bohn, author of the decision: "This decision is a major step forward in diversifying the mix of renewable resources in California and spurring the development of a new market niche for large scale rooftop solar applications. Unlike other generation resources, these projects can get built quickly and without the need for expensive new transmission lines. And since they are built on existing structures, these projects are extremely benign from an environmental standpoint, with neither land use, water, or air emission impacts. By authorizing both utility-owned and private development of these projects we hope to get the best from both types of ownership structures, promoting competition as well as fostering the rapid development of this nascent market."

- The 500 MW SCE urban warehouse PV project is meeting the price range identified by RETI Phase 2B for thin-film PV. SCE just signed a contract with Sunpower for Sunpower to provide 200 MW of panels to SCE to develop a portion of this project. SCE says in the press release it has entered this deal with Sunpower to fulfill its obligation (under the CPUC authorization) to install the PV systems for \$3.50/Wdc (~\$4.00/Wac).
- **SEC's estimated cost for their 200 MW rooftop PV is a reported \$875 million and does not need new transmission (see attached SNL Financial 3-10-10), while the Sunrise Powerlink alone, without any generation is \$1.9 - \$3 billion**
- **Stirling Solar needs Sunrise Powerlink so the cost of the reportedly necessary transmission has to be considered as part of the whole of the project/action**
- **The USEPA in its comments on the Solar Energy Development PEIS (September 8, 2009) stated that wholesale and retail distributed generation deserves further consideration.** It notes that an estimated 27,000 MW potential has been identified with small-scale projects near existing power substations throughout California. The EPA further states that distributed generation benefits include fewer environmental impacts than large scale projects, reducing generation costs through reduced line loss, reduced congestion, reduced peak demand loads, which enhance the efficiency, reliability and operational benefits of the distribution system and improve the overall security of our energy supply.
- **The Department of Energy is the advancing the Net-Zero Energy Commercial Building Initiative.** See some examples, including the near zero Audubon Debs Park building at: http://www1.eere.energy.gov/buildings/commercial_initiative/zero_energy_projects.html
- **New Calgreen building codes require new energy efficiency.** "CALGREEN will use the long-standing, successful enforcement infrastructure that the state has established to enforce its health, safety, fire, energy and structural building codes. Many of the mandatory provisions in

the code are already part of the statewide building code, making verification of CALGREEN an easy transition for local building inspectors." <http://gov.ca.gov/press-release/14186/>

- **The County of San Diego has plugged into the CaliforniaFIRST program** to allow San Diegans to spread the cost of the rooftop solar electric systems over 20 years on the their property tax bill. The County also sponsored State legislation signed into law in October to compensate solar customers for surplus energy. The new County Operations Center will meet the US Green Building Council LEED standards. The County won the 2009 "Organizational Excellence Sandee" award from the California Center for Sustainable Energy beating out other regional governments.
- **Solar PV panel systems can now be leased through several companies with or without upfront costs.** Our research indicates that the cost for a 1,400 sq ft home (most of our rural homes are modest) and 20-year agreement with PV system maintenance included, would be approximately \$135 per month--with an option to buy the system outright. Organizations like One Block Off the Grid also offer ways for neighborhoods and communities to go solar at discounted prices.
- **CPUC's Distributed Generation page is copied below:** <http://www.cpuc.ca.gov/PUC/energy/DistGen/>

Utility Solar and Fuel Cell Procurement

" Southern California Edison

- On June 18, 2009, [Decision \(D.\) 09-06-049](#) authorized Southern California Edison (SCE) to build and own 250 megawatts of utility-owned solar photovoltaic capacity and to execute contracts up to 250 MW for generation from similar facilities owned and maintained by Independent Power Producers (IPP) through a competitive solicitation process.
- The CPUC oversight of the [SCE Solar Program](#) is handled as part of [A.08-03-015](#).

San Diego Gas and Electric

- On July 11, 2008, San Diego Gas and Electric (SDG&E) filed [A.08-07-017](#), seeking CPUC approval of its proposal to install 52 MWs (dc) of distributed solar PV systems with single-axis tracking at the distribution level. SDG&E proposes to spend \$250 million on the project, which it would later recover in rates.
- On March 20, 2009 SDG&E and three other parties filed a settlement that would modify the original application by reducing to 26 MWs the utility-owned portion of the project and adding a competitive procurement mechanism for solar PPAs from IPP-owned projects, as well as an experimental competition between utility and IPP-owned projects and a fund for innovative technologies. Testimony from parties on the settlement agreement is due in August 2009.

Pacific Gas and Electric (PG&E) Solar Program

- On February 24, 2009, PG&E filed [A.09-02-019](#), a five-year program to develop up to 500 MW of mid-sized (typically 1 to 20 MW) solar PV projects in PG&E's distribution grid. Under the proposal, ownership

of the projects would be split between PG&E and non-utility IPPs. PG&E would own 250 MW at an anticipated capital cost of \$1.45 billion, and it would execute contracts for electricity from 250 MW of projects owned by non-utility developers.

SCE and PG&E Fuel Cells

- On April 8th, 2010, the Commission approved, with modifications, the applications of Pacific Gas and Electric Company (PG&E) and Southern California Edison Company (SCE) for approval of each utility's Fuel Cell Project to install utility-owned fuel cells on several University of California and California State University campuses. The decision finds it reasonable for the utilities to proceed with their respective Fuel Cell Projects, as long as the projects are modified in two respects. First, PG&E and SCE shall each reduce their project capital costs to reflect a lower contingency percentage. Second, PG&E shall remove contingency costs and education and outreach labor costs from its estimated non-fuel operations and maintenance costs. "

Note how pitifully small SDG&E's distributed solar projects are when compared to SCE's and PG&E's 500 MW distributed PV projects as listed on the PUC page, and then read the article below:

- **Utilities take a dim view on DG Solar(8-25-09):** <http://www.newsweek.com/id/213468>:

"In 2008, 33,500 rooftop solar systems were installed in the United States, a 63 percent increase over the amount of capacity installed in 2007. In California, the solar capital of the country, the increase was 95 percent. Meanwhile, the outlook for the other side of the solar industry—the large, centralized power plants—isn't so sunny. These megaprojects—think acres of desert landscape covered in thousands of solar panels sending electricity through transmission lines—controlled mostly by utility companies that have had a monopoly over the country's electricity grid since the turn of the last century, were supposed to be the key to the future of the solar industry. So far, they're getting vastly outpaced by the decentralized rooftop approach. According to the Interstate Renewable Energy Council's 2006-08 count, consumers added 522 megawatts to the grid; whereas utility generated sites added just 96 megawatts".

If SDG&E and others put their money into projects similar to SCE and PG&E's distributed PV projects, instead of projects like IV Solar and the \$2-3 billion Sunrise Powerlink, which generates no energy whatsoever (but lots of profits for shareholders at ratepayers expense), they could potentially install an estimated 1,000 MW of distributed PV for approximately \$4.3 billion (based on SCE's reported \$875 million for 200 MW), without the added expense and time expended on the Sunrise Powerlink and related issues. An estimated 2,500 to 5,000 MW on existing structures and disturbed lands, close to the point of use, exists in the San Diego urban basin.

Instead, we are looking at ratepayers funding the \$2-3 billion Sunrise Powerlink, another \$250 million for SDG&E's ECO Substation, plus multiple large scale remote projects such as IV Solar for another \$2 billion, many on public land with public funds (an estimated \$600 million at least for IV Solar alone), at great cost both financially and through loss of value of impacted public and private lands, habitat, wildlife, public access, visual, recreational, cultural and other resources. Some impacts cannot even have a dollar amount placed on them because of the nature of their value.

Renewable Energy requires additional gas fired generation

What are the GHG impacts?

We have known this fact for a long time. Now, however, SDG&E admits it pretty clearly in a San Diego Union Tribune article (5-23-10): **Renewables need helping hand from gas:** www.signonsandiego.com/.../renewables-need-helping-hand-from-gas/

"When a cloud goes over a solar farm or the wind dies down, a gas plant has to kick it up a notch to make up the difference. 'People need to understand the intermittency challenge we have' said SDG&E's Niggli. 'The wind comes and goes, and on the hottest days of the year, there's no wind, and you still need to provide power to your customers....These resources are not under our control, but under the control of nature.' Gas plants take up the slack."

What is the backup generation for IV Solar /Solar Two? What are the GHG impacts associated with that backup power generations which is a part of the whole of the project/action?

Water source issues / Ocotillo -Coyote Wells Sole Source Aquifer / What is replacement water source for the residents of impacted rural desert communities when industrial use exports decrease and degrade their sole source aquifer?

- Like Sunrise Powerlink, the Solar Two / IV Solar water source is still unstudied and unsecured.
- The belated backup alternative to use groundwater from Ocotillo, is a non starter.
- The Applicant's response to CURE letter of May 10 is both ignorant and callus in its disregard for the significant negative impacts their proposed groundwater export represents to the low income rural desert communities that rely on the at-risk aquifer to sustain them.
- Figure 1-4 in the May 5 submittal shows the proximity of the proposed Ocotillo water well source and the US Gypsum wells.
- Section 2.5 of the Supplemental downplays the significance of the sole source aquifer designation.
- In 1996, I helped concerned citizens in Ocotillo apply for and secure federal designation of the Ocotillo / Coyote Wells Sole Source Aquifer, after our group BAD secured the Campo/Cottonwood Creek Sole Source Aquifer designation in 1993. These are the only two sole source aquifers in Southern California.
- Link to Ocotillo / Coyote Wells Sole Source Aquifer boundary map: http://www.epa.gov/safewater/sourcewater/pubs/qrg_ssamap_ocotillocoyotewells.pdf
- The EPA's Sole Source Aquifer (SSA) Program was established under Section 1424(e) of the Safe Drinking Water Act (SDWA.) Since 1977, it has been used by communities to help prevent contamination of groundwater from federally-funded projects. It has increased public awareness of the vulnerability of groundwater resources. ***The SSA program allows for EPA environmental review of any project which is financially assisted by federal grants or federal***

loan guarantees. These projects are evaluated to determine whether they have the potential to contaminate a sole source aquifer: <http://www.epa.gov/region9/water/groundwater/ssa.html>

- The State Water Resources Control Board (State Water Board) Clean Water State Revolving Fund Program Federal Cross-cutting Environmental Regulations Evaluation Form for Environmental Review and Federal Coordination questionnaire includes a Water Sources question that asks if the project is in the boundaries of a SSA. The Ocotillo/Coyote Wells Aquifer is one of the five California SSAs listed. See the document at the link copied below: http://www.swrcb.ca.gov/water_issues/programs/grants_loans/srf/docs/envcompliance/federal_cross_cutting_evaluation_form.pdf
- At a minimum a site specific study and full EIR would be legally required to determine the impacts to the Ocotillo source well(s) and aquifer which are located wholly within the boundaries of the federally designated Ocotillo / Coyote Wells Sole Source Aquifer.
- The US Gypsum wallboard plant next door, already pipes in precious groundwater from Ocotillo 8 miles to the west. This has resulted in litigation. US Gypsum was supposed to stop using that groundwater when they got approval for 1,000 ac feet of canal water from Imperial Irrigation District. But they need a new pipeline similar to the one proposed for IV Solar / Solar Two.
- That pipeline needs a Biological Opinion from Fish & Wildlife, but due to the administration's pressure to fast track renewable energy projects like this one, that Biological Opinion has been placed on hold indefinitely (confirmed May 17 by FWS staff).
- As a result, US Gypsum continues to pump hundreds of acre feet of irreplaceable desert groundwater from a residential area that has no alternate water supply.
- Now this project wants to take another 40 acre feet from them which in my opinion is immoral, unlawful and unethical.
- Here is a quote from the attached July 14, 2006 RWQCB Memorandum, addressed to Donna Tisdale, regarding the proposed US Gypsum Expansion / Modernization Project (EIR/EIS Sch. No. 2001121133) and increased export / use of Ocotillo groundwater:

"We acknowledge the Regional Boards limitation to control groundwater extraction/pumping (i.e., lack of jurisdiction over water rights issues). Nevertheless, we feel obligated to weigh in the subject matter because the projected impact is on waters of the State, and the project as proposed practically could eliminate the Municipal Supply beneficial use of an aquifer. The impact may be economically irreversible, is in direct conflict with the Basin Plan, and short-changes water quality. Consequently, it is our intention to recommend the Regional Board use any and all of its available powers to protect the area's groundwater resources for current and future generations."

Environmental Justice

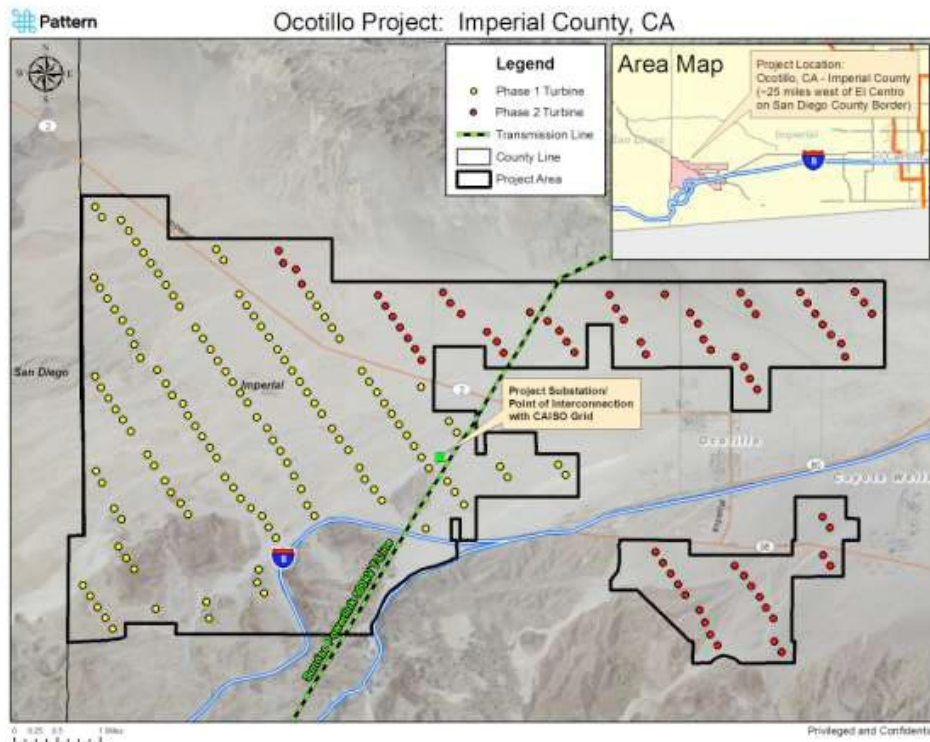
- Imperial Valley Solar and US Gypsum are alarming examples of Environmental Justice (EJ) issues where big corporate interests use and abuse small rural low-income, and often minority,

communities and their resources for their own financial gain--at the expense of the often defenseless community.

- Exporting finite desert groundwater resource, in a basin with virtually no recharge, from low-income rural community, and transforming sensitive lands, habitat and cultural resources, including open views, and culturally significant properties and landscapes, in order to generate energy and wallboard for use in distant urban areas is a classic EJ scenario.
- The *promise* of jobs, few if any for Ocotillo area residents, does not make up for the rape of the area's resources, property values, and quality of life.

Cumulative Impacts

- The cumulative impacts analyses for Solar Two / IV Solar is inadequate
- Industrial wind energy projects, and their related transmission infrastructure, proposed west of Solar Two, will result in direct, indirect, and cumulative impacts to Golden Eagles, other birds, bats, bighorn sheep, the flat tailed horned lizard, visual, cultural, and recreational resources, wildlife corridors and currently unfragmented habitat and foraging areas for a variety of species.
- Among other impacts, industrial wind turbines require new graded pads, access roads, water use, erosion, dust issues and more. They also generate low frequency noise and vibrations which can interfere with ground dwelling species, their communication, alerts, and otherwise wellbeing.
- The necessary avoidance of the flight path due to a combination of tens of thousands of acres of industrial solar and wind turbine arrays will have a cumulative impact on the aerial operations and activities of law enforcement, including Homeland Security, and military and perhaps their communications and /or radar.
- The Plan of Development map below, submitted to BLM, shows the proposed 14,900 acre, 561 MW, Pattern Energy Ocotillo Express industrial wind energy project several miles west of IV Solar / Solar Two. Note the location of the community of Ocotillo where the proposed alternate water source is also located.
- Ocotillo will be surrounded by churning, humming, strobe flashing, view altering turbines and rows upon rows of rotating, buzzing, glint and glaring SunCathers, and the related transmission lines and substations.
- The proposed Ocotillo Express wind project location is between the Coyote Mountain Wilderness and the Jacumba Mountain Wilderness. These areas, including the valley between is occupied bighorn sheep habitat.



- SDG&E has announced a new 14 MW solar project adjacent to their Imperial Valley Substation (SNL Financial 3-26-10) <http://.snl.com/InteractiveX/article.aspx?=1>.
- The new 14-MW project is in addition to the proposed expansion of the IV Substation, the proposed connection of both IV Solar/Solar Two and the Sunrise Powerlink to the IV Substation
- This is considered new information along with the proposed adjustment of the IV Solar transmission line at the Substation.
- There are many other renewable energy project proposals in the area along with existing mining and other operations, including Zemer Energy Union Fenosa 1,000MW in Baja's La Rumorosa area. RETI maps showed potential cross-border power lines to export energy to the US grid.

Tessara Solar Glint & Glare Study:

- Why are no Key Observation Points located on Evan Hewes Hwy (East or West) or from the Coyote Mountain Wilderness or Painted Gorge areas on the northwest, looking back at the project site? The areas to the NW are actually slightly elevated.
- **Appendix A: Report on SunCatcher Luminance (4-20-10)** *"Sunrise occurred at 6:01am MST. The SunCatchers began operation at about 6:30am. The parabolic dishes moved to an "offaxis" mode initially. During this mode of operation a reflection of the sun was visible in many of the*

parabolic reflector dishes. I attempted to measure the luminance of a solar image. However my instrument is limited to 685,000 cd/m² and it saturated when I tried to measure the solar reflection. The solar reflection did appear to be less difficult to view than the Sun itself. The luminance of the Sun at a high solar altitude can have a luminance of approximately 1.6 billion cd/m²."

- The excerpt above, indicates there may be more impact than has been admitted to.
- **At page 13 last bullet , Glint Analysis** (SunCatcher TM in off-axis position) – Off-axis tracking SunCatchersTM have the potential for viewers to experience glint. This statement appears: ***"However, in some conditions where a viewer has an elevated view of the Imperial Valley Solar Project, glint may be visible."***
- At the May 24 Evidentiary hearing in El Centro, I had the opportunity to meet a very nice gentleman (Kevin?) who was involved in the glint and glare study. He was kind enough to show me the animated version of the study that I had not been able to access. The version I saw included a 20 foot fence which I understand is now being recommended for removal of consideration by the applicant. It would seem that the rotating SunCatchers will be very distracting to drivers.
- I was told that there is some glint/glare from an elevated view such as from a low-flying plane. This information was not made very clear in the public document.
- It appears that there will be impacts to frequent low-flying air traffic related to US Customs and Border Patrol, and military flights related to Seeley Air Station and other San Diego and Yuma related military operations as the project area is located in their flight path.
- The Desert View Tower, a historic landmark / tourist attraction that, draws folks from around the world, sits at an elevated location with a clear view of the valley floor, US Gypsum, and the IV Solar /solar Two project site.
- The Coyote Mountain Wilderness, the Jacumba Mountain Wilderness and the Yuha ACEC also sit at an elevated location from the project, as does the In-Ko-Pah ACEC, and the McCain Valley Resource Conservation Area with scenic overlooks out over the Imperial Valley and project area.

Flora / Fauna

- Fall surveys are required for full compliance. 2010 Fall bloom should be exceptional due to a wet year after numerous dry years. The Fall survey is now proposed to take place *after* public review which eliminates any review and comment on impacts and proposed mitigation.

- Any historic information for bloom after the 1976 Hurricane Kathleen should be incorporated since many desert plants can remain dormant unless and until the right amount of rain falls at the right time. See photo below of desert Prickly Poppy bloom after Hurricane Kathleen.
- Jim Andre, a rare plant expert and director of UC Riverside's Sweeney Granite Mountains Desert Research Center in the Mojave National Preserve, has stated 40 % of desert plants bloom in the fall.
- The presence of bighorn sheep on-site cannot be dismissed by stating they were flushed out by OHV activity. Flushed out from where? Wilderness and protected areas?
- What does this say about BLM management abilities?
- Previous BLM plans for the area recognized the project site as bighorn habitat.
- The on-site presence of pregnant females during lambing season begs further investigation.



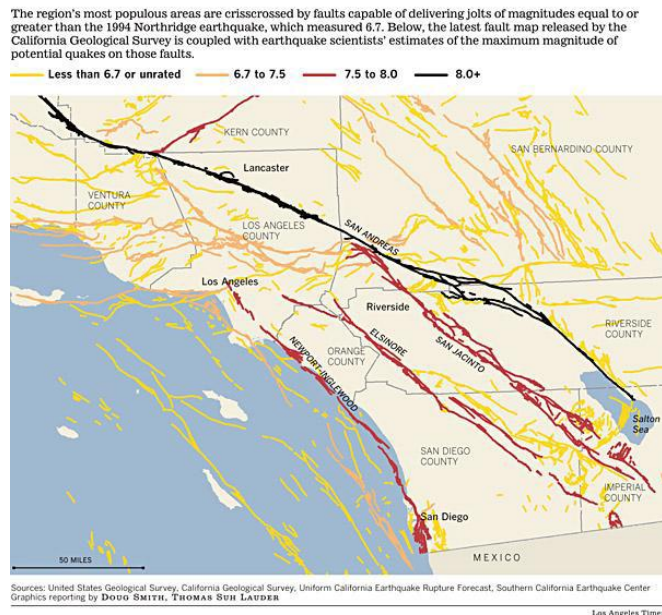
- What are the potential impacts of having power collected from the SunCatchers to go through a 600 V underground power lines which apparently will collect from the units leaving much of the area not only disturbed by roads, but also by the underground powerlines .
- What are the potential adverse impacts of this amount of cumulative disturbances, from multiple projects, to the soils used by burrowing small mammals and lizards. This disturbance is in addition to the 27 miles of paved arterial roads, 14 miles of unpaved perimeter roads, and approximately 234 miles of unpaved access roads associated with the proposed IV Solar site (SA/DEIS ES-5) for a total of 275 miles of roads.
- Cumulative impacts to bighorn sheep habitat and corridors
- Indirect and cumulative impacts associated with noise and vibrations that travel through the soil and air.
- We disagree with applicant expert's position that I-8 represents a barrier for FTHL.

- We regularly see FTHL sitting on and crossing two lane paved roads. I-8 is two rows of two lanes with a break in the middle. There is nothing to stop or prevent FTHL from crossing.
- Further destroying / fragmenting their habitat is totally unnecessary and should be rejected

Seismic activity / impacts need to be revised

to address 7.2 quake on Easter Sunday, 2010 and the historic 7.8 quake in 1892-- both on the Laguna Salada Fault. New maps show 7.5 to 8.0 maximum magnitude in the same fault area. This is new information.

- See this link regarding the release of the new map that shows the 50 new surface faults discovered. The graphic below was included in the linked LA Times story that ran on April 28, 2010 <http://www.fox5sandiego.com/news/la-me-california-faults-20100428,0,6209734.story>.
- **The new USGS Uniform Earthquake Rupture Forecast map shows the estimates of the maximum magnitude of potential quakes on the known faults. It rates the fault systems that generated the 1892 and 2010 quakes, referenced above, at 7.5 to 8.0.**
- One of the earthquake scientists interviewed reminded folks that the map's limitations include not showing most "blind thrust" faults, which produce quakes that don't break the surface. The magnitude 6.7 quake that struck Northridge in 1994 occurred on a blind thrust system that killed more than 70 people and caused about \$20 billion in damage.



Omission of 7.8 earthquake in 1892, with local ground fissures, rock slides, and impacts on hot springs is a major flaw in this Seismic Impact waiver request. The 1892 earthquake occurred on

the same Laguna Salada fault that the 7.2 quake occurred *after* release of the DSEIS on Easter Sunday, April 4, 2010. This is new information.

- A recirculated SA/DEIS needs to address April 4, 2010 7.2 quake on the Laguna Salada fault which is known to be unpredictable with numerous historic seismic events recorded over several centuries. A 20 foot or so displacement in the Ocotillo area was reported from a previous quake.
- The photos below were released by Dr. Francisco Suarez Vidal to Dr. Victor M Ponce on April 28, 2010. They show the ground displacement at the Laguna Salada Fault, in Baja California, as a result of the April 4, 2010, 15:40 PDT earthquake with epicenter near Guadalupe Victoria, south of Mexicali.
- The photos are included in Dr. Ponce's comments on the proposed Campo Regional Landfill: http://comments.sdsu.edu/earthquake_1004041540.html <http://comments.sdsu.edu>.
- Preliminary field measurements by CICESE researchers have documented (a) a vertical displacement of 0.4 m, (b) a horizontal displacement of 2 m, and (c) a longitudinal length of fracture of close to 100 km.





- Table 1 of the Landmark Geotech investigation (8-3-09) Seeley Water Reclamation Facility, LCI Report No. LE09142, dated 8-13-09, shows a maximum 7.0 magnitude quake on the Laguna Salada Fault System.
- This is outdated information since the 7.2 quake hit that fault on April 4, 2010. Land ruptures/fissures occurred in the Seeley area as a result of this recent quake, including I-8. Sections of Drew Road in Seeley is still closed
- Table 1 also shows an incorrect 7.0 1891 quake as the largest historic quake on that fault when the USGS reports a 7.8 quake on Feb 23 1892.
http://earthquake.usgs.gov/earthquakes/states/events/1892_02_24.php
http://www.energy.ca.gov/sitingcases/solartwo/documents/applicant/2010-05-10_Applicant_Supplement_to_the_AFC_TN-56589.pdf
- Page 20 of the Phase I Environmental Site Assessment for the Seeley Waste Water Treatment Facility states that a "use of a treatment pond built on the SW corner of the property in 1989 was discontinued after one year due to a landslide into the New River and piping failure due to the landslide.
- This raises issues with seismic impacts and soil stability at the project site itself, the Seeley facility, and impacts to groundwater wells in Ocotillo which would be subject to collapse during a severe seismic event. Residents of Ocotillo informed us that they experienced some well problems/ impacts after the recent quake event.

Visual Resources / Impacts

- Starting with the IV Solar/Solar Two project, the entire viewshed from I-8 and Evan Hewes Hwy will be destroyed for the entire corridor starting west of Dunaway Road, through Ocotillo, and continuing through Eastern San Diego County, including the Cleveland National Forest.
- Views from the Coyote Mountain and Jacumba Mountain Wilderness Areas, the Anza Borrego Desert State Park, the Yuha and In-Ko-Pah ACEC, the McCain Valley Resource Conservation Area, the historic Desert View Tower, the De Anza Trail, and more will be forever altered, degraded, transformed, destroyed by the 750 MW IV Solar /Solar Two project, the 561 MW Ocotillo Express Wind project, the 1,240 MW Energia Sierra Juarez Wind project (Semptra) , 1,000 MW Zemer Energy wind project, 200 MW Tule Wind project (Iberdrola), the 160-300MW Kumeyaay Wind project (SDG&E, Invenergy, Campo tribe), the 57 MW Manzanita (SDG&E and Manzanita tribe) the Sunrise Powerlink (SDG&E), the ECO Substation (SDG&E), and more.
- Appendix VR -1 fig 1 - 7 (SA/DEIS): Visual simulations do show SunCatcher arrays and some transmission lines but they do not accurately demonstrate the overall visual resource impact with all 30,000 SunCathers, all the on-site massive water, hydrogen, and other tanks, the new gen-tie lines, on-site substations, the Sunrise Powerlink, the Southwest Powerlink, the security fencing around the 6500 acre site and other project components.
- Please ensure that the required Visual Resource surveys /inventories are also conducted from the Native American perspective and that these significant Traditional Cultural Properties and Landscapes, and others, are protected for future generations.
- Carmen Lucas and the Quechan tribal representative expressed their concerns on cultural impacts in their public comments at the May 25th hearing
- Carmen Lucas, in her March 23, 2007 comments to the El Centro BLM office on the Ocotillo MET tower (CA-670-2005-95) ,now the 561 MW Ocotillo Pattern Wind energy project, proposed west of SES Solar Two /IV Solar, expressed her concerns regarding the traditionally significant Coyote Mountain and Mt Signal landscapes and creation stories. Here is an excerpt regarding Traditional Cultural properties, landscapes and resources:

"It should be understood that part of what makes up the sacred can and most often is the visual quality and the quietness that is often part of that visual quality of place. It is my opinion, that the visual impact of the Wind Hunter Ocotillo Met Tower will have a destructive adverse effect on this important Intangible Culture Resource. Further it is also the undersigns opinion that Traditional Culture Landscape, the visual quality and the essence of those properties cannot be mitigated and the public is better served if such places are left alone arid preserved for future generations."

Cultural & Historic Resources:

We share the concerns and values expressed by the NPS, the Quechan tribal representatives, Carmen Lucas, Preston Arrow-weed, Edie Harmon, and others who have raised issues and alarms regarding the necessary and desired protection of significant cultural and historic resources that play a part in so many lives. They need to be preserved and protected for current and future generations. A quiet sense of time, open space and place, with distant views, is part of our American West culture and tradition.

Recreation resources / Impacts:

- The dismissal of impacts to Wilderness and recreation resources due to the availability of other similar resources does not acknowledge the undue burden placed on the small communities whose businesses rely on tourism traffic generated, by those specific areas, to survive. Tourists may go to much more distant areas to avoid the industrialized area altogether.
- There will be cumulative impacts to recreation from multiple renewable energy and transmission projects proposed for public lands in the area/region.
- Our families, and many others, currently use and enjoy the project site and surrounding public lands for a variety of recreation past times.
- The project area should remain Limited Use with public access and should be removed from any future development plans / proposals.

Noise & Vibrations

may interfere with burrowing and other wildlife. OHV use next door is not 24/7. Most weekdays, nights, and all summer, the area is quiet.

Ecosystem Services have economic value.

Ecosystem Services and their economic value and place in land use planning:

A recent report published by Wild Connections is intended for use by the BLM and other agencies as a resource to more adequately represent the value of ecosystem services in land management planning such as the IV Solar/ Solar Two, the Sunrise Powerlink, the ECO Substation, Tule Wind and Energia Sierra Juarez projects under current review. These critical ecosystem service values are generally ignored or vastly undervalued. **Here is the Conclusion and Recommendations section of the Wild Connections report:**

"In the past, ecosystem services were left out of the economic analyses when land use planning was conducted. There are likely two reasons for this, first, the economic models used were based on neoclassical economic assumptions that gave little value to the environment and the services it provides; and second, ecosystems services were difficult to quantify economically. Over the last thirty years both of these reasons have been challenged and are no longer valid. Numerous studies point to the importance of ecosystem services for human survival and numerous studies have also been conducted to economically quantify the value of these services. This study has analyzed the problems inherent in the present economic models and has established conservative economic values for a wide range of ecosystem services. These

economic values have been applied to the Pike San Isabel National Forest as a demonstration that the value of these services can be established and therefore incorporated into the land use planning process. It is no longer possible or prudent to ignore the enormous benefits ecosystems provide for humans.

The following conclusions can be reached from the material presented in this paper.

- 1. Traditional economic models used in land use planning are flawed and therefore their results should be interpreted with great caution.*
- 2. The economic value of ecosystem services has been ignored in the land use planning process.*
- 3. Ecosystem services do have economic value.*
- 4. The economic value of ecosystem services can be measured and is available in the professional literature (Appendix A).*
- 5. The total economic value of ecosystem services is substantial (Tables 5 and 6)*

Recommendations:

- 1. Land use agencies must create new economic models.*
- 2. These models must deal with the flawed assumptions and statistical problems inherent in input/output models.*
- 3. The new models must also include the economic value of ecosystem services.*
- 4. Recursive models are necessary to assess the long term impact of land use change. Models that simply reflect the present, fail to anticipate the long term consequences of land use decisions.*

5. Appropriate negative multipliers must be established and used when they will accurately reflect the long term impacts of land use change.

6. Models that can result in economic values that are less than \$0 are necessary in order to show the possible impacts of land use change on ecosystem services and therefore show the true costs of losing and replacing those services.

The importance of these recommendations cannot be underestimated. Unless the changes outlined above are incorporated in the land use planning process, economic analyses conducted in the future will continue to be inaccurate. These recommendations are not only academically important, they are critical to the decision making process because if ecosystem services are ignored, human survival is compromised."

The full report is available in electronic format (PDF) [at www.wildconnections.org/library.html](http://www.wildconnections.org/library.html)

Conclusion:

For all the reasons stated here, the SA/DEIS must be recirculated to incorporate the whole of the project / action and to comply with both CEQA and NEPA. We request that the No Project / No Action alternative be adopted and this sensitive site be protected from potential future development via a CDCA Plan Amendment that prohibits future development of solar or other projects.

Sincerely,

Donna Tisdale, President
619-766-4170; donnatisdale@hughes.net
cc: Interested Parties