

From: Chuck Bell
To: [Mawby, Linda](#)
Subject: FW: PC - RECE - 4.10
Date: Monday, May 21, 2018 8:56:29 AM
Attachments: [image001.png](#)

Linda: Please acknowledge receipt and submit to the PC members. Thanks.

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To: Planning Commission

From: Chuck Bell, Pres. Lucerne Valley Economic Development Association
(LVEDA) 760 964 3118 chuckb@sisp.net
P. O. Box 193
Lucerne Valley, CA 92356

Date: 5/21/18

RE: MAY 24, 2018 PC HEARING RE: RECE SECTION 4.10
FOLLOWING ARE LVEDA'S ARGUMENTS THAT FULLY SUPPORT THE ORIGINAL
SECTION 4.10 "NO UTILITY-SCALE RENEWABLE ENERGY PROJECTS IN
COMMUNITY PLAN AREAS" – ALSO WHICH MAKE 'FINDINGS OF APPROVAL'
FOR SAID PROJECTS LEGALLY VULNERABLE.

(We incorporate by reference the Coalition's letter that we signed on to)
Proposed "Alternative Section 4.10" (EVEN THE REVISED ONE) is totally useless –
NOTHING MORE THAN WHAT CEQA ALREADY REQUIRES - and an affront to
constituents that have worked with County staff and BOS members over many
years thinking the County really wanted to protect our communities.
Apparently the BOS doesn't. Plus: Solar projects that were allowed to be filed
after the BOS dropped the original 4.10 are exempt from whatever is approved.

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SUMMARY

Caltrans' Hwy 247 (Barstow and Old Woman Springs Roads) 'scenic eligibility' status protects it from major scenic intrusions – precluding large scale solar - and the County needs to maintain its potential for eventual State Scenic Hwy designation.

CPUC's Office of Rate Payer Advocates (ORA's), SCE's and PG&E's recent submissions to the CPUC state no additional RPS (renewable procurements)

are needed until '2033 or the foreseeable future.

So much solar generation that it is currently sluffed off the grid or given away to other states – but projects still being filed. It's bad enough to allow industrial solar when distributed energy is dominating the field - let alone the County sacrificing our environments and communities for out-of-state energy export. There is plenty of sun to go around.

California's requirement that all new residential dwellings will be required to install solar panels after 2020 – thus eliminating the need for additional industrial scale plants.

Lucerne Valley's demographics and its "Severely Economically Disadvantaged Community" status can't afford projects that produce no economic benefits and that have already caused significant property devaluations. This is a "Hardship/Environmental Justice" issue the County can't ignore.

Numerous bankruptcies of solar/wind firms.

The 2007 Lucerne Valley Community Plan has policies directly forbidding large-scale intrusive projects.

Even the Countywide Vision Statement inherently supports "no industrial scale in community plan areas".

The County's current "Solar Ordinance" is a major argument for "no industrial scale in community plan areas".

Even RECE w/o the original Section 4.10 is sufficient to deny projects – making it difficult to make findings of approval.

SUBSTANTIATION

SCENIC IMPACTS

We are working on "State Scenic" status for 247. But even without it – it's 'eligibility' on the Caltrans list alone (one of the last roads left in Calif. with that status) has protection from intrusions under Caltrans' requirements. We insist that Caltrans is immediately notified of all projects within the view shed of Hwy 247 – with County's request to Caltrans to comment specific to this requirement – and that we see the response from Caltrans as soon as received by the County - and included in the Initial Studies and EIRs. Link to the California Department of Transportation website:

<http://www.dot.ca.gov/ser/vol1/sec3/community/ch27via/chap27via.htm#scenic>

Under Chapter 27 – Visual & Aesthetics Review:

“The intent of the State Scenic Highway Program is to protect and enhance California's natural scenic beauty.”

“If a highway is listed as eligible for official designation, it is also part of the Scenic Highway System and care must be taken to preserve its eligible status.”

**CPUC’S OFFICE OF RATEPAYER ADVOCATES (ORA) INFORMING THE CPUC
THERE IS NO CURRENT NEED FOR MORE RE PROCUREMENT.**

AUGUST, 2017 OPENING COMMENTS OF THE OFFICE OF RATEPAYER ADVOCATES ON THE ASSIGNED COMMISSIONER AND ASSIGNED ADMINISTRATIVE LAW JUDGE’S RULING IDENTIFYING ISSUES AND SCHEDULE OF REVIEW FOR 2017 RENEWABLES PORTFOLIO STANDARD PROCUREMENT PLANS AND INVITING COMMENTS ON RENEWABLE AUCTION MECHANISM PROPOSAL”
([excerpts](#))

*“The Commission also should consider PG&E’s recommendation to suspend or change existing RPS mandates established by the CPUC to avoid unnecessary RPS procurement. **18** Many of the goals of these mandates – achieving RPS targets and developing a robust renewables market– have already been met. There is currently no short-term need to be met by additional RPS procurement; thus, the continuation of such mandates results in costs borne by ratepayers without any associated benefits. The IOUs’ need for additional RPS procurement is relatively distant, **19** and the associated load forecast so uncertain, **20** that incremental RPS procurement made now would not be prudent for ratepayers and would undermine the IRP process and Public Utilities Code Section 454.52.**21** Additionally, current mandates do not necessarily take into consideration each IOU’s unique system needs and may result in contracts that are not Least-Cost, Best-Fit for each IOU’s specific renewables portfolio.*

*Given that the IOUs are exceeding RPS targets, are on track to achieve 50% RPS, have no short-term procurement need, and that the Commission has previously determined that “the original objectives of RAM have been met,”**22** cancelling the unmet RAM MW targets would better align RPS with the IRP process. The*

existing unmet RAM MW targets are unnecessary for RPS compliance.”²³ ORA recommends that the Commission take steps to make timely determination of RPS compliance in order to allow for better management of the IOUs’ RPS positions, to better inform future procurement activities, and to ensure the value of current and future RPS procurement and RECs is protected for ratepayers”.

SCE’S SUBMISSION TO THE CPUC:

"This 2017 RPS Plan discusses SCE’s renewables portfolio, the process SCE uses for forecasting its renewable procurement need, SCE’s forecasted renewable procurement position through 2030, SCE’s portfolio optimization strategy and management of its renewables portfolio, lessons learned from SCE’s experience with renewable procurement, past and future trends, and additional policy and procurement issues. Additionally, SCE explains its plans for achieving California’s RPS targets, including SCE’s plan not to conduct a 2017 RPS solicitation procuring new RPS resources, and to sell Renewable Energy Credits (“RECs”).”

The 2017 RPS Plan also says that Edison doesn’t need “new renewable energy at this time to satisfy its RPS program targets” and “does not have a need for renewable energy at this time to satisfy its RPS program targets” and won’t “need new eligible renewable resources for the foreseeable future” (p. 4), that Edison won’t hold an RPS solicitation in 2017 (and didn’t in 2016 either) (p. 4, p. 6 and p. 10), that Edison “More Renewable Energy to Meet Its Goals Than It Needs for The Forseeable Future (p. 36) and that all the other IOUs are similarly well positioned (p. 36).

It also says that Edison “currently forecasts a very small but increasing level of curtailment in solar between 2017 and 2020” (p. 26).

PG&E’s SUBMISSION:

Lack of Need

In PG&E's most recent Renewable Net Short ("RNS") calculation, filed on July 21, 2017 in its Draft 2017 RPS Procurement Plan, PG&E forecasts that its bundled customers will not have any incremental RPS need until sometime after 2033. Thus, PG&E does not have a need for the incremental RPS-eligible deliveries required by this solicitation to fulfill its RPS requirements. Nevertheless, PG&E is proposing updates to the protocol and PV PPA to launch the solicitation to meet the procurement mandate of D.14-11-042.

Pacific Gas and Electric Company ("PG&E") seeks California Public Utilities Commission ("Commission" or "CPUC") approval of power purchase and sale agreements (together, the "PPSAs" or "Transactions") that seek to sell Renewables Portfolio Standard ("RPS")-eligible products from PG&E's existing procured energy portfolio to other load-serving entities ("LSEs"). The purpose of these Transactions is to further optimize PG&E's RPS portfolio in light of PG&E's forecasted bundled electric load, which has changed considerably in recent years due to **anticipated load departure resulting from the growth of Community Choice Aggregators ("CCA") and behind-the-meter distributed generation.**

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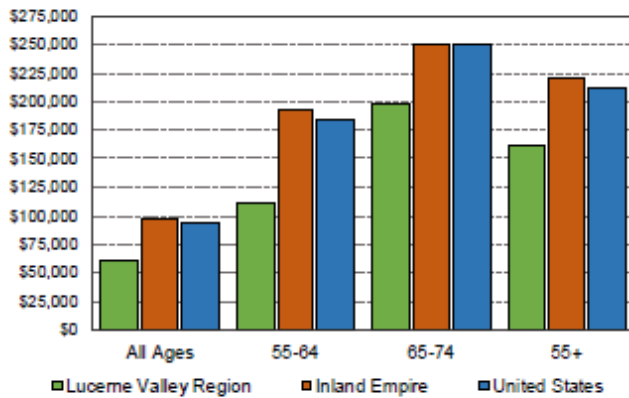
So much solar that we are giving it away or sluffing off the grid: (Reference LA Times article – <http://www.latimes.com/projects/la-fi-electricity-capacity/>)

ECONOMICS:

(This from our LV Senior Community Needs Assessment). Demographic chart showing our "severely economically disadvantaged community" - a basis for opposition to these industrial-scale projects that provide us with no real economic benefit – actually taking property that could be used for real benefit – plus property devaluations that have already occurred. Definitely a 'hardship/environmental justice' issue the County can't ignore.

2017 Median Net Worth By Age of Householder

Reference Area	All Ages	55-64	65-74	55+
Lucerne Valley Region	\$60,769	\$111,437	\$198,053	\$161,557
Yuca Valley Area	\$59,307	\$87,441	\$165,486	\$139,931
Victor Valley Area	\$66,992	\$131,280	\$223,024	\$180,237
Lucerne Valley Area	\$55,264	\$57,212	\$139,961	\$110,986
Barstow Area	\$36,375	\$75,513	\$172,096	\$129,743
Inland Empire	\$96,138	\$191,781	\$250,001	\$220,882
United States	\$93,348	\$183,616	\$250,001	\$212,290



Source: U.S. Census Bureau; ESRI 2017 Forecast; Alfred Gobar Associates

????? worth including????? ANOTHER BANKRUPTSY – EVEN WITH SUBSIDIES

SolarWorld and fellow bankrupt manufacturer Suniva are now begging for even more government assistance, in the form of a 40-cent-per-watt tariff on solar imports and a minimum price of 78 cents (including the 40-cent tariff) a watt on solar panels made by foreign manufacturers. Without that help, a Suniva executive argued, the company would "go extinct." So basically, these companies can't compete despite all of the taxpayer dollars they've received and have petitioned the United States International Trade Commission to further punish consumers on their behalf by banning them from buying cheaper and higher-quality panels abroad.

FROM OUR 2007 LUCERNE VALLEY COMMUNITY PLAN

(1) “maintain land use patterns in the Desert Region that enhance the rural environment and preserve the quality of life of the residents of the region (Goal D/LU 1);”

(2) “ensure that commercial and industrial development within the region is compatible with the rural desert character and meets the needs of local residents (D/LU 3);”

(3) “maintain land use patterns in the Desert Region that enhance the rural environment and preserve the quality of life of the residents of the region (Goal D/LU 1);” and

(4) “preserve the unique environmental features and natural resources of the Desert Region, including native wildlife, vegetation, water and scenic vistas” (Goal D/CO 1 of the General Plan’s Open Space element).

COUNTYWIDE VISION STATEMENT (in italics). (My comments in black)

We envision a complete county that capitalizes on the diversity of its people, its geography, and its economy to create a broad range of choices for its residents in how they live, work, and play. County telling us to ‘live’ with industrial-scale solar.

We envision a vibrant economy with a skilled workforce that attracts employers who seize the opportunities presented by the county’s unique advantages and provide the jobs that create countywide prosperity. We get no prosperity or economic benefit from large-scale projects tied to the grid.

We envision a sustainable system of high-quality education, community health, public safety, housing, retail, recreation, arts and culture, and infrastructure, in which development complements our natural resources and environment. These projects absolutely don’t ‘complement our natural resources and environment’?

We envision a model community which is governed in an open and ethical manner, where great ideas are replicated and brought to scale, and all sectors work collaboratively to reach shared goals. The County hasn’t worked with us ‘collaboratively’ to reach shared goals – just with the industry and unions.

From our valleys, across our mountains, and into our deserts, we envision a county that is a destination for visitors and a home for anyone seeking a sense of community and the best life has to offer. We have been adamant about our ‘sense of community’ – yet the County just keeps shining us on.

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FOR THOSE PROJECTS CURRENTLY FILED AND THUS SUBJECT TO THE COUNTY’S SOLAR ORDINANCE (Relevant excerpts in italics and emphasis in

bold):

AN ORDINANCE AMENDING CHAPTER 84.29, RENEWABLE ENERGY GENERATION FACILITIES, AND CHAPTER 810.01, DEFINITIONS, OF THE SAN BERNARDINO COUNTY DEVELOPMENT CODE, RELATING TO THE REGULATION OF COMMERCIAL SOLAR ENERGY GENERATION FACILITIES.

(a) The County of San Bernardino desires to protect the character and value of communities and neighborhoods, and the natural and scenic values of the landscape within the County, from increased impacts of new commercial solar energy generation facilities, while providing safe and reliable renewable energy to assist California and its investor-owned utilities in meeting the State's Renewable Portfolio Standards and its goals for reduction of greenhouse gas emissions.

(b) In protecting natural and scenic values of the landscape, the County recognizes not only the substantial intrinsic value of the desert's natural and scenic setting, but also the importance of this setting for the quality of life of area residents and the economic value it creates for the area's tourism industry.

(c) The County desires to guide new commercial solar energy generation facilities to areas that can accommodate such facilities with fewer human and environmental resource conflicts.

(d) In order to provide reasonable opportunities for commercial solar energy development and simultaneously protect communities, neighborhoods, and the natural and scenic values of the landscape, it is the intent of the County to focus new commercial solar energy development in areas that are both (1) less desirable for the development of communities, neighborhoods and rural residential use and (2) less environmentally sensitive.

NOTE: (Problem with the ordinance – RE is allowed in just about every zone with a CUP).

84.29.035 Required Findings for Approval of a Commercial Solar Energy Facility. (Excerpts)

(a) In order to approve a commercial solar energy generation facility, the Planning Commission shall, in addition to making the findings required under Section 85.06.040(a) of the San Bernardino County Development Code, determine that the location of the proposed commercial solar energy facility is appropriate in relation to the desirability and future development of communities, neighborhoods, and rural residential uses, and will not lead to loss

of the scenic desert qualities that are key to maintaining a vibrant desert tourist economy by making each of the findings of fact in subdivision (c).

(b) In making these findings of fact, the Planning Commission shall consider: (1) the characteristics of the commercial solar energy facility development site and its physical and environmental setting, as well as the physical layout and design of the proposed development in relation to nearby communities, neighborhoods, and rural residential uses; and (2) the location of other commercial solar energy generation facilities that have been constructed, approved, or applied for in the vicinity, whether within a city or unincorporated territory, or on state or federal land.

(c) The finding of fact shall include the following: (1) The proposed commercial solar energy generation facility is either (A) sufficiently separated from existing communities and existing/developing rural residential areas so as to avoid adverse effects, or (B) of a sufficiently small size, provided with adequate setbacks, designed to be lower profile than otherwise permitted, and sufficiently screened from public view so as to not adversely affect the desirability and future development of communities, neighborhoods, and rural residential use.

(2) Proposed fencing, walls, landscaping, and other perimeter features of the proposed commercial solar energy generation facility will minimize the visual impact of the project so as to blend with and be subordinate to the environment and character of the area where the facility is to be located.

(3) The siting and design of the proposed (3) The siting and design of the proposed commercial solar energy generation facility will be either: (A) unobtrusive and not detract from the natural features, open space and visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways,1 or (B) located in such proximity to already disturbed lands, such as electrical substations, surface mining operations, landfills, wastewater treatment facilities, etc., that it will not further detract from the natural features, open space and visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways.

(4) The siting and design of project site access and maintenance roads have been incorporated in the visual analysis for the project and shall minimize visibility from public view points while providing needed access to the development site.

(6) The proposed commercial solar energy generation facility will not adversely

affect to a significant degree the availability of groundwater supplies for existing communities and existing and developing rural residential areas.

(7) The proposed commercial solar energy generation facility will minimize site grading, excavating, and filling activities by being located on land where the existing grade does not exceed an average of five (5) percent across the developed portion of the project site, and by utilizing construction methods that minimize ground disturbance.

(8) The proposed commercial solar energy generation facility will be located in proximity to existing electrical infrastructure, such as transmission lines, utility corridors, and roads, so that: (A) minimal ground disturbance and above ground infrastructure will be required to connect to the existing transmission grid, considering the location of the project site and the location and capacity of the transmission grid, (B) new electrical generation tie lines will be co-located on existing power poles whenever possible, and (C) existing rights-of-way and designated utility corridors will be utilized to the extent practicable.

(9) The proposed commercial solar energy generation facility will be sited so as to avoid or minimize impacts to the habitat of special status species, including threatened, endangered, or rare species, Critical Habitat Areas as designated by the U.S. Fish and Wildlife Service, important habitat/wildlife linkages or areas of connectivity designated by County, state or federal agencies, and areas of Habitat Conservation Plans or Natural Community Conservation Plans that discourage or preclude development.

(10) Adequate provision has been made to maintain and promote native vegetation and avoid the proliferation of invasive weeds during and following construction.

(12) The proposed commercial solar energy generation facility will be designed in a manner that does not impede flood flows, avoids substantial modification of natural water courses, and will not result in erosion or substantially affect area water quality.

(19) The proposed commercial solar energy generation facility will avoid modification of scenic natural formations.

(20) The proposed commercial solar energy generation facility will be designed, constructed, and operated so as to minimize dust generation, including provision of sufficient watering of excavated or graded soil during construction to prevent excessive dust. Watering will occur at a minimum of three (3) times daily on

disturbed soil areas with active operations, unless dust is otherwise controlled by rainfall or use of a dust palliative, or other approved dust control measure. (OUR ADJUDICATED BASIN DOES NOT HAVE WATER TO SPARE FOR THESE PROJECTS)

*(21) All clearing, grading, earth moving, and excavation activities will cease during period of winds greater than 20 miles per hour (averaged over one hour), or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property, and in conformance with Air Quality Management District (AQMD) regulations. **(THIS DISREGARDS INEVITABLE HEALTH IMPACTS)***

*(22) For sites where the boundary of a new commercial solar energy generation facility will be located within one-quarter mile of a primary residential structure, an adequate wind barrier will be provided to reduce potentially blowing dust in the direction of the residence during construction and ongoing operation of the commercial solar energy generation facility. **(LIKELY IMPOSSIBLE TO ACHIEVE)***

May 21, 2018

(Sent by email: Linda.Mawby@lus.sbcounty.gov)

Planning Commission for
San Bernardino County
c/o Ms. Linda Mawby
County of San Bernardino Government Center
Covington Chambers- First Floor
385 North Arrowhead Ave.
San Bernardino, Calif. 92415

Re: Policy 4.10 of the RECE

Dear Members of the Planning Commission:

We are a coalition made up of the following community groups, businesses, agencies and individuals: Lucerne Valley Economic Development Association (LVEDA), Johnson Valley Improvement Association, Homestead Valley Community Council, Newberry Springs Economic Development Association, Newberry Springs Community Alliance, Newberry-Harvard Property Owners Association, Newberry Springs Chamber of Commerce, Lucerne Valley Museum Association, Morongo Basin Conservation Association, Church of Our Lord and Savior (Lucerne Valley), Lucerne Valley Market/Hardware, Alliance for Desert Preservation (“ADP”), CEQA NOW, Mojave Communities Conservation Collaborative, Expert Appliance Service, Brian Hammer, Sue Hammer, Pat Flanagan, Barbara LaGrange, John Smith, Barbara Smith, Jenny Wilder, George Stone, Gail Stone, Dennis Schwander, Cheryl Hemmendinger, Barbara Idouchi, Aaron Idouchi, Gary Williams, Sarah Kennington, Steve Bardwell, Ruth Rieman, Lorraine Cross, Bryan Baker, Kathryn Anema, Neville Slade, Annie Lancaster, Jim Johnson, Ellen Johnson, Richard Selby, Brian Fisher, Pamalla Barber, James Barber, Jan Lembright, David Charlton, Cynthia Charlton, Ann Connor, Jon Bush, Denise Stakes, Waldo Stakes, Patricia Roszkowski, Aaron Thornton, Rachelle Higgins, Louis Kannenberg, Kate Frank, Jack Unger, Jerry Broyle, Sara Tambellini, Stephen Andrews, Diane Lakey Kolb and Roger Peterson. Together, we represent a broad spectrum of residents, businesses, organizations, recreationists and conservationists in the High Desert of San Bernardino County.

On March 23, 2018, the Planning Staff of the County’s Land Use Services Department published a “Notice Regarding San Bernardino County Renewable Energy and Conservation Element Policy 4.10 and Draft Alternative Policy Language To Be Presented to the County Planning Commission” (the “Notice”), which states that a Planning Commission hearing has been tentatively scheduled on RE Policy 4.10 for April 19, 2018¹. The Notice sets forth the text of the version of RE Policy 4.10 (“Policy 4.10” or “original Policy 4.10”) which was considered

¹ The hearing on Policy 4.10 was initially rescheduled for April 26, 2018. It was subsequently rescheduled for May 24, 2018.

by the Board of Supervisors -- and referred back to the Planning Commission for further consideration -- at the August 8, 2017 hearing in which the Supervisors adopted the Renewable Energy and Conservation Element (the "RECE"). The Notice also sets out the text of a so-called alternative version of Policy 4.10 formulated by the Planning Staff ("Alternative Policy 4.10"). We say "so-called" because Alternative Policy 4.10 is so radically different from Policy 4.10, in scope, intent, language and effect, that the former is much more than a mere revision of the latter. To wit, Policy 4.10 would bar all utility-scale renewable energy projects from the County's Community Plan and Rural Living areas, while Alternative Policy 4.10 would welcome in such projects so long as developers are willing to pay lip service to the untenable notion that they are providing "project benefits" to affected communities.

The Notice affects a resolutely neutral-sounding tone -- stating that the "Planning Commission may recommend either version of this policy [Policy 4.10] as written or with amendments [Alternative Policy 4.10]" -- but, in reality, Planning Staff clearly favors its own Alternative Policy 4.10. Planning Staff has been closeted with large-scale energy companies -- during the nine-month period since adoption of the RECE -- writing up Alternative Policy 4.10 as its "Revised Staff Recommendation," even though the Board of Supervisors -- at the August 8, 2017 hearing -- only authorized the Planning Commission to take up consideration of the original Policy 4.10, and did not request that Planning Staff come up with a so-called alternative.

In taking the initiative to create Alternative Policy 4.10, Planning Staff is actively favoring the interests of a small cadre of large-scale solar companies that would profit enormously if given the green light to plow up our desert's human and natural communities. It is quite telling that they are the only parties that Planning Staff consulted with in the process of formulating Alternative Policy 4.10.

The Notice presents an unconvincing justification for why Planning Staff took it on itself to propose Alternative Policy 4.10, misstating that, at the August 8, 2017 Board of Supervisors hearing, "most of the testimony centered on Policy 4.10" and that Policy 4.10 was supposedly overwhelmingly rejected by public speakers from our communities. The Notice also erroneously labels Policy 4.10 as "very controversial," while mistakenly contending that:

"Public comments were not supportive of Policy 4.10 as proposed. Overwhelmingly, the public comments recommended a more restrictive approach that would limit utility oriented renewable energy development to the five development focus areas previously supported by Board Resolution 2016-20, generally located near Kramer Junction, Trona, Hinkley, El Mirage and Amboy."

In reality, Policy 4.10 had strong, universal and unwavering support among the residents of the affected High Desert communities and participating conservation groups, all of whom favored keeping utility-scale projects out of desert rural communities. Their comments did not center on opposition to Policy 4.10, as contended in the Notice. None of the many public speakers who wanted, *in addition* to Policy 4.10, confinement of utility-scale to the five areas favored by the Board of Supervisors in their February 17, 2016 Resolution, expressed the slightest opposition to Policy 4.10; they most certainly wanted (and still want) utility-scale kept

out of their communities as per Policy 4.10.² The contrary logic employed in the Notice – that public backing for the five areas preferred by the Supervisors supposedly also signified opposition to Policy 4.10 – is faulty and entirely unconvincing. Can anyone seriously believe that speakers who wanted utility-scale pushed far away from their communities -- to those five areas -- were, at the same time, putting out the welcome mat for it precisely where they, their children and neighbors live and recreate?

Late Friday afternoon on May 18, 2018 – only four business days before the scheduled May 24, 2018 Planning Commission meeting – Land Use Services Dept. (“LUSD”) published a 34-page Staff Report with seven separate attachments, which includes a proposed revision of Alternative Policy 4.10 (“Revised Alternative Policy 4.10”), a proposed addition to Policy 5.2, a proposed revision to Policy 4.3.2 and a proposed new RECE Policy 5.9. The Staff Report presents an extensive, yet entirely unconvincing, justification for why LUSD took it on itself to formulate (and then revise) Alternative Policy 4.10 and to belatedly propose additional RECE revisions, rather than submit the original Policy 4.10 to the Planning Commission as directed by the Board of Supervisors on August 8, 2017. The Staff Report contends (p. 4) that LUSD reevaluated Policy 4.10 after “reaching out to RE developers to bring community concerns to their attention” out of a purported desire to protect “the quality of life in existing communities” in accord with the basic “premise of Policy 4.10.” But concern for the quality of life in the desert – and a desire to implement Policy 4.10 – was not the true impetus for Alternative Policy 4.10, and the Staff Report’s contention is correct only insofar as it indirectly acknowledges that community members were cut out of an industry-driven process.

The Staff Report also contends that no additional environmental analysis is needed to amend the RECE in accord with the Staff Report’s recommendations. In support of that contention, a 19-page CEQA Addendum is attached to the Staff Report. (Given, among other things, that adoption of the recommendations in the Staff Report would have a huge and undeniable impact on the environment on a regional basis, we strongly disagree with the foregoing contention, but lack a sufficient opportunity to provide the detailed analysis that this issue deserves. We request that the Planning Commission defer consideration of CEQA issues due to lack of prior notice to the desert communities.)

Before the lengthy Staff Report came out on May 18, community members had been given to understand that the May 24 hearing would only address whether the Planning Commission should give its recommendation to Policy 4.10 or Alternative Policy 4.10. The Notice said nothing about any additional initiatives by LUSD, and no community members had

² This has long been desired by community members, as borne out by the “San Bernardino Renewable Energy Renewable Fact Sheet March 2017,” which observes that, during the SPARC process, desert residents made it clear that they were willing to live in close proximity with “*community-scale* renewable energy projects that provide local benefits.” (Emphasis added.)

In line with that, the RECE calls for the fostering of community-oriented solar (*not* utility-scale solar) and cites its many virtues, while promoting as a primary “core value” the need to maintain a “high quality of life for residents of the County.”

seen any of the proposed additions/revisions before publication of the Staff Report. This is basically a re-play of the heavily tainted process that produced Alternative Policy 4.10, which was tailored solely by and for large scale solar companies, with no transparency or opportunity for community members to participate. Adoption of the Staff Report's recommendations would effectively disenfranchise desert residents on an issue that is fundamental to the very survival of their communities: which is, will the County allow those communities to be industrialized in the name of utility-scale development? This issue is much too big, much too important for something as sweeping as the Staff Report to be casually palmed off on the public a scant four business days before the hearing date. The only way to allay this fundamental unfairness – this denial of the right to participate which is fundamental to the democratic process -- would be to ask LUSD to re-start the process and, this time, invite genuine input and participation from the public.

That the entire process has been disingenuous – at least when it comes to protecting our communities -- is further reflected in strategic revisions found in Revised Alternative Policy 4.10. For example, Alternative Policy 4.10 would require developers to submit a “community *compatibility* report [emphasis added],” but apparently, after remembering that the County has repeatedly pronounced utility-scale to be incompatible with our rural communities, and after years of hearing scores of residents repeatedly say the same thing, LUSD has finally gotten the message. But, instead of relenting and going back to the protections afforded by original Policy 4.10, they recast the “community compatibility report” as a “community *benefit* report [emphasis added]” in Revised Alternative Policy 4.10. The old emphasis was on demonstrating that a given project would be *compatible* with affected communities; now – in recognition of that fundamental incompatibility – it would be on making a show of promising that communities will supposedly reap some sort of “benefits” (as discussed below, nearly all of them will not).

Worst yet, Revised Alternative Policy 4.10 contains revisions designed to make it even weaker than the already anemic Alternative Policy 4.10 in terms of protecting our communities. Here are two examples:

(1) Alternative Policy 4.10 would require that the “community compatibility report” include an “analysis of consistency *with community values and aspirations outlined in the community plan* [which is a reference to the 2007 version of the Community Plans].” (Emphasis added.) Revised Alternative Policy 4.10 would excise the italicized phrase entirely and replace it with a very much watered down requirement that the report merely analyze “consistency with community goals.” Instead of requiring compliance with existing documents with strongly articulated protections for desert communities – Community Plans which have the force of law as part of the County’s General Plan – Revised Alternative Policy 4.10 invokes undefined and indeterminate “community goals” that would be apparent only in the biased eyes of beholders, such as project proponents; and

(2) Alternative Policy 4.10 would require that the “community compatibility report” outline “*measures intended to protect* the quality of life and economic opportunities in existing unincorporated communities.” (Emphasis added.) But the italicized phrase is deleted from Revised Alternative Policy 4.10, which merely asks developers to report on “*project benefits to the* quality of life . . . of existing unincorporated communities.” (Emphasis added.)

Out would go a phrase ostensibly providing at least a modicum of protection to communities and in would go a provision requiring only that a developer engage in the self-serving exercise of positing so-called community project “benefits.”

Due to the procedural irregularities pointed out above, we lack sufficient time to analyze Revised Alternative Policy 4.10 any further in this letter, and we will not be able to address the other RECE additions/revisions proposed in the Staff Report (other than to note that each of them appears calculated to make it even easier for developers to obtain approvals for utility-scale projects under the RECE).

The discussion below will, due to the shortness of time between the publication of the Staff Report and the hearing date, discuss Alternative Policy 4.10 without the revisions to it that are proposed in the Staff Report. The main point made below is that, if the quality of life in our desert communities is to be preserved, the Planning Commission should recommend approval of the original Policy 4.10.

1. Introduction.

Policy 4.10 came into being as part of the draft Renewable Energy and Conservation Element (the “Draft RECE”) that Planning Staff submitted to the Supervisors for consideration at the August 8, 2017 hearing. Policy 4.10 would, if added to the RECE, “[p]rohibit utility-oriented RE [renewable energy] project development on sites that would create adverse impacts on the quality of life or economic development opportunities in existing unincorporated communities.” More specifically, two of its subparts, RE 4.10.1 and RE 4.10.2, would prohibit development of utility-scale projects “in the Rural Living land use districts throughout the County” and “within the boundaries of existing community plans, which at the time of adoption of this Element are the Bloomington, Muscoy, Bear Valley, Crest Forest, Hilltop, Lake Arrowhead, Lytle Creek, Oak Glen, Homestead Valley, Joshua Tree, Lucerne Valley, Morongo Valley, Oak Hills, and Phelan/Pinon Hills Community Plans.”³ A third subpart, RE 4.10.3, would allow for the establishment of additional exclusion areas, such as new Community Plan areas that may be adopted in the future.

In essence, the basic proposition underlying Policy 4.10 is that utility-scale projects would create such “adverse impacts on the quality of life or economic development opportunities” in nearly all Community Plan and Rural Living areas and that hence they should be banned there outright.

The Draft RECE, as it included Policy 4.10, embodied a careful balancing of two competing interests: large-scale energy proponents seeking to profit by exporting power to the grid and rural County residents intent on preserving their way of life and the natural habitats they

³ Each of the listed areas – which will be referred to collectively as the “Community Plan Areas” -- is protected by a detailed Community Plan (which is part of the County’s General Plan) calling for preservation of the unique desert and mountain rural character of each particular community.

live among. To that end, the Draft RECE set aside for mega projects – well away from those areas -- five extensive regions designated in the Supervisors’ February 17, 2016 Resolution.⁴ Clearly, Policy 4.10 was formulated to stop utility-scale incursions in the places where people make their homes and where fragile wildlife connectivity corridors are located, while still holding open other sizeable portions of the County as potential locations for utility-scale facilities.

A. The Procedural Status of Policy 4.10 and the Board of Supervisors’ Stance on It.

At the August 8, 2017 Board of Supervisors hearing, James Ramos, Third District Supervisor, made a motion (which was adopted by the Supervisors) that the Draft RECE be enacted, as the County’s Renewable Energy and Conservation Element, without Policy 4.10, and that Policy 4.10 be sent to the Planning Commission for consideration and public input. None of the Supervisors requested that Planning Staff create any so-called “alternative” Policy 4.10.

According to a letter that Supervisor Ramos submitted to the editor of the *Daily Press*, dated August 20, 2017, he made the above-referenced motion believing that, because Policy 4.10 had been added to the Draft RECE after its approval by the Planning Commission on November 3, 2016, the Planning Commission should hold a public hearing on it. Supervisor Ramos’s statements in his letter make it clear that the Supervisors weren’t passing judgment on Policy 4.10 by temporarily detaching it from the RECE; they were making sure that it would not fall into question on procedural grounds.⁵

None of the Supervisors spoke negatively about Policy 4.10 or the hard-won compromise it embodies at, or after, the August 8, 2017 hearing, and none of them has spoken out publicly in favor of holding the Community Plan or Rural Living areas open to renewable energy industrialization.

LUSD issued the latest proposed revisions, and the extensive collateral documents, on May 18, 2018, just four business days before the hearing date. By then it was, of course, too late for meaningful public review and comment.

⁴ These five regions are specifically referenced, in RE Policy 5.2(i) and RE Policy 5.4.2 of the RECE, as the only places in the County where utility-scale renewable energy development is to be encouraged.

⁵ Supervisor Ramos’s Chief of Staff, Molly Wiltshire, reiterated this in an email to Chuck Bell, dated February 12, 2018, stating that:

“I hope you know that the Supervisor remains supportive of the desires of the community. Unfortunately, when this [the RECE] was heard by the Board back in August, he realized there wasn’t support for 4.10 because some Supervisors did not feel comfortable with it not being vetted by the PC [the Planning Commission].”

This recent dismaying development (or non-development) is only the latest in a series of events – dating from immediately after the August 8, 2017 adoption of the RECE and continuing through the present – in which LUSD has almost entirely excluded community representatives from the Policy 4.10 process, while at the same time giving extensive access to large-scale solar leaders. It is not surprising, then, that the staff-proposed Alternative Policy 4.10 – and Revised Alternative Policy 4.10 -- read like they were written by the Large Scale Solar Association. What is surprising is that LUSD would promulgate and support a policy founded on an assumption which the County has always rejected, i.e., that any and all of the County’s communities would reap benefits from utility-scale projects outweighing the clear harm.

But as troublesome as it is that Alternative Policy 4.10 contradicts values that the County has long embraced, even more disturbing is what looks very much like a deliberate, and highly successful, program to strangle public participation. Alternative Policy 4.10 and its proposed revision smell tainted – exactly what one would expect when industry proponents are handed the pen and encouraged to write their own ticket. Thus we find Alternative Policy 4.10 and its proposed revision inviting developers to “educate” community members about the benefits of utility-scale, as though the County’s citizens were children needing guidance from their developer superiors.

The Planning Commission has clearly expressed and demonstrated in the past its commitment to an open process, in which all interested persons have an equal right to participate and comment. Clearly, this kind of open process yields the most informed, the most thoughtful, the most balanced decisions. Since August 8 of last year, that process has been seriously compromised. The Commission has been handed tainted documents.

B. Without the Protections of Original Policy 4.10, Our Rural Desert Communities Will Be Industrialized and Ultimately Destroyed.

Policy 4.10 would provide much-needed protection to rural desert communities from utility-scale renewable energy incursions, which would preserve their economies, land values and quality of life. Each of these communities has a very unique and precious, yet extremely fragile, attribute that provides a high quality of life for their residents (and that makes them such appealing places to visit and, hence, such a boon to the tourist industry⁶): they host well-established, dispersed desert rural population clusters and towns that thrive amid functioning desert sub-ecosystems, which, in turn, are part of the largest intact biome in the western states, i.e., the Mojave Desert.

⁶ The County’s economy is *heavily* dependent on tourism. It has been estimated at **\$1 Billion per year** according to a University of Idaho study discussed in Basin Energy Assessment Team’s “Renewable Energy Analysis” (October 2013). As part of an effort to promote tourism, Highway 247 has been proposed as (and is under consideration for) designation as a scenic highway; filling adjacent desert lands with vast new solar fields and transmission would create visual blight that will detract from that effort and decimate the tourist industry here.

At the same time, most of the Community Plan and Rural Living areas are economically disadvantaged to some extent⁷, and their residents would suffer disproportionately – in terms of economic, health and societal effects – should their communities and the desert around them be industrialized. Adoption of Policy 4.10 would spare the working people of the High Desert from having to fight proposed utility-scale facilities on a project-by-project basis, where their resources are vastly overmatched by those of the developers and their professionals. Otherwise, with the playing field tilted decidedly in favor of large-scale energy companies, it will eventually and inevitably turn these areas into ecologically-dead industrial zones, all for the benefit of business concerns seeking short-term profits from redundant utility-scale solar projects that even now are being regarded as a “dinosaur” technology (as will be discussed further below in Section 3 of this letter).

In a recent editorial in the *Daily Press*, Chairman of the County Board of Supervisors, Robert Lovingood, described the desert’s rural communities in suitably laudatory terms, noting that the County’s “High Desert has a population of more than 450,000 good hard-working citizens of California who are trying to raise their families and pay their taxes and just enjoy a quality of life.”⁸ While Supervisor Lovingood was refuting, in his editorial, the ill-conceived notion that Orange County’s homeless population should be moved out to the High Desert – which, according to an Orange County Supervisor, is where “. . . land is cheap and away from everybody else” – Supervisor Lovingood’s observations can be applied with equal vigor to large-scale energy development. Clearly the County’s High Desert cannot be viewed, and should not be treated, as an “Empty Quarter” best used as the designated ground zero for achievement of the state’s renewable energy aspirations.

Residents of Community Plan and Rural Living areas have long dedicated themselves to acting as protectors and stewards of the surrounding natural environment. The results are quite apparent: beautiful desert vistas in a fully functioning natural biome, all within a couple of hours’ drive of one of the nation’s largest metropolitan areas. The California Desert Conservation Act (the “CDCA”) states that the desert is “extremely fragile, easily scarred and slow to heal.” Hence it should come as no surprise that the desert Southwest has been identified “as a ‘hotspot’ for threatened and endangered species in the United States,” in a study entitled “Wildlife conservation and solar energy development in the desert southwest United States,” *BioScience* 2011: Vol. 61 No. 12 – pp. 982-992, by Jeffrey Lovich and Joshua Ennen (the “Lovich/Ennen Study;” the quote comes from p. 982). The Director of the California Department of Fish and Wildlife, Chuck Bonham, echoed this: “It turns out in California we have more biodiversity than any other state in the union, and we’re one of 25 global biodiversity hotspots on the entire planet,” according to an April 18, 2018 article in the *Desert Sun* (“The Trump v. California environmental fight nobody’s talking about;” author: Sammy Roth).

⁷ According to a report made by a representative of the Lucerne Valley Unified School District – at a May 1, 2018 meeting of the Lucerne Valley Economic Development Agency -- 85% of the children enrolled come from families with income levels low enough to qualify them for the federal free lunch program.

⁸ This *Daily Press* editorial is dated April 3, 2018 and it is entitled “Orange County supervisor’s homeless solution is insult to High Desert residents.”

This means that the stakes are especially high for the ecoregion in which the Community Plan and Rural Living areas are located. If they aren't given a much-needed reprieve from industrialization, through adoption of Policy 4.10, utility-scale projects will likely cause environmental devastation on a regional scale (as will be discussed in depth below in Section 2(C)). Given the confluence there of high wind erosion potential and erosive soils, dust plumes would inevitably be unleashed during the construction and operational lives of the projects as the prevailing winds sweep over denuded desert soil (as will be discussed in depth below in Section 2(C)(2)). Utility-scale projects would also almost certainly destroy the immense appeal of the region and drain already drought-stressed and overburdened groundwater basins, causing the value of homes to plummet (as will be discussed in depth below in Section 2(C)(3)). This would make the region increasingly unlivable and result in homes being abandoned. If so, the region – which, as stated above, is to varying degrees already economically disadvantaged -- would sink into blight. Instead of the currently thriving natural communities existing symbiotically with dispersed human communities, there would be millions of solar panels left silently pivoting in the degraded landscape.⁹

If the region's harmonious convergence of human and natural communities is destroyed, it will be gone forever; it would be the end of the High Desert as we know it. Adoption of Policy 4.10 would be the last, best chance to keep that from happening.

We urge the Planning Commission to recommend that the original Policy 4.10 be added to the RECE and that Alternative Policy 4.10 be rejected. As will be discussed in Section 2 below, Alternative Policy 4.10 would tacitly allow rural desert communities and surrounding ecoregions to be sacrificed in the name of unnecessary, destructive and outmoded utility-scale (and related transmission infrastructure) development.

2. Alternative Policy 4.10 Provides No Protection At All to Community Plan and Rural Living Areas Against Being Overrun by Utility-Scale Development.

The consensus of this County, at all governmental levels – at least until Alternative Policy 4.10 came to the fore -- has been that utility-scale projects are inherently incompatible with most every rural desert community. This consensus was the driving force behind the Planning Commission's recommendation to the Board of Supervisors that it adopt Policy 4.10, which would ban utility-scale renewables from those communities. Similarly, the Supervisors have issued or adopted:

⁹ Utility-scale projects within the strict boundaries of the Community Plan and Rural Living areas would heavily impact the regions outside of their boundaries, and so those regions would greatly benefit from Policy 4.10. Why? Because those utility-scale projects allowed within the Community Plan and Rural Living areas would almost inevitably spawn more such projects outside those areas as more and more desert habitat is deemed degraded, i.e., available for industrialization, and as attendant new transmission infrastructure continues to creep across the desert.

1. a February 17, 2016 Resolution of the County’s Board of Supervisors, which designated five specified sites [which are well away from Community Plan and Rural Living areas] as the only places that utility-scale can go in the County, subject to a project’s otherwise satisfying the County’s criteria (the “Resolution”) and stated that the County “continues to express its strong concern about” utility-scale in other areas of the County. The Resolution was adopted by a unanimous vote;

2. the “County of San Bernardino Position Paper on the Draft Desert Renewable Energy Conservation Plan,” dated February 3, 2015 (the “Position Paper”), in which the County stated that the communities of Lucerne Valley, Newberry Springs, Stoddard Valley, Johnson Valley and Apple Valley are not appropriate for DFAs (which are zones designated under the DRECP where utility-scale projects are to be actively encouraged);

3. a letter that Supervisor James Ramos directed to the California Energy Commission (the “CEC”), dated July 29, 2016, in which the Supervisor emphasized the County’s “key concerns” with the DRECP and RETI 2.0 – both of which seek to encourage the proliferation of utility-scale renewables in the desert – and directed the CEC to the Resolution and Position Paper, noting that the County policy is to “encourage distributed generation that addresses local needs;”

4. the RECE, which incorporates those same five sites by way of the following provisions:

(a) RE Policy 5.2, which states that “Utility-oriented RE generation projects on private land in the unincorporated County will be limited to the site-types below, in addition to meeting criteria established herein and in the Development Code,” which include “i. Private lands adjacent to the federal Development Focus Areas supported by the Board of Supervisors [this is a reference to the Resolution] that meet siting criteria and development standards;” and

(b) RE Policy 5.4.2, which contains the following touchstone standard: “Encourage utility-oriented RE generation to occur in the five DRECP Development Focus Areas (DFAs) that were supported by the Board of Supervisors on February 17, 2016, Resolution No. 2016-20 and on adjacent private lands;” and

5. a letter to the BLM, dated February 28, 2018, in which County Supervisor Robert Lovingood (who is Chairman of the Board of Supervisors) pointed out how amending the DRECP to expand utility-scale renewable energy development further into desert rural communities would only exacerbate inconsistencies between the DRECP and the County's RECE. Supervisor Lovingood specifically referenced Policy 5.4.2 of the County's RECE in that

letter.¹⁰

Residents of rural desert communities have firmly and consistently spoken in favor of the above-mentioned consensus through written and oral comments at public hearings and workshops on the DRECP, the Community Plans and the RECE, as well as in the various REVEAL and SPARC meetings and public forums that led up to adoption of the RECE. At each of these events, community members made it clear utility-scale is inherently and irreconcilably incompatible with their communities. For example, at the June 13, 2017 scoping meeting regarding the proposed 484-acre Ord Mountain Solar Energy Project, over 100 community members packed the Lucerne Valley Community Center in the middle of the week to make this point to the developer and its consultant, Michael Baker International, who were plainly taken aback by the vehement opposition that came from well-informed community members. And, in opposition to the Coolwater Lugo Transmission Project – which would have despoiled several desert communities and facilitated an influx of utility-scale projects – community members submitted 15,000 signatures opposing the project.

Thus far, developers haven't even pretended that utility-scale projects are compatible with rural desert communities or the desert environment. They have instead attempted to mischaracterize affected communities as being so small and inconsequential that they're unworthy of serious consideration. For example, the Initial Study for the Ord Mountain project attempts to portray (at p. 70) the dispersed rural North Lucerne Valley community as consisting of a marginal population undeserving of any protection from the County, contending inaccurately that there are only 32 “modest” and “generally undeveloped” residences there, and that a mere 22 of them show signs of habitation.¹¹ The Initial Study also maintains that “many of the parcels are currently used as storage space for vehicles and/or machinery,” while concluding dismissively that, “based on its generally sparsely developed and rural character, **the surrounding area would not be considered an established community.**”¹² (Emphasis added.) The Initial Study cites this mischaracterization as support for its conclusion that the proposed Ord Mountain project would have a “less than significant impact.” Is there any doubt that, had

¹⁰ Further, as discussed below in Section 2(B)(3), the County and the Town of Apple Valley (the “Town”) are currently collaborating on a Multiple Habitat Conservation Plan and Natural Community Conservation Plan designed to preserve from development vital wildlife corridors and habitats (for, among other animals, bighorn sheep, the golden eagle and desert tortoise) found in the Town's enormous sphere of influence (which overlaps with the Lucerne Valley Community Plan to some extent). Utility-scale development in and near the designated areas would be inimical to that effort.

¹¹ There are actually 54 homes within a half-mile of the project boundaries (at least 33 of them are occupied by their owners or, as is the case with Rivers Edge Ranch, under active operation).

¹² The Initial Study cites as authority for this proposition something that it calls the “(County of San Bernardino 2007).” We have been unable to determine what, if any, County publication it is referring to.

the community consisted of million-dollar homes with well-manicured lawns, the Initial Study's conclusion would have been entirely different? Compounding this, the developer's representative, at the above-mentioned June 13, 2017 meeting, grossly misstated that the entire project site is disturbed and that 200 acres of it have no vegetation (none of this is true).

Similarly, the applicant for the Soda Mountain project, at an August 23, 2016 Board of Supervisors' hearing, blithely demurred to an outpouring of community opposition by grossly misstating that the entire area had "been disturbed for some time" and that a lot of new jobs would be created by the project, as well as touting a recovery bond that would be put up to supposedly restore the project site at the conclusion of its operating life. Supervisor Lovingood firmly rebutted each of the developer's contentions, noting that the proffered bond had no performance standards, that the applicant had exaggerated the number of jobs that would be created (as well as how long they would last), that the project wouldn't fit in the County (which the Supervisor correctly characterized as being a proponent of rooftop solar and CCAs (we believe he that he was referring to community solar)), and that the County did not want its water and land used to ship electricity to the Midwest.

How then did the County make the giant leap from concluding -- in original Policy 4.10, the Resolution, the Position Paper and the above-referenced Supervisors' letters and hearing comments, among other places -- that utility-scale projects and nearly all rural community areas are completely incompatible, to the entirely opposite conclusion -- as reflected in Alternative Policy 4.10 -- that they're compatible after all? The answer cannot be found in the Notice, in Alternative Policy 4.10 or in anything else published by the County, all of which further confirms that there is something seriously amiss in the covert, industry-oriented -- indeed, industry-only -- policy-making process that led up to the formulation of Alternative Policy 4.10. This will, unless corrected immediately and decisively, create bad planning decisions with very negative, long-term effects on the County, its desert residents and its environment.

Adoption of the original Policy 4.10 -- or at least sending Alternative Policy 4.10 back to Land Use Services for real public participation -- is the best way that the Planning Commission can avoid being tarred with the same brush that has so clearly marked the post-August 8, 2017 policy-making process as being unfair, improper and inimical to the interests of the County's desert communities.

A. The "Community Compatibility Reports" Would Be Nothing More Than Empty, Self-Serving Public Relations Exercises.

According to the Notice, Alternative Policy 4.10 arose in response to developers' calls for restoration of a "standards-based approach" to utility-scale development in the Community Plan/Rural Living areas. But Alternative Policy 4.10 does not impose any standards at all; it would instead require that utility-scale applications contain a "*community compatibility report to outline project benefits and measures intended to protect the quality of life and economic opportunities* in existing unincorporated communities." (Emphasis added.) Requiring aspirational statements of this sort from project proponents would only encourage them to fabricate supposed "project benefits" -- and community protections -- that will never actually materialize, especially given that with rare exceptions, genuine inquiry would confirm that the

plethora of negatives associated with utility-scale development (as will be discussed in Section 2(C) below) far outweigh any marginal benefits that a project proponent might offer.

Nowhere does Alternative Policy 4.10 provide any standards for determining the nature or magnitude of: (a) the so-called “project benefits” that would need to be promised in “community compatibility reports;” or (2) the measures that would need to be promised in terms of protecting what Alternative Policy 4.10 calls “the quality of life and economic opportunities of existing unincorporated communities.” Nowhere does Alternative Policy 4.10 require the County to assess whether pledged benefits and protections could realistically be delivered, or to hold project proponents to promised “project benefits” or protective measures after their projects are built.¹³ This would strongly incentivize them to make extravagant, amorphous and unrealistic promises during the application process with no real intention of honoring them.

Alternative Policy 4.10 does not even say whether a proposed “community compatibility report” could, under any set of circumstances, be deemed insufficient, or whether a report found lacking would justify a project denial. In fact, Alternative Policy 4.10 gives every indication that project proponents would not, in practice, be held to their “community compatibility” submissions, and that they would be given wide latitude to simply make them up as they go along. In that regard, Alternative Policy 4.10 specifically states that: “The report may be preliminary on submittal, and may be updated as application review and environmental analysis proceeds.”

In short, Alternative Policy 4.10 wouldn’t even represent a low hurdle to utility-scale proponents bent on imposing their projects on local communities. All it would require them to do is engage in a bland, standard-less public relations exercise. In stark contrast with original Policy 4.10, it would provide no protection at all to Rural Living/Community Plan residents.

B. Original Policy 4.10 Embodied a Hard-Won Consensus Between Planning Staff and Affected Communities That Utility-Scale Facilities Provide No Appreciable “Project Benefits” to Community Plan and Rural Living Areas. Nevertheless, the Centerpiece of Alternative Policy 4.10 Is a Lax and Easily Evaded Requirement that Project Proponents Promise Just Such Benefits.

Only nine months ago, at the August 8, 2017 hearing, the Supervisors took up for consideration (with a recommendation from Planning Staff) a Policy 4.10 barring all utility-scale projects from Community Plan/Rural Living areas in recognition of the fact that, *as stated in*

¹³ And what if, during the application process, “public benefits” or protective measures are promised that local communities either don’t want or don’t need? Will the “community compatibility report” requirement be deemed satisfied in such a case without the necessity of follow-through from the developer on its promises? (If so, this would allow the system to be gamed through offering precisely what local communities are likely to reject.) Or, can local communities be, in effect, forced to accept promised “public benefits” that they don’t want or need? Alternative Policy 4.10 doesn’t address any of these questions.

Policy 4.10 itself, such projects “**would create adverse impacts on the quality of life or economic development opportunities in existing unincorporated communities.**” (Emphasis added.) As reflected in the discussion above, there was then a long-held consensus in this County that it would be extremely unlikely that any “project benefits” would accrue from industrial-scale development in those areas.

So, what happened – in the scant nine-month period since the Supervisors took up consideration of Policy 4.10 – that would begin to justify abandoning the well-considered and well-researched conclusions embodied in it? Nothing. There was, nevertheless, intense lobbying from large-scale developers – from which Alternative Policy 4.10 emerged – but this was a process from which community members were shut out entirely. The other thing of note that has transpired in that 9-month period is that applications for new utility-scale projects have continued to pour in (as will be discussed below in the next paragraph) and that the need for new projects has actually *decreased* accordingly.¹⁴ There has not been, to our knowledge, a single new study – scientific, economic or otherwise – showing, or even suggesting, that utility-scale projects would begin to confer any “project benefits” in Rural Living and Community Plan areas.

The influx of proposed utility-scale projects, after the August 8, 2017 hearing, has further confirmed just how right Planning Staff had been in concluding, in their drafting of Policy 4.10, that utility-scale projects and Community Plan/Rural Living areas don’t mix. A veritable tsunami of new proposed utility-scale projects has been aimed at the Lucerne Valley Community Plan Area and Daggett, as reflected in the “County of San Bernardino Land Use Services/Planning Division Renewable Energy Projects as of March 26, 2018” (the “County Active Project List”).

The County Active Project List doesn’t even count all of the additional acreage that would be consumed for all the new transmission tie lines, access roads, substations and other infrastructure needed to service the new facilities (which would include the proposed Calcite substation and battery storage complex), nor does the list’s 7,150-acre total (for Lucerne Valley and Daggett) include the gigantic Aurora Sorrel utility-scale solar project – 2,850 acres – proposed on State Lands Commission lands in the Lucerne Valley Community Plan area (along scenic-eligible Highway 247, near the historic Lucerne Valley Cut-Off). **All told – and without counting acreage consumed for construction of transmission lines, roads and substations needed to support the new projects -- there are 10,000 acres – almost 16 square miles -- of**

¹⁴ There was actually one other major recent development: microbiologists discovered in desert soil a unique, never-before-seen class of antibiotics – called malacidin -- that have great promise for stopping what the Centers for Disease Control calls the “slow catastrophe” occurring in medicine where each year 23,000 people die due to drug-resistant bacterial infections. This is reflected in a *Los Angeles Times* article, dated February 23, 2018, entitled “In soil, a new weapon against superbugs.”

This discovery strongly reaffirms the rich biological value of the desert, which scientists are really only beginning to study. The desert has been likened to a reverse rain forest, where some of the most significant biological activity occurs underground.

new utility-scale projects being directed at the Lucerne Valley and Daggett areas alone.¹⁵

The County Active Project List also does not count the interstitial areas – the “left-over” acreage remaining *between and among* the proposed project footprints – that would inevitably be rendered ecologically-dead and no longer hospitable to human occupation. For instance, the 483-acre Ord Mountain project would be located in the middle of an established rural desert community consisting of at least 54 homes within a half-mile of the project boundaries; one such home would be surrounded on two sides by the project. The homes are oriented in a roughly radial pattern around a large open space which gives the locale a very spacious feel, one that complements the community’s picturesque setting. The Ord Mountain project would, if built, occupy and eliminate that open space, and occlude a narrow, ecologically-sensitive valley between the Granite Mountains and the Ord Mountains (both of which host extensive ACECs), eliminate unimpeded and dramatic desert and mountain views and generate, on an ongoing basis, large volumes of dust.

In short, this armada of new projects would, if built, industrialize the desert right in the midst of Community Plan and Rural Living Areas. A cursory review of the attached site map, which depicts the checkerboard pattern of development presented by the new proposed utility-scale projects in Lucerne Valley – some of the proposed projects would consist of multiple sites - - confirms that they would indeed industrialize that Community Plan area and thereby destroy long-standing desert rural communities and unravel habitats and wildlife corridors that are crucial for maintaining the ecoregion as a living biome.

Why, given the massive detriment that local communities – human and natural (as will be discussed in Subsection C below) – would suffer from utility-scale projects, has Planning Staff inserted, in Alternative Policy 4.10, a requirement that “project benefits” be posited for local communities? Given that it is extremely unlikely that any “project benefits” would ever accrue to surrounding desert inhabitants, why request that developers fabricate, promulgate and actively promote such an obviously false concept?

And why, after Planning Staff correctly concluded (as stated in the text of Policy 4.10) that utility-scale in Community Plan/Rural Living areas “would create adverse impacts on the quality of life or economic development opportunities in existing unincorporated communities,” did it write an Alternative Policy 4.10 that invites energy developers to justify their projects as being consistent with “community values and aspirations outlined in the community plan?”

(1) Utility-Scale Projects are Totally Inconsistent with the Values Embodied in the Lucerne Valley Community Plan.

Utility-scale projects – and the resulting industrialization of the desert – are totally

¹⁵ We have been informed that a proposed utility-scale project which is not on the County Active Project List – a Calcite Solar project aimed at BLM land on Lucerne Valley Dry Lake -- has recently been withdrawn. But this may reflect a short-term, tactical move on the part of its proponent, Lendlease Development, LLC.

inconsistent with the values and aspirations stated in the 2007 version of the Lucerne Valley Community Plan, which reflect a fierce desire by dispersed desert communities to retain their unspoiled rural desert character, natural environment and wide open spaces.¹⁶

To wit, the Lucerne Valley Community Plan states the following goals and objectives:

(1) LV1.3.1, which identifies, as one of Lucerne Valley's "Unique Characteristics," its ". . . rural lifestyle, characterized by the predominance of large lots, limited commercial development and the prevalence of agricultural and animal raising uses in the area. The desert landscape and natural resources further define the rural character of the community;"

(2) LV1.3.2(A), entitled "Preservation of Community Character," which states that:

"Residents feel that the high quality of life experienced in their community should not be degraded by unmanaged growth and the subsequent impacts of traffic congestion, strains on the infrastructure and threats to natural resources. ***Lucerne Valley residents are concerned that growth pressures from the surrounding areas will eventually threaten the features of their rural community.*** The community's natural beauty is characterized by an abundance of open space and scenic vistas and the ability to accommodate agricultural and animal-raising uses. ***Residents are concerned about the conversion of open space to development, particularly to a type of development that detracts from the natural setting and rural character currently enjoyed by the community.***" (Emphasis added.);

(3) LV1.3.3's specification, as one of the primary "Community Priorities," the need to "[r]etain the rural character of the community by maintaining low density residential development and ***commercial development that serves the needs of local residents.***" (Emphasis added.);

(4) Goal LV/LU 1.1, which requires "***strict adherence*** to the Land Use Policy Map unless proposed changes are ***clearly demonstrated*** to be consistent with the community character" (Emphasis added);

(5) Goal LV/LU 1.2, which states that:

"[i]n recognition of the communities' desire to preserve the rural character and protect the area's natural resources, projects that propose to increase the density of residential land uses or provide additional commercial land use districts or zones should only be considered if the following findings can be made: A. That the change will be consistent with the community character. In determining consistency the entire General Plan and all elements of the Community Plan shall

¹⁶ Community Plans for the other desert and mountain communities are also part of the County General Plan. They contain goals and objectives similar to those found in the Lucerne Valley Community Plan, which is being quoted from at length below for illustrative purposes.

be reviewed. B. That the change is compatible with surrounding uses, and will provide for a logical transition in the plan area’s development . . .”;

(6) Goal LV/LU 2 – “*Ensure that commercial and industrial development within the plan area is compatible with the rural desert character and meets the needs of local residents;*” (Emphasis added.)

(7) LV6.1 (in the “Open Space” element of the Community Plan), which states that “the character of the plan area is defined in part by its wide open spaces and natural features, including vegetation, wildlife, and topography,” and that “[p]reservation of the area’s open space and enhancement of recreation opportunities is one of the most important issues articulated by residents of the Lucerne Valley Community . . .”;

(8) Goal LV/OS 1 – “Preserve open space lands to ensure that the rural desert character of the community is maintained;”

(9) Goals LV/OS 1.4 (“Use open space corridors to link natural areas”) and LV/OS 1.5 (“The foothills of the San Bernardino Mountains are recognized as an important open space area that provides for wildlife movement and other important linkage values. Projects shall be designed to minimize impacts to wildlife movement in this area);” and

(10) LV9.1 (in the “Economic Development” element of the Community Plan, which states that “[i]t will be important to ensure that future development protects and enhances the natural resources, scenic beauty and small town character of . . .),” and Goals LV/ED 1 (“Promote economic development that is compatible with the rural desert character of the Lucerne Valley community”) and LV/ED 1.1 (“Support commercial development that is of the size and scale that complements the natural setting, is compatible with surrounding development and enhances the rural character”).

These preservationist values and aspirations are entirely inconsistent with the establishment of utility-scale projects. Alternative Plan 4.10 is fundamentally unworkable because it calls for project proponents and the County to pretend otherwise.

(2) Utility-Scale Projects Are Totally Inconsistent with the Values Embodied in the Scenic Highway 247 Campaign.

The above-referenced preservationist community values and aspirations also manifest themselves quite powerfully in the ongoing campaign, spearheaded by residents of Lucerne Valley and Johnson Valley, to have Highway 247 – which is already designated by the state as an “eligible scenic highway” – officially declared a State Scenic Highway.

Allowing utility-scale development in Community Plan and Rural Living areas adjacent to Highway 247 would be inconsistent with that ongoing grass-roots effort and destroy the visual quality of a thoroughfare that is already part of the state Scenic Highway System. It would, then, also put the County on a collision course with the state because, “[i]f a highway is listed as eligible for official designation, it is also part of the Scenic Highway System and care must

be taken to preserve its eligible status

www.dot.ca.gov/ser/vol1/sec3/community/ch27via/chap27via.htm#scenic].”

Holding Lucerne Valley open to industrialization, through adoption of Alternative Policy 4.10, would obviously directly threaten Highway 247's eligible status, especially given that there are already thousands of acres of utility-scale projects presently aimed at its immediate vicinity.

(3) Utility-Scale Projects Are Totally Inconsistent with the Conservation Values Embodied in the MSHCP and NCCP Being Jointly Developed by the County and the Town of Apple Valley.

The County and the Town of Apple Valley (the “Town”) are right in the midst of jointly developing a Multiple Habitat Conservation Plan (“MSHCP”) and Natural Community Conservation Plan (“NCCP”).¹⁷ The MSHCP and NCCP, and their design overlays -- the overlays are based on science developed at the landscape level, as well as from local, boots-on-the-ground surveys -- were designed to link up with and complement adjacent, vital wildlife corridors and habitats (for, among other animals, bighorn sheep, the golden eagle and desert tortoise) which run through, among other areas, the Lucerne Valley Community Plan area.

Utility-scale development on the scale it is being proposed for Lucerne Valley – and to the extent that it would potentially be allowable under Alternative Policy 4.10 -- would clearly occlude wildlife linkages and habitats and impinge on, and directly conflict with, the habitat design embodied in the MSHCP and NCCP. This is further confirmed by the fact that the site map for this MSHCP/NCCP confirms that it overlaps significantly with the County’s map of the Lucerne Valley Community Plan.

How could industrialization of Lucerne Valley, by way of Alternative Policy 4.10 – how could any significant utility-scale project there – be consistent with the conservationist values of the County as embodied in the MSHCP/NCCCP?

C. Alternative Policy 4.10 All But Ignores the Enormous Direct and Cumulative Environmental Impacts Occasioned by Utility-Scale Projects.

Quite tellingly, Alternative Policy 4.10 would not require any statement, during the application process, as to how proposed utility-scale projects would supposedly confer “project benefits” or protections *on the desert environment*. Indeed, as experience with utility-scale projects has accrued over time, it has become increasingly apparent that utility-scale projects -- which scrape off native desert flora, destroy natural habitat and occlude wildlife connectivity corridors – are destructive of the natural environment, and that this would still be the case if even

¹⁷ The Town, as the lead agency, has been ground-truthing this plan for at least six years, and, at this point it is a highly evolved, very detailed plan.

the most stringent-sounding environmental standards were added to Alternative Policy 4.10.¹⁸

Alternative Policy 4.10, which is chock full of so-called standards, is already a developer's dream. These standards would not even be minor impediments to a determined developer. Alternative Policy 4.10 would allow a project proponent to use its sophistication, experience and deep pockets to turn out a deceptively glossy set of project paperwork that is then used to steamroll community members who -- because they are too few and too taken up with having to put food on the table, getting their kids to school, etc. -- can't stand up to a well-funded developer. So, a developer can launch a campaign behind vague (and typically unrealized) pledges to mitigate and to follow amorphous "best practices," but the indispensable voices of the people who will be most impacted -- community members -- are lost. No discussion on Alternative Policy 4.10 can be complete or productive of a positive planning outcome without their perspectives, which thus far have been excluded from the process.

And the experiences of community members who have been forced to live and work in the shadow of large-scale projects have not been positive. Their experiences -- and peer-reviewed publications -- demonstrate that utility-scale: (1) makes particularly bad neighbors in the environmental sense (as discussed below in Section 2(C)(1)); (2) degrades air quality to such an extent that human health is compromised (as discussed below in Section 2(C)(2), which includes photos of the terrible dust storms caused by large-scale projects and documents that there isn't even a real baseline in desert communities for measuring airborne particulate matter); and (3) seriously threatens the desert's already depleted groundwater basins (as discussed below in Section 2(C)(3), which observes, among other things, that there are no precise measurements of the volume or water quality of desert aquifers).

(1) Utility-Scale Projects Make Particularly Bad Neighbors in Community Plan and Rural Living Areas.

The County's Community Plan and Rural Living areas have a unique blend of well-established, dispersed desert rural communities intertwined with functioning and intact natural habitats that are vital to maintaining this arid region's biodiversity. Intensive utility-scale development inevitably leads to the unraveling and displacement of human and natural communities on a regional basis. This is not overblown, uninformed speculation; these damaging effects can be attested to by community members who have experienced them. They have also been extensively documented in peer-reviewed publications and borne out by the experience of the people who have been forced to live and work in the shadow of utility-scale solar and related transmission infrastructure. Such publications include:

(1) a January 1, 2014 article, entitled "Environmental impacts of utility-scale solar energy," in the Renewable and Sustainable Energy Review 29 (2014) 766-779 (Elsevier),

¹⁸ This raises the following question: how could a large-scale solar project possibly have any real "project benefits" for local residents that can compensate for the destruction of the very natural habitats that enhance, preserve and define their quality of life?

which is also an eScholarship, UC (University of California) Open Access Publication (the “Environmental Impacts Article”); and

(2) the above-cited Lovich/Ennen Study.

The Lovich/Ennen Study (p. 982) identifies – using understated scientific language -- the following impacts, among many others, as arising from utility-scale construction, facility operation and maintenance:

(1) Ground-disturbing activities that affect soil density, water infiltration rate, vulnerability to erosion, secondary plant succession, invasion by exotic plant species, and stability of cryptobiotic soil crusts that, individually and together, can alter habitat quality, and increase soil erosion, thereby affecting food availability for wildlife – p. 985;

(2) Removal of vegetation and the construction of structures have the potential of increasing animal mortality and of changing the characteristics of the environment in a way that affects wildlife – p. 987;

(3) Habitat fragmentation and barriers to movement and gene flow; utility-scale development has the potential to be an impediment to gene flow for some species – p. 986;¹⁹

(4) Direct mortality of wildlife (heavy construction equipment would be expected to have the potential to kill or entrap large numbers of subterranean animals through compressive forces and burrow collapse) – p. 985;

(5) “Dust can have dramatic effects on ecological processes at all scales (reviewed by Field et al. 2010). At the smallest scale, wind erosion, which powers dust emission, can alter the fertility and water-retention capabilities of the soil. Physiologically, dust can adversely influence the gas exchange, photosynthesis, and water usage of Mojave Desert shrubs (Sharifi et al. 1997). Depending on particle size, wind speed, and other factors, dust emission can physically damage plant species through root exposure, burial, and abrasions to their leaves and stems. The physiological and physical damage to plant species inflicted by dust emissions could ultimately reduce the plants’ primary production and could indirectly affect wildlife food plants and habitat

¹⁹ “Until relatively recently, the desert Southwest was characterized by large blocks of continuous and interconnected habitat. Roads and urban development continue to contribute to habitat fragmentation in this landscape. Large-scale energy development has the potential to add to and exacerbate the situation, presenting potential barriers to movement and genetic exchange in wildlife populations . . .” (Lovich/Ennen Study, p. 986)

quality” – p. 985;²⁰ and

(6) Electromagnetic fields (EMFs) produced as energy flows through system cables are a concern from the standpoint of both human and wildlife health - p. 987.

The “greenest” that Alternative Policy 4.10 gets is to require that developers “explain” how they will allow “wildlife movement through or around a site.” But utility-scale projects are fundamentally inconsistent with maintaining wildlife movement because, due to their sheer size, they physically occlude existing connectivity corridors and destroy habitat within their perimeters which is key to maintaining desert biomes. This is illustrated by the maps attached to this letter which depict utility-scale projects being planned for ecologically-sensitive North Lucerne Valley, and a second set of maps (which are part of the attached report from SC Wildlands) that show local wildlife corridors there which have been meticulously mapped by renowned wildlife biologists. Should the depicted projects be built in Lucerne Valley, no wildlife will be able to (or want to) negotiate the resulting maze of fences, panels, equipment, lights, transmission, workmen and perimeter/service roads – over a denuded, degraded and industrialized landscape – in order to traverse whatever might remain of eons-old connectivity corridors.

And, given the rather loose wording of Alternative Policy 4.10, project proponents could claim to be allowing for wildlife movement “around a site” simply by putting up standard perimeter fences they’d install anyway as a matter of course.

In short, according to the above-referenced studies and articles, utility-scale development transforms the desert landscape substantially through site preparation and associated ground-disturbing activities which affect a variety of ecological patterns and processes in the desert, and which have harmful effects on human health (as is discussed further in the following subsection).

(2) Utility-Scale Projects Degrade Air Quality to Such an Extent That Human Health Is Compromised.

²⁰ The Environmental Impacts Article discusses the damaging effects that utility-scale development has on humans, noting (at p. 770) that the construction of utility-scale solar facilities, like any other large-scale industrial facility “pose(s) hazards to air quality, the health of plant employees, and the public. Such hazards include the release of soil-borne pathogens, increases in air particulate matter (including PM2.5), decreases in visibility for drivers on nearby roads, and the contamination of water reservoirs. For example, disturbance of soils in drylands of North and South America, which are places targeted for [utility-scale facilities], aids transmission of *Coccidioides immitis*, a fungus causing Valley Fever in humans . . .” (Valley Fever will be discussed in greater detail below).

Air quality concerns will be further discussed in the following subsection of this letter.

Valley Fever

That large-scale development spreads Valley Fever is well documented. According to an article in KCET Artbound, entitled, “The Shifting Demographics of Antelope Valley – And Development’s Consequences,” dated December 12, 2017 (by Kim Stringfellow):

1. “It doesn’t take much effort to liberate,” expose and release into the air hidden spores causing a “mysterious and debilitating disease called *Coccidioidomycosis*, or ‘cocci’ for short, more commonly known as valley fever . . .” Activities such as tilling a field, bulldozing or dirt bike riding can do this;

2. “In 2013, California State and San Luis Obispo County health officials confirmed that 28 workers constructing a large-scale solar generation site near the Carrizo Plain had contracted the disease.”

3. Valley Fever spores are “known to thrive in various arid and semi-arid regions of . . . the American Southwest . . . where two-thirds of the nation’s reported cases occur each year. A 2015 Mother Jones article stated that ‘the disease kills more Americans than West Nile, hantavirus, rabies, and Ebola combined.’” “Cycles of rain and drought are known to exacerbate fungal growth and correlate to the rise of valley fever cases occurring within the state;” and

4. “If valley fever transitions into the disseminated form, the fungal infection will enter the bloodstream via the lungs, where it travels through the body attacking joints, lymph nodes, bones, skin and even the brain. These complications occur in 5 to 10 percent of those infected, resulting in a series of chronic complications that require surgical procedures and ongoing medical treatments. At its worst, cocci can kill outright. According to a 2012 paper analyzing cocci-associated fatalities in the U.S. between 1990 – 2008, 3,089 deaths were attributed to valley fever as the direct or underlying cause of mortality, with 1,451 of those deaths occurring in California.”

Dust/Air Quality

Alternative Policy 4.10 contains a requirement that project proponents “explain” how they will “minimiz[e] and manag[e] impacts of blowing sand,” but this requirement -- which erroneously focuses on sand instead of dust, and falsely presupposes that sand transport can be “minimized and managed” once desert land suffers a major disturbance -- is weak, ineffectual and easily-evaded (as will be discussed further below in Subsection D). That Alternative Policy 4.10 all but skirts past this concern further demonstrates that it should not be made the “law of the land” when it comes to major renewable energy development in Community Plan and Rural Living areas.

The utility-scale projects currently being proposed for North Lucerne Valley would, if built, be sited in an area of high wind erosion potential, according to the “Soil sensitivity factors for the DRECP” map and the “Confidence levels for sensitive soil factor maps for the DRECP.” Indeed, some of the proposed projects would be placed on Lucerne Valley Dry Lake.

Because the contemplated land disturbance would eliminate vegetation that would otherwise anchor the soil, it would lead to the release of large and unhealthy volumes of dust into the local environment and surrounding communities. In order to make a valid assessment in that regard, the County would have to determine exactly how much vegetation would be removed (and retained), and exactly how much grading would be required. Even then, the results would have to be treated as advisory projections at best.

Other utility-scale solar projects in the region have proven to be particularly bad neighbors, and have failed to live up to their developers' promises when it comes to dust control.²¹

²¹ The Soltec PV project in Newberry Springs has received a lot of negative attention. The developer reportedly promised that it would not scrape vast tracts of land, that the project would have minimal impact on vegetation and wildlife, and that mitigation measures (such as soils stabilization) would be implemented. None of this came to pass, and it has also become apparent that an unduly low estimate was presented, during the application phase, of the amount of water the project would consume.

The Agincourt and Lone Valley Solar projects in Lucerne Valley (on Camp Rock Rd.) – now known as “Lone Valley Solar” -- have been spewing dust, despite applying much more water than the developers projected. Further, when one of the projects on Camp Rock Rd. caught fire, the owner – which had essentially abandoned the project, could not be found. Also, at the onset of the two projects, their proponents agreed to purchase from the Mojave Water Agency 10 acre-feet of water; instead, according to our information, they wound up using more than 50 acre-feet (10 acre-feet came directly from the Morongo Basin pipeline, and the other 40 acre-feet were purchased from a local farmer).

Joshua Tree has not fared any better with three nearby utility-scale solar projects: Cascade Solar, SEPV8 Solar (Lear Avenue) and Indian Trail Solar. Once vegetation was removed to construct them, soils became unstable and dust and sand began blowing. Dust storms are now a regular feature during high wind events. Prescribed mitigation measures -- like watering exposed soil and ceasing construction if the winds exceed a certain level -- have proven completely ineffectual, if implemented at all. Photos of several dust events related to utility-scale projects near Joshua Tree are attached to this letter.

Antelope Valley Solar Ranch, located in Lancaster, near Route 138, was built by First Solar, which seems to be the contractor of choice for many solar photovoltaic projects. The AVAQMD cited First Solar for violations of air quality standards on at least two separate occasions. The AVAQMD was quoted as saying that there was “a myriad of things [First Solar] could have done that we didn't think they were doing to prevent the violations.”

These examples demonstrate that approving a utility-scale project based on even the most stringent-appearing criteria – such as a developer's pledge to use "best available practices" to achieve "mitigation" after the project is built – simply does not work.

But, in order to have this basic predicate for making an informed assessment concerning fugitive dust, the County would also need a valid baseline for dust emissions for, among other areas, North Lucerne Valley. Unfortunately, the Mojave Desert Air Quality Management District (the “District”), which covers 20,000 square miles of desert terrain in the County and in Riverside County, cannot provide such a baseline, because the District does not have any air quality monitoring stations there (the monitoring stations are located in Victorville and Barstow - both in downtown locations -- and the prevailing northwest and southwest winds blow dust away from the monitors, which further skews the effectiveness and value of their measurements). In accord with a directive from the District, County planners would nevertheless use the Victorville station’s dust emission readings and meteorological data in order to estimate the proposed projects’ dust emissions, even though the conditions at the Victorville station differ night and day from those present in North Lucerne Valley in terms of soils and wind speeds and directions.²²

Because emissions readings from the Victorville station do not provide a valid long-term PM10 baseline for the North Lucerne Valley, the County would, in order to make an informed decision, have to commission its own air quality/dust monitoring at (and adjacent to) the North Lucerne Valley, and readings would have to be taken during a representative array of wind speeds/directions and meteorological conditions. Otherwise, any findings on dust emissions would amount to little more than poorly-educated guesswork.

Such an analysis would also have to include the extent to which Valley Fever spores are present in the affected soils.

Finally, such an analysis could not concern itself only with the degree to which the projects in question would kill plants living above the desert surface. The proposed construction and operation activities would, merely by disturbing desert soils, destroy below-the-surface communities of tiny, delicate plants and organisms. Root systems are bound together underground and that associated fungi hold soils together that would otherwise produce fugitive dust.

But, given that existing utility-scale projects have had a proven record of degrading air quality – and that an elaborate and expensive analysis along the lines outlined above would serve only to confirm what is already painfully obvious in light of the actual experiences of desert

²² The Victorville station, which is located on asphalt and is 300 feet from a road that has an average annual daily traffic count of 1,000 vehicles, monitors a 0.3 to 3.5 square mile area with a relatively uniform land use. Hence it is no surprise that the station’s monitoring records show zero (0.0) days above the 24-hour federal and state PM10 standards.

The technical information in this letter regarding the District’s monitoring program is drawn from a meticulously researched March 22, 2017 article in the *Desert Report* (which is a publication of the Sierra Club), entitled “The Perfect (Dust) Storm – Fugitive Dust and the Morongo Basin Community of Desert Heights.” Its author, naturalist Pat Flanagan, is a board member of the Morongo Basin Conservation Association.

residents – we would urge the Planning Commission to instead approve Policy 4.10, which would flatly prohibit dust and spore-liberating utility-scale development in Community Plan and Rural Living areas.

(3) Opening the Community Plan and Rural Living Areas to Utility-Scale Exploitation Would Deplete Already-Threatened Groundwater Basins.

North Lucerne Valley, in the area where 10,160 acres of new utility-scale projects are being proposed, is located on an overdrafted groundwater basin, according to the “Overdraft Groundwater Basins, DRECP” map. Given that these projects would presumably be deemed exempt from the original Policy 4.10 (should it be adopted) – and that 20,000 MW of utility-scale projects are planned for under the DRECP for the California desert -- it is more crucial than ever to stop industrialization that would irrevocably compromise the desert’s groundwater basins (which are hydrologically interconnected). The only effective way to protect our aquifers would be to adopt Policy 4.10, which would staunch the influx of even more utility-scale projects into Community Plan and Rural Living areas.

Alternative Policy 4.10 makes no mention at all of the extent to which industrialization of the desert would deplete our groundwater basins. Nevertheless, Alternative Policy 4.10 would, quite heedlessly and irresponsibly – and in stark contrast with original Policy 4.10 -- open rural areas to a potentially unlimited number of new utility-scale projects and related transmission infrastructure development regardless of their acknowledged threat to our aquifers.

Such data as we have on the subject of groundwater, which comes chiefly from the DRECP, must be considered in weighing whether to adopt original Policy 4.10 or Alternative Policy 4.10.²³ While the draft DRECP did not conduct a meaningful analysis of groundwater baseline data, it nevertheless made valuable observations about the tenuous state of the desert’s groundwater basins. For instance, the draft DRECP acknowledged that its DFAs would be located primarily on already overdrafted groundwater basins from which the enormous volumes of water needed -- for the construction, maintenance and operations of large-scale generation facilities -- would have to be drawn. In that regard, it conceded (at IV.6-24) that “[d]evelopment

²³ The DRECP water data and findings continue to be relevant. Statements made by the State Water Resources Control Board (the “SWRCB”), in its comment letter regarding the DRECP, suggests that the drought would persist there despite the recent rains. The SWRCB comment letter states that the preponderance of groundwater in the Basins and Ranges hydrologic province is thousands of years old (i.e., it takes thousands of years for groundwater to travel from the point of recharge to the point of discharge). According to the SWRCB comment letter, our aquifers represent a closed system where 66% of the groundwater is between 100 and 33,000 years old with the only “young” recharge coming from the mountains [p. 18]. On a related note, the SWRCB states that, “[i]n most areas of the desert, deeper, older groundwater is saline. Excessive pumping will likely cause migration of saline water into fresh water aquifers [p. 11].”

would occur in 35 groundwater basins,” that 14 of them are stressed or in “overdraft or stressed,” that “[m]ost (97%) of the developed area is within four ecoregion subareas [the High Desert areas of Los Angeles and San Bernardino Counties and the Imperial Valley]” -- which are the most populated areas of the California desert²⁴ -- and that “increased groundwater use in these sensitive basins can adversely affect water supplies and exacerbate impacts associated with overdraft conditions and declining groundwater levels.”

The draft DRECP also stated that the total estimated water use for the new projects it sought to foster would be 91,000 acre-feet per year (IV.6-24), and that the “[r]enewable energy facilities permitted under the DRECP could influence the quantity and timing of groundwater recharge because construction would include grading the land surface, removing vegetation, altering the conveyance and control of runoff and floods, or covering the land with impervious surfaces that alter the relationships between rainfall, runoff, infiltration and transpiration [IV.25-45].” Solar energy – which was the renewable technology preferred in the DRECP -- “would result in the largest amount of grading so it would have the largest impact on groundwater recharge among the renewable technologies permitted under the DRECP [IV.25-45].”

According to the vastly understated language of the draft DRECP, the “use of groundwater for renewable facilities permitted under the DRECP would combine with [other uses of groundwater] . . . to result in a cumulative lowering of groundwater levels affecting basin water supplies and groundwater [IV.25-46].”

The draft DRECP also took note (IV.25-45) of the “[p]opulation growth and anticipated development summarized in Section IV.25.2.2” -- including “future residential development that would also use a large amount of groundwater continuously [IV.25-46]” and that would result from anticipated renewable energy and other projects -- as further contributing to the drawdown of desert groundwater basins.

Even more ominously, the draft DRECP noted that the proposed renewable energy projects would result in “compression [of groundwater basins that would reduce] the volume of sediment beds and lower land surface elevations, which can damage existing structures, roads, and pipelines; reverse flow in sanitary sewer systems and water delivery canals; alter the magnitude and extent of flooding along creeks and lakes. ***This compression of clay beds [that make up groundwater basins] also represents a permanent reduction in storage capacity***” [IV.25-47]. (Emphasis added.) The proposed renewable energy plants and transmission

²⁴ When the draft DRECP’s map of the Preferred Alternative DFAs (which, along with transmission corridors, was to entail approximately 177,000 acres of “ground disturbance” (IV.7-215)) is superimposed on top of the DRECP’s Overdraft Groundwater Basins map, one sees that (with small exceptions) all of the High Desert DFAs – from the Antelope Valley east to the Johnson Valley -- were located within the boundaries of already overdrafted groundwater basins. Indeed, the DRECP conceded: “[u]nder the Preferred Alternative, development in BLM lands can affect groundwater in 12 basins characterized as either in overdraft or stressed” [Section IV.6 of the DRECP].

facilities “could also cause water-level declines in the same groundwater basins and contribute to the migration of the saline areas of groundwater basins” [IV.25-47].

In terms of construction usage, the 550 MW Desert Sunlight 250 project (on 4,400 acres of land) – and the 1,550 acre-feet of water allocated to its construction – can be used as a metric. Forty projects of that size would produce just over the DRECP’s targeted 20,000 MW in renewable energy. Assuming that those forty projects would use a similar amount of water during their construction, construction of 20,000 MW of new renewable energy projects would consume 620,000 acre-feet of water, which equates with approximately 20 billion gallons of water.

In their maintenance and operations, the utility-scale solar projects in the Lucerne Valley DFA would, according to data from the draft DRECP, consume almost 1,000 acre-feet of water **per year**, which is enough water to fill four Rose Bowls to the brim.

On a DRECP-wide basis, if all 20,000 MW of generation were to come from the least water-intensive generation method – which is solar PV (as opposed to solar thermal, which requires many multiples more water in cleaning, as well as a great deal of additional water for cooling operations) – and the PV panels were washed only six times per year, the cleaning of the panels alone would consume .15 acre-feet per year per megawatt of generation, which would amount to a total water expenditure of approximately 3,000 acre-feet per year (20,000 times .15 = 3,000). **Add to that figure the 249.6 acre-feet per year that would need to be consumed to service the 1,664 MW of utility-scale solar projects currently being aimed at private County lands in Lucerne Valley, Daggett and Newberry Springs (1,664 times .15 = 249.6) – which amounts to enough water to fill one Rose Bowl to the brim -- and it’s obvious that we would, with Alternative Policy 4.10 in place, have a water crisis in the making.**

Projects on the BLM land will be drawing from the same groundwater basins that the rest of the County relies on – in effect, public and private “straws” will all be drawing from the same figurative milkshake. Nevertheless, the DRECP made no study of the impact on the desert’s aquifers of siting 20,000 MW of new generation facilities, nor did the DRECP include any real baseline data concerning the health or sustainability of those basins under current demands, or when the effects of an ongoing drought of historic proportions is factored in.

The County cannot afford to make that same mistake, and it cannot responsibly adopt Alternative Policy 4.10 without conducting a far-reaching analysis of the cumulative effects that unchecked utility-scale and transmission development would have on our inter-connected aquifer systems, particularly given that the proliferation of large-scale, water-thirsty projects, like the Cadiz Valley Water Conservation and Storage Project, the Eagle Mountain Pumped Storage Hydroelectric Project (1,300 MW) and any major efforts to remediate the Salton Sea, will stress already fragile water reserves.

More specifically, the County would first need to: (1) conduct and incorporate a comprehensive assessment as to how the siting of the proposed renewable energy generation and substation would – in combination with other factors, including the plethora of utility-scale and transmission projects that will be developed on public land under the BLM LUPA -- affect

relevant groundwater basins, i.e., to what degree would their sustainability be threatened; and (2) conduct a baseline study as to the current status of each affected aquifer – how much potable and non-potable water is each such groundwater basin currently holding? How much water is being pumped out of each basin by the residents and businesses currently relying upon them? How much water can be expected to recharge the basins, either from natural sources or from the State Water Project? Are the groundwater basins sustainable in view of the demands currently being made on them (including the demands that would be made on them by the currently proposed utility-scale projects and substation), and in view of their recharge rates, or are these basins approaching collapse, i.e., what are their tipping points (the point at which affected groundwater basins would be unable to meet the needs of County residents and effectively collapse)? What is the likely effect of ongoing drought on our groundwater basins?

Even at that, such an analysis would provide a very limited, snapshot-in-time prognostication that may not accurately portray our groundwater basins' future sustainability. At the meeting of the BLM's Desert Advisory Committee on September 27, 2014, in Pahrump, Nevada, Peter Godfrey, a BLM water specialist who was one of the authors of the groundwater portions of the draft DRECP, stated that, in order to assess our aquifers' future sustainability, a long-term time horizon of as much as 30 years is required, which is longer than the projected lifespan of any of the utility-scale projects being proposed for North Lucerne Valley. **In other words, we won't really know whether those projects, or any other given set of projects, has compromised our groundwater basins until after they have passed the point of no return.** The County would have to factor into its analysis that it may be impossible, given practical temporal limitations, to determine with any real degree of certainty whether the utility-scale projects in the Community Plan and Rural Living areas will debilitate local groundwater basins, which strongly suggests that a "no action" alternative merits extraordinary attention.

Hence, even with a thorough groundwater analysis, Alternative Policy 4.10 would, by giving unrestricted utility-scale an unambiguous green light, drain and possibly collapse already-stressed/over-drafted groundwater basins, all for the purpose of generating short-term profits and unneeded utility-scale megawatts (as will be discussed below in Section 3(A)). This would be particularly inappropriate given that there is every indication that the projected water demands of all the new projects that threaten North Lucerne Valley would push those aquifers past their tipping points. We would urge that the Planning Commission protect our groundwater basins by adopting the original Policy 4.10.

D. Built Into Alternative Policy 4.10 Are Many Ways of Evading Its Lax and Ineffectual Guidelines.

Under Alternative Policy 4.10, a "community compatibility report shall identify elements of project site design" that "enhance compatibility with surrounding properties and existing communities." This places far too much focus and emphasis on physical project design, falsely treating it as a panacea for the myriad of detrimental impacts caused by utility-scale development. No matter how well a utility-scale project is designed, it will still be a utility-scale project, and such projects are inevitably destructive to surrounding human and natural communities in light of their immense scale. The premise of Alternative Policy 4.10 – that tinkering around the edges with project design, i.e., building in standard so-called mitigation

practices can produce “community compatibility” – is fundamentally flawed. Site design, no matter how clever, could never create what Alternative Policy 4.10 calls, in one of its subparts, “consistency with community values and aspirations outlined in the community plan” because, as discussed above in this letter, utility-scale projects are inherently inimical to those values and aspirations, as well as to the health, welfare and very existence of desert communities.

The requirements in the subparts of Alternative Policy 4.10 – that project applicants “explain” how they intend to use site design to “minimize potential visual impacts,” to “minimize impacts or benefit other properties” by not interfering with drainage patterns and to “minimiz[e] and manag[e] impacts of blowing sand” – are just more variations on the same invalid theme. Note that, when it comes to “sand,” all project proponents have to do under Alternative Policy 4.10 is to “*minimize and manage*,” i.e., reduce, the amount of dust and particulate matter released into the air by their projects. Nowhere in Alternative Policy 4.10 is there any notion of making developers *prevent* blowing dust. As discussed above, once desert soil is disturbed through industrialization, the prevailing winds inevitably carry dust and other particulate matter into the homes and lungs of all who live in, visit or travel through the surrounding region, and Valley Fever is unleashed. This is not conjecture; this has been the experience with project-after-project (see Fn. 21 above) and documented in the articles and studies excerpted above.

E. Another Subpart Would Require Developers to “Educate” Community Members on the Supposed Benefits of Utility-Scale Projects, Notwithstanding that Residents’ Actual Experience Has Already Taught Them Well That They Won’t Receive Any Resulting Benefits.

One subpart of Alternative Policy 4.10 would require that developers “[i]dentify any planned efforts to engage County residents and visitors through marketing or public education that will enhance interest in renewable energy and appreciation of the project.”

But desert residents are already extremely well-versed in this area, having been forced to live through many CUP application processes – during which extravagant and unrealized promises are made by project proponents – followed by construction and operation of utility-scale projects that despoil desert habitat and vistas, produce frequent dust storms, draw down threatened groundwater basins, reduce the value and livability of their homes and threaten their health (especially the health of their children). In fact, community members – by dint of one searing experience after another – already know far more in this regard than any developer’s public relations officer. They already know that the only benefits accruing from such projects are profits and electrons that flow out of the County at their profound expense. They already know that developers expect them to be ready to sacrifice their homes, their communities and their health in the name of essentially unrestricted utility-scale development. This subpart is a gross insult to the intelligence of the many desert residents who are fully capable of relying on their experience as they weigh the claimed benefits and detriments.

This subpart amounts to a governmental fiat that developers aggressively and publicly promote a demonstrably false concept -- that utility-scale projects will benefit local communities

(see the discussion above). Why would the County want to get into the business of vetting and encouraging such skewed public relations campaigns?

This subpart further demonstrates that Alternative Policy 4.10 arose from a tainted process in which large-scale energy developers have all but dictated to the County – to the exclusion of the community -- exactly what they believe will promote their interests. It's outrageous that the large-scale energy community is demanding that Alternative Policy 4.10, which obviously emanates from an unfair process, be ensconced in Policy 4.10. Why would the Planning Commission want to endorse the seriously compromised, closed process from which Alternative Policy 4.10 arose, especially when it so inimical to the interests of the County's desert communities?

F. Another Subpart – Which Would Require Project Proponents to Identify “Benefits to Public Utilities” – Has Nothing to Do With Conferring “Project Benefits” on Communities.

One of Alternative Policy 4.10's subparts would require project proponents to identify any “benefits to public utilities” and improvements to the “energy transmission or distribution system improvements that would enhance energy reliability.” But this criterion has nothing to do with promoting community values or with providing “project benefits” to community members, and everything to do with promoting the interests of investor-owned utilities. As written, this subpart would encourage developers to characterize all new transmission/distribution tie lines needed to connect their projects to the grid, and any other resulting transmission infrastructure – such as new substations -- as being self-justifying grid improvements, even though new lines and infrastructure are just as destructive as utility-scale projects when it comes to local communities and habitat.

The industry-propagated notion that vast amounts of new transmission lines are needed is nothing more than an easily-refuted myth. Under the CAISO 2017-2018 Transmission Plan, 20 transmission projects were canceled and 21 were revised due to energy efficiency and residential solar power altering local area load forecasts. The projected savings from these changes is approximately \$2.6 billion. This is discussed in an article in *PV Magazine*, dated March 27, 2018, entitled “Distributed solar and efficiency saves California \$2.6 billion on power lines” (by John Weaver).

Utilities claim, nevertheless, that more transmission lines and substations are needed out of a desire for increased profit. The proliferation of transmission infrastructure projects is being incentivized by Transmission Access Charge fees that are added on to consumers' bills to reimburse the utilities for the costs they incur in maintaining and operating the state's transmission system, as well as to reimburse utilities for their costs in expanding it. Such fees also reimburse the utilities for amortization on the capital they invest to fuel that expansion, and

those fees provide the utilities with a handsome return-on-equity on their invested capital.²⁵

In any event, this County has done more than its share in terms of having transmission projects built within its boundaries.

That the subpart in question is nevertheless made part of Alternative Policy 4.10 further demonstrates that it has been derived from a developer-driven process. The absence of community input – the exclusion of the “little guy,” i.e., desert dwellers who have been consistently disenfranchised in the post-August 8, 2017 political process -- is painfully apparent.

G. Another Subpart of Alternative Policy 4.10 Actively Encourages Project Proponents to Promise Benefits to Affected Local Communities That Cannot Begin to Outweigh the Enormous Damage Wrought by Utility-Scale Projects.

This subpart requires developers to “detail anticipated on-site or off-site project improvements that will benefit the community at large or other properties, such as road and drainage improvements.”

This means that, no matter how destructive or ill-sited a utility-scale project might be, it could pass muster under this subpart so long as the “community at large” succumbs to blandishments promised by the project proponent. But how do you define a particular “community at large” in the County’s vast and almost entirely unincorporated desert region? How would it be determined whether or not the societal value of promised off-site “improvements” could possibly outweigh the immense downsides that a utility-scale project would have for a local community? If, for example, a developer offers to install a new track at the local high school and/or to put up “renewable energy scholarships” for its students, would that be enough to justify a project?²⁶

How would it be determined whether or not a given community has concluded that it

²⁵ This is detailed in an article in *Greentech Media*, dated March 13, 2018, entitled, “Expanding the Energy Imbalance Market Is the Right Way to Regionalize California’s Grid.” That article also pointed out that CAISO is having difficulty reigning in out-of-control transmission spending because it is being promoted by the Transmission Access Charge fees, and that it is being projected that, as a result, transmission costs will likely surpass generation costs within a decade.

²⁶ Alternative Policy 4.10 specifically identifies “road and drainage improvements” as being creditable examples of the required “on-site or off-site project improvements,” but new drainage systems are not typically in high demand in the low-rainfall desert, and sufficient roadways are already established there. Given that, as per the Lovich/Ennen Study (p. 986), roads are big contributors to habitat fragmentation in the desert, the County should not by any means be embracing a policy that incentivizes their proliferation.

would receive a net benefit from a particular project? By a majority vote of the members of affected communities (who would be qualified to vote?) or by some other method? Who would conduct such voting and monitor its fairness? What if there are two potentially affected communities and one community votes in favor of a project and the other votes against it?

How would it be determined whether a developers' promises are actually implemented and what would happen should the developer not follow through on them?

The subpart in question answers none of these questions, which are only a small sampling of applicable concerns. Instead it leaves it to developers – the only interested parties that would stand to gain through project approvals -- to determine whether the “will of the people” favors their proposals. Project proponents would be incentivized to mount a campaign attempting to factionalize a desert community (which, as discussed above, is likely to be economically disadvantaged) -- with the hope of fomenting a pro-project faction -- by promising off-site improvements targeted to provide primary benefits to that faction's members; such a developer would then be motivated to hold up that faction as signifying the approval of the “community at large.” The subpart provides no mechanism for monitoring or maintaining the integrity of that process. As even the most casual observer of politics can attest, when a political process is weighted in a way that favors powerful interests, they will exploit their advantage to the maximum extent possible.

This subpart provides elsewhere that the promised off-site benefits need not even benefit the entire “community at large,” and that this subpart could be satisfied – in the alternative -- by positing much more limited off-site benefits to unspecified “other properties.” How many “other properties?” What size would they have to be – either individually or collectively – to constitute a critical mass of “other properties?” And what kind of benefits would be required? Could this subpart's lax and ill-defined requirements be satisfied by a developer that makes a “sweet-heart” deal with a single neighboring property owner that wouldn't provide the slightest benefit to the “community at large?” Where a project – such as the Sienna project – consists of multiple, separated parcels, could its proponent cynically point to interconnecting new service roads as benefitting “other properties?” And what if the promised “benefit” – such as a network of new roads or transmission lines -- would actually damage the “community at large?”

Even as this subpart raises a plethora of serious questions (while answering none), it asks rural residents, in effect, to sacrifice their homes – in return for some promised manna from developers -- so that the County doesn't have to provide them with basic services, which would be especially unfair given that their communities are not big drains on County coffers (in fact, they contribute a fair share of the County's property and sales tax revenue). If rural residents need a road or a drainage feature, they should get it from the County in due course, rather than having to rely on the “generosity” of self-interested large-scale energy companies. Why would the Planning Commission want to be seen as abetting such an unfair approach?

Most troubling is that the subpart in question ignores a fundamental and undeniable reality, which is that utility-scale projects are almost always so thoroughly destructive of communities and natural habitats in the region (as discussed above in Section 2(C)) that even the most lavish “off-site improvements” offered could not justify a project. What good would it do a

given community to have a new public library or a new municipal pool built for it if that means that the same community will be turned into an unappealing, unhealthy, unlivable, water-deprived dust bowl and if the surrounding environment and vistas are ruined?

H. Another Subpart of Alternative Policy 4.10 Encourages Project Proponents to Falsely Promise That Local Employment Will Be Substantially Boosted.

Alternative Policy 4.10 requires project proponents to “identify any commitment to employ the local labor force or cooperate with local job training or apprenticeship programs.” But any promise that a given utility-scale project will markedly increase local employment would be demonstrably false. As observed by the County in its Position Paper on the draft DRECP, “[u]nfortunately, the County’s experience to date with solar photovoltaic (PV) and concentrating solar power (CSP) facilities is such that they have not produced equivalent long-term tax revenue and jobs in comparison to other types of commercial and industrial development in the County.” That this subpart is included in Alternative Policy 4.10, as a criterion for obtaining County project approval, reflects the tainted, industry-oriented process which gave rise to Alternative Policy 4.10.

This is so because utility-scale projects are built by union labor that is drawn from all over the state – and from out-of-state -- for temporary construction operations.²⁷ Once a project is built, full-time employees are not needed because utility-scale solar PV sites typically operate unmanned. In short, utility-scale projects don’t boost local employment, nor do they generate appreciable new sales tax revenue.

On-site solar (rooftop, parking lot, etc.) has, on the other hand, provided enormous benefits to desert communities, environments and economies. **Approximately one-quarter of residential solar project costs are spent locally**, according to the “Solar Surprise . . .” article cited above. And the energy costs savings enjoyed by businesses and residents with their own solar systems go directly into the local economy, which is an added benefit of site-specific solar.

Lucerne Valley Market and Hardware, which put in its own parking lot solar system, provides a strong success story in this regard. The market, once a major consumer of grid-derived energy, dramatically lowered its power bill -- by 85% -- which freed up spending that went back into the local economy. Location-site solar also increases property values and, by reducing the amount of natural habitat that would otherwise be destroyed by large-scale development, it helps to maintain the highly attractive natural attributes that bring tourist dollars and maintain the quality of life for desert rural communities. By contrast, utility-scale projects localize the environmental and economic costs involved and churn out profits that local communities never see.

²⁷ In marked contrast with small-scale solar projects, “[l]arge commercial projects spend [only] about 6 percent of their [customer acquisition, installation labor, permitting and interconnection, and permit fee] costs locally,” according to a study cited in an article entitled “Solar Surprise: Small-Scale Solar a Better Deal Than Big” (*Renewable Energy World*; March 29, 2018).

3. The Premise Underlying Alternative Policy 4.10 – That Habitats, Wildlife Linkages and Long-Established Rural Communities Must Be Sacrificed in Order to Meet the State’s Renewable Energy Goals – Is Fundamentally Flawed.

Large-scale renewable energy proponents often contend, as they did at the August 8, 2017 hearing, that, unless they are given a free hand to put utility-scale projects where they see fit in the desert, state and federal renewable energy mandates won’t be met. There is – they say -- supposedly such a desperate and unquenchable need for new renewable energy generation that the County must be prepared to sacrifice its communities and deserts for the good of the state and the nation.

But this premise – which would provide the only legitimate justification for Alternative Policy 4.10 – is demonstrably false. To begin with, this state has already met its energy goals, or is well ahead of the game in its progress toward meeting them, and gains are being made in energy efficiency that will continue to tamp down growth in energy demand. And, with distributed energy in the built environment (rooftops, parking lots and the like) increasingly gaining dominance, there is an on-going, fundamental shift in the energy sector away from desert-despoiling utility-scale renewable energy facilities (and related new transmission infrastructure). Under those circumstances, why should the County – which describes itself as “A County dedicated to prosperity and well-being” (on the home page of its website) -- abandon its central mission to serve the needs and interests of its own citizens?

The County cannot afford to effectively cede its land use planning authority to Southern California Edison and to large-scale energy companies given the enormity of what is at stake, which is the very survival of the County's rural communities and desert environment, particularly given that there is no room for error: if Alternative Policy 4.10 were to be enacted to allow essentially unrestricted utility-scale development -- and should it turn out that the County's Community Plan and Rural Living areas don't need to be sacrificed to meet the state's renewable energy needs – they would nevertheless be gone forever, along with the natural desert environment so integral to the identity, well-being and economy of this County. If, on the other hand, original Policy 4.10 were to be enacted, and it turns out that – contrary to every indication cited by energy experts – circumstances dictate that utility-scale development must supplant our desert's human and natural communities, then Policy 4.10 could be amended.

As will be demonstrated below, there is no need at all for the surge of utility-scale projects that would be unleashed by adoption of Alternative Policy 4.10.

A. California’s Utilities Are Ahead of Schedule In Their Progress Toward the 2020 and 2030 RPS Goals.

The IOUs’ [Investor-Owned Utilities, like SCE and PG&E] aggregated forecast projects that they will meet the 2030 RPS requirement of 50% renewable energy by 2020 -- a full ten years before the 2030 deadline – according to the PUC’s Renewables Portfolio Standard Annual Report (November 2017). See also the California Energy Commission’s (“CEC”) Tracking Progress report (as updated in December 2017; p. 1) which says that the

state's load-serving entities (the big utilities) "are ahead of schedule for meeting the RPS targets" and the Final 2017 Integrated Energy Report (the "Final IEPR," p. 7), in which the CEC states that "the IOUs are confident they will meet the standard" and that (p. 74) "California is well on track to meeting its RPS mandate."

Each of the state's big utilities reported "RPS progress in excess of program procurement requirements . . .", according to (p. 7 of) the Decision Accepting Draft 2017 Renewables Portfolio Standard Procurement Plans (Decision 17-12-007) in PUC Rulemaking Proceeding 15-02-020 (the "PUC Decision"). The big utilities are so far ahead of the curve that, according to the PUC Decision (p. 7), none of them conducted a 2016 annual solicitation for RPS-eligible renewable energy, and the PUC also granted them permission not to conduct a 2017 annual RPS solicitation because they were found to "have no immediate incremental procurement need under a 50% RPS requirement" (pp. 2, 7, 17 and 28, among others).

One of those utility companies, PG&E, reported that it "does not have any incremental need for RPS resources until after 2030 [PUC Decision, p. 14]," which is another way of saying that it has already made the grade in terms of getting to the 50% renewable energy target. In fact, none of the big utilities will have a need to procure any more RPS-eligible utility-scale generation until 2023 according to Comments filed by the Office of Ratepayer Advocates in PUC Rulemaking proceeding 15-02-020. This point is echoed in the CEC's Draft 2017 IEPR.

As of 2017, renewable energy sources supplied 27.9% of this state's power (without counting the explosive growth of rooftop/parking lot solar), which is a 3.4% increase from 2016, and a three-fold increase from ten years ago. Solar energy has increased 31.5% from 2015, according to a July 19, 2017 article in the *San Diego Union Tribune*.

There is so much renewable energy generation being produced now that it must be curtailed occasionally, according to the Final IEPR (p. 10). The state is experiencing overgeneration, with net loads lower than projected (Final IEPR, p. 105), so much so that the IEPR (at p. 141) is recommending that "long-term options" be explored "to use excess renewable energy."

And, on occasion, out-of-state parties must be paid to take excess out of our system. According to a June 22, 2017 *Los Angeles Times* article, entitled "California has invested heavily in solar power. Now there's so much that other states are sometimes paid to take it," curtailments of solar and wind production for the first quarter of 2017 were more than double the same period last year, and, due to this surplus, existing power plants run, on average, at slightly less than one-third of capacity and are being retired decades earlier than planned. But the overbuilding continues apace because – according to the industry insiders cited in the article – such construction receives a "lopsided incentive": "utilities can build in the construction costs into the amount that the utility can charge electricity users – no matter how much or how little is used." In other words, such charges include a guaranteed rate of return, i.e., profit, for the utilities.

PG&E recently acknowledged that "[o]ne of the significant challenges facing the California energy grid and PG&E's customers is over-generation due to the substantial increase

in renewable resources, and corresponding negative energy prices [footnote omitted]. PG&E stated this in an April 9, 2018 letter to the PUC (“Advice 5270-E”) requesting that, in light of this over-generation and negative pricing (meaning that others are being paid to take the excess electrons), its power purchase agreement for the Shiloh Wind Project must be significantly amended.

Given all this, the RPS mandates on the big utilities do not provide any rationale for the County to industrialize its community plan areas. We’re so far ahead of the pace that maintaining the integrity of the human and natural communities in the community plan areas should be accorded the highest priority.

B. California Has Exceeded Gov. Brown’s Goal of Adding 20,000 MW of Renewable Energy.

California has exceeded Governor Brown’s overall goal, announced in 2011, of adding 20,000 MW of renewable energy, composed of 8,000 MW of large-scale (greater than 20 MW) renewable energy generation.²⁸ According to the CEC’s Tracking Progress report (p. 3), “California has well exceeded the 8,000 MW goal for large-scale renewable energy generation with roughly 10,460 MW added since January 2011, for a total of more than 17,210 MW of large-scale renewable energy capacity installed in-state.” When all modes of generation are considered, this state has a total installed/operational renewable energy capacity of roughly 27,800 MW as of October 31, 2017, according to the Tracking Progress report (p. 4). The above cited figures do not include utility-scale projects that have received all required governmental development approvals but that have not yet been built; if they did, these figures would be much higher.

Utility-scale renewable energy has emerged as a mature and self-sustaining sector whose growth has far outpaced this state’s above-referenced energy goals, ambitious as they are, and it is supported by a strong and competitive statewide renewables marketplace. There is no need to foster utility-scale’s growth by holding the County’s Community Plan and Rural Living areas open to utility-scale development that would inevitably ruin their human and natural communities.

C. Utility-Scale Generation Has Been Rapidly Eclipsed by Site-Specific Solar PV (Such as Rooftop Solar), and There is a Fundamental Shift in the Energy Sector Away from Utility-Scale.

Utility-scale generation is fast being supplanted by a better, more efficient mode of generation that, in contrast to utility-scale, does not require the industrialization of desert land: site-specific distributed energy generation (rooftop/parking lot solar and the like), which is enjoying a faster-than-expected proliferation. Between 2013 and 2016/2017, behind-the-meter

²⁸ This mandate specifies that most -- 12,000 MW -- of the 20,000 MW be distributed generation, rather than destructive and land-consuming utility-scale, which reflects the comparatively disfavored status of utility-scale generation.

PV grew 180%, distributed advanced storage grew 548% and microgrids grew by 220% (Final IEPR, p. 144). The “projected total installed capacity for behind-the-meter PV could reach 26,500 MW by 2030,” according to the Final IEPR (p. 215).

The Draft 2017 IEPR notes that, with millions of Californians installing their own rooftop solar,²⁹ the “fundamental structure” of the electricity sector has changed – **the investor-owned utility retail electric load could drop by as much as 25% by the end of 2017 and by 85% in the next decade.**

The Draft 2017 IEPR concludes that “[t]he growth in behind-the-meter resources is a fundamental shift in the energy sector away from large-scale facilities . . .” (Emphasis added.)

The EPA agrees, having recommended, in its February 23, 2015 letter, that the REAT agencies (the sponsors of the DRECP), re-evaluate “the amount of renewable energy that may need to be produced in the Plan Area”:

“ . . . significant market and policy developments affecting the renewable energy industry – such as the sharp decline in the cost of rooftop solar-powered electricity and rapid deployment of energy storage – warrant a re-evaluation of the renewable energy planning effort conducted for the Plan Area [for the DRECP] by the California Energy Commission in July 2012. **These developments have the potential to drastically increase the amount of distributed forms of renewable energy (including rooftop solar) produced in the state, which could reduce the need for utility-scale solar projects to be developed in the Plan Area** [Emphasis added].”

Do we have enough rooftops in the built environment (and enough severely contaminated sites) to produce the volume of renewable energy needed by this state? This answer is an emphatic yes, according to:

(1) a new study that concluded that the development of **solar PV power on alternative sites in the Central Valley alone – like buildings, contaminated sites and lakes – would generate enough electricity to power all of California 13 times over**, without sacrificing land that could be used for farming (the results of this study – which is published in the journal, *Environmental Science & Technology* -- are described in a December 27, 2017 article in *YaleEnvironmental360*, which is publication of the Yale School of Forestry & Environmental Studies);

(2) There are, in the San Joaquin Valley, 470,000 acres of ideal, non-controversial land for solar PV development, and the lands identified could provide **94,000 megawatts of renewable power – greater than all combined in-state generation capacity and enough to power as many as 23 million homes in California.** See

²⁹ The CEC Tracking Report (p. 4) notes there is more than “6,000 MW of self-generation capacity from homes and businesses throughout the state.”

<https://www.law.berkeley.edu/wp-content/uploads/2016/05/A-PATH-FORWARD-May-2016.pdf>. The cost of transmission in the San Joaquin Valley is only \$11.00 per KW/year as compared with \$54.00 per KW/year for Kramer/Inyokern and \$60 per KW/year for Riverside East. See “Planning Transmission for Renewables: Optimizing use of California’s transmission system to deliver energy from renewable sources in the San Joaquin Valley” (10/31/17), by Energy + Environmental Economics;

(3) the CEC’s 2007 “PIER study,” which concluded that **California has 68,000 MW of reasonable site-specific distributed generation potential**; and

(4) a National Renewable Energy Laboratory study that found this year’s (2018) “leading city [in rooftop solar], **Los Angeles, could host up to 9,000 MW of solar PV capacity on the rooftops of its small buildings alone. That’s over 25 times the solar power capacity the city currently has installed in total and could produce 60 percent of the city’s current electricity consumption.**” (Emphasis added.) This information, and quote, comes from an article entitled, “Shining Cities 2018 – How Smart Local Policies Are Expanding Solar Power in America” (April 2018; written by the Environment America Research & Policy Center, Abi Bradford, Frontier Group and Bret Fanshaw).

The implications of these four studies are obvious and undeniable: this state has an enormous, largely untapped capacity – *outside of the ecologically sensitive California desert* – for generating utility-scale solar energy.

Hence there is absolutely no need to plow up privately-owned desert lands in the County’s Community Plan and Rural Living areas in the name of renewable energy development and mandates, and every reason to exploit the types of sites described above for solar PV installations. Doing so would also obviate the need for new transmission lines and substations that are just as visually intrusive and environmentally harmful as the utility-scale facilities they are intended to serve. Finally, as is increasingly apparent from the advances being made in the renewable energy sector, utility-scale generation is a land-hungry and destructive technology – a dinosaur technology – that is being rapidly eclipsed by other generation modes (including battery storage).

D. The New 30% Tariff on Foreign Solar Panels Is Projected to Have a Heavy Impact on the Utility-Scale Sector.

The 30% tariff that the Trump administration has clamped on to cheap, imported solar panels will likely further reduce the number and size of utility-scale projects that will be built. As reported by the *Los Angeles Times* – in a January 24, 2018 article entitled “Despite Solar tariffs, a sunny view” -- analysts at GTM Research, a division of Greentech Media, have concluded that the tariff will result in a cumulative reduction in solar installations of 11% through 2022, compared with what would have been installed without the levies, and that “the big utility-scale solar power systems would be hardest hit by the tariff.”

E. The CEC Revised 2018-2030 Forecast Projects that, with Gains in Energy Efficiency and Adoption of Behind-the-Meter PV, the Demand for Electricity Will – Depending on the Scenario -- Grow Very Little or Decrease Between Now and 2030.

SB 350 requires a cumulative doubling of projected statewide energy efficiency savings in electricity by January 1, 2030. The CEC Revised 2018-2030 Forecast makes it clear that energy efficiency, and behind-the-meter are expected to take a big divot out of the growth of electricity demand between now and 2030. This should translate into fewer utility-scale projects being proposed and built. Increases in bulk energy storage and demand response technologies should have that same effect.

The draft 2017 IEPR states (at p. 25) that per capita energy use in California has remained flat since the 1970s.

F. Utility-Scale Renewable Energy Is Headed for the Technological Dust-Bin.

Given that this state has already met its renewable energy goals with a bumper crop of new electricity production, that the utility-scale mode of generation is headed for the technological dustbin (while being rapidly supplanted by distributed generation), that the built environment offers more than enough rooftops, parking lots and the like to power California's renewables and that the 30% tariff will result in significantly less utility-scale installations, there is no need for the County to sacrifice its Community Plan and Rural Living Areas to facilitate a utility-scale invasion, especially given – as recognized by Supervisor Lovingood in his commentary at the Board of Supervisors hearing regarding the Soda Mountain solar project -- that all profits and power from it would be exported outside the County and that the rest of us would be left to bear the enormous economic and ecological brunt of these outsized, unnecessary and increasingly obsolete projects.

Utility-scale was never meant to be the main vehicle for reaching our RPS goals anyway, as was confirmed in Governor Brown's inaugural speech in January of 2015 – in which he recommended increasing the RPS goal to 50% by 2030. That speech made absolutely no mention of utility-scale facilities. Governor Brown instead stated in that speech that:

“I envision a wide range of initiatives: more distributed power, expanded rooftop solar, micro-grids, an energy imbalance market, battery storage, the full integration of information technology, and electrical distribution and millions of electric and low-carbon vehicles.”

Hence the true vision behind the 50% RPS goal has always been one that looks to a sustainable energy future built on distributed generation, such as rooftop solar and micro-grids, and fast-developing technological innovation, rather than utility-scale. To that end, the California Energy Commission approved (on May 9, 2018) a new regulation requiring the installation of solar panels on all new homes beginning in 2020.

4. Conclusion.

For the reasons discussed above, we urge that the Planning Commission approve inclusion of original Policy 4.10 in the RECE and reject Alternative Policy 4.10 outright. Anything less would doom our rural communities, their economies and our fragile desert environment in the name of profits for outside developers. Supervisor Lovingood wisely observed that this would be the case when it came to the Soda Mountain solar project, noting that the project wouldn't fit in the County – which is a proponent of rooftop and community-oriented solar -- and that the County does not want its water and land used to ship electricity to the Midwest. Supervisor Lovingood's words – while directed only to one specific utility-scale project – apply with even greater force to the many thousands of acres of desert land and communities that would be despoiled should Alternative Policy 4.10 be adopted.

Policy 4.10 is the last, best hope for stopping the utility-scale “gold rush” that is now engulfing Community Plan and Rural Living Areas like Lucerne Valley, Joshua Tree, Homestead Valley and Morongo Valley. We urge the Planning Commission to recommend approval of the original Policy 4.10 and to reject Alternative Policy 4.10.

Very truly yours,

Community Associations, Businesses and Organizations:

LUCERNE VALLEY ECONOMIC
DEVELOPMENT ASSOCIATION

Chuck Bell, President

JOHNSON VALLEY IMPROVEMENT
ASSOCIATION

Betty Munson, Secretary

HOMESTEAD VALLEY COMMUNITY
COUNCIL

Joanna Wright, President

NEWBERRY SPRINGS ECONOMIC
DEVELOPMENT ASSOCIATION

Paul Deel, President

NEWBERRY SPRINGS CHAMBER OF
COMMERCE

Paula Deel, Treasurer

NEWBERRY SPRINGS COMMUNITY
ALLIANCE

Ted Stimpfel, Board Member

MORONGO BASIN CONSERVATION
ASSOCIATION

Sarah Kennington, President

CEQA NOW

Robert L. Berkman, President

MOJAVE COMMUNITIES
CONSERVATION COLLABORATIVE

Lorrie L. Steely, Founder

ALLIANCE FOR DESERT
PRESERVATION

Richard Ravana, President

EXPERT APPLIANCE SERVICE

Bill Peterson and Alyn Peterson, Owners

Individuals:

Brian Hammer, Analyst and Adjunct Professor
(owner of home in Lucerne
Valley)

Sue Hammer (owner of home in Lucerne
Valley)

John Smith (resident of Apple Valley)

NEWBERRY-HARVARD PROPERTY
OWNERS ASSOCIATION

Robert A. Vasseur, President

CHURCH OF OUR LORD AND SAVIOR
(LUCERNE VALLEY)

Bill Lembright, President

LUCERNE VALLEY MUSEUM
ASSOCIATION

Betty LaGrange, Board Member

LUCERNE VALLEY MARKET/
HARDWARE

Linda Gommel, Chief Executive Officer

Barbara LaGrange (resident of Lucerne
Valley)

Pat Flanagan (resident of Twentynine Palms)

George Stone (resident of Apple Valley)

Barbara Smith (resident of Apple Valley)	Gail Stone (resident of Apple Valley)
Gary Williams (resident of Apple Valley)	Dennis Schwander (resident of Hesperia)
Pamalla Barber (resident of Newberry Springs)	Cheryl Hemmendinger (resident of Apple Valley)
Sarah Kennington (resident of Pioneertown)	Ruth Rieman (resident of Flamingo Heights)
Steve Bardwell (resident of Pioneertown)	Barbara Idouchi (resident of Apple Valley)
Jenny Wilder (resident of Apple Valley)	Aaron Idouchi (resident of Apple Valley)
Bryan Baker (resident of Apple Valley)	Lorraine Cross (resident of Lucerne Valley)
Roger Peterson (resident of Lucerne Valley)	Annie Lancaster (resident of Milpas Highlands)
Neville Slade (resident of Apple Valley)	Kathryn Anema (resident of Lucerne Valley)
Jim Johnson (resident of Newberry Springs)	Richard Selby (resident of Lucerne Valley)
Ellen Johnson (resident of Newberry Springs)	David Charlton (resident of Newberry Springs)
Brian Fisher (resident of Newberry Springs)	Cynthia Charlton (resident of Newberry Springs)
Jan Lembright (resident of Lucerne Valley)	Denise Stakes (resident of Newberry Springs)
James Barber (resident of Newberry Springs)	Waldo Stakes (resident of Newberry Springs)
Jon Bush (resident of Lucerne Valley)	Rachelle Higgins (resident of Apple Valley)
Ann Connor (resident of Apple Valley)	Aaron Thornton (resident of Apple Valley)
Patricia Roszkowski (resident of Apple Valley)	Louis Kannenberg (resident of Lucerne Valley)
Kate Frank (resident of Newberry Springs)	Jack Unger (Newberry Springs resident)
Jerry Broyles (resident of Morongo Valley)	Sara Tambellini (resident of Pioneertown)
Stephen Andrews (resident of Pioneer Town)	Diane Lakey Kolb (resident of Pioneertown)

Attachments

CCs:

James Ramos (Chairperson and Third District
SupervisorRamos@sbcountry.gov)

Robert Lovingood (Vice-Chairperson and First
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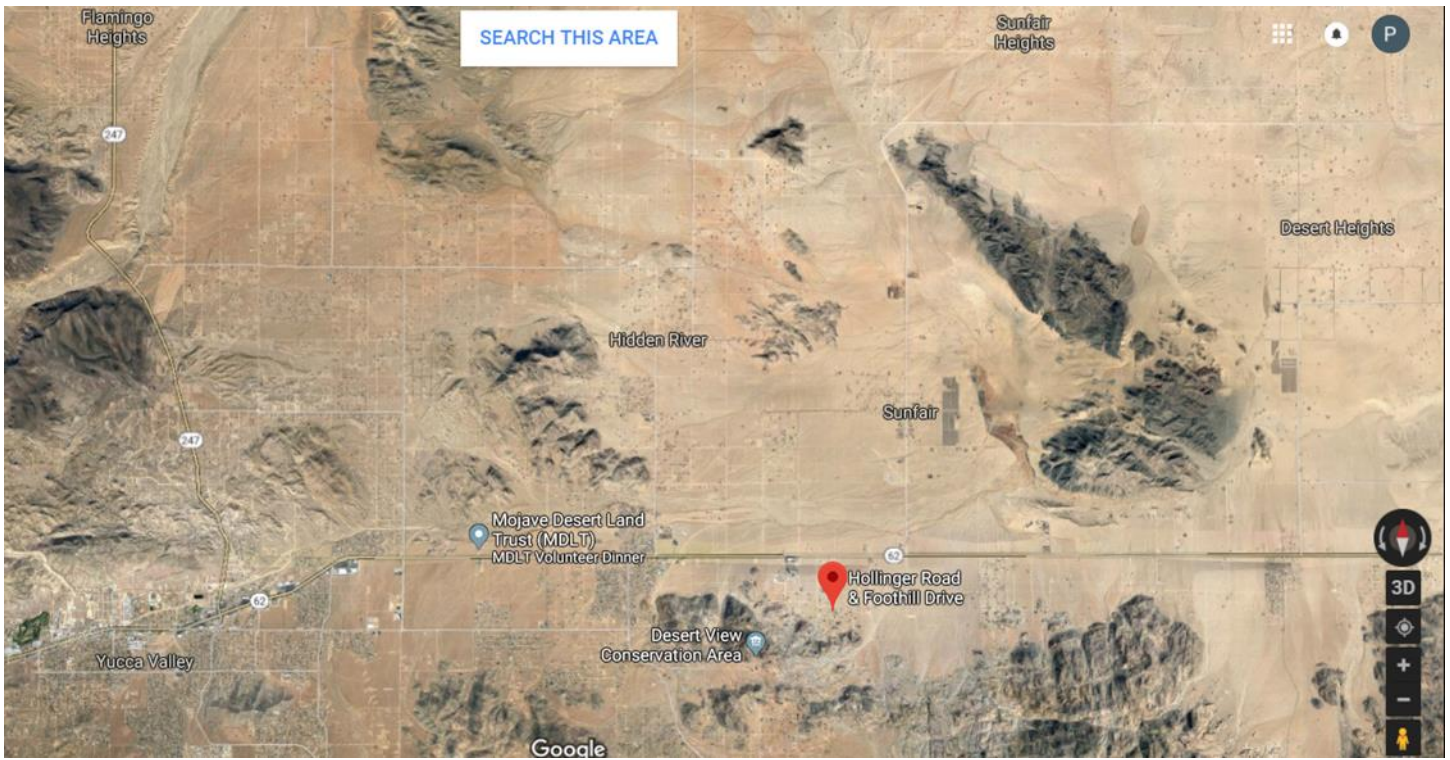
Dan Flores (Chief of Staff for Jose Gonzales,
Fifth District Supervisor; dflores@sbcountry.gov)

**PHOTOS OF DUST EVENTS
RELATED TO
UTILITY-SCALE SOLAR**

Dust storm event on April 12, 2018 in Joshua Tree Basin, 92252.

Pictures taken by Tom O'Keye from a point south of Hwy 62 (Hollinger and Foothill) about noon looking East North East. The Cascade Solar site is inside the dust cloud somewhere. Wind blowing West to East. Photos attached to email.





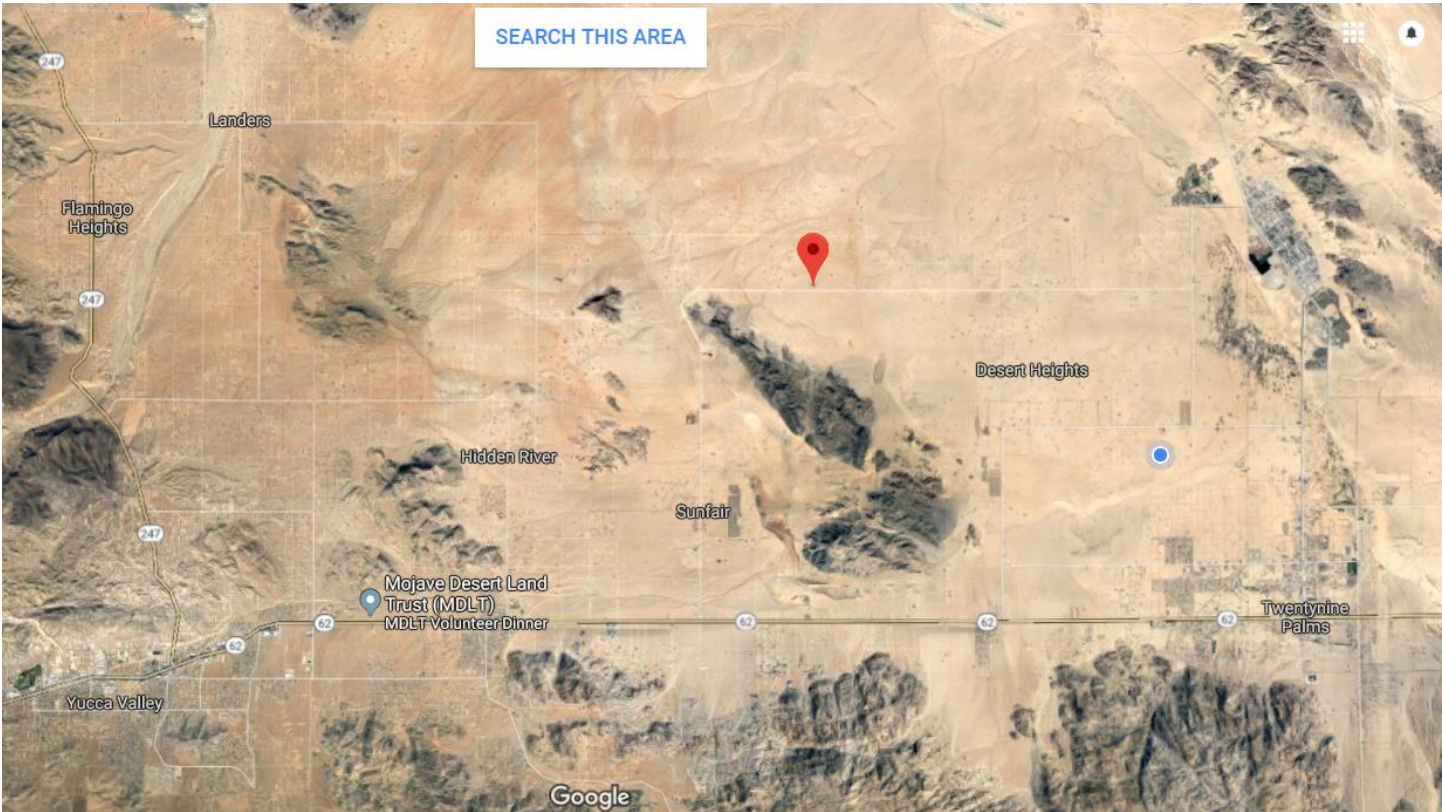
Photographer location at Hollinger and Foothill. Photo is looking East North East toward Copper Mountain. Cascade Solar is visible to the east of the Sunfair location. Wind blowing west to east.

Dust Event in Joshua Tree, CA 92252, April 12, 2018

Photos by Peggy Lee Kennedy

“Taken with a cell phone camera from Sonora and Copper Moon (Enchanted) in Joshua Tree on Apr 12 at approximately 12:30pm. Dust going west to east from Sunfair Dry Lake toward Desert Heights. Continued through night fall.” See map at end for location.





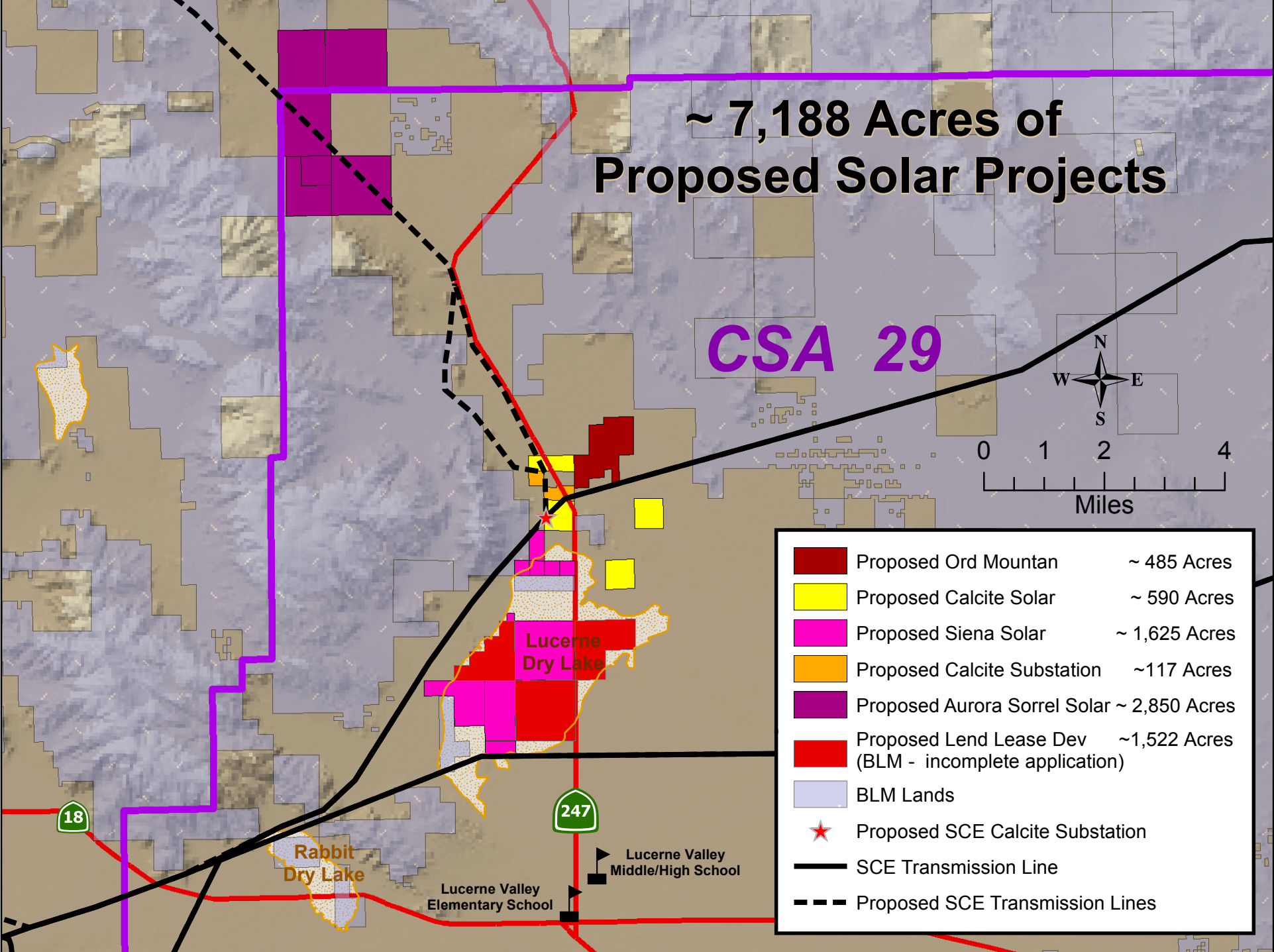
**MAPS OF PROPOSED UTILITY-
SCALE SOLAR PROJECTS
IN LUCERNE VALLEY AND
NEWBERRY SPRINGS**

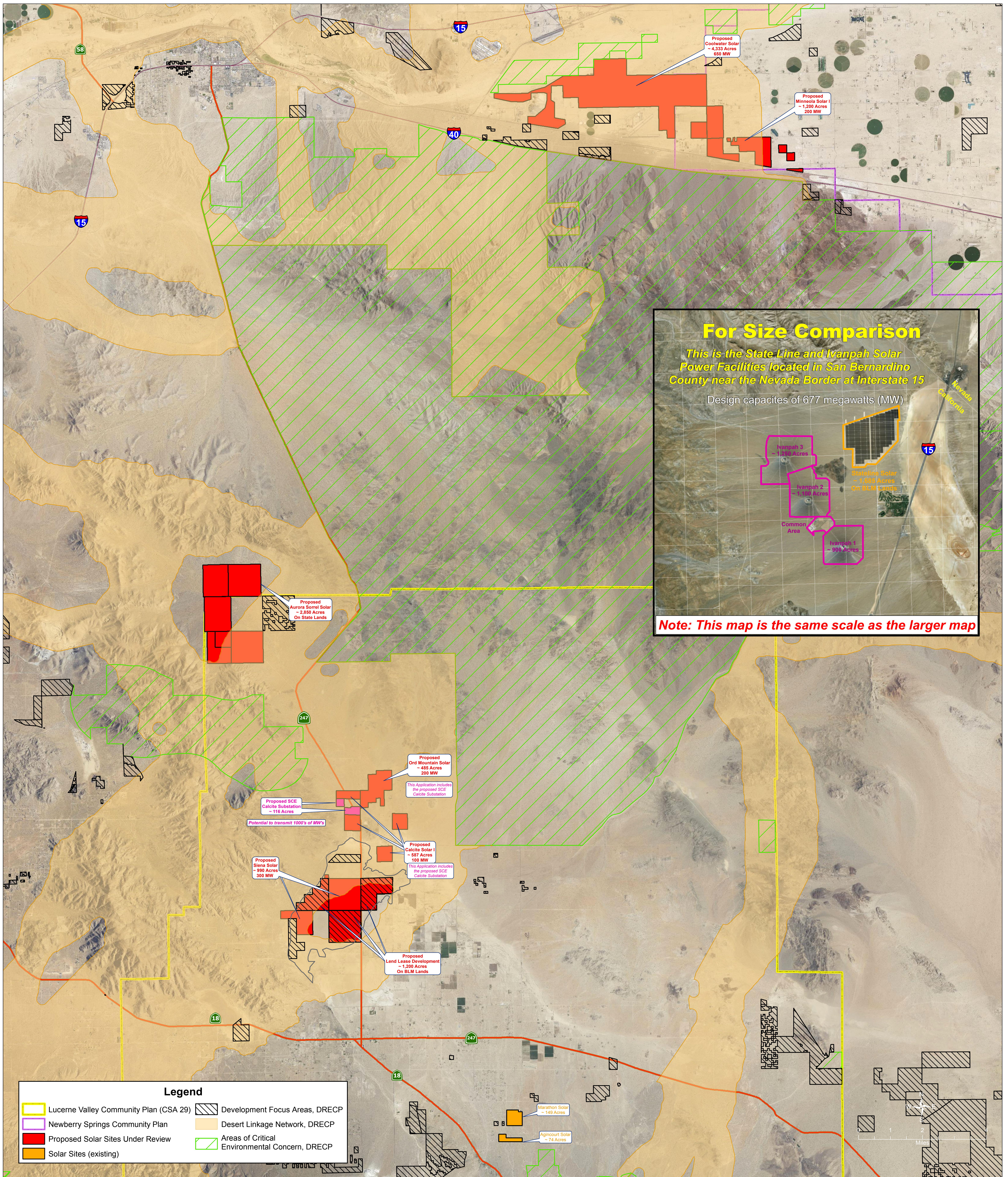
~ 7,188 Acres of Proposed Solar Projects

CSA 29



	Proposed Ord Mountain	~ 485 Acres
	Proposed Calcite Solar	~ 590 Acres
	Proposed Siena Solar	~ 1,625 Acres
	Proposed Calcite Substation	~117 Acres
	Proposed Aurora Sorrel Solar	~ 2,850 Acres
	Proposed Lend Lease Dev (BLM - incomplete application)	~1,522 Acres
	BLM Lands	
	Proposed SCE Calcite Substation	
	SCE Transmission Line	
	Proposed SCE Transmission Lines	





For Size Comparison

This is the State Line and Ivanpah Solar Power Facilities located in San Bernardino County near the Nevada Border at Interstate 15

Design capacities of 677 megawatts (MW)

Note: This map is the same scale as the larger map

Legend			
	Lucerne Valley Community Plan (CSA 29)		Development Focus Areas, DRECP
	Newberry Springs Community Plan		Desert Linkage Network, DRECP
	Proposed Solar Sites Under Review		Areas of Critical Environmental Concern, DRECP
	Solar Sites (existing)		

SC WILDLANDS REPORT
(which includes maps of
wildlife corridors)



SC Wildlands

Science & Collaboration for Connected Wildlands

P.O. Box 1052, Fair Oaks, CA 95628

(877) Wildland www.scwildlands.org

Via email only

February 19, 2015

California Energy Commission
Dockets Office, MS-4, Docket No. 09-RENEW EO-01
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.ca.gov

RE: SC Wildlands' comments on the Draft EIR/EIS for the DRECP

SC Wildlands' mission is to protect and restore systems of connected wildlands that support native species and the ecosystems upon which they rely. SC Wildlands was engaged by the Alliance for Desert Preservation to review, critique and comment on the DRECP and to make recommendations for improvements to the Reserve Design specifically in the Pinto Lucerne Valley and Eastern Slopes Ecoregion. Comments herein are focused on the Preferred Alternative.

Enhancing connectivity and linking natural landscapes has been identified as the single most important adaptation strategy to conserve biodiversity during climate change (Heller and Zavaleta 2009). All of California's climate adaptation strategies (CNRA 2009, 2014), frameworks (Gov. Brown, CEPA, ARB 2014), and action plans (CDFG 2011; CNRA, CDFG, CEPA 2014) identify maintaining connectivity as one of the most important adaptation strategies to conserve biodiversity and support ecological functions during climate change, with statutory authority and legislative intent found in AB 2785 (2008).

Meeting renewable energy production goals is essential to help combat climate change, but the vast scale of Development Focus Areas (DFA) being proposed for renewable energy developments in the California deserts are likely to impact habitat connectivity, alter essential ecosystem functions, and eliminate opportunities for species to shift their ranges in response to climate change. The potential impacts, specifically to wildlife and their ability to move across the landscape, are enormous. Strategically conserving and restoring functional connections between habitat areas is an effective countermeasure to the adverse effects of habitat loss and fragmentation, and it is an essential mitigation measure for climate change.

A Linkage Network for the California Deserts (Penrod et al. 2012), commissioned by the Bureau of Land Management and The Wildlands Conservancy, was intended to provide more information to natural resource agencies and the general public concerning where and how to maintain connectivity and sustain ecological functions in a changing climate. The study area encompassed the entire DRECP planning area with a buffer into the neighboring Sierra Nevada and South Coast Ecoregions. The Desert Linkage Network was designed to help meet the following Biological Goals and Objectives of the DRECP "*At the landscape-level, the Plan-wide*

BGOs address creating a DRECP-wide, connected, landscape-scale reserve system consisting of large habitat blocks of all constituent natural communities. The reserve system maintains ecological integrity, ecosystem function and biological diversity, maintains natural patterns of genetic diversity, allows adaptation to changing conditions (including activities that are not covered by the Plan), and includes temperature and precipitation gradients, elevation gradients, and a diversity of geological facets to accommodate range contractions and expansions of species adapting to climate change”.

The Desert Linkage Network (Penrod et al. 2012) was developed in part based on the habitat and movement requirements of 44 different focal species (Table 1) that are sensitive to habitat loss and fragmentation. These focal species were selected to represent a diversity of ecological interactions and are intended to serve as an umbrella for all native species and ecological processes of interest in the region. These 44 focal species capture a diversity of movement needs and ecological requirements and include area-sensitive species, barrier-sensitive species, less mobile species or corridor-dwellers, habitat specialists, and ecological indicator species. Seven of these focal species are also Covered Species under the DRECP, including Bighorn sheep, Mohave ground squirrel, pallid bat, burrowing owl, Bendire’s thrasher, desert tortoise and Mojave fringe-toed lizard, and 3 of these species (bighorn sheep, desert tortoise and Mohave ground squirrel) were also used as “Reserve Drivers”.

In addition to linkages designed for focal species, the Desert Linkage Network (Penrod et al. 2012) was also designed to be robust to climate change. As climate changes the focal species’ distributions and the land cover map is likely to change; indeed it is likely that many land cover types (vegetation communities) will cease to exist as the plant species that define today’s vegetation communities shift their geographic ranges in idiosyncratic ways (Hunter et al. 1988). We used the land facet

Table 1. Desert Linkage Network Focal Species (Penrod et al. 2012)

Mammals	
Mountain lion	<i>Puma concolor</i>
Badger	<i>Taxidea taxus</i>
Kit fox	<i>Vulpes macrotis</i>
Bighorn sheep	<i>Ovis canadensis</i>
Mule deer	<i>Odocoileus hemionus</i>
Ringtail	<i>Bassariscus astutus</i>
Mojave ground squirrel	<i>Spermophilus mohavensis</i>
Round-tailed ground squirrel	<i>Spermophilus tereticaudus</i>
Desert pocket mouse	<i>Chaetodipus penicillatus</i>
Little pocket mouse	<i>Perognathus longimembris</i>
Southern grasshopper mouse	<i>Onychomys torridus</i>
Pallid Bat	<i>Antrozus pallidus</i>
Birds	
Burrowing owl	<i>Athene cunicularia</i>
Loggerhead shrike	<i>Lanius ludovicianus</i>
Cactus wren	<i>Campylorhynchus brunneicapillus</i>
Black-tailed gnatcatcher	<i>Polioptila melanura</i>
LeConte's thrasher	<i>Toxostoma lecontei</i>
Bendire's thrasher	<i>Toxostoma bendirei</i>
Crissal thrasher	<i>Toxostoma crissale</i>
Greater roadrunner	<i>Geococcyx californianus</i>
Herpetofauna	
Desert Tortoise	<i>Gopherus agassizii</i>
Chuckwalla	<i>Sauromalus obesus obesus</i>
Rosy boa	<i>Lichanura trivirgata</i>
Speckled rattlesnake	<i>Crotalus mitchellii</i>
Mojave rattlesnake	<i>Crotalus scutulatus</i>
Mojave fringe-toed lizard	<i>Uma scoparia</i>
Collared lizard	<i>Crotaphytus bicinctores</i>
Desert spiny lizard	<i>Sceloporus magister</i>
Desert night lizard	<i>Xantusia vigilis</i>
Red spotted toad	<i>Anaxyrus punctatus</i>
Plants	
Joshua tree	<i>Yucca brevifolia</i>
Blackbrush	<i>Coleogyne ramosissima</i>
Desert willow	<i>Chilopsis linearis</i>
Arrowweed	<i>Pluchea sericea</i>
Cat claw acacia	<i>Acacia greggii</i>
Mesquite	<i>Prosopis glandulosa</i>
Mojave yucca	<i>Yucca schidigera</i>
Big galleta grass	<i>Pleuraphis rigida</i>
Paperbag bush	<i>Salazaria mexicana</i>
Invertebrates	
Yucca moth	<i>Tegeticula synthetica</i>
Desert green hairstreak	<i>Callophrys comstocki</i>
Bernardino dotted blue	<i>Euphilotes bernardino</i>
Desert ("Sonoran") metalmark	<i>Apodemia mejicanus</i>
Ford's swallowtail	<i>Papilo indra fordii</i>

approach (Brost and Beier 2010) to design climate-robust linkages. A land facet linkage consists of a corridor for each land facet, plus a corridor for high diversity of land facets. Each land facet corridor is intended to support occupancy and between-block movement by species associated with that land facet in periods of climate quasi-equilibrium. The high-diversity corridor is intended to support short distance shifts (e.g. from low to high elevation), species turnover, and other ecological processes relying on interaction between species and environments. The focal species linkages and land facet linkages were combined and then refined (e.g., adding riparian connections, removing redundant strands) to delineate the final Desert Linkage Network.

Table 2. Land Ownership in the Linkage Network (Penrod et al. 2012)	Acres
Bureau of Land Management	2,663,847
Department of Defense	366,394
National Park Service	109,475
California State Lands Commission	82,517
California Department of Fish and Game	19,664
United States Fish and Wildlife Service	16,322
The Wildlands Conservancy	13,894
California Department of Parks and Recreation	9,943
United States Forest Service	8,801
Special Districts	3,230
Other Federal	2,148
Cities	1,076
Friends of the Desert Mountains	818
Riverside Land Conservancy	313
Counties	242
Private Lands	930,500
Total Desert Linkage Network	4,229,184

The Desert Linkage Network encompasses 4,229,184 acres. At the time the report was released in 2012, approximately 68% (2,932,291 acres) of the linkage network enjoyed some level of conservation protection (Table 2) mostly in land overseen by the Bureau of Land Management, National Park Service, California State Lands Commission, California Department of Fish and Wildlife, US Fish and Wildlife Service, and The Wildlands Conservancy. An additional 9% (366,394 ac) of the Linkage Network is administered by the Department of Defense, providing some level of conservation for these lands, though not included in DRECP. Thus, the Linkage Network includes substantial (78%) public ownership under the No Action Alternative.

We applaud the DRECP for delineating 1,804,000 acres of the Desert Linkage Network as BLM LUPA Conservation Designations (ACEC, NLCS, or Wildlife

Allocation; Table IV.7-71) under the Preferred Alternative, which together with the Existing Conservation Areas and Conservation Planning Areas, would conserve 71% (2,612,000 acres) of Total Available Lands (3,682,000) in the Desert Linkage Network. However, we firmly believe that the other 1,070,000 acres of the Desert Linkage Network is essential to achieving **Goal L1**: Create a Plan-wide reserve design consisting of a mosaic of natural communities with habitat linkages that is adaptive to changing conditions and includes temperature and precipitation gradients, elevation gradients, and a diversity of geological facets that provide for movement and gene flow and accommodate range shifts and expansions in response to climate change.

The first page of the Executive Summary uses the word “transparent” to describe the DRECP’s approach but the document is chock full of black box assumptions and analyses that fail to fully and accurately disclose impacts. Section I.3.4.4.3 says, “the reserve design envelope was

developed from a systematic and objective approach (Margules and Pressey 2000; Carroll et al. 2003; Moilanen et al. 2009) using several independent methods that were iteratively evaluated and refined”. The Evaluation and Refinement is described as “exhaustive interactive GIS comparisons in collaborative mapping sessions,” which isn’t too terribly systematic or objective. This section also says that, “Important areas for desert tortoise, Mohave ground squirrel, and bighorn sheep were based on REAT agency interpretations of the species distribution models and recent occurrence data for these species, which correspond to the BGOs for these species”; also not systematic or objective, especially since most occurrence data is gathered when developments are proposed and thus cover only a portion of these species ranges. This section also says that “quantitative GIS analyses were conducted periodically throughout the evaluation and refinement process to quantitatively track and assess the capture of the species, natural communities, and landscape elements/processes”. In order to fully and accurately disclose impacts, the actual results of those GIS analyses should be in Volume IV rather than after the results have been put through the mysterious acreage calculator.

The Impact Analyses and reported acreages are completely nebulous. As described in Section IV.7.1.1, “the reported impact acreage (e.g., acres of impact to natural communities or Covered Species habitat) is based on the overlap of the DFAs and the resource (e.g., mapped natural community or modeled Covered Species habitat) times the proportion of the impacts from Covered Activity development anticipated with the DFA”. The results of the impact analyses are reported in an onerous number of tables with relatively meaningless acreages based on assumptions about proportions of DFAs that will actually be impacted. There are NO maps showing the overlap of the DFA’s and the resource (e.g., mapped natural community or modeled Covered Species habitat). In Volume IV: Environmental Consequences/Effects Analysis, Section IV.07 Biological Resources, there is only ONE Figure, Figure IV.7-1 Subunits, in the entire section. While there is a whopping total of 311 tables associated with this same section, Tables IV.7-1 through IV.7-311. These 311 tables slice and dice the “Conservation Analyses” and “Impact Analyses” in various ways, generally starting with Plan-Wide and then breaking it down by BLM LUPA, NCCP, GCP, Subregions, Covered Species, etc. The various Conservation Analysis tables report actual acreages while the Impact Analysis tables report Total Impact Acres generated by the mysterious black box. For example, the Plan Wide Preferred Alternative includes 2,024,000 acres of DFAs and transmission corridors but says only about 177,000 acres will actually be impacted. Nowhere does the document report actual acreages of how the 2,024,000 acres of DFAs and transmission corridors in the Preferred Alternative overlap for example, habitat for the 37 Covered Species or the Desert Linkage Network. Instead, all of the impact analysis tables associated with the Preferred Alternative relate to the 177,000 acres of reported “Total Impact Acreage”. All tables in Volume IV should add a column to report actual acreage of DFA overlap with resources alongside the reported “Total Impact Acreages”. Maps must be included to show where the DFAs coincide with these resources. And, please do not answer in the Response to Comments that the Data Basin Gateway is serving this purpose. The DRECP approach to impact analysis is anything but transparent.

Section I.3.4.4.3 says the Desert Linkage Network was one of several inputs to a focal species, natural communities, and processes approach, which created “an initial reserve design envelope using better information with less uncertainty”. Section I.3.4.4.3 (I.3-26) Reserve Design Methods and Appendix D, D.3.6., refers to a composite map of KEY covered species, natural

communities and processes as “reserve drivers” (i.e., desert tortoise, Mohave ground squirrel, bighorn sheep, microphyll woodland, dunes and sand resources, flat-tailed horned lizard, hydrologic features, and West Mojave corridors, rare natural communities, and environmental gradients), which were selected because they are “*important to the overall DRECP conservation strategy and generally occur across a range of ecoregion subareas and habitats of the Plan Area, such that conserving the areas important for the reserve drivers would also conserve areas important for the other Covered Species and natural communities*”. There is no figure for this “Composite Map of Key Reserve Drivers” in the document and it is NOT one of the 500+ data layers available for public review on the Data Basin Gateway. While it is clear from ES Figure 5 that landscape connectivity was one of the reserve drivers for many of the conservation designations, Table D-2 in Appendix D Reserve Design Development Process and Methods, indicates that the data generated by Penrod et al. (2012) was only used as a “Reserve Driver” in the Western Mojave, which is ironic because the Western Mojave is particularly hard hit with DFAs that could sever connectivity or significantly reduce functional habitat connectivity.

The 37 Covered Species were selected (Appendix B) because they are ALL “important to the overall DRECP conservation strategy. How well do the “Reserve Drivers” (I.3.4.4.3 Reserve Design Methods and Appendix D, D.3.6) capture modeled habitat for all of the “Covered Species”? A quick review of the species distribution models in relation to the Development Focus Areas (DFA) show that several covered species are NOT so well covered by the Key Reserve Drivers (e.g., gila woodpecker, greater sandhill crane, mountain plover, tricolored blackbird, Swainson’s hawk, willow flycatcher, Yuma clapper rail, Alkali mariposa lily). For example, a quick GIS analysis for tricolored blackbird revealed that 60% of its habitat falls within DFAs. Further, another 9% of the tricolored blackbird modeled habitat is Undesignated and available for “disposal (Table 3). This analysis did not even factor in transmission lines. Maps should be included for each of the 37 Covered Species showing their modeled habitat, recorded occurrences and when applicable designated critical habitat in relation to DFAs, FAAs,

Designation - Preferred Alt Integrated	Acres	%
BLM ACECs	7,910.17	3%
BLM ACECs and NLCS	2,243.56	1%
BLM Wildlife Allocation	2,694.56	1%
Conservation Planning Areas	47,566.51	17%
Development Focus Areas	165,526.27	60%
Future Assessment Areas	114.79	0%
Impervious and Urban Built-up Land	8,361.00	3%
Legislatively and Legally Protected Areas	11,525.35	4%
Military	6,597.31	2%
Military Expansion Mitigation Lands	133.95	0%
Open OHV Areas	34.64	0%
Tribal Lands	40.09	0%
Undesignated	25,125.55	9%
Total Modeled Tricolored Blackbird Habitat	277,873.76	100%

SAs, and Undesignated land. This is the type of disclosure of impacts this is required under the legal framework provided under 1.2. Currently, the only maps for ALL 37 Covered Species are buried in Appendix C of Appendix Q, *Baseline Biology Report*. All 37 Covered Species should be Reserve Drivers.

Currently, Table IV.7-47 Plan-Wide Impact Analysis for Covered Species Habitat – Preferred Alternative is the closest the Plan gets to disclosing impacts to ALL of the 37 Covered Species. The tricolored blackbird analysis above shows 60% (165,526 acres) of the species habitat falls within DFAs, while Table IV. 7-47 reports only 8,000 acres of Total Impact for this species. There is NO reason why both of these acreages cannot be reported in Table IV.7-47. Table IV.7-57, Plan-Wide Conservation Analysis for Covered Species Habitat – Preferred Alternative is the closest the Plan gets to disclosing how poorly the 37 Covered Species are actually covered by the plan - only 19 of the 37 species have 50% or more of their habitat conserved under the Preferred Alternative. Not even all of the Reserve Drivers are very well “Covered” by the Preferred Alternative. Which begs the question – how well does the reserve design capture the needs of the 123 “Non-Covered” special status species?

1.3.4.4.5 DRECP Plan-Wide Reserve Design Envelope for Each Alternative

The following standards and criteria were used to develop the Interagency Plan-Wide Conservation Priority Areas (and Conceptual Plan-Wide NCCP Reserve Design):

- Conserve important habitat areas that also provide habitat linkages for the movement and interchange of organisms within the Plan Area and to areas outside the Plan Area.
- o Important habitat linkage areas were included in the NCCP Conceptual Plan-Wide Reserve Design using species-specific linkage information for key Covered Species, including desert tortoise (*Gopherus agassizii*), Mohave ground squirrel (*Xerospermophilus mohavensis*), and desert bighorn sheep (*Ovis canadensis nelsoni*).
- o Landscape-scale, multispecies habitat linkage information was used to identify movement corridors between habitat blocks inside and outside the Plan Area.
- o Species-specific threats and stressor information was incorporated to identify the linkage areas critical for inclusion in the NCCP Conceptual Plan-Wide Reserve Design.

One of the DRECP Planning Goals in section 1.2 of the Executive Summary is to “Preserve, **restore**, and enhance natural communities and ecosystems including those that support Covered Species within the Plan Area”. However, it appears that several “fuzzy logic” models of intactness were the primary drivers used to identify the DFAs, regardless of whether the DFAs make up the majority of a given Covered Species habitat. *“In order to minimize habitat fragmentation and population isolation, DFAs were sited in less intact and more degraded areas. Based on the terrestrial intactness analysis developed for the DRECP area, approximately 87% of the DFAs in the Preferred Alternative are characterized by low or moderately low intactness. Therefore, a majority of the DFAs are in locations with existing habitat fragmentation and population isolation such that development of Covered Activities in these areas would not appreciably contribute to additional effects”*. Yet, habitat loss and fragmentation is precisely why many of the 37 Covered Species and 123 Non-Covered Species are listed as threatened, endangered or sensitive in the first place!

The California Desert Connectivity Project (Penrod et al. 2012) is briefly described in III.7.7-246. This is the ONLY place in the entire document that refers to “23 crucial linkage planning areas within the Plan Area”. Actually, there were 22 linkage planning areas but nowhere are the 22 crucial linkages actually identified by name. And, nowhere are the 22 crucial linkages actually analyzed by linkage. Instead, baseline conditions of the Desert Linkage Network and impacts to the linkage network are analyzed by fictitious Ecoregion Subareas, which is relatively meaningless in the context of landscape connectivity since several of the 22 linkages span more than one Ecoregion Subarea. The DRECP repeatedly refers readers to Penrod et al. 2012 but that document is organized by linkage NOT invented Ecoregion Subareas, so it is impossible to evaluate and compare baseline conditions or impacts to the Desert Linkage Network.

The discussion in Vol. III Pages 7-248 through 7-271 provides virtually NO information beyond what is already summarized in Tables III.7-69, 7-82, and 7-96 other than vague geographical references, like “providing connectivity between mountain ranges within the ecoregion subarea” which was copy/pasted in several of the descriptions. Further, none of the Figures III.7-26 through 7-36 label any of the Landscape Blocks intended to be served by the 22 crucial linkages. Of particular note, is that none of the targeted Landscape Blocks outside of the Plan Area (e.g., Sierra Nevada, San Gabriel Mountains, San Bernardino Mountains) are labeled or depicted in Figure III.7-26 or in the subareas maps, or any other maps in the entire document. Yet, several areas of the DRECP refer to the importance of maintaining connectivity beyond the Plan boundary! Weren’t PhDs, Cartographers and Copy Editors employed to develop this Plan?

The ENTIRE Section, III.7.8 Landscape Habitat Linkages and Wildlife Movement Corridors (III.7 7-245 to 7-248), is VERBATIM to what is provided in Appendix Q on this topic. There is a serious overuse of the Copy/Paste function throughout the document. Typically, an Appendix provides the reader with more relevant information related to the topic being discussed, beyond just the literature cited section. This section of the DRECP alone refers to Appendix Q 23 times! Why not just include the references within the section and consolidate the numerous literature cited sections?

The Preferred Alternative estimates a Plan-Wide Total Impact Area for the Desert Linkage Network of 28,000 acres (Table IV. 7-52) based on the overlap of the DFAs with the Desert Linkage Network times the proportion of the impacts from Covered Activity development anticipated with the DFA (IV.7-263). However, based on a GIS analysis of the overlap of the Integrated Preferred Alternative with the Desert Linkage Network, the actual acreage of the DFAs that overlap the Desert Linkage Network is 205,650 acres – which must be disclosed! There is also an additional 198,177 acres in the Linkage Network identified as Undesignated in the Preferred Alternative. Undesignated areas are described in the glossary as *BLM-administered lands that do not have an existing or proposed land allocation or designation. These areas would be open to renewable energy applications but would not benefit from the streamlining or CMA certainty of the DFAs.* Page II.3-381 under II.3.2.3.4.2 states: “In non-designated lands (i.e. lands not covered by the specific CMAs below), make lands available for disposal through exchange or land sale”. Does this mean that nearly 200,000 acres of the Desert Linkage Network would be “available for disposal”? Shouldn’t this be factored into the “Impact Analysis”? And fully disclosed in the Total Impact Acreage? Additionally, Future Assessment Areas cover 37,377 acres and Special Analysis Areas cover another 29,342 acres of the Desert Linkage Network.

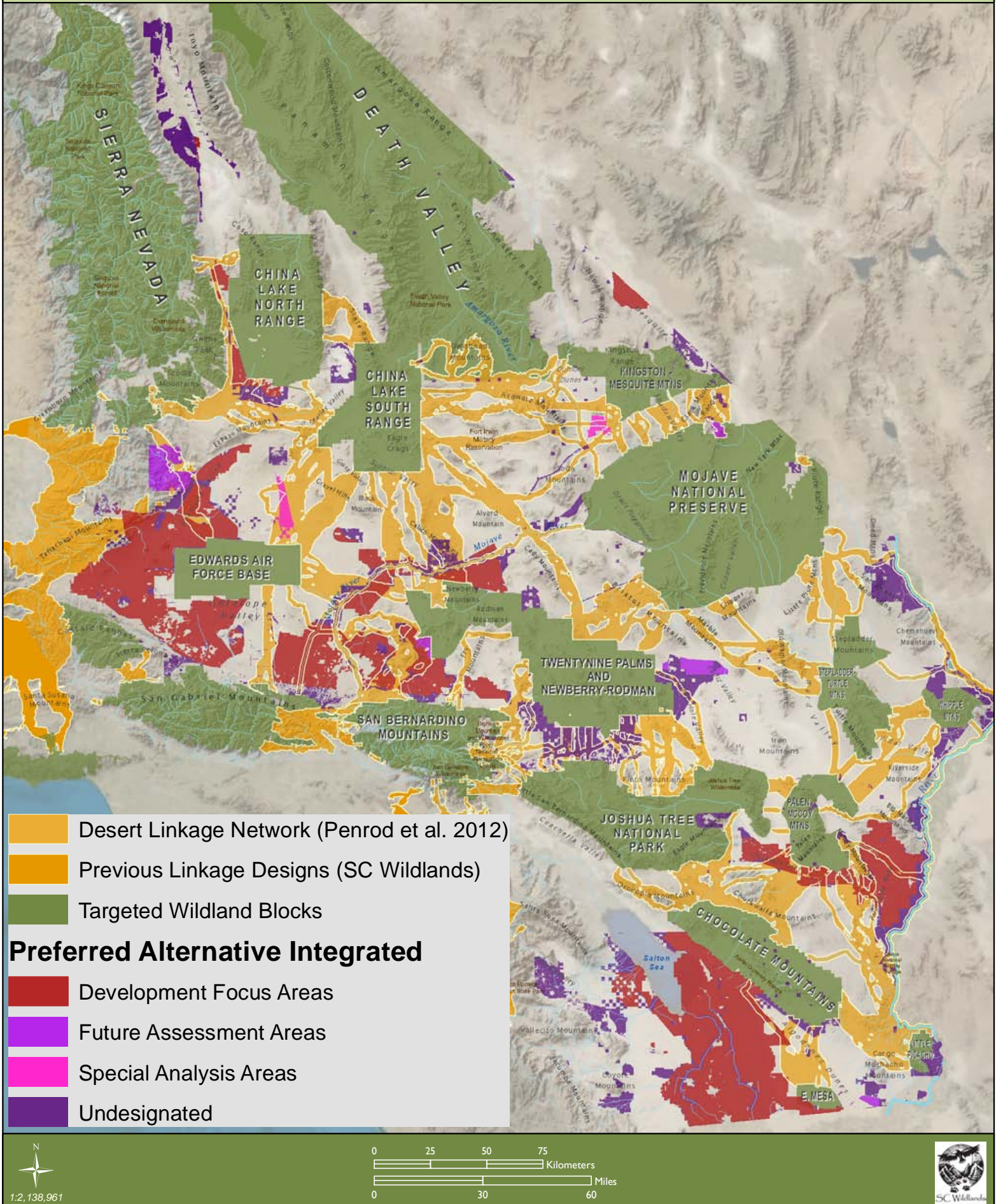
Between the DFAs, Undesignated, FAAs and SAAs areas, over 470,547 acres of the Desert Linkage Network could be open to renewable energy applications. There are NO maps that show how the DFAs, FAAs, SAAs, Variance Lands, or Undesignated Lands in the Preferred Alternative coincide with the Desert Linkage Network, not to mention transmission corridors! Volume IV is the **Environmental Consequences / Affects Analysis** yet this section repeatedly refers to maps in Volume III, “Affected Environment Figures III.7-26 through III.7-36 in Chapter III.7 of Volume III shows the desert linkage network for the Plan Area and in each ecoregion subarea”. Maps must be included in Vol. IV for the entire Desert Linkage Network and each of the six subareas that would be impacted. As Figure 1 shows, several linkages are completely severed or severely constrained by DFAs, FAAs and Undesignated land.

Undesignated Lands: II.3-9 Table II.3-1 Interagency DRECP Plan-Wide Preferred Alternative identifies 1,323,000 acres of Undesignated lands (i.e., BLM Unallocated Land), 709,000 acres of which is within BLM LUPA (Table II.3-42). This 1.3 million acres of BLM land is NOT clearly depicted in FIGURE II.3-1 Interagency Preferred Alternative but instead appears to be lumped with Impervious and Urban Built-up Land (5,547,000 acres in Table II.3-1), which the legend describes as “Existing Developed Areas”. This is EXTREMELY misleading. These Undesignated lands overlap several areas of high conservation value, including but not limited to habitat for Covered Species, “Reserve Drivers” (e.g., bighorn sheep mountain habitat, bighorn sheep intermountain habitat, desert tortoise intact habitat and fragmented habitat in the Desert Tortoise TCA Habitat Linkages), and numerous areas of the Desert Linkage Network. Further, while much of the Mojave River itself is designated as Conservation Planning Areas in the Preferred Alternative, Undesignated lands or DFAs are located in the uplands along most of the Mojave River. II.3-381 One of the bullets under II.3.2.3.4.2 Conservation and Management Actions states: “In non-designated lands (i.e. lands not covered by the specific CMAs below), make lands available for disposal through exchange or land sale”. Is Undesignated, BLM Unallocated and “non-designated lands” synonymous? Does this mean that over 1.3 million acres of existing public land administered by BLM will be available for “disposal”? Where is the impact analysis regarding these lands?

There is no mention of Undesignated, BLM Unallocated, or Non-designated lands in Volume III Environmental Setting/Affected Environment, not in III.13 BLM Lands and Realty - Land Use Authorizations and Land Tenure or III.7 Biological Resources. This is a serious oversight that MUST be addressed. IV.7-281 is the only place that mentions Undesignated Areas, “*Approximately 471,000 acres were not designated as Reserve Design Lands under the Preferred Alternative that were identified in the conceptual reserve envelope, which is primarily comprised of BLM-administered lands in the Plan Area without BLM LUPA conservation designations over them*”. What about the other 852,000 acres of Undesignated lands mentioned in Table II.3-1? IV.13 only mentions Undesignated Lands in reference to FAA, SAA, and DRECP Variance lands but Undesignated Lands cover a far greater area than what is included in these designations. Maps must be included in Volumes III and IV that clearly depict ALL Undesignated lands.

The entire discussion describing the six different subareas of the Desert Linkage Network that “could be adversely impacted in DFAs and transmission corridors” is inadequate (IV.7-264 and 7-265). Each subarea is allocated one poorly written paragraph that vaguely describes impacts,

Figure 1. Desert Linkage Network Conflicts



e.g., “there are DFAs in a portion of the desert linkage network”. Impacts should be analyzed and described in reference to the 22 crucial linkages delineated by Penrod et al. (2012) and further evaluated by the focal species and land facet linkage networks, rather than fictitious ecoregional subareas. The DRECP should disclose where DFAs completely sever or significantly constrain a linkage. As the lead author in Penrod et al. (2012), I should not have difficulty deciphering the descriptions of impacts to the linkage network. Further, this entire discussion is meaningless without MAPS that include detailed annotation of all the areas referenced in the text. Geographical and locational references in the text should be included on the maps (see bold type in following paragraph). Typically, zoomed in maps have more annotation. The maps must clearly and accurately show where DFAs, FAAs, SAAs, Variance Lands and Undesignated lands and Transmission Corridors coincide with the Desert Linkage Network.

This is an example of one of the six poorly written paragraphs allocated to discussing Plan-Wide conservation of and impacts to the Desert Linkage Network (IV.7-264), “*In the Pinto Lucerne Valley and Eastern Slopes subarea, there are DFAs in a portion of the desert linkage network that connects the **Grapevine Canyon Recreation Lands** to the **Granite Mountains** in Lucerne Valley; however, no DFAs are located in the habitat linkage between the **Ord Mountains** and the **Granite Mountains** across the Highway 18 east of **Apple Valley**. There are also DFAs in the linkage that connects **Black Mountain** to the **Mojave River**. DFAs under the Preferred Alternative are sited to avoid and minimize impacts to wildlife movement in this subarea by maintaining movement corridors between the **San Bernardino Mountains** and the Mojave Desert, including in the Ord Mountains to Granite Mountains linkage area and in the **Bighorn Mountain** area that connects to **Johnson Valley** and the **Morong Basin**. General terrestrial wildlife movement may be affected locally by the development of Covered Activities in these DFAs; however, the siting of DFAs, the reserve design, and the CMAs related to wildlife movement and Covered Species would offset the impacts on general terrestrial wildlife movement*”. The linkages in the Desert Linkage Network in the vicinity of the Apple Valley and Lucerne Valley DFAs are the Twentynine Palms Newberry Rodman-San Bernardino Connection and the Twentynine Palms Newberry Rodman-San Gabriel Connection (Penrod et al. 2012), incorrectly described above as “connects Grapevine Canyon Recreation Lands to the Granite Mountains in Lucerne Valley”. These connections connect the San Bernardino and San Gabriel Mountains of the South Coast Ecoregion to the Newberry Rodman Mountains in the Mojave, not Grapevine Canyon to Granite Mountains, which is only a portion of those linkages. Then it says, “No DFAs are located in the habitat linkage between the Ord Mountains and the Granite Mountains” but the DRECP neglects to say that this linkage, which most closely resembles the San Bernardino-Granite Connection (Penrod et al. 2005) is entirely encompassed within the landscape level connection described in the first part of that sentence! Penrod et al. (2005) was a focal species based connectivity assessment and the Desert Linkage Network used improved methods to make the linkages robust to climate change (i.e., land facet analyses). As currently proposed, the Granite Mountain Corridor ACEC is not sufficiently wide to provide live-in and move-through habitat for the target species or support range shifts in response to climate change.

Disruption of landscape connections for species movements and range changes is one of the greatest stressors to ecosystems, especially under climate change. In order to achieve **Goal L1** - NO DFAs should be sited within the Desert linkage Network, desert tortoise linkages, bighorn sheep intermountain habitat and Mohave ground squirrel linkages. All of these species-specific

linkages and landscape linkages should automatically be included in the Reserve Design, either as ACEC, NLCS, Conservation Planning Areas, or SAAs. No Undesignated (i.e., BLM Unallocated) land within these linkages should be “disposed of” but should also be automatically included as ACEC, NLCS, SAAs, or Conservation Planning Areas in the Reserve Design.

□ **Objective L1.1:** Conserve Covered Species habitat, natural communities, and ecological processes of the Mojave and Sonoran deserts in each ecoregional subarea in the Plan Area in an interconnected DRECP reserve. COMMENT: Must include desert tortoise Ord-Rodman to Joshua Tree and Fremont Kramer Linkages.

Objective L1.2: Design landscape linkage corridors to be 3 miles wide where feasible, and at least 1.2 miles wide where a greater width is not feasible. COMMENT: It is feasible and desirable to design a linkage more than 1.2 miles wide for the proposed Granite Mountain Wildlife Linkage ACEC with revisions to the Apple Valley and Lucerne Valley DFAs.

□ **Objective L1.3:** Protect and maintain the permeability of landscape connections between neighboring mountain ranges to allow passage of resident wildlife by protecting key movement corridors or reducing barriers to movement within intermountain connections, including:

- o Chuckwalla-Little Chuckwalla-Palen connections
- o Bristol-Marble-Ship-Old Woman connections
- o Old Woman-Turtle-Whipple connections
- o Bullion-Sheephole-Coxcomb connections
- o Clark-Mesquite-Kingston connections
- o Big Maria-Little Maria-McCoy connections
- o Soda-Avawatz-Ord-Funeral connections
- o Clark-Mesquite-Kingston-Nopah-Funeral connections
- o Rosa-Vallecitos-Coyote connections
- o Panamint-Argus connection
- o Palo Verde-Mule-Little Chuckwalla connections
- o Palo Verde-Mule-McCoy connections
- o Chuckwalla-Eagle-Coxcomb connections
- o Eagle-Granite-Palen-Little Maria connections
- o Granite-Iron-Old Woman connections
- o Big Maria-Little Maria-Turtle connections
- o Northeast slope of the San Bernardino Mountains between Arrastre Creek and Furnace Canyon, including Arctic and Cushenbury canyons, Terrace and Jacoby springs, along Nelson Ridge. COMMENT: Why is this objective restricted to the list of “connections” above? The majority of the mountain ranges listed above are in the Eastern Mojave and Sonoran regions and therefore not consistent with creating a Plan-wide reserve design (Goal L1). These are not the landscape linkages identified in the Desert Linkage Network (Penrod et al. 2012), nor are they the desert tortoise linkages identified in Figure C-34. Where did this list come from? I did not see it referenced in the document.

Feature Landscape stressors and threats: Goal L3: Reduce, relative to existing conditions, adverse impacts from human activities to natural communities and Covered Species in the Plan Area.

Step-Down Biological Objective L3-A: Through the DRECP planning process, establish Development Focus Areas (DFAs) for Covered Activities in locations that would not disrupt or degrade the function of habitat linkages. COMMENT: Figure 1 clearly shows that DFAs would completely sever and disrupt and degrade the function of several linkages. Please see recommended revisions to the Reserve Design for the Pinto Lucerne Eastern Slopes below. I WISH I had time to conduct this level of detailed review for the entire Desert Linkage Network!

H.2.3 Wildlife Linkages and Connectivity: Figures (H-1 & H-2) depict the wildlife linkages where Covered Activities will be configured to avoid and minimize adverse effects to wildlife connectivity and the function of the wildlife linkage. These areas are referenced in the Section II.3.1.2.5.3, Landscape-Level Avoidance and Minimization CMAs, under the CMA **AM-LL-1**. **Figure H-2 Landscape-level Linkage CMA depicts the ENTIRE Desert Linkage Network and SCML Linkages that fall within the DRECP boundary.**

□ **AM-LL-1:** The siting of projects along the edges of the linkages identified in Appendix H (Figures H-1 and H-2) will be configured (1) to maximize the retention of microphyll woodlands and their constituent natural communities and inclusion of other physical and biological features conducive to species' dispersal, and (2) informed by existing available information on modeled Covered Species habitat and element occurrence data, mapped delineations of natural communities, and based on available empirical data collected under the MAMP or other sources, including radio telemetry, wildlife tracking sign, and road-kill information. Additionally, Covered Activities will be sited and designed to maintain the function of Covered Species connectivity and their associated habitats in the following linkage and connectivity areas:

- o Within a 5-mile-wide linkage across Interstate 10 centered on Wiley's Well Road to connect the Mule and McCoy mountains.
- o Within a 3-mile-wide linkage across Interstate 10 to connect the Chuckwalla and Palen mountains.
- o Within a 1.5-mile-wide linkage across Interstate 10 to connect the Chuckwalla Mountains to the Chuckwalla Valley east of Desert Center.
- o The confluence of Milpitas Wash and Colorado River floodplain within 2 miles of California State Route 78.

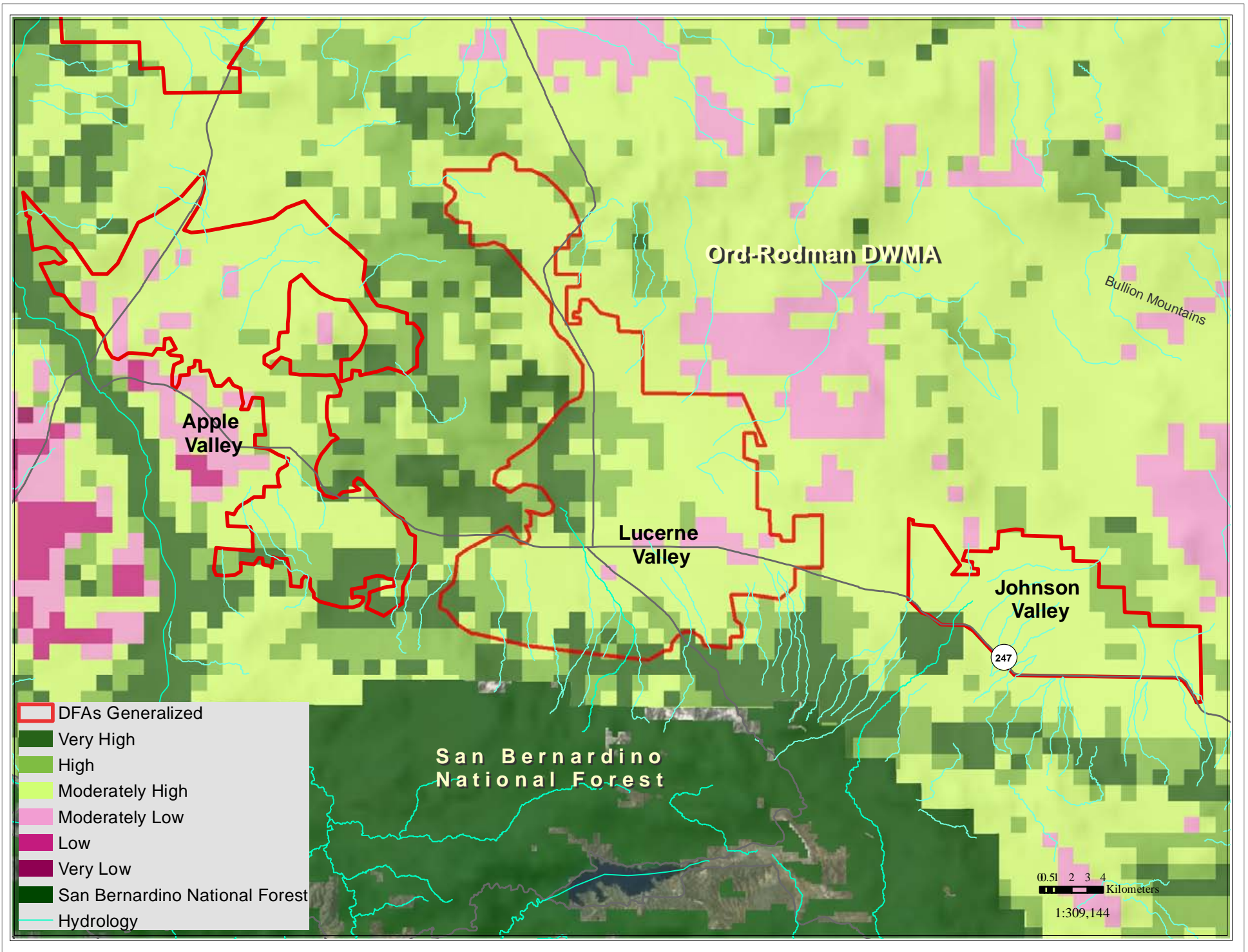
In addition to these specific landscape linkages identified above, the Riparian and Wetland Natural Communities and Covered Species CMAs will contribute to maintaining and promoting habitat connectivity and wildlife movement (see RIPWET under Section II.3.1.2.5.4). The Covered Species CMAs provide additional avoidance and minimization actions for important species-specific habitat linkages (see Section II.3.1.2.5.4).

This CMA must be implemented throughout the Desert Linkage Network!

A Conservation Alternative for the Pinto Lucerne Valley and Eastern Slopes

Conservation Values are particularly high in the Pinto Lucerne Valley and Eastern Slopes Subarea along the Mojave River, through the linkage, and all along the slopes of the San Bernardino Mountains (Figure 2). The Conservation Values Model available on the Data Basin Gateway aggregated several biological themes including natural community diversity, rare species concentrations, concentrations of Covered Species modeled distributions, concentrations of Non-Covered Species modeled distributions, and relative quality of identified wildlife

Figure 2. Coservation Values are High in the Pinto Lucerne Valley Eastern Slopes Ecoregion Subarea



linkages. Virtually all of the proposed Apple Valley, Lucerne Valley and Johnson Valley DFAs scored Moderately High to Very High with very few pixels scoring Moderately Low and no pixels scoring Low or Very Low. Section (II.3, Page 347), describes the Pinto Lucerne Valley and Eastern Slopes Subarea as, “some of the most diverse and threatened habitats in the California desert”.

The following section suggests refinements to the current designations in the Preferred Alternative for the Pinto Lucerne Valley and Eastern Slopes subarea and justification for these recommended improvements. As currently proposed the Reserve Design doesn't capture landscape linkages wide enough to support viable populations of the species they are intended to serve or the full diversity of land facets needed to make the linkages robust to climate change. Maintaining and restoring landscape level connectivity is essential to day-to-day movements of individuals seeking food and water, shelter or mates; dispersal of offspring to new home areas; seasonal migration; recolonization of unoccupied habitat after a local population goes extinct; and for species to shift their range in response to global climate change. Plant and animal distributions are predicted to shift (generally northwards or upwards in elevation in California) due to global warming (Field et al. 1999). Full shifts in vegetation communities are expected as a result of climate change (Notaro et al. 2012). The Pinto Lucerne Valley and Eastern Slopes Subarea “spans diverse landscapes of the south-central Mojave Desert and the San Bernardino Mountains, from 1,000 feet to over 6,000 feet in elevation”. The northern slopes and foothills of the San Bernardino Mountains contain many springs and seeps, several riparian drainages, and the headwaters of the Mojave River. Riparian systems will be especially important to allow species to respond and adapt to climate change because they provide connectivity between habitats and across elevational zones (Seavy et al. 2009). Thus, linkages must be sufficiently wide to cover an ecologically meaningful range of elevations as well as a diversity of microhabitats that allow species to colonize new areas.

While the Mojave Riverbed itself is identified as a Conservation Planning Area for much of its length, virtually all of the uplands are proposed as either DFAs or Undesignated land that could be available for “disposal” The Mojave River flows from the South Coast Ecoregion through much of the Mojave Ecoregion. It is one of three major rivers in the desert and the only one that traverses from the West to the East Mojave, covering a distance of roughly 80 miles - it is a key wildlife movement corridor. The Mojave River is also essential habitat for several listed and sensitive species with portions of the river designated as critical habitat for southwestern willow flycatcher. According to the USFWS (1986), over 200 species of migratory birds have been recorded in the Mojave River, near the Mojave River Forks Dam Water Conservation Project. These hundreds of migratory bird species use the Mojave River, Deep Creek, mountain lakes, riparian drainages and seeps and springs throughout desert facing slopes of the San Bernardino and San Gabriel Ranges. No DFAs should be sited within the 500 year flood plain and all Undesignated areas along the Mojave River should be included in the Reserve Design to ensure wildlife have access to this essential resource, which will be even more indispensable with climate change.

The hydrology of the northern slopes of the San Bernardino Mountains is not just an essential resource for the flora and fauna. It is also extremely important to recharging groundwater basins in Apple, Lucerne and Johnson Valleys. Massive renewable energy projects use enormous

amounts of water both in construction and maintenance, which could further exacerbate already severely distressed overdraft conditions in these groundwater basins.

As currently proposed the Apple Valley, Lucerne Valley and Johnson Valley DFAs present significant conflicts with habitat and climate change connectivity for Reserve Drivers such as bighorn sheep, desert tortoise, Mojave fringe-toed lizard and the Desert Linkage Network, as well as several other Covered Species, in addition to 31 of the 44 focal species addressed by Penrod et al. (2012). There is an approximately 7 mile wide Conservation Planning Area designated between the San Gabriel Mountains and Edwards Air Force Base (AFB), though Military lands are NOT specifically covered by the DRECP. The essential ecoregional connection between the south-central Mojave Desert and the San Bernardino Mountains (i.e., connectivity to areas outside the plan area) warrants the same consideration, especially since this linkage serves to connect vast areas with conservation designations (e.g., NLCS, ACEC and USFS). It is feasible and desirable to conserve functional landscape-level connectivity here.

Here we suggest refinements to the Apple Valley and Lucerne Valley DFAs and complete removal for the Johnson Valley DFA. We created our own Composite Map of Key Reserve Drivers, referred to but not provided in I.3.4.4.3 and Appendix D, D.3.6. The primary data used to create this composite map of Key Reserve Drivers include Desert Tortoise TCA and Linkages (Averill-Murray et al. 2013), Bighorn sheep mountain habitat and intermountain habitat (CDFW 2013), Mohave ground squirrel (Inman et al. 2013, UCSB 2013), and the Desert Linkage Network (Penrod et al. 2012), which were used to make proposed refinements to the Reserve Design (Figure 3). We queried the areas removed from the Apple Valley and Lucerne Valley DFAs and the Johnson Valley DFA using the Site Survey Composite for the Preferred Alternative (i.e., DRECP_Composite_Ecological_Baseline_Prefered_Alternative_v5, GIS data downloaded from Data Basin) to identify other Covered Species that would benefit from the proposed changes to the Reserve Design (Table 4). In addition to providing essential habitat for these Reserve Drivers, several other Covered Species will benefit from these refinements including Bendire's thrasher, burrowing owl, golden eagle, Swainson's hawk, least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo, tricolored blackbird, mountain plover, pallid bat, Townsend's big-eared bat, alkali mariposa lily, Little San Bernardino linanthus, Mojave monkeyflower, and Parish's daisy.

These refinements would benefit 18 of the Covered Species. According to the DRECP Composite Ecological Baseline, each pixel in the refinements to the Apple Valley DFA (573 pixels) benefit 4 to 11 Covered Species (MEAN 6.9 species), with a total species count of 3,959 in the 573 pixels. Each pixel in the refinements to the Lucerne Valley DFA (787 pixels) benefit 2 to 10 Covered Species (MEAN 6.45 species), with a total species count of 5,080 in the 787 pixels. Each pixel in the Johnson Valley DFA (428 pixels) benefit 4 to 7 Covered Species (MEAN 5.48 species), with a total species count of 2,346 in the 428 pixels.

Natural communities in the areas removed from the Apple and Lucerne Valley DFAs and the Johnson Valley DFA are extremely diverse and include but are not limited to, Californian montane conifer forest, Central and South Coastal Californian coastal sage scrub, Great Basin Pinyon /Juniper Woodland, Inter-Mountain Dry Shrubland, Intermontane deep or well-drained

Figure 3. Refinements to and Removal of DFAs in the Pinto Lucerne Valley and Eastern Slopes Subarea

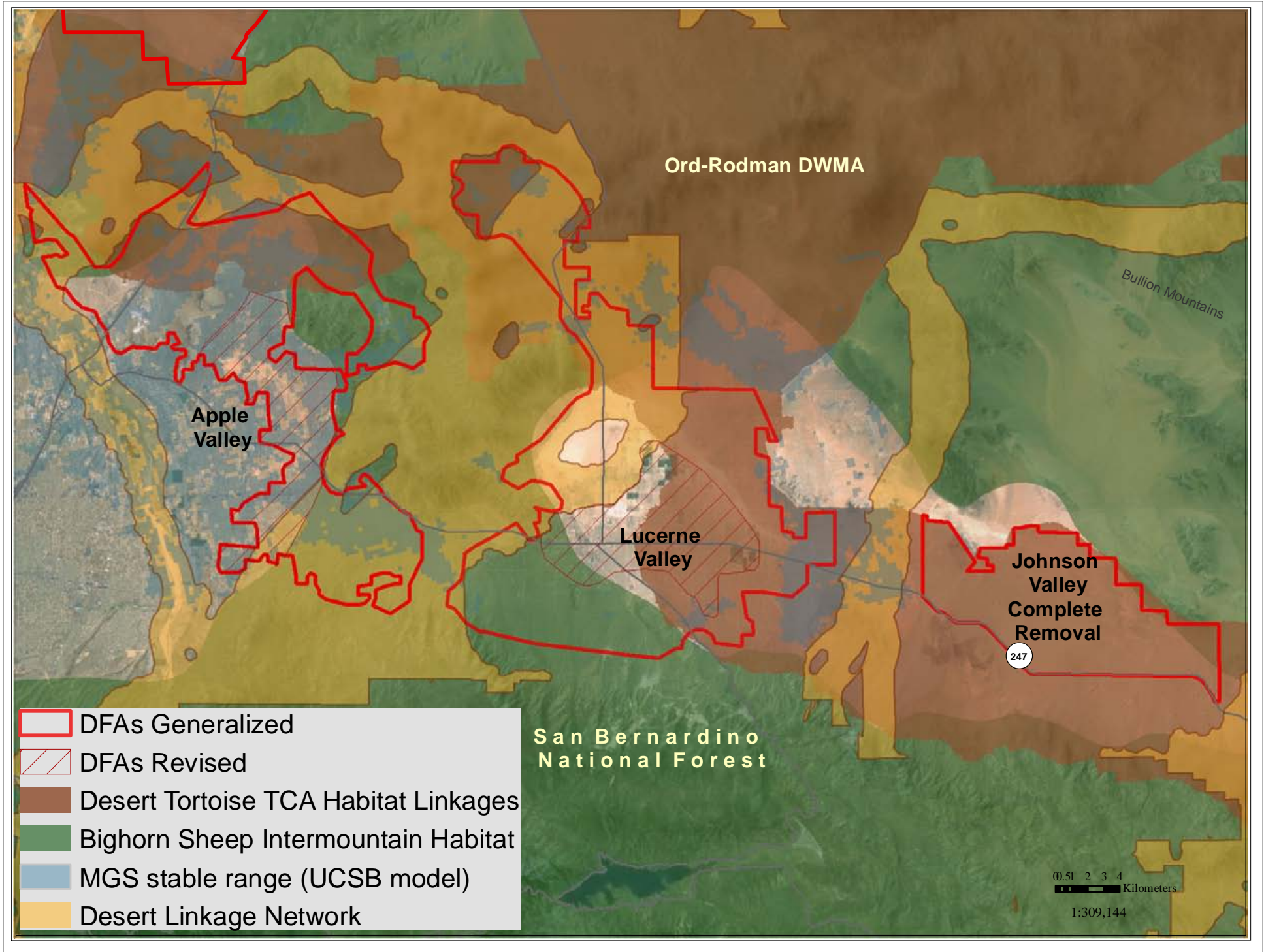


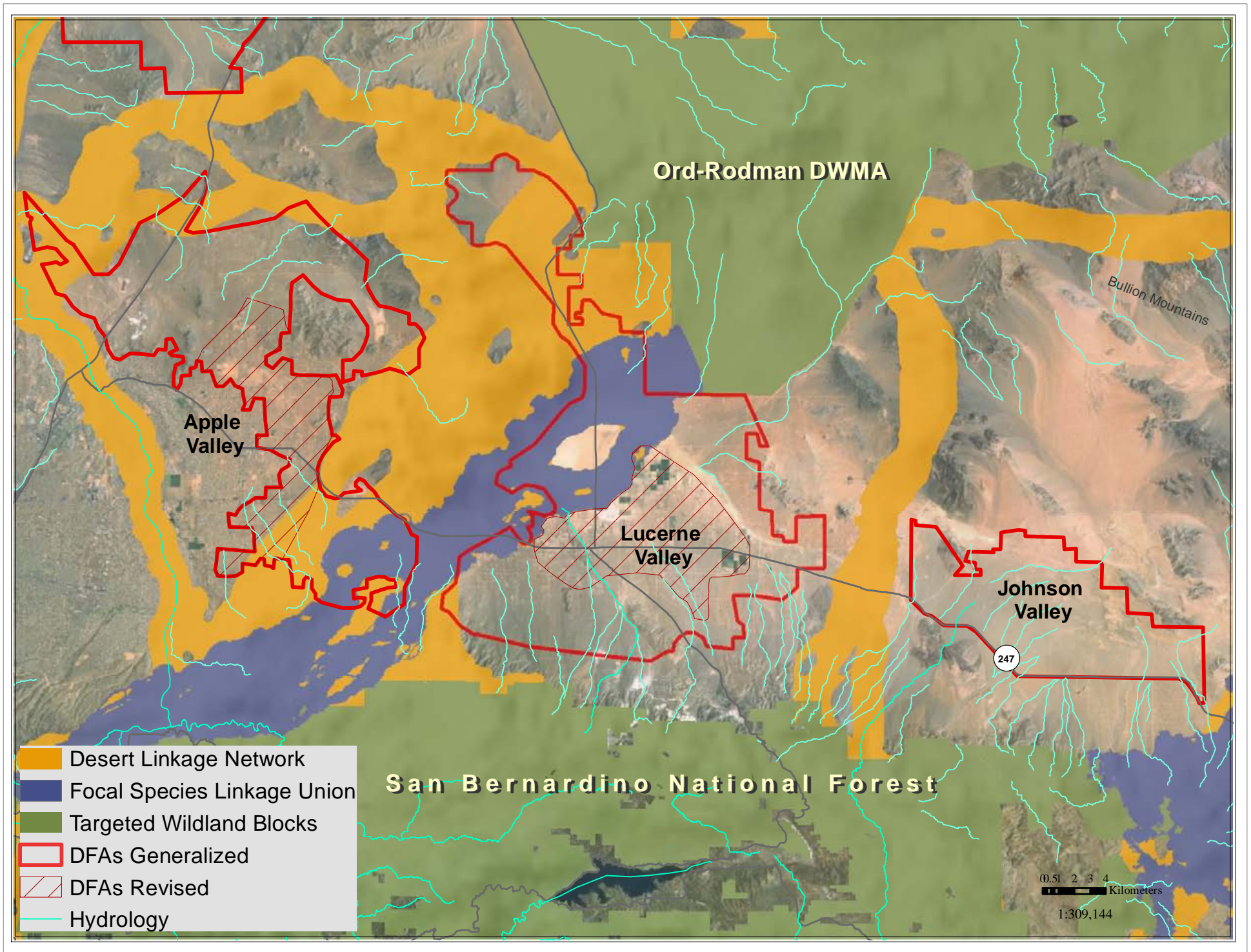
Table 4. Summary of Benefits to Covered Species Using Site Survey Composite for the Preferred Alternative (i.e., DRECP Composite Ecological Baseline Preferred Alternative v5, GIS data downloaded from Data Basin).

Covered Species	Apple Valley (573 pixels)	Lucerne Valley (787 pixels)	Johnson Valley (428 pixels)
Alkali mariposa lily	0	133	0
Bendire's thrasher	518	564	75
Bighorn sheep	194	139	0
Burrowing owl	559	774	428
desert tortoise	408	719	428
Golden eagle	361	484	353
Least Bell's vireo	80	50	7
Little San Bernardino linanthus	0	84	210
Mohave ground squirrel	253	159	0
Mojave monkeyflower	155	113	0
Mountain plover	7	0	0
Pallid bat	570	756	428
Parish's daisy	108	310	0
Southwestern willow flycatcher	4	7	0
Swainson's hawk	29	0	0
Townsend's big-eared bat	567	775	417
Tricolored blackbird	14	14	0
Yellow-billed cuckoo	3	0	0
Total Species Count in Pixels	3959	5080	2346
# of Covered Species per Pixel	4 to 11	2 to 10	4 to 7
Average # Covered Species per Pixel	6.9	6.45	5.48

soil scrub, Intermontane seral shrubland, California Annual and Perennial Grassland, Lower Bajada and Fan Mojavean /Sonoran desert scrub, Mojave and Great Basin upper bajada and toeslope, Mojavean semi-desert wash scrub, Shadscale/saltbush cool semi-desert scrub, North American Warm Desert Alkaline Scrub, Herb Playa and Wet Flat, Sonoran-Coloradan semi-desert wash woodland/scrub, Madrean Warm Semi-Desert Wash Woodland/Scrub, Mojavean semi-desert wash scrub, North American warm desert dunes and sand flats, North American Warm Desert Alkaline Scrub and Herb Playa and Wet Flat, and, Southwestern North American salt basin and high marsh. In addition, there are several unique plant assemblages in this area due to its location at the juncture of the Mojave and South Coast ecoregions. Here, oak woodlands intermingle with Joshua tree and Pinyon-Juniper woodlands amid spectacular rocky outcrops. Ecotones are particularly high in biodiversity and contact zones for evolution.

The Twentynine Palms Newberry Rodman-San Gabriel Connection and the Twentynine Palms Newberry Rodman-San Bernardino Connection of the Desert Linkage Network (Penrod et al. 2012) overlap one another in the area of the proposed Apple Valley and Lucerne Valley DFAs. Figure 4 of the Desert Linkage Network in this region also includes the Focal Species Linkage

Figure 4. Desert Linkage Network Conflicts in the Pinto Lucerne Valley Eastern Slopes Ecoregion Subarea

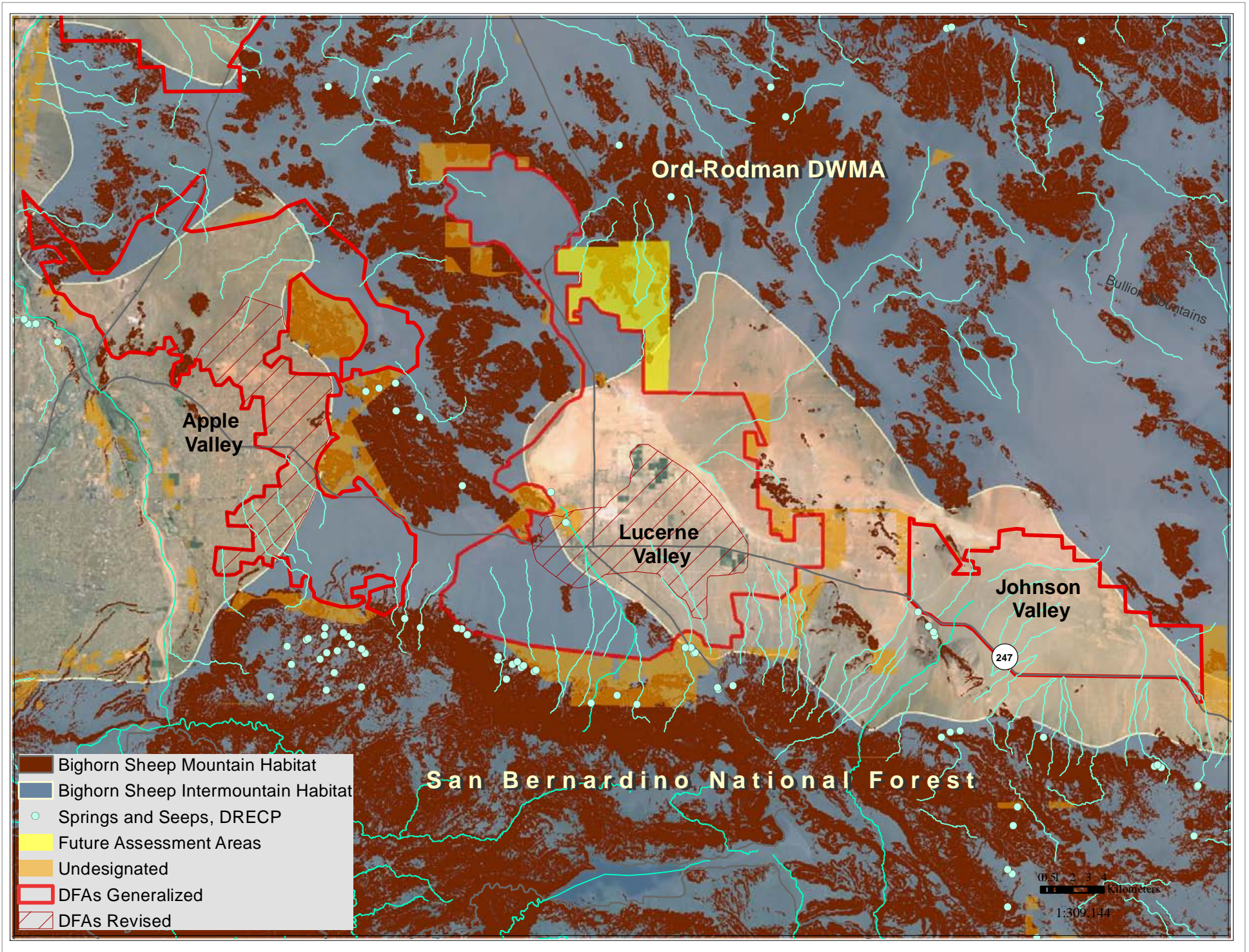


Union (blue) to show the area of the linkage network that was delineated by the land facet analyses (orange). The Proposed Granite Mountain Wildlife Linkage ACEC was designed to connect SBNF with the Bendire's Thrasher ACEC, while the Northern Lucerne Wildlife Linkage is expected to connect the Bendire's Thrasher ACEC to Ord-Rodman DWMA. As proposed, the Granite Mountain Wildlife Linkage ACEC is reduced to about 1.2 miles wide for much of its length south of State Route 18 and more closely follows the linkage design for the San Bernardino-Granite Connection (Penrod et al. 2005), which did not include land facet analyses. Several land facets corridors were delineated between these ranges (see Figures 18 and 19 in Penrod et al. 2012), which are expected to support species movements during periods of climate instability. DFAs are proposed to either side of these proposed ACECs that would constrain the linkage for a distance of roughly 20 miles. Species are then expected to make a hard right to follow Stoddard Ridge around the arm of the DFA proposed in the Northern Lucerne Valley. Objective L1.2 is to "Design landscape linkage corridors to be 3 miles wide where feasible, and at least 1.2 miles wide where a greater width is not feasible". We believe that a greater width is feasible and desirable for the proposed Granite Mountain Wildlife Linkage ACEC. No DFAs should be sited within these areas.

The northern arm of the Lucerne Valley DFA bisects both the focal species and land facet linkage and should be reconfigured to avoid the Desert Linkage Network through this area. The FAA should be included as part of the Newberry Rodman ACEC and NLCS due to its high conservation value (e.g., landscape connectivity, bighorn sheep, intact desert tortoise habitat). In fact, 31 of the 44 focal species evaluated by the Desert Linkage Network are expected to be served by this linkage. The westernmost strand of the Desert Linkage Network that follows the Mojave River for a distance and then arcs to the east toward Newberry Rodman is the corridor with high interspersion of land facets which is expected support species movements during periods of climate instability. The northern part of the Apple Valley DFA bisects this part of the linkage between the Mojave River and the Silver Mountains area of a proposed ACEC and should be included in that ACEC and removed from the DFA.

Figure 5a depicts Desert Bighorn Sheep - Intermountain & Unfiltered Core Habitat (California Department of Fish and Wildlife, April 2013 Draft, A Conservation Plan for Desert Bighorn Sheep in California) in relation to the Preferred Alternative in this subarea. The Desert Bighorn Sheep Mountain Habitat identifies historic, current, and potential core habitat, while the Intermountain Habitat represents the intermountain, lower slope, valley bottom habitat used by desert bighorn sheep to move between mountain habitat. CDFW, also the lead agency on the NCCP, mapped an intermountain connection between San Bernardino National Forest (SBNF) and Ord-Rodman that has a minimum width of roughly 7.8 miles. Bighorn sheep mountain habitat and intermountain habitat largely overlap with the Desert Linkage Network. The upper arm of the Lucerne Valley DFA disrupts intermountain bighorn habitat and should be reconfigured. Further the FAA includes bighorn sheep mountain habitat in close proximity to mountain habitat in the Granite Mountain Linkage and should be included in the Newberry Rodman ACEC and NLCS. Finally, several areas of bighorn sheep mountain habitat are identified as Undesignated and available for "disposal". Bighorn mountain habitat along the perimeter of the proposed Granite Mountain and Northern Lucerne Wildlife Linkage ACECs should be included in the Reserve Design. Further, Undesignated land on the Ridgeline and slopes of the San Bernardino Mountains between the Juniper Flats NLCS and the Carbonate

Figure 5a. Bighorn Sheep Conflicts in the Pinto Lucerne Valley Eastern Slopes Ecoregion Subarea



Endemic Plants NLCS (roughly 15 additional miles is the Grapevine Canyon Recreation Area also known as Juniper Flats by the BLM) should also be included in the Reserve Design (Figure 5b), consistent with Step-Down Biological Objective DBSH-B and because there are many springs, seeps, significant riparian canyons, alluvial fans (i.e. rare piedmont fans), and washes in this area essential for bighorn sheep and numerous other species. This area is currently designated as Undesignated in the Preferred Alternative.

This land known as the Juniper Flats subregion by the BLM stretches from the Mojave River to the Cushenbury Grade (Figure 5b). The area is continuous with the San Bernardino National Forest, which encompasses over 600,000 acres and boasts over 600 significant cultural sites. There are several unusual and unique plant assemblages here, with oak woodlands intermixed with pinyon-juniper and Joshua trees and spectacular rock outcroppings. The area is extremely close to the Pacific Crest National Scenic Trail and Deep Creek, which has been nominated as a National Wild and Scenic river as part of the Feinstein Bill. The Juniper Flats area has been submitted to the BLM for consideration for NLCS designation and over 25 NGO's and individuals have endorsed this effort. SC Wildlands strongly supports an NLCS designation for this remarkable area.

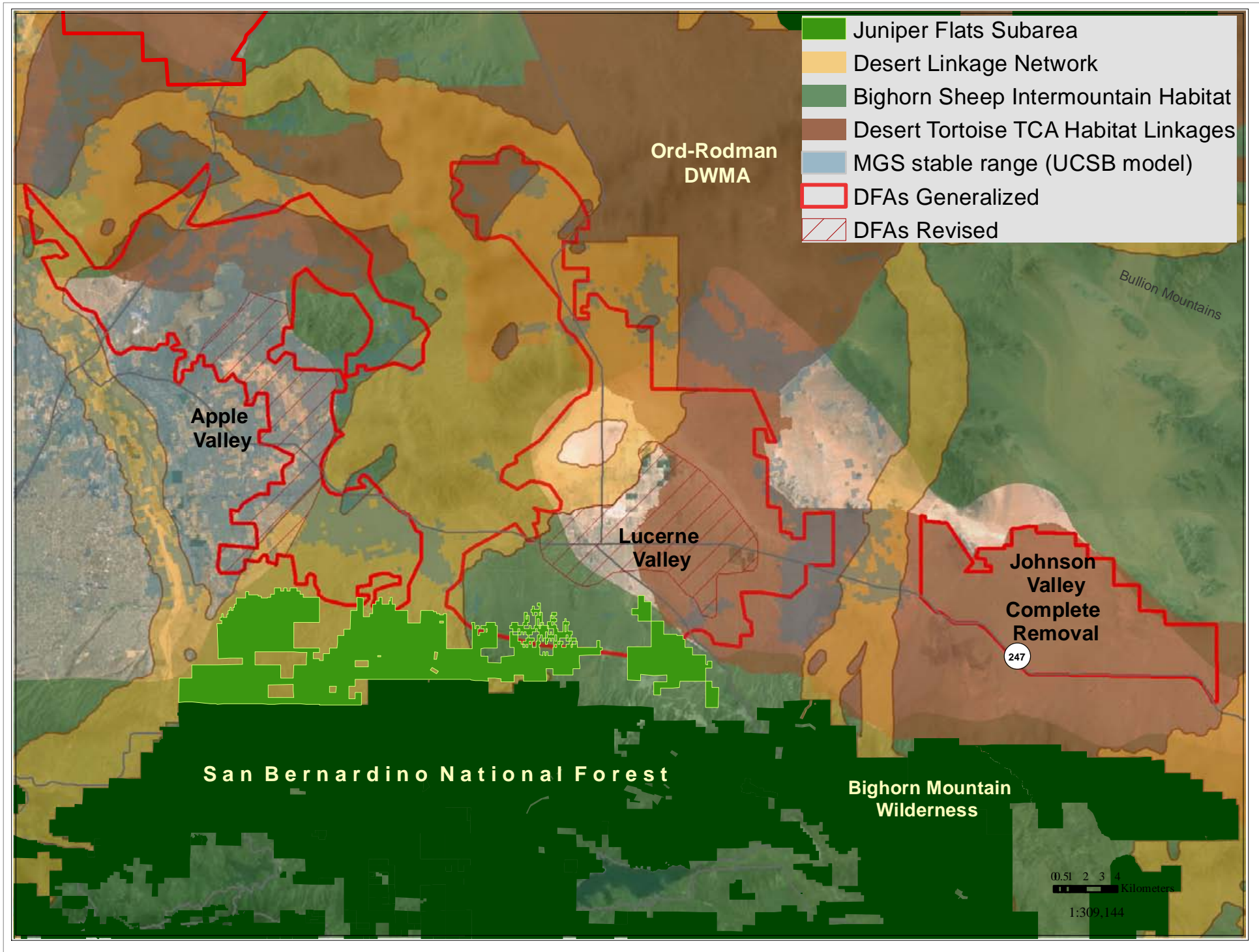
Goal DBSH1: Conserve the desert bighorn sheep Sonoran–Mojave desert metapopulation) across the DRECP area within well-distributed habitat areas in mountain ranges and intermountain linkages. Emphasize conservation in areas where herds are most likely to be adaptive and resilient in response to the effects of changes within their metapopulations, including, range shifts, contractions, expansions, local extirpation, and recolonization, as well as environmental changes in climate, temperature, and precipitation. **Comment:** We expect that the Twentynine Palms Newberry Rodman-San Bernardino Connection will be especially important to the Cushenberry Herd of bighorn sheep in a warming climate for access to water resources (e.g., seeps, springs, riparian habitats).

Step-Down Biological Objective DBSH-B: Protect, maintain, and manage for the duration of the NCCP on BLM LUPA conservation designation lands and prioritize for conservation on non-BLM lands substantial representative desert bighorn sheep habitat in the following areas:

- o Newberry, Ord, and Rodman Mountains
- o North San Bernardino Mountains
- o El Paso Mountains
- o **Corridors** between the North San Bernardino Mountains and Newberry Mountains
- o Corridors between the San Gorgonio Wilderness Area and the western extremity of the Little San Bernardino Mountains
- o Portions of the valley habitats between the Palen-McCoy Mountains, Chuckwalla Valley between the Eagle Mountains and the Chuckwalla Mountains
- o Portions of the valley habitats between the Little Chuckwalla Mountains, Palo Verde Mountains, McCoy Mountains, Mule Mountains

Comment: The Granite Mountains Wildlife Linkage ACEC as currently proposed is a “corridor” to the south of SR-18 but with our proposed modifications to the DFAs it will be a landscape-level linkage.

Figure 5b. Juniper Flats Proposed NLCS in Relation to Composite of Key Drivers



Conservation and Management Actions for bighorn sheep are pretty slim and the DRECP says, “Within DFAs on BLM-administered lands Desert Bighorn Sheep CMAs would be implemented to the extent feasible and allowable under existing permits, leases, and allotment plans”. Why only to “the extent feasible” rather than to the maximum extent possible? Does this mean CMAs would not be implemented on lands not administered by BLM within the DFAs?

□ **AM-DFA-ICS-34:** Access to, and use of, designated water sources will not be affected by Covered Activities in designated and new utility corridors.

□ **AM-DFA-ICS-35:** Transmission projects and new utility corridors will minimize effects on access to, and use of, designated water sources.

The proposed Granite Mountain Wildlife Linkage ACEC is described in Appendix L. The Relevance and Importance Criteria states, “the area is critical for bighorn sheep, golden eagles, desert tortoise and prairie falcons and several other species. Additionally, numerous rare and sensitive plants have major populations here, making the area regionally important”. Goals: “Protect biological values including habitat quality, populations of sensitive species, and landscape connectivity while providing for compatible public uses”. One of the Objectives is to “protect and enhance sensitive wildlife habitat” with the following species listed: desert tortoise, LeConte’s thrasher, San Diego pocket mouse, prairie falcon, golden eagle, and Mohave ground squirrel. All species listed in Table 4 should be included here (e.g., least Bell’s vireo, southwestern willow flycatcher). In addition, a number of focal species selected for the Desert Linkage Network are expected to be served by this linkage and should be included in this list: puma, badger, kit fox, bighorn sheep, mule deer, little pocket mouse, southern grasshopper mouse, pallid bat, burrowing owl, loggerhead shrike, Bendire’s thrasher, crissal thrasher, cactus wren, greater roadrunner, chuckwalla, desert night lizard, desert spiny lizard, Great Basin collared lizard, rosy boa, speckled rattlesnake, Mojave rattlesnake, Bernardino dotted blue, desert green hairstreak, desert metalmark, and yucca moth. These would be good candidate species for monitoring wildlife movement and habitat linkage function for the MAMP’s Landscape and Ecological Processes Effectiveness Monitoring. Another Objective is to “protect populations of sensitive plants”; the following species should be added to the 4 existing plant species currently on the list: *Canbya candida*, *Sidalcea neomexicana*, *Plagiobothrys parishii*, *Phacelia parishii*, *Puccinellia parishii*, *Mimulus mohavensis*, *Leymus salinus* ssp. *mohavensis*, *Eriophyllum mohavense*, and *Calochortus striatus*. In addition, two focal species, *Yucca brevifolia* and *Yucca schidigera*, from Penrod et al. (2012) should be included.

One of the primary goals for the Desert Tortoise Linkages (Goal DETO2) is to “Maintain functional linkages between Tortoise Conservation Areas to provide for long-term genetic exchange, demographic stability, and population viability within Tortoise Conservation Areas. Emphasize inclusion of high value contiguous habitats pursuant to Nussear et al. (2001) and avoidance of disturbance in habitat with high desert tortoise habitat potential (see Figure C-35)”. It is Nussear et al. 2009, not 2001! Nussear et al. (2009) identifies much of the Apple Valley, Lucerne Valley and Johnson Valley DFAs as highly suitable habitat for tortoise (Figure 6).

There are several areas where the Lucerne Valley and Johnson Valley DFAs conflict with two desert tortoise linkages in the Western Mojave Recovery Unit, Fremont-Kramer to Ord-Rodman Linkage and the Ord-Rodman to Joshua Tree linkage (Figure 7). The upper arm of the Lucerne Valley DFA coincides with intact desert tortoise habitat in the Fremont Kramer to Ord-Rodman

Figure 6. High Value Desert Tortoise Habitat in the Pinto Lucerne Valley Eastern Slopes (Nussear et al. 2009)

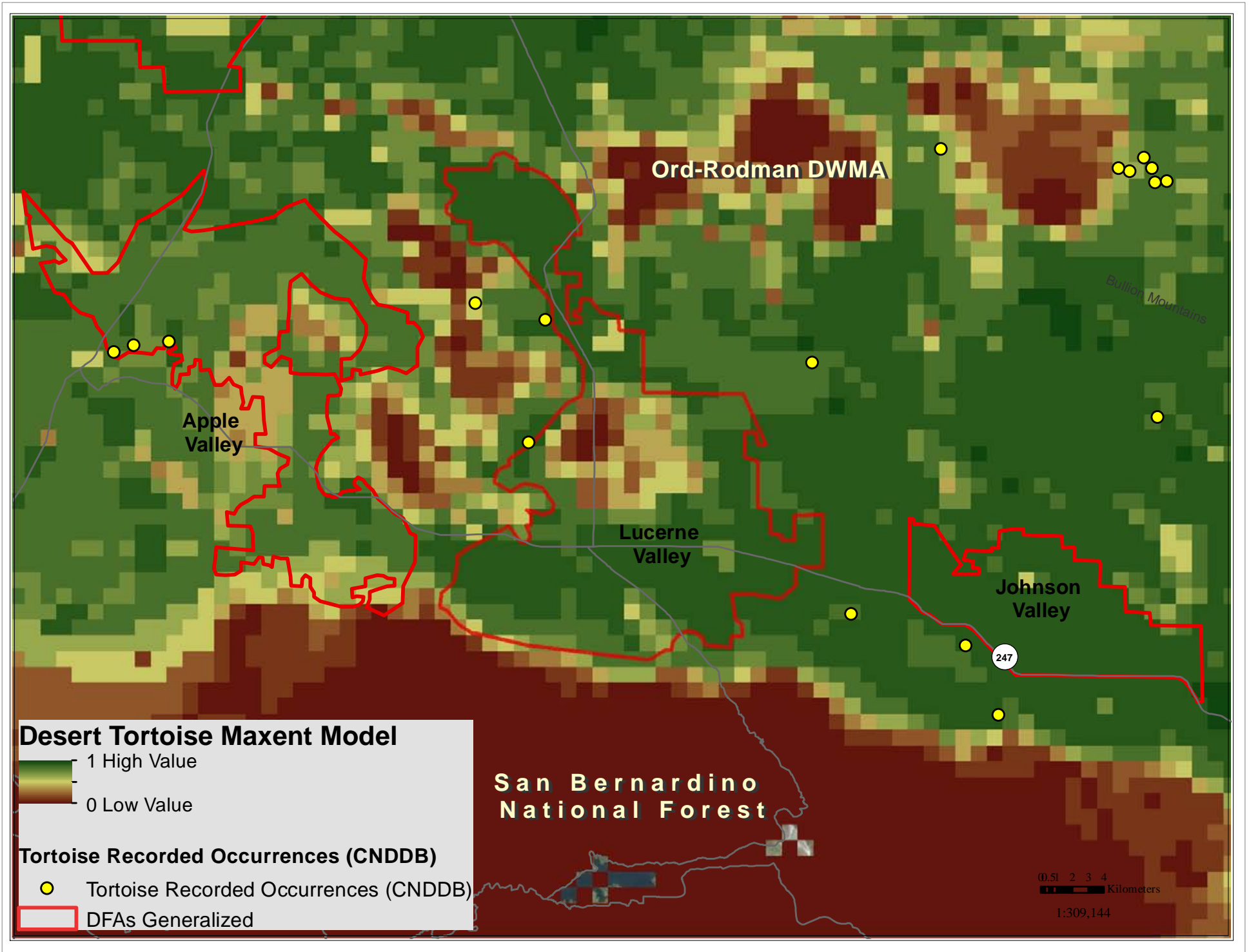
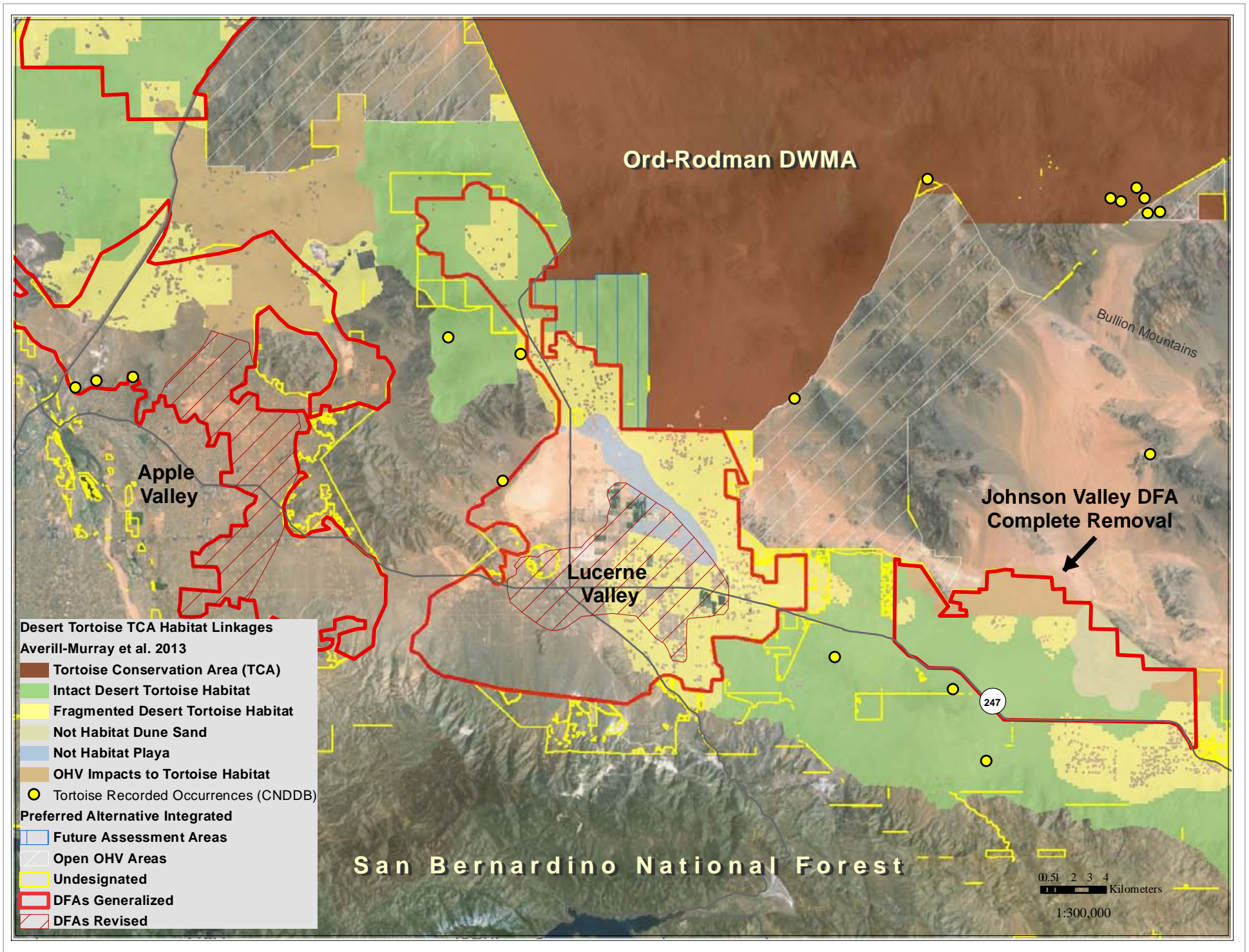


Figure 7. Desert Tortoise TCA Linkage Conflicts in the Pinto Lucerne Valley Eastern Slopes



Linkage and the FAA that is sandwiched between this DFA and the Ord-Rodman TCA is made up almost entirely of intact desert tortoise. This area of the Lucerne Valley DFA and the FAA is also in conflict with the Desert Linkage Network, Bighorn sheep intermountain habitat, and other Covered Species (e.g., Bendire's thrasher, burrowing owl, golden eagle). In addition, the Lucerne Valley DFA as currently proposed completely severs the northern segment of the Ord-Rodman to Joshua Tree Linkage and would severely compromise the function of this linkage (See AM-DFA-ICS-6 Comment). The great majority of the Johnson Valley DFA is also intact desert tortoise habitat that falls within the Ord-Rodman to Joshua Tree Linkage. These DFAs must be reconfigured to AVOID these Desert Tortoise Linkages.

In addition, the southern segment of the Ord-Rodman to Joshua Tree Linkage to the southeast of the Johnson Valley DFA is also identified as "Fragmented Desert Tortoise Habitat" (Figures C-35 and C-36) and much of it is delineated as "Undesignated" land, which would be available for "disposal". While there are ACEC and NLCS lands proposed on the western fringe of the desert tortoise linkage, these proposed designations do not capture the most permeable route for the tortoise. While the raster data for the least-cost corridor analyses was not available on Data Basin as part of the Desert Tortoise TCA and Linkages data, I know this analysis well enough to know how it looks when converted to a shapefile. BLM has checkerboard ownership in this segment of the linkage and several of the adjacent parcels are NOT developed that would allow for the design and implementation of a "landscape linkage corridor...at least 1.2 miles wide" (Objective L1.2). As such, this segment of the linkage should be identified as a Conservation Planning Area. All desert tortoise linkages should be included in the Reserve Design in order to achieve Goal DETO2 (Desert Tortoise Linkages), "Maintain functional linkages between Tortoise Conservation Areas to provide for long-term genetic exchange, demographic stability, and population viability within Tortoise Conservation Areas". The Western Mojave Recovery Unit and the associated linkages may be especially important to allow the tortoise to adapt to climate change, as indicated in Section III.7.4, "According to climate change models, conditions currently present in parts of the Colorado/Sonoran Desert are expected to expand to other parts of the Plan Area (Allen 2012), with an associated shift in vegetation (Notaro et al. 2012).

AM-DFA-ICS-5 Comment: If "Covered Activities, except for transmission projects in existing transmission corridors, will avoid the desert tortoise conservation areas (TCAs) and the desert tortoise linkages identified in Appendix H", why are ANY DFAs sited in TCAs and linkages? Further, why are any areas of the tortoise linkages "Undesignated" and therefore "available for disposal"? As one of the Reserve Drivers, all desert tortoise TCAs and linkages in ALL Recovery Units should be included in the Reserve Design!

AM-DFA-ICS-6 Comment (1): A population viability analysis (PVA) should have been conducted Plan-Wide for desert tortoise as part of the DRECP process. This information should have been presented in Vol. III to assess existing recovery efforts under baseline conditions and in Vol. IV to compare the potential impacts of habitat loss proposed under each Alternative. AM-DFA-IC-6 refers to "the maintenance of long term viable desert tortoise populations within the affected linkage". While each of the desert tortoise linkages identified in Figure H-7 provide live-in and move-through habitat, these linkage are intended to provide connectivity between the TCAs to maintain the viability of the entire population. As stated in Section III.7.6.1.1, "Linkage habitat are important areas identified by Recovery Implementation Teams, such as

important genetic linkages identified by Hagerty et al. 2010 (cited in USFWS 2011a) that are important to maintaining the species' distribution throughout its range". A PVA for a "linkage population" doesn't make sense.

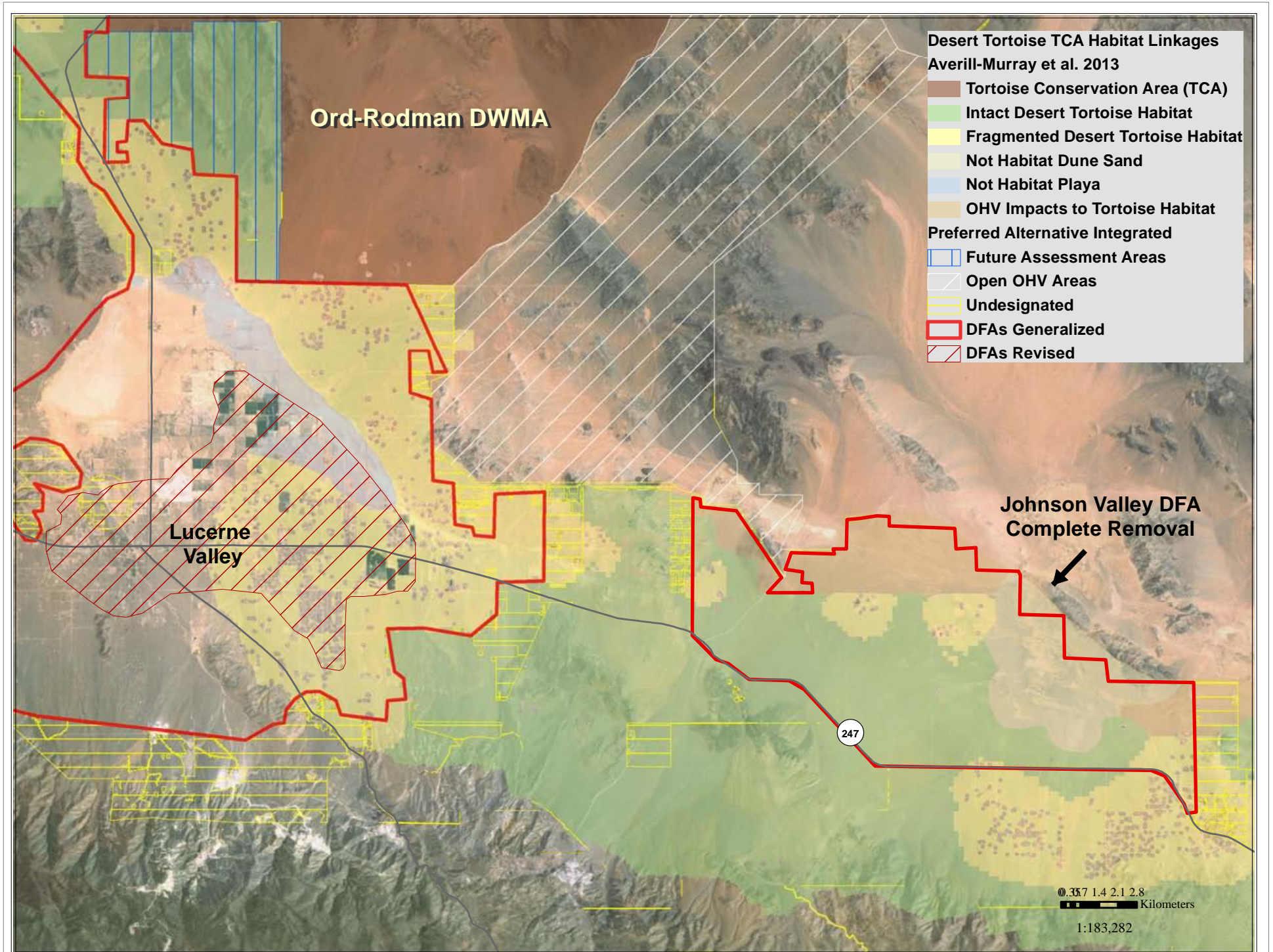
AM-DFA-ICS-6 Comment (2): "Covered Activities that would compromise the viability of a linkage population or the function of the linkage, as determined by the DRECP Coordination Group, are prohibited and would require reconfiguration or re-siting".

AM-DFA-ICS-7: Covered Activities will be sited in lower quality desert tortoise habitat in desert tortoise linkages and the Ord-Rodman TCA, identified in Appendix H.
COMMENT: Identified where? Figure H-6 Desert Tortoise Survey Areas? Figure H-7? Neither of these maps depict "lower quality desert tortoise habitat". If Figure H-6, is the "lower quality desert tortoise habitat in the "No Survey Areas" identified in the legend, or in the "No Survey Areas" and "Clearance Survey Only Areas". If so, that would imply that the "Protocol Survey Areas" are higher quality desert tortoise habitat, which would reinforce comments made above for AM-DFA-ICS-5 and AM-DFA-ICS-6. Figure H-7, Desert Tortoise Conservation Areas, identifies the majority of the Apple, Lucerne, Johnson Valley DFAs as Protocol Survey Areas with some smaller areas identified as Clearance Survey Areas.

The Lucerne Valley DFA as currently proposed completely severs the northern segment of the Ord-Rodman to Joshua Tree Linkage (Figure 8) and would severely compromise the function of this linkage (AM-DFA-ICS-6). The analyses conducted by USFWS (Averill-Murray et al. 2013) indicate that this area is relatively permeable to tortoise movement and this entire area is identified as highly suitable in the desert tortoise Maxent model (Nussear et al.2009). This area of the linkage is identified as Fragmented Desert Tortoise Habitat in Attachment B to Appendix D but an evaluation of aerial imagery in this area reveals that existing rural development here is relatively sparse and the majority of residential properties in this area are unfenced. This area of the linkage should not be written off, especially since one of the overarching Biological Goals is to, "Preserve, restore, and enhance natural communities and ecosystems including those that support Covered Species within the Plan Area". The distance between the Ord-Rodman TCA and the Intact Desert Tortoise Habitat in the Old Woman Springs Wildlife Linkage ACEC is roughly 7 miles, fully within the movement capability of an individual tortoise. Sazaki et al. (1995) estimated dispersal distance for pre-breeding male tortoises to be between 6.21-9.32 miles. This DFA must be reconfigured to completely avoid this linkage. Further, the playa habitat to the west of the tortoise linkage, although not tortoise habitat, could buffer the tortoise linkage from Covered Activities in the remaining DFA, while also providing habitat for other Covered Species (e.g., burrowing owl, pallid bat, Townsend's big-eared bat) .

The Johnson Valley DFA as currently proposed (Figures 7 and 8) would severely compromise the function of the Or-Rodman to Joshua Tree linkage. This proposed DFA is roughly 27,258 acres, much of it Intact Desert Tortoise Habitat as identified in Attachment B to Appendix D and Figures C-35 and C-36. The area of intact habitat in the linkage currently ranges in width from roughly 5 to 8 miles wide. The proposed Johnson Valley DFA would reduce the width of the linkage to about 3 miles wide in this stretch of the linkage. The average home range size for desert tortoise in the Western Mojave Recovery Unit is 125 acres (USFWS 1994, Boarman 2002). Would this significant reduction of intact habitat allow for "the maintenance of long-term

Figure 8. Desert Tortoise Ord-Rodman to Joshua Tree Linkage Conflicts



viable desert tortoise populations within the affected linkage (AM-DFA-ICS-6)”? This entire DFA is identified as highly suitable in the desert tortoise Maxent model (Nussey et al.2009) and the great majority of it is BLM land. This linkage must not be written off, especially since one of the overarching Biological Goals is to, “Preserve, restore, and enhance natural communities and ecosystems including those that support Covered Species within the Plan Area”. We recommend complete removal of this DFA to avoid this linkage in order to “maintain functional linkages between Tortoise Conservation Areas to provide for long-term genetic exchange, demographic stability, and population viability within Tortoise Conservation Areas” and meet the intent of Goal DETO2 (Desert Tortoise Linkages).

□ **Objective DETO2.1a (Desert Tortoise Linkages):** Protect, manage and acquire desert tortoise habitat within the following linkages (see Figure C-34) with special emphasis placed on areas of high habitat potential and areas identified as integral to the establishment and protection of a viable linkage network (see Figure C-36). Ensure the long-term connectivity of Tortoise Conservation Areas by maintaining desert tortoise habitat that is of sufficient size and contiguity for maintenance of viable populations within each linkage.

- o Ord-Rodman to Superior-Cronese to Mojave National Preserve
- o Superior-Cronese to Mojave National Preserve to Shadow Valley to Death Valley National Park Linkage
- o Joshua Tree National Park and Pinto Mountains Desert Wildlife Management Area (DWMA) to Chemehuevi Linkage
- o Death Valley National Park to Nevada Test Site

DETO2.1a COMMENT: Figure C-34 depicts 9 different desert tortoise linkages yet only 4 are listed here, all of which occur in the Eastern Mojave Recovery Unit and the Colorado Desert Recovery Unit. Why are none of the linkages associated with the Western Mojave Recovery Unit included here? For example, the Ord-Rodman to Joshua Tree Linkage includes a contiguous, fairly wide strand that is either intact desert tortoise habitat or fragmented tortoise habitat with High Habitat Potential (C-36). As a “Reserve Driver” Covered Species and Non-Covered but Addressed Species associated with the Western Mojave are reliant and at the mercy of the agencies to create a VIABLE PLAN-WIDE Linkage Network for ALL native species and ecological process of interest in the DRECP Region.

□ **Objective DETO2.1b (Desert Tortoise Linkages):** Protect, maintain, and acquire all remaining desert tortoise habitat within linkages already severely compromised, specifically the following (see Figure C-34):

- o Ivanpah Valley Linkage
- o Chemehuevi to Chuckwalla Linkage
- o Pinto Wash Linkage

DETO2.1b COMMENT: Why is the Ord-Rodman to Joshua Tree Linkage not included here? Or, the Fremont Kramer to Ord-Rodman Linkage? This objective should read: Protect, maintain and restore all remaining desert tortoise habitat within linkages already severely compromised, specifically the following (see Figure C-34 through C-36):

- o Ivanpah Valley Linkage
- o Chemehuevi to Chuckwalla Linkage

- o Pinto Wash Linkage
- *ADD Ord-Rodman to Joshua Tree Linkage
- *ADD Fremont Kramer to Ord-Rodman Linkage

□ **Objective DETO2.1c (Desert Tortoise Linkages):** Protect intact habitat (see Figure C-35) within the following linkages to enhance the population viability of the Ord-Rodman Tortoise Conservation Area.

- o Ord-Rodman to Joshua Tree Linkage
- o Fremont Kramer to Ord-Rodman Linkage

DETO2.1c COMMENT: The DRECP refers the reader to Figure C-35 Desert Tortoise Biological Goals and Objectives but the LEGEND on this map refers to Objective DETO2.1d in relation to the Ord-Rodman to Joshua Tree Linkage and the Fremont Kramer to Ord-Rodman Linkage but DETO2.1d doesn't exist under Goal DETO2 (Desert Tortoise Linkages). However, Figure C-36 Desert Tortoise Biological Goals and Objectives and Habitat Potential does identify DETO2.1c for these two desert tortoise linkages. There is no explanation for the legend in Figure C-36 but one must assume that the High and Low following the BGOs relate to High Habitat Potential and Low Habitat Potential. The "Fragmented Habitat" in both of these linkages identified in Figure C-35 is also identified as having High Habitat Potential in Figure C-36. Protecting only "intact habitat" in the Ord-Rodman to Joshua Tree Linkage will do nothing to enhance the population viability of the Ord-Rodman Tortoise Conservation Area if ALL of the habitat within the linkage between the TCA and the intact habitat is entirely within a DFA! Shouldn't the tortoise linkages enhance the population viability of all of the TCAs (e.g., Joshua Tree, Fremont Kramer)?

Step-Down Biological Objective DETO-B: Protect, maintain, and manage for the duration of the NCCP on BLM LUPA conservation designation lands and prioritize for conservation on non-BLM lands substantial representative areas of desert tortoise habitat in the following areas:

- O Desert Tortoise Research Natural Area
- O Fremont-Kramer Desert Wildlife Management Area and Critical Habitat Unit
- O Ord-Rodman Desert Wildlife Management Area and Critical Habitat Unit
- o Portions of the Superior-Cronese Desert Wildlife Management Area and Critical Habitat Unit
- o Portions of the Chuckwalla Desert Wildlife Management Area and Critical Habitat Unit
- o Portions of intact desert tortoise habitat in the Colorado Desert
- o Fremont Kramer to Ord-Rodman Linkage
- o Chemehuevi to Chuckwalla Linkage
- o Portions of the Ord-Rodman to Joshua Tree Linkage – WHY only portions?

Step-Down Biological Objective DETO-C: Establish long-term conservation to protect, manage, and enhance habitat value for 266,000 acres of desert tortoise habitat that contributes to the DRECP NCCP reserve design in and around the following areas: Desert Tortoise Research Natural Area, Fremont-Kramer Desert Wildlife Management Area and Critical Habitat Unit, Ord-Rodman to Joshua Tree Linkage, Fremont Kramer to Ord-Rodman Linkage, Pinto Wash Linkage, and Chemehuevi to Chuckwalla Linkage. COMMENT: FAA just outside of Ord-Rodman ACEC/NLCS is intact desert tortoise habitat, mountain and intermountain habitat for bighorn sheep, part of land facet linkages and habitat for numerous focal species in the Desert

linkage Network, and other Covered Species (e.g., golden eagle, burrowing owl). In the Overview of the Preferred Alternative II.3.1.1., it says “The current known value of these areas for ecological conservation is moderate to low”. Please! The current known value of this FAA for ecological conservation is very high.

- **Step-Down Biological Objective DETO-D:** Maintain and manage for resource values on BLM LUPA conservation designation lands habitat for desert tortoise in the following areas:
- o Remainder of the Ord-Rodman to Joshua Tree Linkage
 - o Fremont Kramer to Ord-Rodman Linkage

Figure 9 shows areas of the Apple and Lucerne Valley DFAs that conflict with the Mohave ground squirrel. While the Pinto Lucerne Valley and Eastern Slopes Subarea is outside of the Mohave Ground Squirrel Conservation Area, there are historical recorded occurrences in this subarea and specifically in the Apple Valley and Lucerne Valley DFAs. This subarea lies at the southernmost extent of this species distributional range (Inman et al. 2013) and several areas in this subregion are expected to remain relatively stable (Davis et al. in press) under an uncertain climate.

We trust that the above discussion of Reserve Drivers provides sufficient evidence and justification for modification to the Reserve Design in the Pinto Lucerne Valley and East Slopes Ecoregion Subarea. We have also included a composite figure for the other species listed in Table 4 that are also expected to benefit from these modifications to the Apple and Lucerne Valley DFAs and the removal of the Johnson Valley DFA (Figures 10).

Summary: Under the current pace of development, natural resource agencies need to make near-term decisions in the face of existing land use pressures as well as long-term change. The one thing that is certain about climate change is that it is highly uncertain. Penrod et al. (2012) did not design corridors using complex models of future climate and biotic responses to climate change. Such an approach uses 4 models, with outputs of each model used as input to the next model. Specifically modeled future emissions of CO₂ (1st model) drive global circulation models (2nd) which are then downscaled using regional models (3rd) to predict future climate. Then climate envelope models (4th) are used to produce maps of the expected future distribution of species. We avoided this approach for two reasons: (1) Each of the 4 models involves too much uncertainty, which is compounded from model to model and from one predicted decade to the next. In 1999 the IPCC developed 7 major scenarios of possible CO₂ emissions during 2000-2011. The total emissions over the century vary by a factor of 6 among scenarios. *Actual emissions during 2000-2010 were higher than the most pessimistic scenario.* For a single emission scenario, different air-ocean global circulation models produce markedly different climate projections (Raper & Giorgi 2005). Finally climate envelope models may perform no better than chance (Beale et al. 2008). Because these sophisticated models have not simulated the large shifts during the last 100,000 years of glacial oscillations, Overpeck et al. (2005:99) conclude the “lesson for conservationists is not to put too much faith in simulations of future regional climate change” in designing robust conservation strategies. (2) These models produce outputs at a spatial resolution too coarse to support decision making in the California desert. The downscaled climate projections have minimum cells sizes measured in square kilometers. Penrod et al. (2012) used an alternative “land facets” approach to design climate-robust linkages that maximize continuity of the enduring features (topographic elements such as sunny lowland flats,

Figure 9. Mohave Ground Squirrel Conflicts in the Pinto Lucerne Valley Eastern Slopes

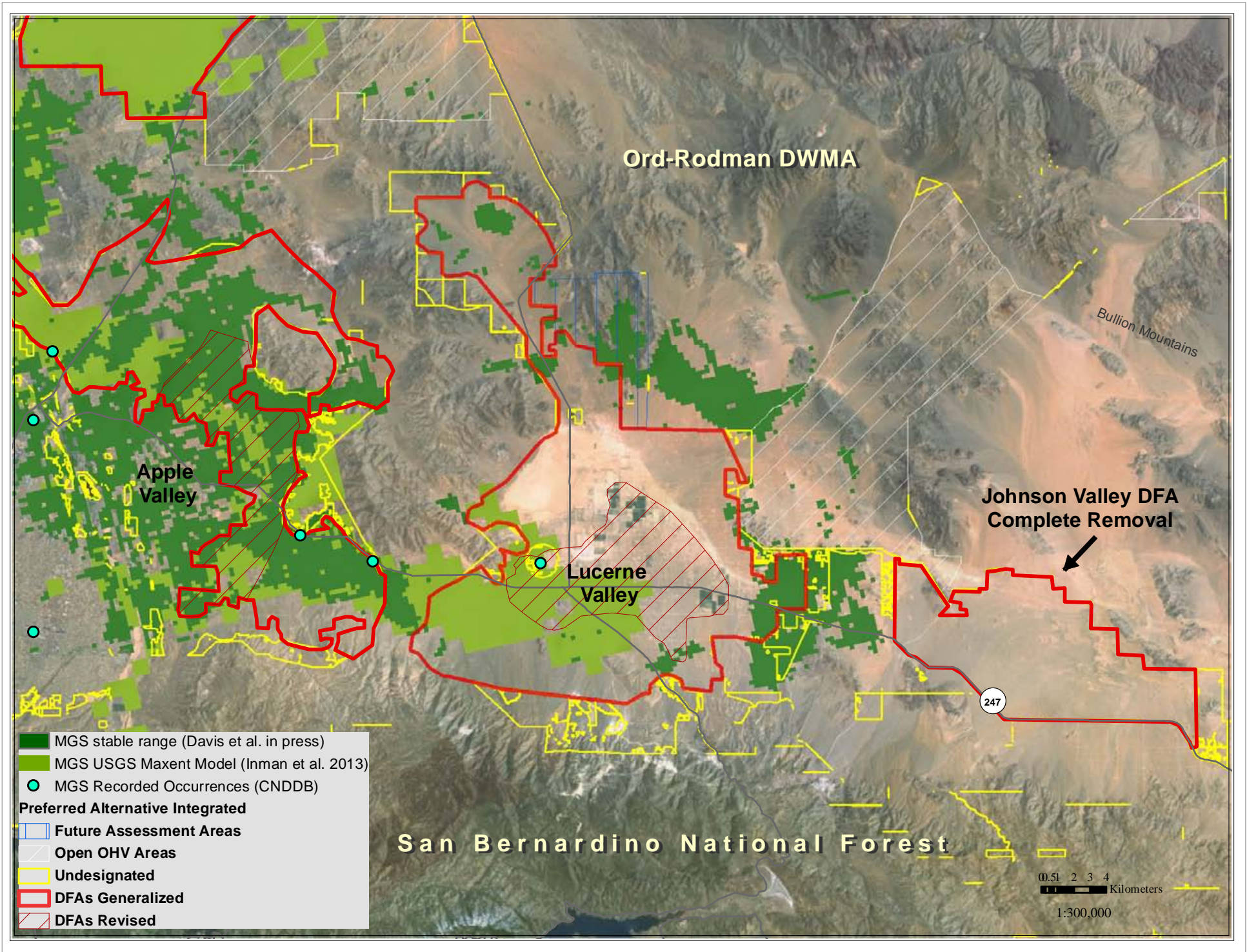
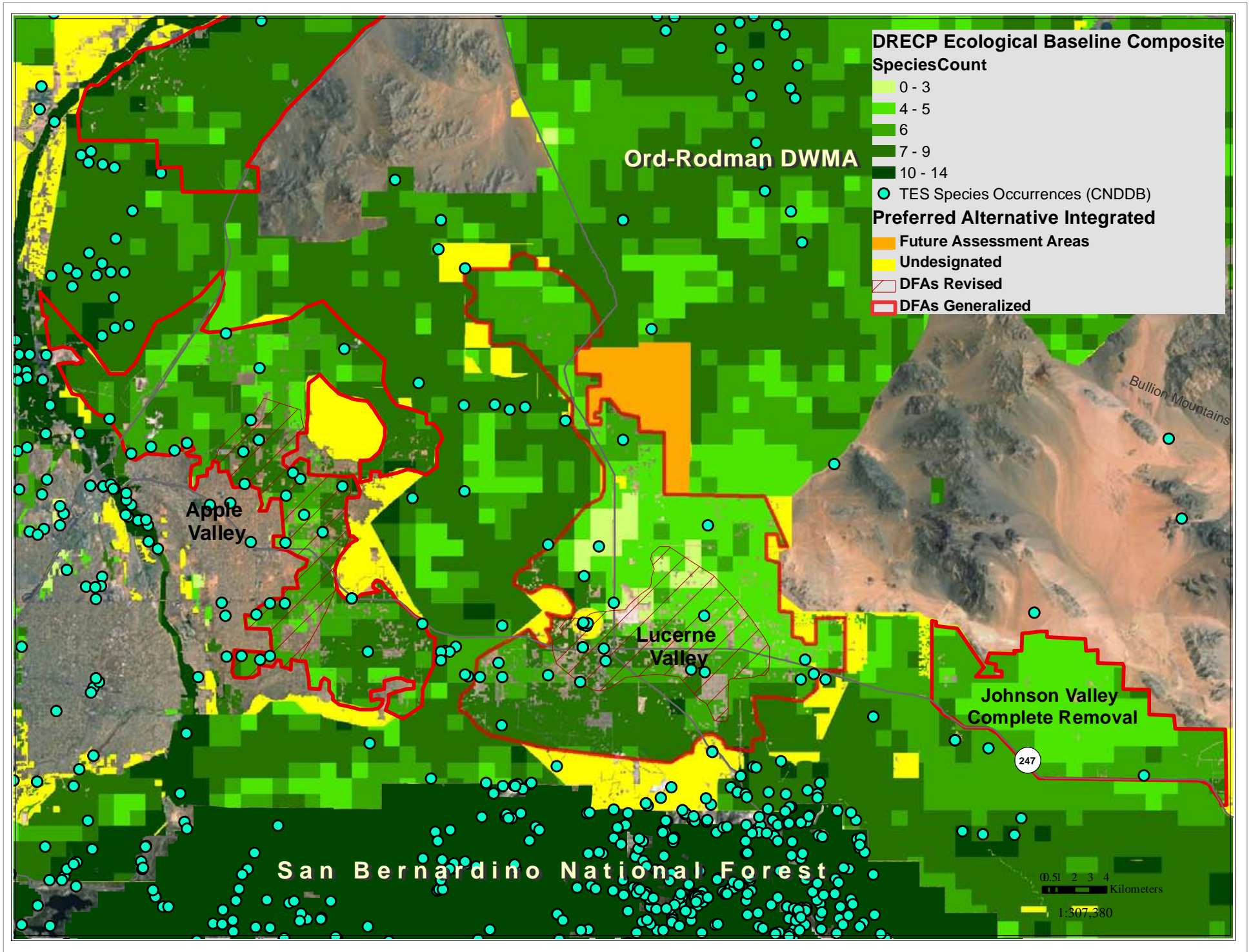


Figure 10. Covered Species Count in the Pinto Lucerne Valley Eastern Slopes



or steep north-facing slopes) that will interact with future climate to support future biotic communities. Enduring features reflect the stable state factors, namely topography, geology, and time. The uncertainties of the land facets approach are almost certainly less than the 6-fold uncertainty in emission scenarios multiplied by the uncertainty in general circulation models multiplied by the uncertainty in regional downscaling multiplied by the uncertainty in climate envelope models.

The Desert Linkage Network (Penrod et al. 2012) was designed to accommodate species movements, range shifts, and continued ecological functions during climate change. The Plan Wide Preferred Alternative includes 2,024,000 acres of DFAs and transmission corridors but says only about 177,000 acres will actually be impacted. If 177,000 acres is all that is truly needed to meet renewable energy goals, then **ALL** areas of the Desert Linkage Network (Penrod et al. 2012), Desert Tortoise TCA and Linkages (Averill-Murray et al. 2013), Bighorn sheep mountain habitat and intermountain habitat (CDFW 2013), and Mohave ground squirrel important habitat (Inman et al. 2013, UCSB 2013) should be included in the Reserve Design. Strategically conserving and restoring functional connections between large wildlands is an effective countermeasure to the adverse affects of habitat loss and fragmentation, and it is an essential mitigation measure for climate change.

In Volume 1 Chapter 1.2, Legal Framework, the DRECP says, “*To approve the DRECP as an NCCP, CDFW must find, based upon substantial evidence in the record, that the NCCP:*

4. Develops reserve systems and conservation measures in the Plan Area that provide for, as needed for the conservation of species, all of the following: (a) conserving, restoring, and managing representative natural and seminatural landscapes to maintain the ecological integrity of large habitat blocks, ecosystem function, and biological diversity; (b) establishing one or more reserves or other measures that provide equivalent conservation of Covered Species within the Plan Area and linkages between them and adjacent habitat areas outside of the Plan Area; (c) protecting and maintaining habitat areas large enough to support sustainable populations of Covered Species; (d) incorporating a range of environmental gradients (such as slope, elevation, and aspect) and high habitat diversity to provide for shifting species distributions due to changed circumstances; and (e) sustaining the effective movement and interchange of organisms between habitat areas in a manner that maintains the ecological integrity of the habitat areas within the Plan Area”.

CDFW cannot approve the DRECP as an NCCP because there is NOT substantial evidence in the record that “ALL” of the above conditions have been met.

Thank you for the opportunity to provide comments on the DRAFT EIR/EIS for the DRECP. SC Wildlands is available to consult with the natural resource agencies to ensure that connectivity is adequately and accurately addressed in the DRECP.

Respectfully Submitted,
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Direct line: 206/285-1916

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May 21, 2018

Planning Commission for San Bernardino County
c/o Ms. Linda Mawby
County of San Bernardino Government Center
385 North Arrowhead Avenue
San Bernardino, California 92415

Sent my email: Linda.Mawby@lus.sbcounty.gov

Re: Policy 4.10 of the RECE

Dear Members of the Planning Commission:

The following comments are made on behalf of the Morongo Basin Conservation Association (MBCA), its members and supporters in unincorporated communities throughout the Morongo Basin, Homestead Valley, Landers, Lucerne Valley, Daggett and Newberry Springs. Our comments include by reference, and our signature onto the comment letter submitted on May 21, 2018 by a coalition of community groups, businesses, agencies and individuals, and to a video (<https://youtu.be/NuOqSgLtKl8>) prepared by Newberry Springs resident, Ted Stimpfel.

MBCA and members of the unincorporated communities were active, engaged, and involved participants in the multi-year planning and revision processes of the Renewable Energy and Conservation Element (RECE) of the General Plan 2007. MBCA and unincorporated community members have been and continue to be active in all phases of planning, commenting, reviewing, and living with the effects of construction and the after effects of utility scale renewable energy (RE).

Please see list of solar projects in our communities in Appendix A.

California Environmental Quality Act (CEQA)

Based on our observations, Land Use Services has not reviewed a solar project for which they did not recommend that a Conditional Use Permit be granted. You may recognize many of us by name or face as we have written and/or appeared before this Commission multiple times stating, that based on our experience, a proposed solar project would likely:

- Have a substantial adverse effect on our scenic vistas
- Substantially damage our surrounding scenic resources
- Substantially degrade the existing visual character of our surrounding viewshed

- Create a new source of artificial glare by day and night when panels are stowed facing the moon and stars
- Violate existing air quality standards for PM10 and PM2.5
- Result in a cumulatively considerable net increase of criteria pollutant PM10 and PM2.5
- Expose sensitive receptors to substantial PM10 and PM2.5
- Have a substantial effect both directly and through habitat modification on threatened and endangered species including the desert tortoise
- Interfere substantially with wildlife corridors and the movement of native resident and migratory wildlife species
- Result in a substantial loss of soil
- Substantially deplete groundwater supplies in areas of overdraft
- Alter the existing drainage pattern of the site
- Physically divide a community
- Conflict with applicable land use plan policy
- Result in a permanent increase in ambient noise levels
- Displace people to who knows where because of air quality and noise levels
- Substantially effect nearby schools and parks
- Increase the need for Fire and Police Protection and emergency services without compensating tax revenue.

Land Use Services, during the many months of delay in responding to the Board of Supervisors directive, have crafted a Staff recommended Policy 4.10 option, in response to developers' interests and without consideration of the welfare of the residents of the unincorporated communities that would be affected by utility scale solar developments.

The above list is taken directly from the CEQA Initial Study (IS) checklist of Issues with accompanying questions intended to discover the significance a project's effects on the environment. The IS substantiations to questions can be challenged in a court of law. The Community Compatibility Report (CCR), as proposed in the Staff recommended Policy 4.10 option, is a re-imagined Initial Study, outside the legal CEQA process, intended to persuade a community of concerned citizens that they are safe in the hands of the developer who is only looking to 'protect their quality of life and economic opportunities'. The Staff recommended Policy 4.10 option appears to have been written by developers to assuage concerns of un-aware residents in unincorporated 'backcountry' communities.

THE COUNTY POSITION ON RENEWABLE ENERGY IN UNINCORPORATED COMMUNITIES IS CONSISTENT

County Position on the Draft Desert Renewable Energy Conservation Plan. February 2015

In February 2015 the County took issue with the DRECP and issued a Position Paper. At that time county land was included with federal land in the designation of Development Focus Areas (DFA) for utility scale solar development. The ratio was 3:1 in favor of county land over federal land for development. (See Appendix B).

Key priorities for the County, taken from the February 2015 Position Paper, are:

- Protect desert community values and economic development opportunities by focusing large scale renewable energy development, mitigation and conservation on federal land in the County, and minimizing it on private land in the County
- Encourage distributed generation that addresses local needs while allowing excess energy to be sold to the grid

- Seek means to improve the economic benefits of renewable energy development to the County, such as:
 - Requiring property tax valuation on solar photovoltaic (PV) projects
 - Identifying opportunities for the County to partner with renewable energy developers on microgrid projects
 - Developing mechanisms for direct financial benefits to local communities impacted by renewable energy development, such as discounted electricity bill pricing or rebates

Key Priorities of the Renewable Energy and Conservation Element (RECE) Adopted August 8, 2017 (See the Executive Summary Guiding Principles pages 4-6).

Guiding Principles of RECE

Community-Oriented (selected)

- Encourage community-oriented renewable energy generation facilities, with emphasis and priority given to roof-top and parking lot installations of solar energy systems.
- Keep utility-oriented projects separate from, or sufficiently buffered from existing communities to avoid adverse impacts on community development and quality of life.
- Encourage local renewable energy production to meet local energy demand while allowing excess energy to be sold to the grid.
- Pursue energy security and independence.
- Ensure that new renewable energy development is located, designed, and constructed in a manner that reflects Core Values and respects private property rights.
- Encourage more direct benefits to the county from renewable energy.
- Inform affected communities and stakeholders about proposed renewable energy development in a manner that allows meaningful, timely engagement in the review process.
- Collaborate with county residents and other stakeholders to improve understanding of renewable energy issues.
- Provide residents more affordable, reliable, diverse, and safe access to energy, especially renewable energy.
- Ensure that development of County-owned properties is consistent with the goals and policies of the Renewable Energy and Conservation Element.

Environmentally-Oriented (selected)

- Emphasize and promote energy efficiency and the utilization of rooftop and other onsite accessory generation.
- Guide community and regional development to meet the needs of the present without compromising the ability of future generations to meet their own needs.
- Reduce greenhouse gas (GHG) emissions in response to state mandates.
- Improve air quality.
- Direct renewable energy facilities to suitable areas in the unincorporated county - especially to areas that have been previously disturbed, leverage the existing transmission network, and/or respond to local demand.
- Conserve and sustain sensitive natural resources and habitats.
- Prohibit renewable energy production in areas identified as critical habitat or as a wildlife corridor for species of special concern as defined in the Conservation Element, without comprehensive and feasible mitigation or avoidance of potential impacts.

Economically-Oriented (selected)

- Encourage economic growth that complements local values, needs and lifestyles.
- Encourage renewable energy development that promotes a strong economy.
- Maintain a system of fees, taxation, and other compensatory tools that adequately covers the County costs of providing necessary public services, including the costs associated with the regulation of renewable energy project sites.
- Optimize the benefits of renewable energy to county residents, businesses, organizations, and government, while ensuring fiscal integrity, accountability, and consistency with the county's core values.

In favoring the Staff recommended Policy 4.10 option, it is apparent that Land Use Services supports the placement of Utility Scale Renewable Energy within existing unincorporated communities. Land Use Services is now doing what the 2015 County Policy requested the DRECP NOT DO to unincorporated communities on County land. Currently:

- Utility scale renewable energy developments are focused on private land designated by the county as **Prime Developable Land** thereby threatening community values and economic development. (See Map Appendix B)
- Local Communities **do not benefit** from the RE projects since all the energy is transmitted to the grid.
- The County receives **no long term economic benefit** from RE projects. There is still no mechanism for the County to collect property tax valuation on PV projects.
- The **County remains the provider** for emergency services rising from RE projects.
- The County **is not** partnering with developers on microgrid projects
- Local communities receive **no direct financial benefits** from the utility scale RE development, such as discounted electricity bills pricing or rebates.

Contrary to the Staff recommended Policy 4.10 option, we believe there is no doubt that the original version of Policy 4.10 is consistent with the County's often stated positions supporting unincorporated communities, the environment, and the economy. These positions originate in the 2007 General Plan and in the incorporated individual community plans and are defensible under the law.

Please support the communities, the environment and the economy by voting for the original Policy 4.10 to exclude the placement of utility scale renewable energy projects from Rural living Districts and from existing Community Plan Areas.

Thank you.



Pat Flanagan
Board member MBCA

Sarah Kennington, President
Steve Bardwell, Treasurer
Marina West, Secretary

Laraine Turk
Meg Foley
Seth Shteir

Claudia Sall
Ruth Rieman
Mike Lipsitz

Appendix A: List of Renewable Energy projects by community, acreage, and current status as of March 26, 2018. The master list can be found at

<http://cms.sbcounty.gov/Portals/5/Planning/Renewable%20Energy/SolarProjectList.pdf>

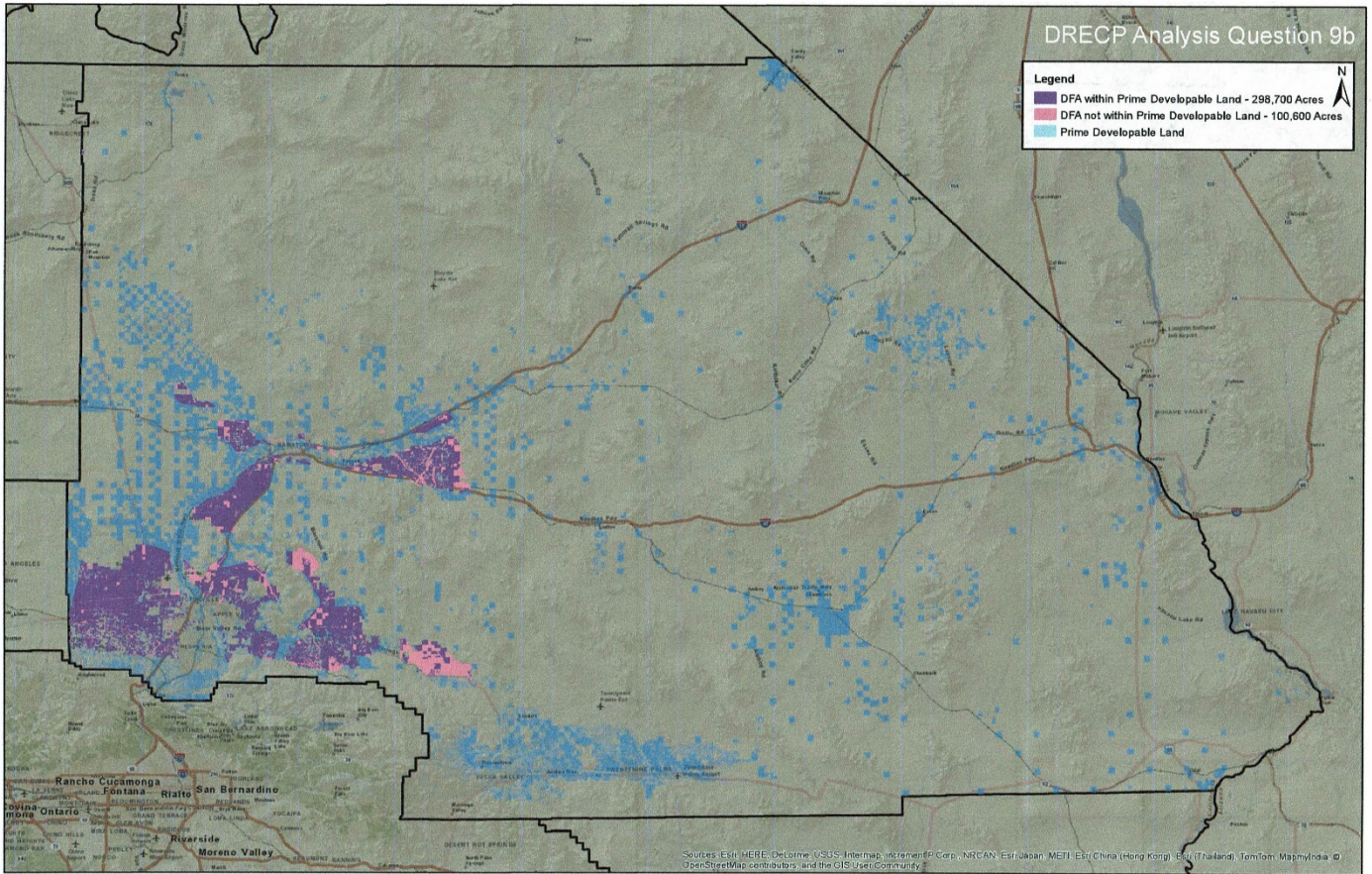
Project Name	Community	Acreage	Status
Sienna Solar No. & So.	Lucerne Valley	400	Under Review
Camp Rock Solar Farm	Lucerne Valley	20	Under Review
Ord Mountain Solar	Lucerne Valley	483	Under Review
Sienna Solar East & West	Lucerne Valley	902	Under Review
Calcite Solar	Lucerne Valley	645	Under Review
Agincourt Solar	Lucerne Valley	80	Complete/ Operating
Marathon Solar	Lucerne Valley	152	Complete/Operating

Daggett Solar Power	Daggett	3500	Under Review
Sunpower Solar	Daggett	1200	Under Review
Sunray Energy	Daggett	333	Complete
Silver Valley	Newberry Springs	105	Conditionally Approved
Ned Araujo	Newberry Springs	14	Conditionally Approved
Soitec Solar	Newberry Springs	22	Complete/Operating

Joshua Tree Solar Farm	Joshua Tree	115	Conditionally Approved
Cascade Solar	Joshua Tree	150	Complete/Operating
SEPV2 Solar	29 Palms	20	Complete/Operating
SEPV8 Solar	29 Palms	100	Complete/Operating
SEPV9 Solar	29 Palms	80	Complete/Operating

Appendix B: Map answering the Question 9b: How much of the DFA land is within prime developable land in the County? (Page C-18 County of San Bernardino Position Paper on the Draft Renewable Energy Conservation Plan, 3 February 2015)

Designations: DFA within Prime Developable Land	298,700 acres	(dark blue)
DFA not within Prime Developable Land	100,699 acres	(pink)
Prime Developable Land		(light blue)



From: Paul Deel
To: [Mawby, Linda](#)
Subject: letter to Planning Commission regarding hearing on the RECE
Date: Saturday, May 19, 2018 8:39:13 PM

May 18, 2018

Planning Commission for
San Bernardino County
% Linda Mawby
Linda.mawby@lus.sbcounty.gov

Re: Policy 4.10 of the RECE

Dear Members of the Planning Commission,

The original version of the 4.10 element closed the door once and for all to utility scale solar in our communities, protecting us from the onslaught we face today. **It is right.** The new version puts our people, our desert and the environment on the auction block. **It is wrong.**

In comparing the original 4.10 vs. the newly proposed 4.10 and other elements of the RECE, it appears to me that there must be an agent for the developers within the Planning Department.

The facts are, (without the lengthy arguments factually presented by others):

1. There is **no need** for the electricity produced by utility scale solar. 'Roof top' will do the job, and produce the greatest economic benefit to San Bernardino.
2. Solar **is new**, a different energy than oil, gas, coal or even hydro. It is best harvested where it is used. Expensive to maintain, collect and distribute RE business models proposed by utility scale solar developers are profitable for them but totally unnecessary and wasteful for the rest of us.
3. The **Mojave Desert's** environmental systems are **too complex** and **too fragile** to be scraped clear and covered over with solar without catastrophic environmental and human consequences.
4. There is **not found** a reasonable **community benefit** for this scale of development.
5. The **peaceful people** who call the rural Mojave Desert home **should not have to live under the threat** that an outside, monied developer can buy away their peace and tranquility by influencing a distant government employee.

Please put the 4.10 element as originally proposed into the RECE.

Sincerely,
Paul Deel, President, NSEDA
Newberry Springs Economic Development Association

From: Richard Lutringer
To: [Mawby, Linda](#)
Cc: sallwildlands@gmail.com; seth.shteir@gmail.com; davesmiller09@gmail.com; chuckb@sisp.net; [April Sall](#); mariana.maguire@gmail.com; [Richard E. Lutringer, Esq.](#)
Subject: Comments regarding Policy 4.10 of the RECE
Date: Saturday, May 19, 2018 6:22:15 PM

[San Bernardino County](#) Planning Commission
c/o Ms. Linda Mawby
County of San Bernardino Government Center
Covington Chambers- [First Floor 385 North Arrowhead Ave.](#)
[San Bernardino](#), CA 92415

Re: Policy 4.10 of the RECE

Dear Members of the Planning Commission:

On behalf of the California Desert Coalition, we are providing comments on the revised language of RECE Policy 4.10 as proposed by the Planning Commission on April 9, 2018.

In order to guide County planners, residents and developers as to industrial solar facility siting in the unincorporated areas of San Bernardino County, regulatory siting standards should be clear and predictable. The original draft of RECE Policy 4.10 proposed on August 8, 2017 met those tests, by, among other things, explicitly prohibiting such projects in "Rural Living land use districts" as well as "within the boundaries of existing community plans" and directing new industrial solar facilities to defined exclusion areas.

The new draft RECE Policy 4.10,, however only requires the developer to provide a "community compatibility report", essentially making the requirement a softball that can be addressed without having to meet any explicit standards.

The community compatibility report is to include an "analysis of consistency with community values and aspirations outlined in the community plan", not exactly a rigorous test since "values and aspirations" in community plans are precatory and by themselves, not suitable for use as land use standards. A few excerpts from the latest community plan drafts indicate how relying on statements of a community's "values" provide little protection to community residents in this context. Joshua Tree's draft Community Plan refers, for example, to "the natural beauty of the surrounding desert environment " and "the economic and cultural benefits of tourism". The Pioneertown draft Community Plan states that "residents value the natural beauty of the desert, including scenic vistas, wildlife, beautiful sunrises and sunsets". Similarly, Homestead Valley residents "value the rural lifestyle and character of the area, which includes wide open spaces and stretches of unpaved roads, fresh air, dark night skies, and a peaceful and quiet atmosphere." One can easily imagine a utility solar plant developer extolling the use of such mitigating factors as limited night lighting, "camouflaged" fencing and setbacks to make a facility "consistent" with these "values". The proposal contains no effective and predictable standard to restrain industrial solar facilities in areas designated as Rural Living or within areas covered by a community plan. Under the vague and general wording of the revised 4.10, a developer is given a free hand to interpret its own consistency with a community's "values and aspirations".

With respect to the other “standards” to be provided in the revised Policy, 4.10 community compatibility report, most are factors, such as minimizing visual aspects through topography and design, which belong in “Policy V, Siting”, since they address potential impacts of any site, not just those within rural communities.

The revised language also considers the “benefit to public utilities_or public services” expected by the proposed facility. Of course there will be a benefit to the utility or the site would not have been proposed and it will, by definition, produce electricity which will, in some measure, be used by the community at large. How can the County weigh the importance of such assertions ? A utility would not, by definition, authorize the construction of a site that wasn’t beneficial to it for economic reasons. The question for the County is whether it is beneficial to the rural community to have a new industrial solar facility sited within its boundaries.

For the reasons provided above, it is our position that the revised Policy 4.10 not be approved in its current wording and that the wording of the original Policy 4.10 be used as the basis for the protection of the County’s rural communities.

Very truly yours,

CALIFORNIA DESERT COALITION