DOCKETED	
Docket Number:	24-OPT-03
Project Title:	Soda Mountain Solar
TN #:	269352-5
Document Title:	Staff Memorandum on Record of Proceedings_Attachment 4
Description:	Admin Record - Part 4 of 5
Filer:	Ngoc Tran
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	3/27/2026 3:25:46 PM
Docketed Date:	3/27/2026

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From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/2/2025 10:50:14 PM
To: Patrovsky, Joan E [jpatrovs@blm.gov]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
CC: Stamer, Marc R [mstamer@blm.gov]; Cordes, Isabeau J [icordes@blm.gov]; Donnell, Julie A [jdonnell@blm.gov]
Subject: Re: Secretarial Order 3438 - DOI Renewable Energy

Thanks Joan for that.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Tuesday, September 2, 2025 3:06 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Cc: Stamer, Marc R <mstamer@blm.gov>; Cordes, Isabeau J <icordes@blm.gov>; Donnell, Julie A <jdonnell@blm.gov>
Subject: Secretarial Order 3438 - DOI Renewable Energy

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Good day Lisa, Kaycee and Eric,

In advance of our meeting this Thursday at 2:00 pm, the bureau wishes to share this Secretarial Order which affects the Soda Mountain Solar project along with pending renewable applications.

We wanted to ensure you were aware. We look forward to our meeting.

Sincerely,

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office



"What you do today can improve all your tomorrows."- Ralph Marston

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From: Patrovsky, Joan E [jpatrovs@blm.gov]
Sent: 9/16/2025 11:40:52 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Stamer, Marc R [mstamer@blm.gov]; Donnell, Julie A [jdonnell@blm.gov]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Robledo, Lilia (Nancy) [lrobledo@blm.gov]
Subject: Re: [EXTERNAL] Soda Mountain BLM CEC Coordination meeting

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Lisa,

The BLM Barstow Field Office will not be reviewing the most recent Plan of Development submitted by Soda Mountain Solar LLC until further direction is received from the Department of the Interior.

The Bureau requests the California Energy Commission's input on the document. Upon any change in the application status, BLM will transmit CEC's comments to the applicant, along with any additional documents or information received.

Following our upcoming meeting on September 24, the Bureau recommends transitioning to quarterly coordination meetings unless the status of the Soda Mountain Solar project changes. A check-in during December 2025 or January 2026 may be appropriate, as CEC is expected to have a draft EIR available at that time.

The Bureau understands that the CEC has initiated its Opt-In analysis, with a Final EIR anticipated in April 2026.

Sincerely,

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office



"What you do today can improve all your tomorrows."- Ralph Marston

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From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, September 16, 2025 2:56 PM
To: Patrovsky, Joan E <jpatrovs@blm.gov>; Stamer, Marc R <mstamer@blm.gov>; Donnell, Julie A <jdonnell@blm.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Robledo, Lilia (Nancy) <lrobledo@blm.gov>
Subject: Re: [EXTERNAL] Soda Mountain BLM CEC Coordination meeting

Hi Joan,

Does this mean that the BLM is not reviewing the updated POD until you get further direction from the Interior?

Also, confirming you want to meeting to remain monthly, right?

Our process is continuing.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, September 16, 2025 12:36 PM
To: Patrovsky, Joan E <jpatrovs@blm.gov>; Stamer, Marc R <mstamer@blm.gov>; Donnell, Julie A <jdonnell@blm.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Robledo, Lilia (Nancy) <lrobledo@blm.gov>
Subject: Re: [EXTERNAL] Soda Mountain BLM CEC Coordination meeting

Okay. Thanks Joan.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Tuesday, September 16, 2025 12:31 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Stamer, Marc R <mstamer@blm.gov>; Donnell, Julie A <jdonnell@blm.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Robledo, Lilia (Nancy) <lrobledo@blm.gov>
Subject: Re: [EXTERNAL] Soda Mountain BLM CEC Coordination meeting

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Hello Lisa,

For our next meeting, Julie Donnell, Assistant Field Manager, and I will be attendees.

We're awaiting further guidance from the Department of the Interior regarding Secretarial Order 3438 and the memo on pending solar projects. Until that direction is provided, the amendment application for Soda Mountain Solar will remain in a non processing status.

In the meantime, continuing with brief monthly meetings seems like the best way to keep communication open and information flowing.

Looking forward to our discussion,

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office

""It always seems impossible until it's done." - Nelson Mandela

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print, retain, copy or disseminate this message or any part of it without the express authorization from the author.

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 15, 2025 5:07 PM
To: Patrovsky, Joan E <jpatrovs@blm.gov>; Stamer, Marc R <mstamer@blm.gov>; Donnell, Julie A <jdonnell@blm.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: [EXTERNAL] Soda Mountain BLM CEC Coordination meeting

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Hi all,

Right now, we have a bi-weekly meeting next Wed (9/24) at 3-4 pm. We can drop out the tec staff and only add them to a specific meeting as needed.

Would that be sufficient, or would you want to meet weekly as well?

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/18/2025 9:32:55 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Negar Vahidi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cb23cc0e70ac4e44ab61714491954981-4e241c75-c7]; Irene Kaufman [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f4ae9e57a76f4e0bb81d46c1217ee928-8b02fa12-20]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; unnasch [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c174df7e5d104ce3bb49a121c6abd286-7ee415de-d9]; Brian Healy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a668474a1dac4761b0e16987b1a6c39d-d36f15d5-1e]
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

Excellent. Thanks Hannah.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Thursday, September 18, 2025 2:28 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

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Hi Lisa,

Yes, we are in the process of updating the report now and hope to have it to you by next week.

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, September 18, 2025 2:28:02 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

Hi Hannah,

Just wanted to follow up on this email and whether the applicant will be updating the Socioeconomic Report. This will help our Socio staff know for our analysis.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy
Sent: Tuesday, September 9, 2025 8:51 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Soda Mountain Solar Project- Net benefits to the County and new federal act

Hi Hannah,

Socioeconomics staffhave been looking at the new federal "One Big Beautiful Bill Act." There is a provision in the law that they believe may apply to Soda Mountain, since it has a solar component and is on federal land. This provision is included in the "Disposition of revenues" clause is in *Sec. 50303. Renewable Energy Revenue Sharing* on page 80 of OBBBA (see attached and highlighted text). An excerpt is below.

Given this information, it would be helpful if you update the Socioeconomic Report to factor in the potential benefit to the local agency and the State (i.e., update their calculations). The bold text highlights the pertinent text.

> 1. **DISPOSITION OF REVENUES**.-Beginning on January 1, 2026, the amounts collected from a renewable energy project as bonus bids, rentals, fees, or other payments under a right-of-way, permit, lease, or other authorization shall-
>
> a. (A) be deposited in the general fund of the Treasury; and
> b.
> c. (B) without further appropriation or fiscal year limitation be allocated as follows:
>
> **(i) 25 percent shall be paid from amounts in the general fund of the Treasury to the State within the boundaries of which the revenue is derived.**
>
> **(ii) 25 percent shall be paid from amounts in the general fund of the Treasury to each county in a State within the boundaries of which the revenue is derived, to be allocated among each applicable county based on the percentage of county land from which the revenue is derived.**

Thank you,

Lisa

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Neal Desai [ndesai@npca.org]
Sent: 9/23/2025 5:00:44 PM
To: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Energy - STEP Siting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=14e6ac2919ec428bb3378e30ce9a58e9-Energy - ST]
CC: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Qaqundah, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7da5ec0923de49488685fdaa76c71e51-Qaqundah, J]; House, Rosemary@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3fd09f7d0d9e4bc69746863233e8ffdf-3929d70b-14]; Rodriguez, Sally@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=436499a85cb14d80bd04cda176e40a85-5f828a60-96]; Lukanich, Kimberly@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3f1a946e58c54794950425a4010d35a4-e94335c9-4a]; Sandoval-Moreno, Victoria@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c435065cd74a4e2a8162523065d8b11a-Sandoval-Mo]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

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Thank you all. Yes, at the meeting, I requested – and Commissioner Gallardo agreed – to visit the site with advocates who have a very different perspective than the applicant, who she already visited the site with. Jimmy and Rosemary, please let us know the next steps towards locking in a date for this visit.
Thank you,
Neal

==========

Neal Desai
Senior Pacific Regional Director
National Parks Conservation Association
Mobile: 510.368.0845 |ndesai@npca.org

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Friday, September 19, 2025 10:20 AM
To: Neal Desai <ndesai@npca.org>; Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Good morning, Neal,

Thank you for reaching out and for your interest and participation in our proceedings. I added the following CEC team members to this email to help facilitate planning the field visit:

1. James (Jimmy) Qaqundah - Commissioner Gallardo's advisor
2. Rosemary House - Commissioner Gallardo's executive assistant
3. Sally Rodriguez, Kimberly Lukanich, Victoria Sandavol-Moreno - our Executive Office administrative team (working with Executive Director Drew Bohan)
4. Ann Crisp - Biological Resources unit supervisor in the Siting, Transmission, and Environmental Protection Division

Jimmy and Rosemary will lead this planning effort, in coordination with Ann, Sally, Kimberly, and Victoria.

Team: please see email below from Neal Desai, Senior Pacific Regional Director of the National Parks Conservation Association. Neal provided a verbal comment during our 8/29 informational/scoping meeting for the Soda Mountain Solar Project.

Please let me know if anyone needs anything in the meantime.

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
Siting, Transmission, and Environmental Protection Division
Book time to meet with me

From: Neal Desai <ndesai@npca.org>
Sent: Thursday, September 18, 2025 9:34 PM
To: Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Evening,
Commissioner Gallardo requested me to email this email address to schedule a field trip to the proposed Soda Mt Solar site with our organization and others in our coalition, in response to my testimony/public comments at the recent informational meeting.

Please let me know how to proceed to identify date options available.
Thank you!
Neal

==========

Neal Desai

Senior Pacific Regional Director

National Parks Conservation Association

Mobile: 510.368.0845 |ndesai@npca.org

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/25/2025 4:20:55 PM
To: Donnell, Julie A [jdonnell@blm.gov]; Patrovsky, Joan E [jpatrovs@blm.gov]; Stamer, Marc R [mstamer@blm.gov]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
Subject: Re: [EXTERNAL] Soda Mountain BLM CEC Coordination meeting

Thank you so much for that update. It is very helpful.

Take care,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Donnell, Julie A <jdonnell@blm.gov>
Sent: Wednesday, September 24, 2025 5:47 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Patrovsky, Joan E <jpatrovs@blm.gov>; Stamer, Marc R <mstamer@blm.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Re: [EXTERNAL] Soda Mountain BLM CEC Coordination meeting

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Good afternoon all,

Regarding the question that came up during our call today concerning FWA issuance, I got confirmation from the CDD District Office that at the moment we are not allowed to issue field work authorizations for renewable energy projects. We are continuing to get updates on process, but at the moment this project has not been review by DOI.

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 15, 2025 5:07 PM
To: Patrovsky, Joan E <jpatrovs@blm.gov>; Stamer, Marc R <mstamer@blm.gov>; Donnell, Julie A <jdonnell@blm.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: [EXTERNAL] Soda Mountain BLM CEC Coordination meeting

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi all,

Right now, we have a bi-weekly meeting next Wed (9/24) at 3-4 pm. We can drop out the tec staff and only add them to a specific meeting as needed.

Would that be sufficient, or would you want to meet weekly as well?

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/30/2025 7:44:43 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
Subject: Soda Mountain- Meeting request for JD

Hi Hannah,

Our biological resources staff would like to meet with you and your JD staff to discuss how the JD was developed. We noticed that the waters have reduced from the previous JD and would like to understand the data we are seeing.

Our availability is:
Thursday Oct 2, 8:30-9:30, 10:30-12
Friday Oct 3, 8:30-12, 1-2:30, 3:30-4:30
Monday Oct 6, 11-12
Tuesday Oct 7, 1-2:30, 3:30-4:30
Wednesday Oct 8, 8:30-10, 1-4:30
Thursday Oct 9, 10:30-12, 3-4:30

Please let me know all the days and times you can meet. Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 9/30/2025 8:29:36 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]; Ackerman, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc35de240cf4253af9cc7d3d2cbb643-Ackerman, J]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Hughes, Joseph@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7dd5e80572b644209e9607ba7bdcb630-Hughes, Jos]
Subject: Re: Soda Mountain - Stormwater flow through project site with project

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Hi Lisa,

Monday, October 13 from 9-10 works for our team.

Thanks!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 29, 2025 12:41 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chris Huntley <chuntley@aspeneg.com>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: Re: Soda Mountain - Stormwater flow through project site with project

I will need to reschedule this as water resources staff will be unavailable until Oct 10th.

Here is our updated availability:

Monday Oct 13, 9-10
Tuesday Oct 14, 2:30-3
Wednesday Oct 15, 8:30-9:00, 1-4:30
Friday Oct 17, 8:30-10, 10:30-11

Let me know all days and times you can attend. Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, September 29, 2025 11:12 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Chris Huntley <chuntley@aspeneg.com>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: Re: Soda Mountain - Stormwater flow through project site with project

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Hi Lisa,

10:30am on Friday would work best for our team.

Thank you!

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, September 26, 2025 11:26:37 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chris Huntley <chuntley@aspeneg.com>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: Soda Mountain - Stormwater flow through project site with project

Hi Hannah,

Our biology and water resources staff would like to meet with your technical staff to better understand the stormwater flow through the project site with the project features in place.

Here is our availability for this next week:

Tuesday Sept 30 11:30 - 12, 2:30 - 3, 4 - 5
Wednesday Oct 1 8:30 - 10, 10:30 - 11
Thursday Oct 2 8:30 - 9:30, 4 - 5
Friday Oct 3 8:30 - 12, 1 - 2:30, 3:30 - 4:30

Please let me know all the days and times you can meet.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Breana Campbell [bcampbell@rinconconsultants.com]
Sent: 9/26/2025 5:46:19 PM
To: Roark, Gabriel@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed87ff1e22cd49f3aaff644c82538d46-Roark, Gabr]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; 'Hannah Gbeh' [hannah@resolutionenvironmental.com]
CC: Larson, William@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7d9e60624bc84728ab89022ad74408dc-aff4008d-d8]; Lauren DeOliveira [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=59b95046bca34d92ac4e6f09cfc85b02-e4a00264-59]
Subject: RE: [EXT] Soda Mountain - Old Arrowhead Trail Information

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Received.

Thank you, Gabriel.

Breana Campbell-King, MA, RPA
Senior Supervising Archaeologist
bcampbell@rinconconsultants.com
805-644-4455 Main | 760-517-9128 Direct
San Diego, California

From: Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>
Sent: Friday, September 26, 2025 10:26 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; 'Hannah Gbeh' <hannah@resolutionenvironmental.com>
Cc: Larson, William@Energy <William.Larson@Energy.ca.gov>; Lauren DeOliveira <ldeoliveira@aspeneg.com>; Breana Campbell <bcampbell@rinconconsultants.com>
Subject: [EXT] Soda Mountain - Old Arrowhead Trail Information

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Good morning, all,

I sent Breana Campbell-King Aspen Environmental Group's research pertinent to the new access road by secure file transfer service this morning. It turns out that the document requested has Department of Parks and Recreation 523 forms attached that are marked confidential.

Best,

Gabriel Roark (he/him/his)
Supervisor & Assistant Tribal Liaison
Cultural Resources Unit
Safety & Reliability Branch
Siting, Transmission, and Environmental Protection Division

1-916-237-2544

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/6/2025 12:45:11 AM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
Subject: Soda Mountain- Site-specific Preliminary Geotechnical Studies

Hi Hannah,

I was wondering whether you need to request access to the project site to conduct the preliminary geotechnical studies and if so, have you requested access from BLM?

Please advise, as needing site access may affect the timing of receiving this report.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/19/2025 10:52:30 PM
To: Patrovsky, Joan E [jpatrovs@blm.gov]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
Subject: Re: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

Thanks for that email Joan.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Friday, September 19, 2025 2:27 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Fw: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

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Hi Lisa,

resending due error on email address

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office

"What you do today can improve all your tomorrows."- Ralph Marston

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From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Friday, September 19, 2025 2:24 PM
To: lisa worrll <lworrll@energy.state.ca.us>
Cc: kaycee.chang@energy.ca.gov <kaycee.chang@energy.ca.gov>; Stamer, Marc R <mstamer@blm.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov> <Eric.Knight@energy.ca.gov>; Donnell, Julie A <jdonnell@blm.gov>
Subject: Fw: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

Hello Lisa,

The bureau wishes to pass on this reply from the Los Angeles Department of Water & Power. BLM inquired on the status of a Power Purchase Agreement for the Soda Mountain Solar project. See the reply below.

Perhaps we may touch on this matter at our meeting on the 24th.
The bureau is making an effort to ensure an applicant has the technical and financial capabilities.

Thank you,

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office



"What you do today can improve all your tomorrows."- Ralph Marston

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From: Beese, Daniel <Daniel.Beese@ladwp.com>
Sent: Wednesday, September 10, 2025 5:04 PM
To: Patrovsky, Joan E <jpatrovs@blm.gov>
Cc: Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Alex Kirk <akirk@arevonenergy.com>; Ha, Tin <Tin.Ha@ladwp.com>
Subject: RE: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

Good Afternoon Joan,

I work in the Utility Scale Renewables group and we are responsible for developing large scale renewable PPA's with developers. VC Renewables does not have a PPA with LADWP and I am not sure why they would say or think that. The developer has proposed into the SCPPA RFP and LADWP is in the process of analyzing there proposal but we have not started negotiations on the PPA. As for more information about the interconnection request please reach out to Tin Ha Tin.Ha@ladwp.com.

Thank you,

Daniel Beese
Los Angeles Department of Water and Power
Power System Planning Division
Resource Development Section
Utility Scale Renewable Group
Office: (213) 367-2646

Currently Telecommuting – Please contact me via email

From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Tuesday, September 9, 2025 2:55 PM
To: Beese, Daniel <Daniel.Beese@ladwp.com>
Subject: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello Daniel,

I am the current Bureau of Land Management (BLM) Project Manager for the above-referenced solar project owned by VC Renewables.

The BLM is currently processing an application to amend the authorization for a solar facility on public lands near Baker, CA and the I-15 corridor. VC Renewables acquired the right-of-way grant in 2023 from Bechtel. The new holder has conveyed they have a Power Purchase Agreement (PPA) with LADWP but given no details.

As part of our review, the BLM is evaluating the proponent's financial and technical capabilities to construct and operate a 300 MW solar facility and an associated 300 MW Battery Energy Storage System (BESS).

Additionally, the BLM is coordinating with the California Energy Commission (CEC) under their Opt-In process for this project.

To better understand the status of this proposal, the BLM is inquiring whether LADWP can share any information regarding a potential Power Purchase Agreement generation tie-line for the facility. We understand that some details may be confidential, but would appreciate any information you are able to provide regarding:

- Whether a PPA is in place between Soda Mountain Solar LLC and LADWP.
- The anticipated power (MW) identified in the agreement.
- The time frame for deliverable power (e.g., 30 years, 40 years, etc.).
- Whether LADWP anticipates any upgrades or improvements to the transmission line near Baker, CA for the proposed gen-tie.
- Any additional considerations LADWP believes are relevant to this project.

Thank you in advance for your time and assistance. Please let me know if you would like to schedule a call to discuss further.

Best regards,

Joan Patrovsky, PMP
Project Manager
951-214-1775 cell
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office



"What you do today can improve all your tomorrows."- Ralph Marston

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From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/19/2025 11:00:15 PM
To: Patrovsky, Joan E [jpatrovs@blm.gov]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
Subject: Re: [EXTERNAL] Soda Mountain Solar- VC Renewables - generation interconnection inquiry

Thanks Joan. Very helpful.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Friday, September 19, 2025 3:56 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Fw: [EXTERNAL] Soda Mountain Solar- VC Renewables - generation interconnection inquiry

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Here is a reply from LADWP regarding the Soda Mtn solar generation tie application with their connection department.

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office

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information which is proprietary, privileged, confidential, or otherwise legally exempt from disclosure. If you are not the named addressee, you are not authorized to read, print, retain, copy or disseminate this message or any part of it without the express authorization from the author.

From: Ha, Tin <Tin.Ha@ladwp.com>
Sent: Thursday, September 11, 2025 2:59 PM
To: Patrovsky, Joan E <jpatrovs@blm.gov>
Cc: Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>; Selassie, Amanuel <Amanuel.Selassie@ladwp.com>; Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>
Subject: RE: [EXTERNAL] Soda Mountain Solar- VC Renewables - generation interconnection inquiry

Greeting Joan,

Please see our response in Red.

Thanks,
Tin

From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Thursday, September 11, 2025 8:32 AM
To: Ha, Tin <Tin.Ha@ladwp.com>
Subject: [EXTERNAL] Soda Mountain Solar- VC Renewables - generation interconnection inquiry

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello Mr. Tin,

I spoke with Daniel Beese of the LADWP Power System Planning Division, Resource Development Section, Utility Scale Renewable Group who provided your contact information.

I am the assigned Bureau of Land Management (BLM) Project Manager for the above-referenced solar project owned by VC Renewables.
held under Soda Mountain Solar LLC.

The BLM is currently processing an application to amend the authorization for a new solar facility on public lands near Baker, CA and the I-15 corridor. VC Renewables acquired the right-of-way grant in 2023 from Bechtel. The new holder has conveyed they have a generation tie agreement with LADWP but given no details.

As part of our review, the BLM is evaluating the proponent's financial and technical capabilities to construct and operate a 300 MW solar facility and an associated 300 MW Battery Energy Storage System (BESS).

Additionally, the BLM is coordinating with the California Energy Commission (CEC) under their Opt-In process for this project.

To better understand the status of this proposal, the BLM is inquiring whether LADWP can share any information regarding a potential generation connection for their proposal. We understand that some details may be confidential, but would appreciate any information you are able to provide regarding:

- Whether a application for a generation tie-in is place or pending between Soda Mountain Solar LLC and LADWP.
  - Soda Mountain Solar LLC has a Large Generator Interconnection Agreement (LGIA) with LADWP for 300MW project.

- The anticipated power (MW) connection line location
  - The agreement is for 300MW PV. The Point of Interconnection (POI) is at Marketplace-Adelanto 500kV Line.

- The time frame for deliverable power (e.g., 30 years, 40 years, etc.).
  - LADWP and the developer is in the process of amending the agreement to update the LGIA for work responsibility, new timeline for construction, and additional 300MW BESS (while keeping net output at POI at 300MW). Please note that the LGIA is only for allowing the developer to interconnect to the system. The developer will have to seek other means to secures transmission service as well as appropriate power purchase agreements. The developer must follow separate and appropriate processes to obtain such services.

- Whether LADWP anticipates any upgrades or improvements to the transmission line near Baker, CA for the proposed gen-tie.
  - In general for any developer to interconnect to an existing transmission line, a switching station is required, at the developer's expense, to loop into the line. For this case, it is the Marketplace-Adelanto 500kV Line.

- Any additional considerations LADWP believes are relevant to this project.
  - Not at the moment.

Thank you in advance for your time and assistance. Please let me know if you would like to schedule a call to discuss further.

Best regards,

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office



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From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 9/17/2025 8:18:14 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Larson, William@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7d9e60624bc84728ab89022ad74408dc-aff4008d-d8]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]; Abulaban, Abdel-Karim@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c1ff1d38281a4068b2708271d22c0d94-Abulaban, A]; Roark, Gabriel@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed87ff1e22cd49f3aaff644c82538d46-Roark, Gabr]; Lauren DeOliveira [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=59b95046bca34d92ac4e6f09cfc85b02-e4a00264-59]; Roger Hatheway [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=320e3daadd884f89bba45f499c3e8612-f57fd1cf-d6]
Subject: Re: Cultural and Geotechnical Reports

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Hi Lisa,

We reviewed the geotechnical report example provided by the CEC, and there is some information we will not be able to provide within the desired timeline. We still intend to docket a site-specific geotechnical report as soon as possible. However, given the example report and CEC's associated timeline, we think it would be helpful to schedule another call to discuss.

We also have some suggestions for moving the cultural resources report forward and believe it would be beneficial to review those together during the same call.

Please let us know your availability so we can coordinate a time.

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, September 17, 2025 9:35:27 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira

<ldeoliveira@aspeneg.com>; Roger Hatheway <rhatheway@aspeneg.com>
Subject: Re: Cultural and Geotechnical Reports

Hi Hannah,

I can set a meeting up. What is the status of the geotech report? Based on our last meeting, I understand the geotech work was able to proceed without delay. Please confirm.

To be able to determine whether the schedule for cultural surveys or geotech report would affect the 270 day timeline, we would need to know when the report would be filed with the CEC. If there is an unknown as to when the necessary field work can be done, we would likely not be able to determine if and how the schedule would be affected. Those are my initial thoughts.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, September 17, 2025 9:10 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Cultural and Geotechnical Reports

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Would it be possible to set a meeting to discuss the cultural resources and geotechnical report schedules, given the delays BLM is experiencing nationally? We would like to discuss ways we can continue to move the project forward, without falling out of the 270-day timeline, while concurrently understanding the BLM on a national level is facing significant delays in project authorizations - such as the required Field Work Authorization for the CEC's requested cultural resources survey.

Thank you,
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/18/2025 8:25:38 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Larson, William@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7d9e60624bc84728ab89022ad74408dc-aff4008d-d8]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]; Abulaban, Abdel-Karim@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c1ff1d38281a4068b2708271d22c0d94-Abulaban, A]; Roark, Gabriel@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed87ff1e22cd49f3aaff644c82538d46-Roark, Gabr]; Lauren DeOliveira [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=59b95046bca34d92ac4e6f09cfc85b02-e4a00264-59]; Roger Hatheway [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=320e3daadd884f89bba45f499c3e8612-f57fd1cf-d6]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
Subject: Re: Cultural and Geotechnical Reports

Hi all,

The following are staff availability to meet on geotechnical and cultural:

Monday Sept 22 9-10, 3:30-4
Tuesday Sept 23 8:30-9, 11-11:30

I hope consultant staff and Hannah's staff can meet at some of these times. Please let me know all days and times you can attend.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, September 17, 2025 1:18 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira <ldeoliveira@aspeneg.com>; Roger Hatheway <rhatheway@aspeneg.com>
Subject: Re: Cultural and Geotechnical Reports

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Hi Lisa,

We reviewed the geotechnical report example provided by the CEC, and there is some information we will not be able to provide within the desired timeline. We still intend to docket a site-specific geotechnical report as soon as possible. However, given the example report and CEC's associated timeline, we think it would be helpful to schedule another call to discuss.

We also have some suggestions for moving the cultural resources report forward and believe it would be beneficial to review those together during the same call.

Please let us know your availability so we can coordinate a time.

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, September 17, 2025 9:35:27 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira <ldeoliveira@aspeneg.com>; Roger Hatheway <rhatheway@aspeneg.com>
Subject: Re: Cultural and Geotechnical Reports

Hi Hannah,

I can set a meeting up. What is the status of the geotech report? Based on our last meeting, I understand the geotech work was able to proceed without delay. Please confirm.

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Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, September 17, 2025 9:10 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Cultural and Geotechnical Reports

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Would it be possible to set a meeting to discuss the cultural resources and geotechnical report schedules, given the delays BLM is experiencing nationally? We would like to discuss ways we can continue to move the project forward, without falling out of the 270-day timeline, while concurrently understanding the BLM on a national level is facing significant delays in project authorizations - such as the required Field Work Authorization for the CEC's requested cultural resources survey.

Thank you,
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 9/18/2025 10:33:35 PM
To: Larson, William@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7d9e60624bc84728ab89022ad74408dc-aff4008d-d8]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Roger Hatheway [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=320e3daadd884f89bba45f499c3e8612-f57fd1cf-d6]; Roark, Gabriel@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed87ff1e22cd49f3aaff644c82538d46-Roark, Gabr]; Lauren DeOliveira [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=59b95046bca34d92ac4e6f09cfc85b02-e4a00264-59]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]; Abulaban, Abdel-Karim@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c1ff1d38281a4068b2708271d22c0d94-Abulaban, A]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
Subject: Re: Cultural and Geotechnical Reports

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The Thursday time slot works for our cultural resources team. I'm still waiting to hear on the geology time slots and will get back to you asap.

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Larson, William@Energy <William.Larson@Energy.ca.gov>
Sent: Thursday, September 18, 2025 2:46:10 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Roger Hatheway <rhatheway@aspeneg.com>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira <ldeoliveira@aspeneg.com>; Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: RE: Cultural and Geotechnical Reports

All those work for me.

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, September 18, 2025 2:25 PM
To: Roger Hatheway <rhatheway@aspeneg.com>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira <ldeoliveira@aspeneg.com>; Hannah Arkin <hannah@resolutionenvironmental.com>

Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Cultural and Geotechnical Reports

If Lauren and Roger and Hannah and her cultural staff can meet any of these days and times, we can pull out the cultural meeting from geology and keep the original times for geology.

These are some alternative dates for cultural discussion:
Wednesday Sept 24 8:30-9, 4-4:30
Thursday Sept 25 8:30-10

Please let me know all days and times which will work for you.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Roger Hatheway <RHatheway@aspeneg.com>
Sent: Thursday, September 18, 2025 1:55 PM
To: Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira <ldeoliveira@aspeneg.com>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Cultural and Geotechnical Reports

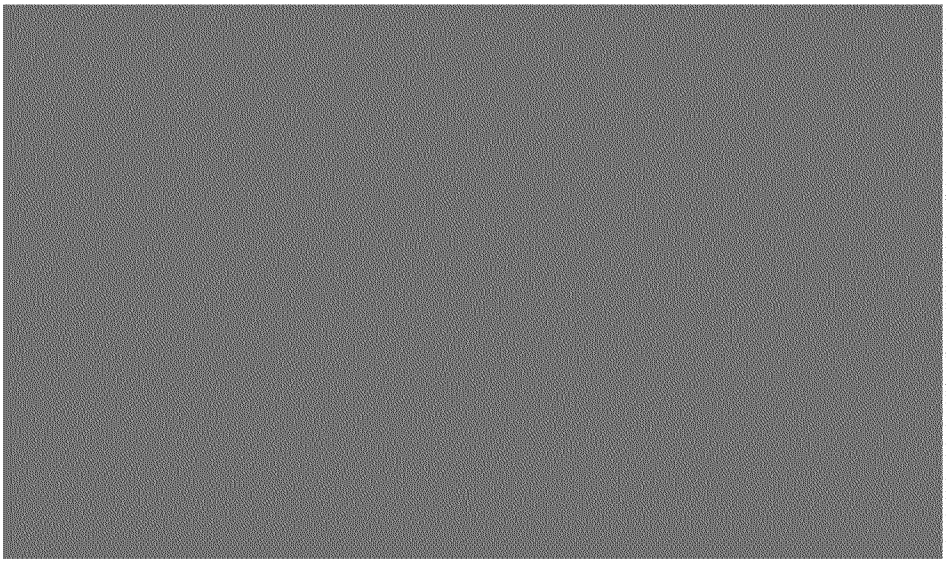
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Unfortunately, I am unable to attend as I will be on vacation for those two days.

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From: Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>
Sent: Thursday, September 18, 2025 1:53:25 PM

To: Lauren DeOliveira <Ldeoliveira@aspeneg.com>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Roger Hatheway <RHatheway@aspeneg.com>; eric.knight@energy.ca.gov <Eric.Knight@energy.ca.gov>
Subject: RE: Cultural and Geotechnical Reports



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If suspicious, do not click links, open attachments, or provide credentials.

Those days and times work for me as well.

Gabriel Roark (he/him/his)
Supervisor & Assistant Tribal Liaison
Siting, Transmission, and Environmental Protection Division

From: Lauren DeOliveira <Ldeoliveira@aspeneg.com>
Sent: Thursday, September 18, 2025 1:49 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Roger Hatheway <rhatheway@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Cultural and Geotechnical Reports

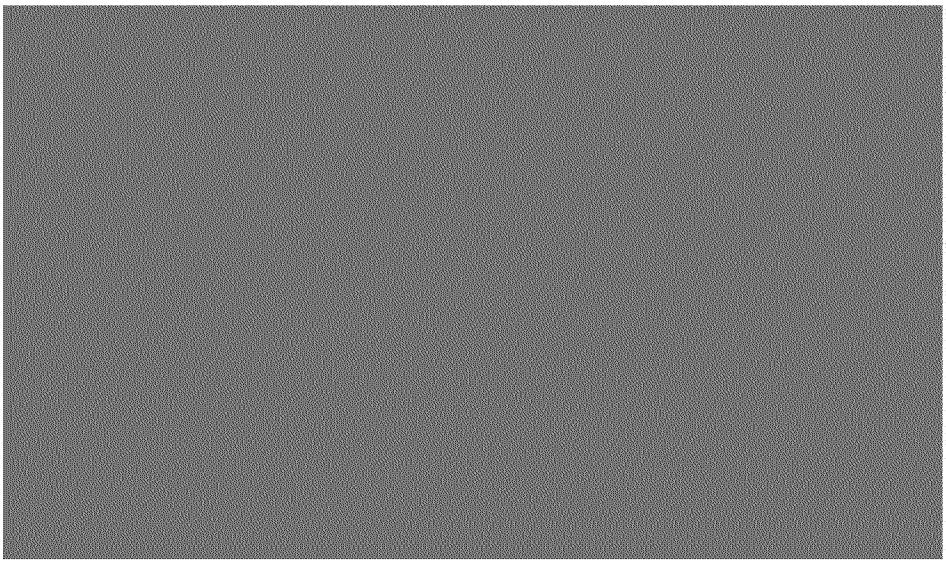
CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

I can attend on Monday, 9-10 or Tuesday, 8:30 to 9.

Lauren DeOliveira, M.S., RPA
Cultural Resources Group Manager
Aspen Environmental Group
Office: (818) 338-6625

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, September 18, 2025 1:25 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira <Ldeoliveira@aspeneg.com>; Roger Hatheway <RHatheway@aspeneg.com>; eric.knight@energy.ca.gov <Eric.Knight@energy.ca.gov>
Subject: Re: Cultural and Geotechnical Reports



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If suspicious, do not click links, open attachments, or provide credentials.

Hi all,

The following are staff availability to meet on geotechnical and cultural:

Monday Sept 22 9-10, 3:30-4
Tuesday Sept 23 8:30-9, 11-11:30

I hope consultant staff and Hannah's staff can meet at some of these times. Please let me know all days and times you can attend.

Thanks,

Lisa Worrall

Senior Environmental Planner

CEQA Project Management Unit

Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814

1-916-661-8367

California Energy Commission

Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, September 17, 2025 1:18 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira <ldeoliveira@aspeneg.com>; Roger Hatheway <rhatheway@aspeneg.com>
Subject: Re: Cultural and Geotechnical Reports

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Hi Lisa,

We reviewed the geotechnical report example provided by the CEC, and there is some information we will not be able to provide within the desired timeline. We still intend to docket a site-specific geotechnical report as soon as possible. However, given the example report and CEC's associated timeline, we think it would be helpful to schedule another call to discuss.

We also have some suggestions for moving the cultural resources report forward and believe it would be beneficial to review those together during the same call.

Please let us know your availability so we can coordinate a time.

Thank you!

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, September 17, 2025 9:35:27 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Larson, William@Energy <William.Larson@Energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Roark, Gabriel@Energy <gabriel.roark@energy.ca.gov>; Lauren DeOliveira <ldeoliveira@aspeneg.com>; Roger Hatheway <rhatheway@aspeneg.com>
Subject: Re: Cultural and Geotechnical Reports

Hi Hannah,

I can set a meeting up. What is the status of the geotech report? Based on our last meeting, I understand the geotech work was able to proceed without delay. Please confirm.

To be able to determine whether the schedule for cultural surveys or geotech report would affect the 270 day timeline, we would need to know when the report would be filed with the CEC. If there is an unknown as to when the necessary field work can be done, we would likely not be able to determine if and how the schedule would be affected. Those are my initial thoughts.

Thanks,

Lisa Worrall

Senior Environmental Planner

CEQA Project Management Unit

Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814

1-916-661-8367

California Energy Commission

Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, September 17, 2025 9:10 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Cultural and Geotechnical Reports

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Hi Lisa,

Would it be possible to set a meeting to discuss the cultural resources and geotechnical report schedules, given the delays BLM is experiencing nationally? We would like to discuss ways we can continue to move the project forward, without falling out of the 270-day timeline, while concurrently understanding the BLM on a national level is facing significant delays in project authorizations - such as the required Field Work Authorization for the CEC's requested cultural resources survey.

Thank you,
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 9/17/2025 4:07:11 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Re: Soda Mountain Solar Project- Question about new proposed access road via ZZyzx Road

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Hi Lisa,

Yes, CL 8847 and CL 7682 will be utilized during the construction, operation and decommissioning of the project. Additionally, LADWP has an existing access roadway that travels from the Zzyzx exit to the new switchyard area. This access roadway is used currently by LADWP for any operations and maintenance needs along the Marketplace-Adelanto 500kV transmission line.

-Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 15, 2025 8:00 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain Solar Project- Question about new proposed access road via ZZyzx Road

Hi Hannah,

I was going through the project description and wanted to make sure I am clear that the new proposed access road (CL 8847 and CL7682 from Zzyzx Road) northwest of I-15, would be used for construction and operations. Is that correct?

If not, how will LADWP access the new switchyard for operations and maintenance?

Thanks,

Lisa Worrall
Senior Environmental Planner

CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 9/17/2025 5:19:52 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Soda Mountain- Question regarding the project interconnection with existing LADWP transmission line

Thanks for that clarification.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, September 17, 2025 9:06 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- Question regarding the project interconnection with existing LADWP transmission line

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Hi Lisa,

The project would connect to the Marketplace-Adelanto 500kV transmission line. For clarification, the entirety of the full transmission line is referred to as the Mead-Adelanto 500KV line. The project will connect directly to the Marketplace-Adelanto 500kV transmission line section, which is a subsection of the greater Mead-Adelanto 500kV transmission line.

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, September 16, 2025 4:41 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain- Question regarding the project interconnection with existing LADWP transmission line

Hi Hannah,

I was reading the following from the updated project description and wanted to check this was accurate. Would the project connect to the Mead-Adelanto transmission line or the Marketplace-Adelanto transmission line 1?

The two high voltage electrical transmission lines to the west of I-15 are a 115-kV subtransmission line owned by SCE and the Mead-Adelanto 500-kV transmission line operated by LADWP. The project would interconnect into and bisect the LADWP's 500-kV Marketplace-Adelanto Transmission Line 1 as the primary point of interconnection, which has ample unused capacity therefore eliminating the need for new transmission lines to be constructed off-site.

Please clarify. Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 9/19/2025 10:52:30 PM
To: Patrovsky, Joan E [jpatrovs@blm.gov]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
Subject: Re: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

Thanks for that email Joan.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Friday, September 19, 2025 2:27 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Fw: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

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Hi Lisa,

resending due error on email address

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office

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From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Friday, September 19, 2025 2:24 PM
To: lisa worrll <lworrll@energy.state.ca.us>
Cc: kaycee.chang@energy.ca.gov <kaycee.chang@energy.ca.gov>; Stamer, Marc R <mstamer@blm.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov> <Eric.Knight@energy.ca.gov>; Donnell, Julie A <jdonnell@blm.gov>
Subject: Fw: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

Hello Lisa,

The bureau wishes to pass on this reply from the Los Angeles Department of Water & Power. BLM inquired on the status of a Power Purchase Agreement for the Soda Mountain Solar project. See the reply below.

Perhaps we may touch on this matter at our meeting on the 24th.
The bureau is making an effort to ensure an applicant has the technical and financial capabilities.

Thank you,

Joan Patrovsky, PMP
Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office



"What you do today can improve all your tomorrows."- Ralph Marston

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From: Beese, Daniel <Daniel.Beese@ladwp.com>
Sent: Wednesday, September 10, 2025 5:04 PM
To: Patrovsky, Joan E <jpatrovs@blm.gov>
Cc: Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Alex Kirk <akirk@arevonenergy.com>; Ha, Tin <Tin.Ha@ladwp.com>
Subject: RE: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

Good Afternoon Joan,

I work in the Utility Scale Renewables group and we are responsible for developing large scale renewable PPA's with developers. VC Renewables does not have a PPA with LADWP and I am not sure why they would say or think that. The developer has proposed into the SCPPA RFP and LADWP is in the process of analyzing there proposal but we have not started negotiations on the PPA. As for more information about the interconnection request please reach out to Tin Ha Tin.Ha@ladwp.com.

Thank you,

Daniel Beese
Los Angeles Department of Water and Power
Power System Planning Division
Resource Development Section
Utility Scale Renewable Group
Office: (213) 367-2646

Currently Telecommuting – Please contact me via email

From: Patrovsky, Joan E <jpatrovs@blm.gov>
Sent: Tuesday, September 9, 2025 2:55 PM
To: Beese, Daniel <Daniel.Beese@ladwp.com>
Subject: [EXTERNAL] Inquiry on PPA for Soda Mountain Solar LLC

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Hello Daniel,

I am the current Bureau of Land Management (BLM) Project Manager for the above-referenced solar project owned by VC Renewables.

The BLM is currently processing an application to amend the authorization for a solar facility on public lands near Baker, CA and the I-15 corridor. VC Renewables acquired the right-of-way grant in 2023 from Bechtel. The new holder has conveyed they have a Power Purchase Agreement (PPA) with LADWP but given no details.

As part of our review, the BLM is evaluating the proponent's financial and technical capabilities to construct and operate a 300 MW solar facility and an associated 300 MW Battery Energy Storage System (BESS).

Additionally, the BLM is coordinating with the California Energy Commission (CEC) under their Opt-In process for this project.

To better understand the status of this proposal, the BLM is inquiring whether LADWP can share any information regarding a potential Power Purchase Agreement generation tie-line for the facility. We understand that some details may be confidential, but would appreciate any information you are able to provide regarding:

- Whether a PPA is in place between Soda Mountain Solar LLC and LADWP.
- The anticipated power (MW) identified in the agreement.
- The time frame for deliverable power (e.g., 30 years, 40 years, etc.).
- Whether LADWP anticipates any upgrades or improvements to the transmission line near Baker, CA for the proposed gen-tie.
- Any additional considerations LADWP believes are relevant to this project.

Thank you in advance for your time and assistance. Please let me know if you would like to schedule a call to discuss further.

Best regards,

Joan Patrovsky, PMP
Project Manager
951-214-1775 cell
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office



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From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 9/3/2025 4:03:52 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Re: Compliance Key Events List for Soda Mountain Solar Project

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On it!

I am also working to get you the updated figures by end of today.

Thanks!

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, September 2, 2025 2:30 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Fw: Compliance Key Events List for Soda Mountain Solar Project

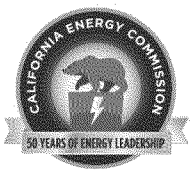
Hi Hannah,

Can you complete this form for Soda Mountain. Thanks.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Gutierrez, Ashley@Energy <Ashley.Gutierrez@energy.ca.gov>
Sent: Tuesday, September 2, 2025 1:11 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Compliance Key Events List for Soda Mountain Solar Project

Hi Lisa,

Could you please share this with your Soda Mountain project contact and have them revise the Key Events List to align with their project? Thank you for your help with this.

Best Regards,
Ashley Gutierrez | Compliance Project Manager
California Energy Commission
Siting, Transmission, and Environmental Protection Division (STEP)
Safety and Reliability Branch
Compliance Monitoring and Enforcement Unit
715 P Street, MS-2000, Sacramento, CA 95814
Work/Cell: (916) 839-0400
Email: ashley.gutierrez@energy.ca.gov

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

September 3, 2025
Sent via email

Lisa Worrall
California Energy Commission
715 P Street
Sacramento, CA 95814
Lisa.Worrall@energy.ca.gov

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR)for the Soda Mountain Solar Project (Project), State Clearinghouse No. 2025080161

Dear Ms. Worrall:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the California Energy Commission (CEC) for the Soda Mountain Solar Project (Project). CDFW appreciates this opportunity to provide comments and recommendations regarding proposed Project activities that may affect California fish and wildlife, pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

The proposed Project would ordinarily require one or more discretionary approvals by CDFW because it may result in substantial adverse impacts to fish and wildlife resources such as lake and streambed alteration (Fish and G. Code, § 1602); and incidental take of species protected under California Endangered Species Act (CESA, Fish and G. Code, § 2081). CDFW would typically submit comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) However, because the Project proponent opted into the Assembly Bill (AB) 205 certification process, the CEC has exclusive jurisdiction over the proposed Project and is responsible for ensuring any certification of the proposed Project including all conditions necessary to ensure compliance with the Fish & G. Code and its implementing regulations found in Title 14 of the California Code of Regulations. (Pub. Resources Code, §§ 25545.1, subd. (b), 25545.5, subd. (a).) Thus, CDFW does not have a direct permitting role in the process that would ordinarily trigger a Responsible Agency role. CDFW instead submits these comments as a Trustee Agency under CEQA.

Pursuant to AB 205, the CEC and CDFW developed a coordination plan through a Memorandum of Understanding (MOU) to ensure that all potential impacts to fish, wildlife, and plant resources, and the habitats upon which they depend, including but not limited to incidental take of species protected under CESA, are consistent with the Fish and Game Code and its implementing regulations found in Title 14 of the California Code of Regulations (Pub. Resources Code, § 25545.5, subd. (a)). The MOU also ensures timely and effective consultation between the CEC and CDFW with respect to any proposed CEC findings and actions regarding potential impacts to fish, wildlife, and plant resources (*Ibid*).

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW is thus submitting these comments in its **consultation role** under AB 205 and the MOU.

PROJECT DESCRIPTION SUMMARY

Proponent: Soda Mountain Solar, LLC

Objective: The Project proposes to construct, operate, and maintain a utility-scale solar photovoltaic (PV) electrical generating and storage facility and associated infrastructure (operations and maintenance buildings, stormwater infrastructure, and related infrastructure improvements) to generate and deliver renewable electricity to the statewide electricity transmission grid. The project would generate up to 300 megawatts (MW) of renewable energy and include up to 300 MW/1,200 MW-hours (MWh) of battery storage. The batteries would be lithium ion or similar. The project would include a switchyard and substation.

The power produced by the project would be conveyed to the regional electrical grid through an interconnection with the existing Mead-Adelanto 500-kilovolt (kV) transmission line operated by the Los Angeles Department of Water and Power (LADWP). The approximately 200 foot wide, 1-mile long 500 kV gen-tie line would run from the project substation, just southeast of I-15, to the switchyard and then to the point of interconnection with the existing LADWP Mead-Adelanto transmission line. A small segment of the gen-tie line, approximately 450 feet, would cross I-15.

Location: The proposed Project would be located entirely on federally owned land managed by the U.S. Bureau of Land Management (BLM). The 2,670-acre project site is located approximately 7 miles southwest of the community of Baker in unincorporated San Bernardino County, California, approximately 50 miles northeast of Barstow. The project site is in portions of Sections 1 and 11-14, Township 12 North, Range 7 East; Sections 25, Township 13 North, Range 7 East; Sections 6, 7, and 18, Township 12 North, Range 8 East; Sections 17-21, 29-32, Township 13 North, Range 8 East, San Bernardino Meridian, California.

Timeframe: Construction of the project is anticipated to begin in the second quarter of 2026 and occur over an approximately 18-month period. The project also includes future decommissioning, which is anticipated to occur after 40 years of operation.

CONSULTATION WITH CDFW

CDFW appreciates the opportunity to have engaged with CEC staff and/or the Project proponent in numerous meetings for the Project. These dates include the following: meeting every Tuesday effective March 11, 2025, to coordinate biology related items and August 29, 2026, where CDFW participated in the Informational and Scoping Meeting. CDFW will continue to collaborate with and provide support to the CEC throughout the AB205 certification process.

COMMENTS AND RECOMMENDATIONS

The EIR that will be prepared will determine the potential environmental impacts associated with the Project. CDFW offers the following comments and recommendations to assist the CEC in adequately identifying the Project's significant, or potentially significant, direct, indirect, and cumulative impacts on fish and wildlife (biological) resources.

Special-Status Species: Several special-status species have been documented within and/or adjacent to the Project site per the California Natural Diversity Database (CNDDB). Six special-status animals and/or their diagnostic sign were observed during the surveys: desert tortoise (*Gopherus agassizii*), burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), desert kit fox (*Vulpes macrotis arsipus*), American badger (*Taxidea taxus*), and desert bighorn sheep (*Ovis canadensis nelsoni*). CDFW recommends potential Project related impacts to these special status species be analyzed in the EIR. CDFW also recommends that incidental take authorization consistent with the requirements of CESA be included in the certification if the Project has the potential to result in "take" (Fish & G. Code, § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt,

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pursue, catch, capture, or kill") of CESA-listed species, either through construction or over the life of the project.

Sensitive Plant Communities: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Five native vegetation communities were identified on-site, including creosote bush – white bursage scrub (*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance), creosote bush scrub (*Larrea tridentata* Shrubland Alliance), rigid spineflower – hairy desert sunflower (*Chorizanthe rigida - Geraea canescens* Desert Pavement Sparsely Vegetated Alliance), cheesebush – sweetbush scrub (*Ambrosia salsola - Bebbia juncea* Shrubland Alliance), and California joint fir – longleaf joint-fir scrub (*Ephedra californica - Ephedra trifurca* Shrubland Alliance). Two of the vegetation communities are considered sensitive associations in California including rigid spineflower – hairy desert sunflower desert pavement association and California joint fir – longleaf joint-fir scrub. Rare plant surveys confirmed the presence of one special-status plant species, Utah vine milkweed (*Funastrum utahense*) within the survey area. The EIR should include measures to identify, avoid, minimize and otherwise protect sensitive plant communities from project-related direct and indirect impacts.

Desert bighorn sheep (*Ovis canadensis nelsoni*)

Desert bighorn sheep are a fully protected species under Fish and Game Code section 4700(b)(2). Take of this species is prohibited except as authorized consistent with Fish and Game Code section 2081.15. In June 2024, CDFW issued a technical report entitled *"Desert Bighorn Sheep Study, Soda Mountain Solar Project"* that evaluated potential impacts to desert bighorn sheep from the Project and included a suite of recommended mitigation measures for those impacts. Among the recommended mitigation measures in that report was the implementation of a minimum 0.25 mile buffer between the Project's perimeter fencing and the 10% slope hinge point in the Soda Mountains to mitigate for impacts to foraging habitat, escape terrain, and access to planned wildlife crossings at I-15 near the proposed Project site. Absent this mitigation measure, the report determined that long-term indirect impacts to the species would be significant and unavoidable. CDFW continues to recommend this minimum buffer measure.

To avoid significant negative demographic impacts, it is essential that desert bighorn sheep in the Soda Mountains maintain access to the relatively flat ground beyond the toe of slopes by preventing project encroachment into a buffer area around those slopes. The flatter areas extending beyond the base of those slopes provide valuable forage during winters when sufficient precipitation combines with warmer temperatures to initiate new growth of grasses and forbs. The high-quality forage therein provides nutrients essential to maintenance of healthy body reserves, particularly critical to pregnant and nursing female bighorn sheep in mid to late winter (McKinney et al. 2006). Maternal nutrition is in turn strongly correlated to successful recruitment of lambs into the adult population. Biologists understand that maximizing reproduction and recruitment through access to high-quality forage in relatively wet years is key to population persistence through multi-year droughts and ultimately essential to the viability and health of the desert bighorn metapopulation (Cain et al 2017). Desert bighorn sheep persist through challenges of drought, disease, and long-term shifts in temperature and vegetation composition by capitalizing on the abundance available at the base of slopes in wet winters.

Although there are existing disturbances in the Project area and bighorn sheep demonstrate behavioral plasticity and adapt to some human developments and activities, such habituation does not alter the risk-averse nature of bighorn sheep that requires visibility that facilitates detection of predators at a distance (Risenhoover and Bailey 1980; Hayes et al. 1994). Desert bighorn sheep will avoid a visually occluded sight-line, such as that presented by photovoltaic array, because any form of 'cover' could conceal their primary predator, the mountain lion. That predator-averse behavior, favoring unobstructed views, is manifest more strongly by females than males (Bleich et al. 1997), and is strongest when distant from steep escape terrain, such as on the flat areas adjacent to slopes. Desert bighorn are expected to maintain a distance of hundreds of meters from the visual obstruction of a photovoltaic array. To avoid significant negative impacts to the population, desert bighorn sheep must maintain the ability to forage on the flats beyond the toe of slopes, and maintain the 'stepping stone' connectivity function of intermediary hills

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south of the proposed development. Avoidance of significant impacts on desert bighorn sheep requires conserving these key habitats by avoiding development on a sufficient buffer area from the toe of slopes.

Conclusion

CDFW will continue to meet with CEC staff ahead of and during draft EIR preparation to discuss potential Project related impacts and possible avoidance, minimization, and/or mitigation measures for the biological resources that may be analyzed in the EIR, as well as helping to develop measures necessary to address the requirements of Fish and Game Code Section 2081(b) Incidental Take Permit pursuant to CESA and Lake and Streambed Alteration Program pursuant to Fish & G. Code, § 1600 et seq. For questions about this letter, please contact Dr. Shankar Sharma, Senior Environmental Scientist Specialist at Shankar.Sharma@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Brandy Wood
4D759253408941E...
Brandy Wood
Environmental Program Manager

ec: Office of Planning and Research, State Clearinghouse
state.clearinghouse@lci.ca.gov

Literature Cited

Bleich, V. C., Bowyer, R. T., & Wehausen, J. D. 1997. Sexual segregation in mountain sheep: resources or predation?. Wildlife Monographs 134:1–50.

Cain, J. W., Gedir, J. V., Marshal, J. P., Krausman, P. R., Allen, J. D., Duff, G. C., .and Morgart, J. R. 2017. Extreme precipitation variability, forage quality and large herbivore diet selection in arid environments. *Oikos 126*:1459–1471.

Hayes, C. L., Krausman, P. R., & Wallace, M. C. 1994. Habitat, visibility, heart rate, and vigilance of bighorn sheep. Desert Bighorn Council Transactions 38: 6–11.

McKinney, T. E. D., Smith, T. W., & deVos Jr, J. C. 2006. Evaluation of factors potentially influencing a desert bighorn sheep population. Wildlife Monographs 164:1–36.

Risenhoover, K. L. and J. A. Bailey. 1980. Visibility: an important factor for an indigenous, low-elevation bighorn herd in Colorado. Biennial Symposium of the Northern Wild Sheep and Goat Council Vol. 2:18–28.

From: Wilson, Michelle [Michelle.Wilson@cpuc.ca.gov]
Sent: 9/9/2025 11:51:33 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: RE: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Sounds good Lisa. Looking forward to our call.

Michelle Wilson (she/her)
Program and Project Supervisor
CEQA and Energy Permitting Group, CEQA and FERC Branch
Energy Division, California Public Utilities Commission
505 Van Ness Ave
San Francisco, CA 94102
(415) 696-7371
Michelle.Wilson@cpuc.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 8, 2025 11:53 AM
To: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>; Acimis, Banu <banu.acimis@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi all,

I will send out an invitation shortly. I am adding in some of our other project managers as they are faciing this same situation for their projects.

This project I am thinking of is the Soda Mountain Solar Project in San Bernardino County on BLM land. The utility is LADWP.

Our question would apply to several of our projects in areas with different utilities.

We have at least two other projects where their first point of interconnect is not in existence, but would be constructed by the private applicant to be owned and operated by a utility. For these two projects, they are in areas covered by SDG&E (Compass Battery Storage Project and Perkins Reliability Project).

Thanks,

Lisa Worrall
Senior Environmental Planner

CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Sent: Monday, September 8, 2025 11:37 AM
To: Daye, Fadi <fadi.daye@cpuc.ca.gov>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>; Acimis, Banu <banu.acimis@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: RE: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Fadi – thanks for this info

Lisa – can you also include Banu Acimis to your invitation who I have now added to this email chain.

It looks like we can now only meet on the following days/times:

Wed. 9/10 8:30-9 am
Thurs. 9/11 8:30-9 am

Michelle Wilson (she/her)
Program and Project Supervisor
CEQA and Energy Permitting Group, CEQA and FERC Branch
Energy Division, California Public Utilities Commission
505 Van Ness Ave
San Francisco, CA 94102
(415) 696-7371
Michelle.Wilson@cpuc.ca.gov

From: Daye, Fadi <fadi.daye@cpuc.ca.gov>
Sent: Monday, September 8, 2025 11:06 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>

Subject: RE: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

Michele:

Banu Acimis is the PPS who oversees all Energy Storage issues (GO 167-C) and Rick Tse oversees issues related to PG&E. You should include them in this discussion along with Eric Wu, who is the PM of ESRB. I only oversee issues related to SCE and SDG&E.

Thanks

Fadi Daye, P.E.
Program and Project Supervisor
Electric Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
Telephone: (213) 576-7017

Safety is not a job, it is a commitment

The information contained in this e-mail message is intended only for the personal and confidential use of the recipient(s) named above. If you have received this communication in error, please notify the sender immediately by e-mail, and delete the original message.

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 8, 2025 10:19 AM
To: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi Michele,

I think I must have been reading calendars from the wrong week. Here is our staff availability:

Monday 9/8 3:30-4
Tuesday 9/9 8:30-9
Wednesday 9/10 8:30-9, 3-3:30
Thursday 9/11 8:30-9, 3-4:30

Monday 8/15 8:30-9:30
Tuesday 8/16 8:30-9, 4-4:30

Please let me know which dates work for you.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Sent: Monday, September 8, 2025 9:40 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: RE: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Thurs. 9/11 from 10 to 10:30 works according to folks' calendars

Michelle Wilson (she/her)
Program and Project Supervisor
CEQA and Energy Permitting Group, CEQA and FERC Branch
Energy Division, California Public Utilities Commission
505 Van Ness Ave
San Francisco, CA 94102
(415) 696-7371
Michelle.Wilson@cpuc.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 8, 2025 8:14 AM
To: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi Michelle.

I am happy to meet. We are available on the following days and times this week:
Wednesday 8:30 am to 11, 1 pm to 4:30 pm
Thursday 8:30 am to 4:30 pm
Friday 8:30 am to 10 am, 1pm to 1:30 pm, 3 pm to 4:30 pm

Please let me know all dates and times that will work for you.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Sent: Friday, September 5, 2025 6:30 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi Lisa,

I'm sorry but I think I misunderstood your original email. I thought your questions pertained to the Darden project but it appears you may be referring to another project? It sounds like a quick meeting may be helpful to go over the components of the project in question to determine how we may assist in answering your questions.

Michelle Wilson (she/her)

Program and Project Supervisor

CEQA and Energy Permitting Group, CEQA and FERC Branch

Energy Division, California Public Utilities Commission
505 Van Ness Ave

San Francisco, CA 94102

(415) 696-7371

Michelle.Wilson@cpuc.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, September 5, 2025 6:00:45 PM
To: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Thank you Michelle.

The LADWP switchyard, which will be the last point of interconnect, once constructed, and possibly the two 500 kV loop in lines and 6 steel towers that will be installed between the LADWP switchyard and Mead-Adelanto Transmission Line. The applicant will be constructing these, but LADWP will be operating them.

I understand from working on Darden that the utility would not want to purchase the applicant-built switchyard if when tested, it doesn't function as it should. As the applicant would be constructing the switchyard for the utility and the construction is being carried out by the applicant under the CEC certification, I would think constructing the switchyard consistent with design standards would need to be confirmed by the CEC.

The BESS for Darden and this new project are proposed on the project site and are under the CEC's jurisdiction and certification. The CEC would ensure through compliance that the BESS is designed and constructed according to the applicable design standards.

Getting confirmation on who ensures compliance with design standards will assist our staff as they review the project and prepare the EIR (which will be in the Staff Assessment).

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Sent: Friday, September 5, 2025 5:07 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: RE: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hello Lisa (+ cc'ing CPUC Legal, Jack Mulligan),

My understanding is that CEC would be responsible for ensuring compliance with, and enforcing, all mitigation measures included in CEC's EIR for the project as a whole, including PG&E's portion of the interconnection facilities. CPUC has issued a disposition letter for an Advice Letter approving PG&E's portion of the interconnection facilities.

Having said this, I do not want to speak out of turn regarding CPUC's authority to enforce General Order (GO) 167-C (regarding the BESS portion of the project), GO 95 (regarding PG&E transmission facilities), or any other section of the Public Utilities Code. At a minimum, it is recommended that CPUC Electric Safety and Reliability Branch (ESRB) of the Safety and Enforcement Division (SED) be contacted to determine CPUC's requirements for the design and construction of the BESS portion of the project pursuant to GO 167-C. Recommended points of contact with ESRB are:

Eric Wu (Branch Manager) – eric.wu@cpuc.ca.gov
Fadi Daye (Supervisor) – fadi.daye@cpuc.ca.gov

Michelle Wilson (she/her)
Program and Project Supervisor
CEQA and Energy Permitting Group, CEQA and FERC Branch
Energy Division, California Public Utilities Commission
505 Van Ness Ave
San Francisco, CA 94102
(415) 696-7371
Michelle.Wilson@cpuc.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, September 4, 2025 9:08 AM
To: Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>

Subject: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi Elaine and Michelle,

Darden was one of the first projects we had under this new Opt In Program and where the first point of interconnection to the electric grid was not already in existence.

The applicant constructed the switchyard for PG&E and PG&E would then purchase and operate it. In our analysis, we applied conditions of certification to mitigate impacts associated with construction of the switchyard and also included conditions of certification to address design review by the CEC.

We wanted to confirm whether this is correct that the CEC's Chief Building Official would handle design review through COCs for project components that would be operated by a utility and interconnect with the electric grid or is that supposed to be delegated to the CPUC. We have a project that has a complete application and staff is in the analysis stages of environmental review.

I would appreciate confirmation of what agency would handle design review for utility components as soon as possible so I can advise staff.

Thanks kindly,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 9/12/2025 4:51:06 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Fw: Soda Mtn Key Events List
Attachments: Key Events List - Soda Mountian Solar Project 9-10-25.docx

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Hi Lisa,

Attached is the Key Events List for the Soda Mt. Solar Project. If you have any questions, please let me know.

Thank you,
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

KEY EVENTS LIST

PROJECT: oda Mountain Solar Project

DOCKET #: 4-OPT-03

COMPLIANCE PROJECT MANAGER:

EVENT DESCRIPTION	DATE	
Certification Date	April 27, 2026	
Obtain Site Control	Obtained	A
On-line Date	December 1, 2028	
POWER PLANT SITE ACTITIES		
Start Site Assessment/Pre-construction	Underway	
Start Site Mobilization/Construction	August 1, 2026	
Begin Pouring Major Foundation Concrete	December 1, 2026	
Begin Installation of Major Equipment	February 1, 2027	
Completion of Installation of Major Equipment	April 1, 2028	
First Start/Energizing of PV Array or BESS	July 1, 2028	
Obtain Building Occupation Permit	September 1, 2028	
Start Commercial Operation	December 1, 2028	
Complete All Construction	December 1, 2028	
TRANSMISSION LINE ACTIVITIES		
Start Transmission Line Construction	December 1, 2027	No ne The ci interc switch tower 500kV
Complete Transmission Line Construction	June 1, 2028	
Synchronization with Grid and Interconnection	July 1, 2028	
WATER SUPPLY LINE ACTIVITIES		
Start Water Supply Line Construction	N/A	
Complete Water Supply Line Construction	N/A	
Start Recycled Water Supply Line Construction	N/A	
Complete Recycled Water Supply Line Construction	N/A	

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 9/23/2025 8:21:12 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Fw: [EXT] GIS Data
Attachments: Project Component Shapefiles 20250918.zip

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Hi Lisa,

Please see below and attached. If your team needs any additional GIS data, please let me know.

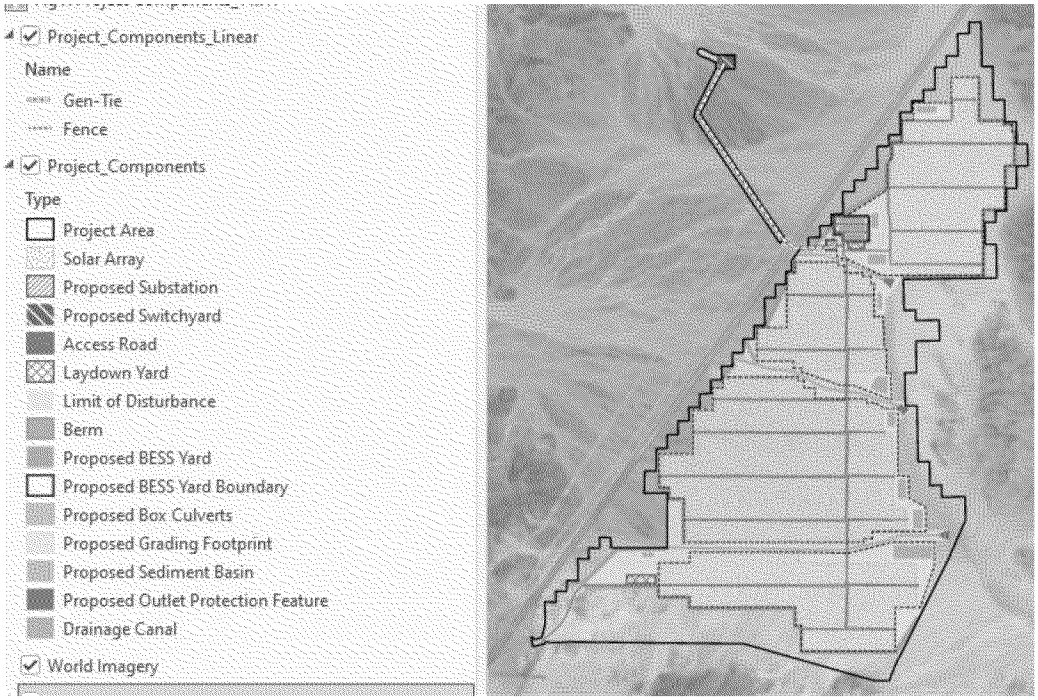
Thanks!

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Marlyng Gama <mgama@rinconconsultants.com>
To: Hannah Arkin <hannah@resolutionenvironmental.com>; David Daitch <ddaitch@rinconconsultants.com>; Evelyn Langsdale <elangsdale@rinconconsultants.com>
Cc: Isabelle Radis <iradis@rinconconsultants.com>
Subject: Re: [EXT] GIS Data

Hi Hannah,

Please confirm receipt of the shapefiles. Below is a screenshot of all components included. Please let me know if you have any quesitons.



Marlyng Gama
Supervising Biologist
mgama@rinconconsultants.com
805-644-4455 Main | 805-880-0514 Direct

Out of Office: Friday, September 19

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 9/23/2025 9:55:06 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Soda Mt. Geotechnical Investigation
Attachments: Preliminary Geotechnical Investigation (Phase 1A) - DYA_110301.pdf

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Hi Lisa,

Attached, please find the 2011 site-specific geotechnical report for the Soda Mt. Solar project.

Thank you!
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

Preliminary Geotechnical Investigation (Phase 1)

SODA MOUNTAIN SOLAR PROJECT

BLM Case Number - CACA49584

Proposed Caithness Soda Mountain Solar Facility Near Baker, San Bernardino County, California

March 1, 2011

Prepared for:

United States Department of the Interior
Bureau of Land Management
California Desert District Office
22835 Calle San Juan De Los Lagos
Moreno Valley, CA 92553

Submitted by:

Caithness Soda Mountain, LLC
565 Fifth Avenue, 29th Floor
New York, NY 10017

Prepared by:

Diaz • Yourman & Associates
1616 East 17th Street
Santa Ana, CA 92705

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Preliminary Geotechnical Investigation (Phase 1)

SODA MOUNTAIN SOLAR PROJECT

BLM Case Number - CACA49584

Proposed Caithness Soda Mountain Solar Facility Near Baker, San Bernardino County, California

March 1, 2011

Prepared for:

United States Department of the Interior
Bureau of Land Management
California Desert District Office
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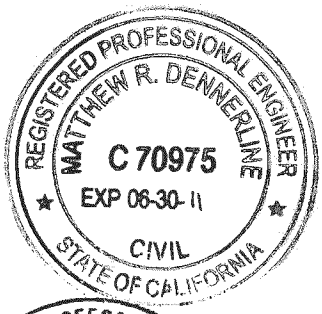
A Report Prepared for:

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PRELIMINARY GEOTECHNICAL INVESTIGATION (PHASE 1A)
CAITHNESS SODA MOUNTAIN SOLAR FACILITY PROJECT
BAKER, SAN BERNARDINO COUNTY, CALIFORNIA

Project No. 2010-024

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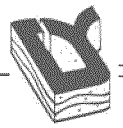
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1.0 INTRODUCTION

This report presents the results of the Preliminary Geotechnical Investigation performed by Diaz•Yourman & Associates (DYA) for the proposed Caithness Soda Mountain Solar Facility near Baker, San Bernardino County, California. RMT, Inc. (RMT) authorized this work on July 22, 2010.

Engineering Geology and Geophysical Investigations (Phase1A) performed by Wilson Geosciences, Inc. and Terraphysics, respectively, together with this Preliminary Geotechnical Investigation (Phase 1B), make up Phase 1 of the Geotechnical Program reviewed by the Bureau of Land Management (BLM) for conformance to their land use regulations. A primary objective of Phase 1 is to increase the effective areal extent of the geologic and geophysical data, while reducing the amount of land disturbance during the investigations. Following project approval, a Phase 2 detailed geotechnical investigation will be performed based on the final design plans and specifications. Phase 3 will be construction monitoring and geotechnical compliance documentation.

Environmental hazard evaluation at the site was not within scope of these investigations.

1.1 PROJECT DESCRIPTION

The Soda Mountain Solar Facility will be located along Interstate (I) 15 between Rasor Road and Zyzzx Road, south of Baker, California, as shown on the Vicinity Map, Figure 1. The proposed project will consist of a solar power plant within a 2,200-acre site on both sides of I-15 as shown on the Site Plan, Figure 2. Much of the site will contain photovoltaic (PV) panel arrays and access roads. We understand the preferred foundations for the PV arrays are vibrated or driven steel posts/piles which will support the arrays approximately four feet above grade. The arrays will be spaced approximately 16 feet on center. We understand that the pile loads may be in the following ranges: axial-350 to 550 pounds (lbs), uplift-700 to 900 lbs, lateral-300 to 1,100 lbs, maximum moments approximately 15,000 foot-lbs. Additional structures may include transmission lines, substations, switch yards, laydown areas, water tanks, and an operations and maintenance building. Locations and foundation loads of the proposed structures are not known at this time and will be evaluated in detail in Phase 2. The proposed grades will be near existing grades.



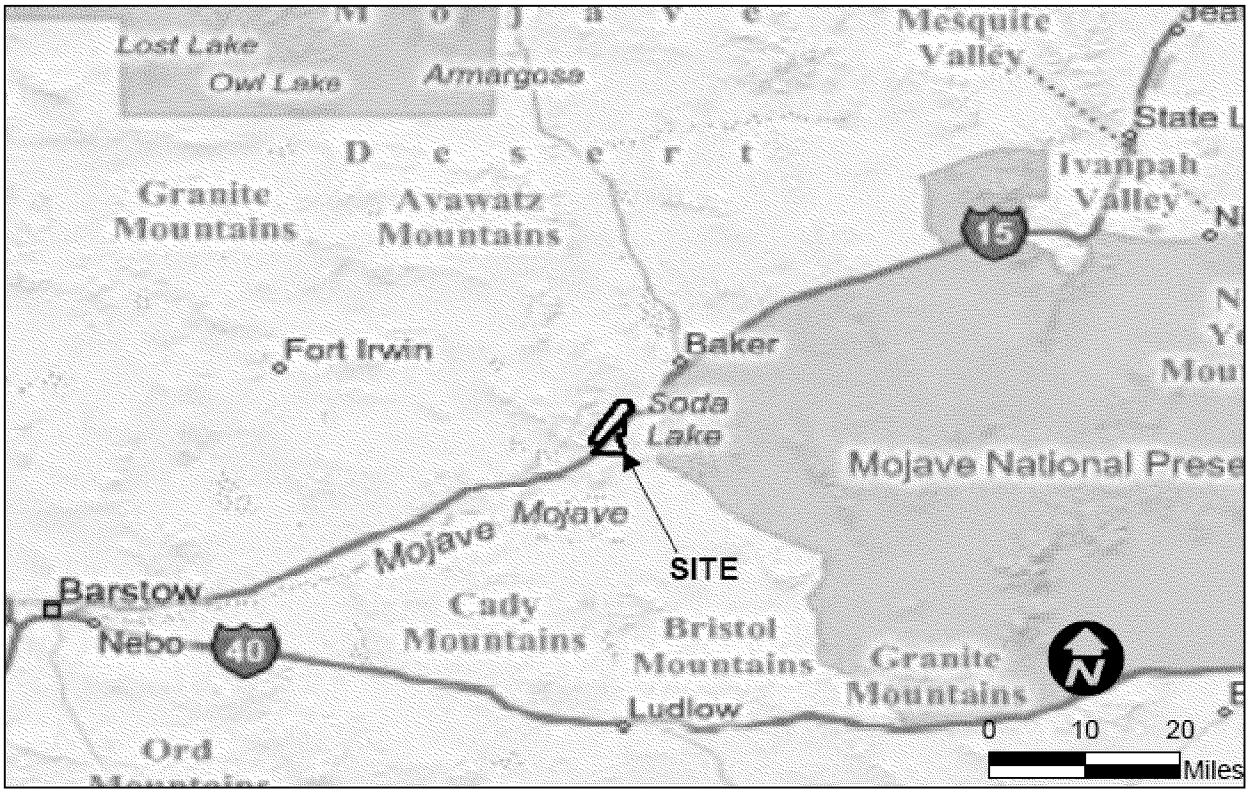
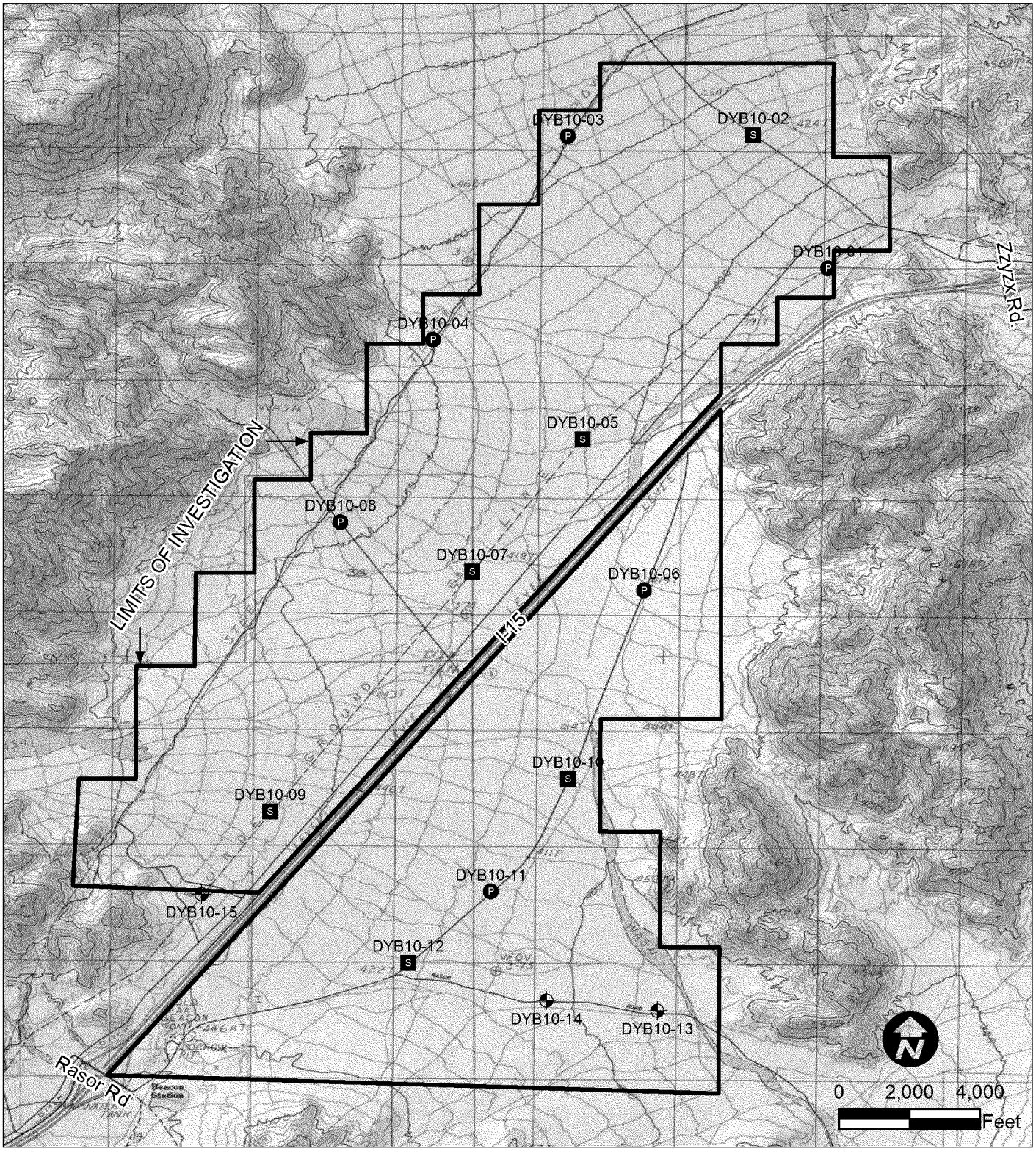


Figure 1 - VICINITY MAP



Refrence: ESRI, National Geographic Society, 2009

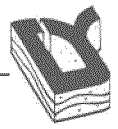
Legend

- **Boring locations**
- **Boring locations with down-hole seismic testing**
- **Boring locatins with in-hole permeability testing**

Figure 2 - SITE PLAN

The purpose of DYA's investigation and analysis was to provide geotechnical input for the preliminary design of the proposed project, for support of constraints/opportunities analysis and the project EIR/EIS (Environmental Impact Report/Environmental Impact Statement). The scope of our services consisted of the following tasks:

- Reviewing data.
- Conducting a field investigation.
- Performing geotechnical laboratory tests on selected samples.
- Performing surficial soil testing on selected samples for use in soil fertility analysis.
- Performing engineering analyses to develop preliminary conclusions and recommendations regarding the following:
  - Seismic hazards
  - Site preparation and grading
  - Slope stability
  - Foundation type and design criteria
    - Vertical capacity
    - Settlements
    - Resistance to lateral loads
    - Lateral earth pressures
  - Percolation
  - Soil corrosion potential
- Preparing this report.



2.0 FIELD INVESTIGATION AND LABORATORY TESTING

2.1 FIELD INVESTIGATION

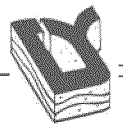
The field investigation, conducted August 30, 2010, through September 2, 2010, consisted of drilling 14 shallow soil borings and one deep soil boring. Six borings were converted to down-hole seismic tests and six borings were prepared for in-hole permeability tests at the locations shown on Figure 2. The boring locations were chosen to minimize the amount of land disturbed while still gathering enough information to adequately characterize the geologic units of the site. The boring depths, ranging from approximately 14 to 21 feet for shallow borings and 100 feet for the deep boring, were selected to extend to the depth of significant influence of the proposed loads. Groundwater was not encountered during the field investigation. Details of the field investigation, including sampling procedures and boring logs, are presented in Appendix A.

2.2 LABORATORY TESTING

Soil samples collected from the borings were re-examined in the laboratory to substantiate field classifications. Selected soil samples were tested for moisture content, grain-size distribution, percent passing the No. 200 sieve, specific gravity, sand equivalent, compaction characteristics, and corrosion potential (pH, electrical resistivity, soluble chlorides, and soluble sulfates). The presence of gravel and cobbles larger than standard sampling and testing equipment prevented meaningful insitu density tests, shear strength tests, consolidation tests, and laboratory permeability tests from being performed. Expansion index tests were not performed because the surface soils were visually classified as nonexpansive. The soil samples tested are identified on the boring logs. Laboratory test data are summarized on the boring logs in Appendix A and presented on individual test reports in Appendix B.

Additional surface samples were tested by Wallace Laboratories, LLC for essential and nonessential elements to understand the potential of surficial soils for supporting plants to offset plants taken off the site. The complete results of the soil fertility analysis are presented in the Wallace report in Appendix C.

Other samples taken at depths of 3 to 5 feet below grade were provided to RMT in sealed 5-gallon buckets to perform thermal resistivity testing in a future phase of work.



3.0 SITE CONDITIONS

3.1 SURFACE CONDITIONS

The site is located in the Mojave Desert along the I-15 freeway between Rasor Road and Zzyzx Road. Unpaved roads including Rasor Road, Arrowhead Trail, and unnamed access and recreational roads traverse the site. Many of these roads are not maintained and difficult to drive with standard highway vehicles. Overhead power lines run north-south along the west side of the site. An underground Kinder-Morgan gas line and various communication lines run north-south in the center of the site, west of I-15. The project site is mostly undeveloped.

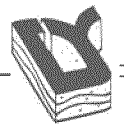
The site is primarily a relatively flat alluvial valley generally covered by minor desert vegetation (see sample pictures in Appendix A), flanked by segments of the Soda Mountains on the west and east. Alluvial fans emanate from the mountains and are joined in the valley. Outflow washes diverge on the fan shields, and rejoin in main drainage ways. The surface is generally covered with sandy soils, with gravels, cobbles, and boulders. Most of the boulders observed were less than 3 feet in diameter. At the margins of the site, bedrock is exposed. The existing ground surface elevation ranged from approximately 1,250 to 1,525 feet above mean sea level (MSL).

A complete description of the geologic units within the site is included in Wilson Geosciences report (Phase 1A).

3.2 SUBSURFACE CONDITIONS

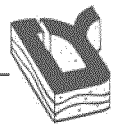
The soils encountered in the all of the borings were sandy and gravelly alluvial deposits. The percentage of gravel-size and larger particles ranged from approximately 10 to 50 percent. The percentage of fine-grained silts or clays ranged from 5 to 20 percent.

Conventional shear strength tests, such as direct shear or triaxial tests, were not feasible throughout most of the site due to the high percentages of gravel-size and larger particles. Shear strength correlations with the standard penetration tests (SPT) are also poor because the larger particles increase the driving resistance by becoming stuck in the sampler tip or barrel. Shear strengths of the sands and gravels were estimated from calculations based on correlations (Duncan, 2004) with gradation, relative density, and confining pressure. Assuming a loose state of



packing at the surface and increasing slightly with depth, an angle of internal friction of 40 degrees was used for preliminary design for all soils identified in the borings.

Groundwater was not encountered during DYA's drilling operations.



4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on geotechnical considerations, the site is generally well suited for the proposed project. The sandy soils will provide very good foundation and roadway support, make excellent fill, produce stable cut and fill slopes at moderate inclinations, and should drain well. The primary geotechnical considerations are:

- The presence of the larger gravel, cobbles, and possibly boulders that will adversely affect the ability to drive or vibrate the piles.
- Bedrock might be encountered near the margins of the site.
- Where driving/vibrating refusal is met before the required depth to resist uplift or lateral loads, alternative installation methods, foundation configuration or anchoring may be required.

4.1 SEISMIC/GEOLOGIC HAZARDS

The site, like most of Southern California, will be subject to strong ground shaking during major earthquakes. Seismic design criteria are listed in Table 1 in accordance with both the 2005 and 2010 versions of *Minimum Design Loads for Buildings and Other Structures*, Standard ASCE 7-05 and ASCE 7-10, respectively. The criteria obtained from ASCE 7-05 is applicable to the current California Building Code (ICC, 2010). Due to the uncertainty of when the project design will be completed, RMT also requested seismic criteria in accordance with ASCE 7-10, which is anticipated to be included in the 2012 International Building Code. The ASCE 7-10 criteria should be considered preliminary at this time, and re-evaluated if the new standard is incorporated into the applicable building codes.

Both of the design criteria in Table 1 are based on mapped and gridded values included within the standards. The fault activity map (Jennings and Bryant, 2010) presented on Figure 3 indicates the nature and proximity of active, potentially active, and non-active faults with respect to the project area.

Shallow groundwater and loose sandy soils were not encountered during the subsurface investigation. A liquefaction analysis was not performed for this project. Some dry sand settlement should be expected during high ground shaking.

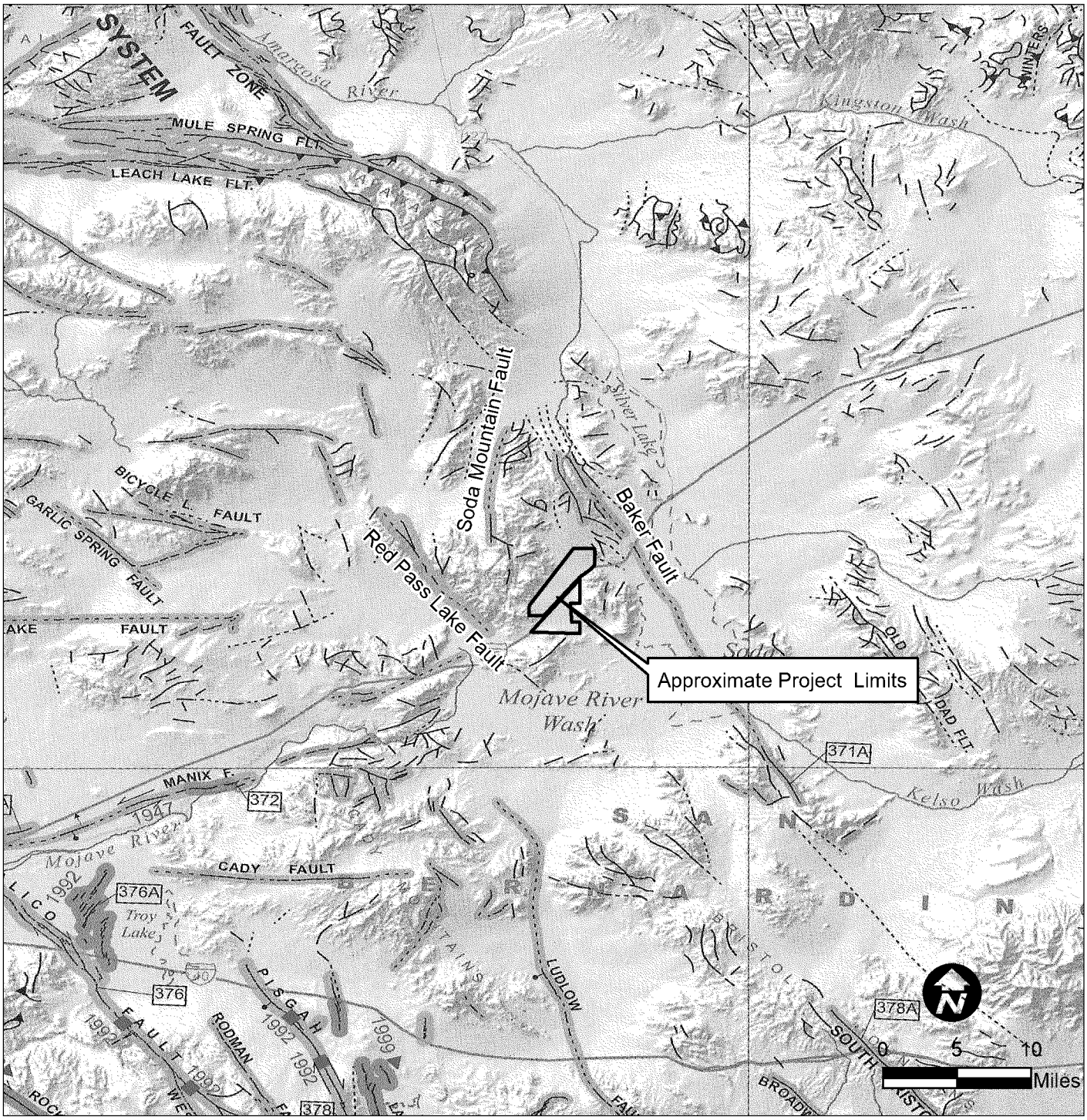


Table 1 - SEISMIC/GEOLOGIC DESIGN CRITERIA

CHARACTERISTIC	ASCE 7-05	ASCE 7-10 (Preliminary)
Site Class[1]	C	C
S_s - mapped maximum considered earthquake spectral acceleration at short periods (g)[1,2]	0.745	0.792
S_1 - mapped maximum considered earthquake spectral acceleration at 1-second period (g) [1,2]	0.269	0.314
F_a - site coefficient[1]	1.102	1.083
F_v - site coefficient[1]	1.531	1.486
F_{PGA} - site coefficient[5]	--	1.084
S_{MS} - adjusted maximum considered earthquake spectral acceleration at short periods (g)[1]	0.821	0.858
S_{M1} - adjusted maximum considered earthquake spectral acceleration at 1-second period (g)[1]	0.412	0.466
Design Peak Ground Acceleration, g (PGA)[3]	0.22	0.23
Mapped maximum considered earthquake geometric mean peak ground acceleration, g (PGA)[4]	0.33	0.32
Peak Ground Acceleration adjusted for site class effects, g (PGA_M)[5]	--	0.34
T_L - mapped long-period transition period[2]	8	8
Alquist-Priolo Special Study Zone Act[6]	Site outside special study zone	
California Seismic Hazards Mapping Act, Liquefaction Zone[7]	Site not mapped	
California Seismic Hazards Mapping Act, Landslide Zone[7]	Site not mapped	

Notes:

1. California Building Code (CBC) Section 1613.
2. ASCE 7-05 mapped values based on Earthquake Ground Motion Parameters (U.S. Geological Survey [USGS], 2009).
3. ASCE 7 Section 11.4.5 (S_{DS} *0.4).
4. ASCE 7 Section 11.4.6.
5. ASCE 7-10 Section 11.8.3 for seismic design categories D through F; $PGA_M = F_{PGA}$ PGA.
6. California Division of Mines and Geology (CDMG; 1994).
7. California Geological Survey (CGS; 2009).



Refrence: California Geological Survey Fault Activity Map, 2010.

Legend

- Fault along which historic displacement (last 200 years) has occured.
- Holocene fault displacement (during past 11,700 years) without historic record.
- Late Quaternatry fault displacement (during past 700,000 years).
- Quaternary fault (age undifferentiated)
- Pre-Quaternary Fault

Figure 3 - FAULT ACTIVITY MAP

4.2 EARTHWORK

Minor earthwork (cuts and fills less than 5 feet) will be required to grade access roads, provide drainage, and prepare the building pads, and provide compacted soil beneath shallow spread footings and concrete flatwork, and backfill behind retaining walls.

4.2.1 Site Preparation and Grading

Prior to the start of construction, the following should be performed:

- All utilities should be located in the field and rerouted, removed, abandoned, or protected.
- Areas to be graded should be stripped of vegetation and debris, and the material removed from the site.

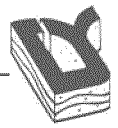
For preliminary planning purposes, where buildings are to be placed, it should be anticipated that the upper soil should be over excavated and replaced with compacted fill approximately as shown on Figure 4.

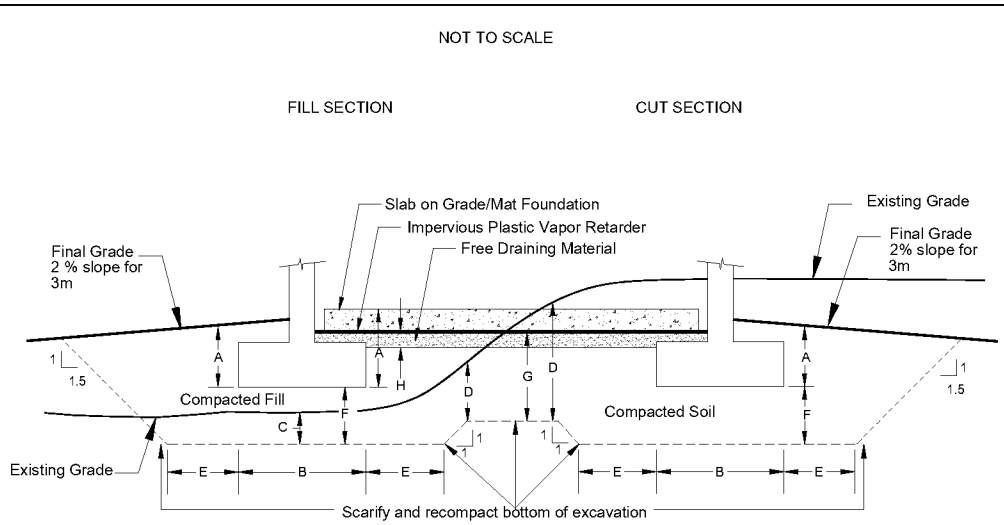
In general, except for oversize material, the on site soils will be suitable for general fill. Oversize material can be selectively placed in deeper fills, crushed and reused for road base or aggregate, or used for velocity dissipation and erosion control in drainage ways. Specific recommendations for separating and selective use of oversize material will be provided in Phase 2.

Prior to placing fill, surface exposed by stripping or over excavation should be:

- Scarified to a depth of 8 inches.
- Moisture-conditioned to above-optimum moisture content.
- Compacted to at least 90 percent relative compaction[1].

[1] Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the American Society for Testing Materials (ASTM) D1557-09 test method. Optimum moisture content is the moisture content corresponding to the maximum dry density, as determined by the ASTM D1557-09 test method.





LOCATION	MINIMUM DIMENSIONS (feet)
A. Footing Embedment Below Subgrade	1.5
B. Footing Width	1
C. Excavation Below Existing Grade (Footing)[1]	2
D. Excavation Below Existing Grade (Slab)[1]	2
E. Excavation Beyond Footing	5
F. Compacted Soil/Fill Below Footing	1
G. Compacted Soil/Fill Below Slab	1
H. Free-Draining Material	0.5
PRESSURE (psf)	
Static (net) Allowable Bearing Capacity (FS≥3)	3,000
Increase per Foot of Depth	1,300
Increase per Foot of Width	1,000
Maximum Static Bearing Capacity (FS≥3)	6,000
Maximum Transient Bearing Capacity (FS≥2)[2]	8,000

Notes:
1. Excavation extents can be waived where bedrock is present.
2. The static bearing capacity may be increased by 33 percent to calculate the transient bearing capacity.

Figure 4 - GRADING/FOUNDATION DETAILS

Where the soils at the bottom of the excavation preclude compaction, they should be excavated to a sufficient depth such that a firm and unyielding surface is achieved at the planned bottom of excavation or the base of fill. Generally, an overexcavation depth of 1 to 2 feet is sufficient. Fill and backfill should be compacted by:

- Placing in loose layers less than 8 inches thick.
- Moisture-conditioning to above-optimum moisture content.
- Compacting to at least 90 percent relative compaction.

The compacted subgrade soils should be firm, hard, and unyielding.

Slabs-on-grade should be underlain by a minimum of 12 inches of soil compacted to at least 90 percent relative compaction.

The project is not expected to need significant import or export of soil. If required, import materials for fill and select backfill should meet the criteria in Table 2. Select backfill is material placed within a horizontal distance of 5 feet or one-half of the wall height, whichever is greater, behind retaining/basement walls.

Table 2 - IMPORT FILL AND SELECT BACKFILL CRITERIA

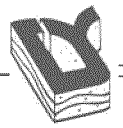
CRITERIA	IMPORT FILL	SELECT BACKFILL
Maximum particle size (inches)	4	1
Maximum liquid limit (%)	10	5
Maximum plasticity index (%)	5	0
Maximum percentage passing the No. 200 sieve (%)	40	30
Minimum sand equivalent	20	20

The soils encountered in the borings are not expected to meet the above criteria for select backfill due to the presence of large particles. If the large particles are removed, the onsite soils would be expected to meet the criteria for select backfill.

Site grading in the alluvial deposits covered by this investigation may be accomplished with conventional heavy-duty construction equipment. The fill should be compacted using soil compactors, designed for compaction, or a vibratory padded drum roller, as defined by the Caterpillar Performance Handbook (2008), or equivalent. However, to avoid overstressing retaining walls, backfill should be compacted using lightweight compaction equipment or the walls should be braced. If the buildings or other areas with significant grading are to be located where there is bedrock at the surface, the strength and rippability of that rock should be evaluated in the second phase of the geotechnical program.

4.2.2 Excavations and Temporary and Permanent Slopes

The stability of temporary excavations is a function of several factors, including the total time the excavation is exposed, moisture condition, soil type and consistency, and contractor's operations. The contractor is responsible for excavation safety. As a guideline, temporary construction excavations should be planned with slopes no steeper than 1.5H:1V (horizontal to vertical). For steeper temporary construction slopes or deeper excavations, shoring should be provided for stability and protection. The contractor should strictly adhere to applicable health and safety regulations, including the Occupational Safety and Health Administration (OSHA).



Permanent compacted fill slopes should be planned no steeper than 2H:1V. The slopes should be paved or covered with vegetation to reduce surface erosion.

4.2.3 Drainage

General site drainage criteria are outlined on Figure 4. Roof water should be collected by roof gutters and downspouts and directed away from structures into a closed drainage system or onto landscape or infiltration areas. Landscaped areas should be designed to not seep below building foundations or slabs-on-grade. Exterior grades should be no higher than the interior plastic vapor retarder. Best management practices (BMP) should be employed.

In-hole permeability tests were performed in general accordance with methods prescribed in the United States Bureau of Reclamation (USBR) Groundwater Manual and USBR Procedure 7310-89. Test locations were selected that are representative of each of the soil types encountered in this investigation. The tests were performed at a depth of approximately 5 feet. Details of the test procedure are described in Appendix A. The results of the tests are summarized in Table 3.

Table 3 - SOIL TYPES AND HYDRAULIC CONDUCTIVITY - INSITU TESTS

BORING NO.	SOIL TYPE (USCS)	APPROXIMATE HSG CLASSIFICATION[1]	PERMEABILITY/ HYDRAULIC CONDUCTIVITY[2] (inch/hour)
DYB10-01	Poorly Graded Sand with Silt and Gravel	A	> 2.5 [3]
DYB10-03	Well Graded Sand with Silt and Gravel	A	> 2.5 [3]
DYB10-04	Well Graded Gravel with Silt and Sand	A	> 2.5 [3]
DYB10-06	Poorly Graded Sand with Silt and Gravel	B	0.3
DYB10-08	Well Graded Sand with Silt and Gravel	A	1.4
DYB10-11	Silty Sand with Gravel	B	0.8

Notes:
1. Hydrologic soil group (HSG) determination is based on minimum infiltration rates calculated. Group A soils have low runoff potential; Group B soils have moderately low runoff potential (USDA, 2007).
2. Insitu hydraulic conductivity measured from constant head gravity tests in accordance with United States Bureau of Reclamation (USBR) 7310-89.
3. Discharge rate of water for steady-state condition exceeded equipment capacity.

- USCS = unified soil classification system.

In addition to the insitu tests, the permeability of the soils was estimated based on particle size analysis and the Kozeny-Carman equation (Chapuis and Aubertin, 2003). While the insitu tests are the preferred method for measuring permeability, using the prediction model allows for a greater number of locations to be evaluated; these results are shown in Table 4.

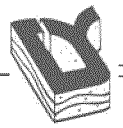


Table 4 - SOIL TYPES AND HYDRAULIC CONDUCTIVITY - PREDICTION MODEL

BORING NO.	BORING DEPTH (feet)	PREDOMINANT SOIL TYPE (USCS)	APPROXIMATE HSG CLASSIFICATION	PREDICTED PERMEABILITY[1] (inch/hour)
DYB10-01	3.5	Poorly graded Sand with Silt and Gravel	A	3.1
DYB10-02	5	Well graded Sand with Silt and Gravel	A	4.6
DYB10-03	3.5	Well graded Sand with Silt and Gravel	A	6.0
DYB10-04	11.5	Well graded Gravel with Silt and Sand	A	7.9
DYB10-05	5.5	Poorly graded Sand with Silt and Gravel	A	4.3
DYB10-06	0.5	Poorly graded Sand with Silt and Gravel	A	3.3
DYB10-07	2.5	Poorly graded Sand with Silt and Gravel	A	5.8
DYB10-07	7.5	Well graded Sand with Silt and Gravel	A	4.8
DYB10-08	5.5	Well graded Sand with Silt and Gravel	A	3.1
DYB10-09	9	Poorly graded Sand with Silt and Gravel	A	5.7
DYB10-09	14	Well graded Sand with Silt and Gravel	A	9.7
DYB10-10	1.5	Poorly graded Sand with Silt and Gravel	A	5.1
DYB10-10	9	Well graded Sand with Silt and Gravel	A	2.9
DYB10-11	6	Poorly graded Sand with Silt and Gravel	A	5.4
DYB10-12	12.5	Poorly graded Sand with Silt and Gravel	A	2.7
DYB10-13	0.5	Poorly graded Sand with Silt and Gravel	A	5.6
DYB10-13	18	Silty Sand with Gravel	A	2.2
DYB10-14	2.5	Poorly graded Sand with Silt and Gravel	A	6.7
DYB10-14	20	Poorly graded Sand with Silt	A	3.7
DYB10-15	0.5	Well graded Sand with Silt and Gravel	A	7.4

Notes:
1. Predicted permeability based on Kozeny-Carman equation.
- USCS = unified soil classification system.

4.3 FOUNDATION DESIGN

The specific locations and loading conditions for the proposed structures are not known at this time. These foundation recommendations should be considered preliminary and re-evaluated in Phase 2 of this geotechnical program when the loading conditions are known and access to the site is not limited.

4.3.1 Miscellaneous Structures

The proposed buildings, tanks, and other lightly-loaded structures can be supported on shallow foundations placed on a layer of compacted fill as shown on Figure 4. The static and temporary allowable bearing capacities include factors of safety (FS) of at least 3 and 2, respectively, against shear failure. Some total and differential static settlement is expected and magnitudes should be calculated when the loading conditions are known. The static settlements are expected to occur as the loads are applied or shortly thereafter.

4.3.2 PV Arrays

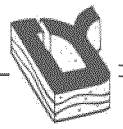
4.3.2.1 Vibrated or Driven Piles

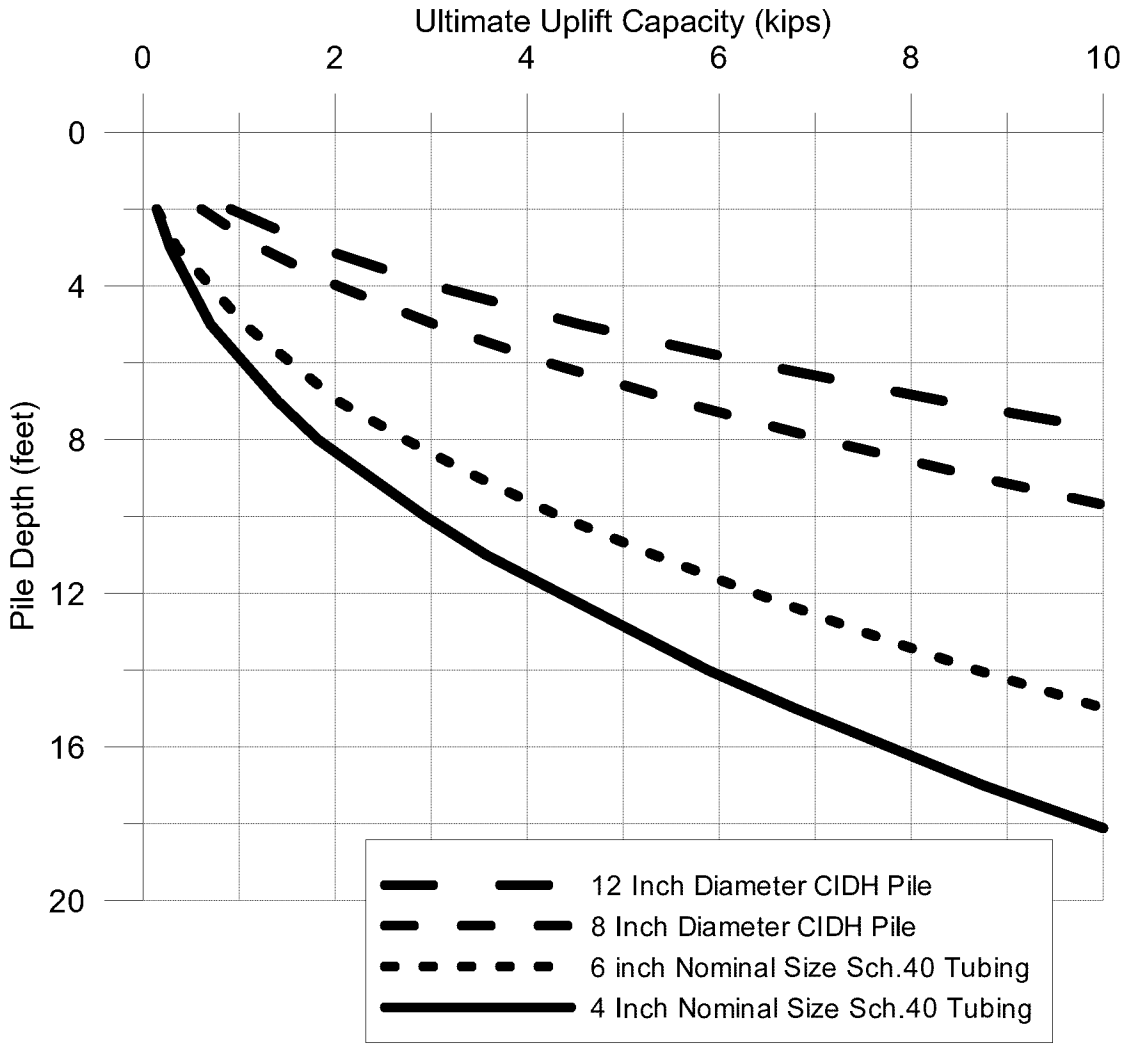
We understand the desired foundation type for the PV arrays is planned to be 4- or 6-inch-diameter steel pipe piles installed with vibratory equipment or by driving. Due to large wind loads, the depth of the pipe required to resist the loads is expected to be controlled by either uplift or lateral loads. Approximate uplift capacities calculated using the computer program APILE 5.0 (Ensoft, 2008) are shown on Figure 5. A lateral pile analysis was performed using the computer program LPILE ^{PLUS} 5.0 for Windows (Ensoft, 2010). Based on an assumed loading condition of 1 kip shear force and a 15 kip-foot moment at the ground surface, the pile will require approximately 10 feet of embedment to anchor the toe against rotations. This depth should be re-evaluated when actual foundation loads are known.

Based on the strength of the soils encountered at the site, planned foundation type can support the likely loads imposed by the PV arrays. However, installation of these piles within required tolerances may not be feasible due to the presence or cobbles and boulders at the site. The extent of boulders and cobbles at the site should be further evaluated in Phase 2 of this geotechnical program with test trenches and a pile drivability test program where the panel arrays will be located.

Test installations should be planned in different areas of the project representative of a range of different anticipated conditions.

- If vibratory installation is not feasible, driving may prove more effective.
- For either alternative, pilot holes, advanced with an air percussion drill, could be effective to help achieve the required depth and position accuracy.
- Additional piles transversely offset from the planned alignment and interconnected would require less penetration and allow alignment adjustment.





Notes:
1. A minimum factor of safety of 3 should be applied for allowable uplift capacity.
2. Compression capacity can be estimated by increasing the chart values by 50%. A minimum factor of safety of 2.5 should be used for compression.

Figure 5 - PILE UPLIFT CAPACITY

4.3.2.2 Cast-in-Drilled-Hole (CIDH) Concrete Piles

CIDH concrete piles may be considered as an alternative foundation type.

- Suitably large diameters could allow removal of cobbles and small boulders
- Air percussion hammers/drills could break up larger particles as needed for removal
- Short penetration depths could be offset by grouted anchors

The CIDH method is probably least desirable from cost and environmental standpoints.

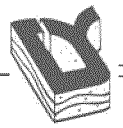
- Added construction traffic
- Drill spoil disposal
- Concrete production and transportation
- Pile reinforcing and post anchoring

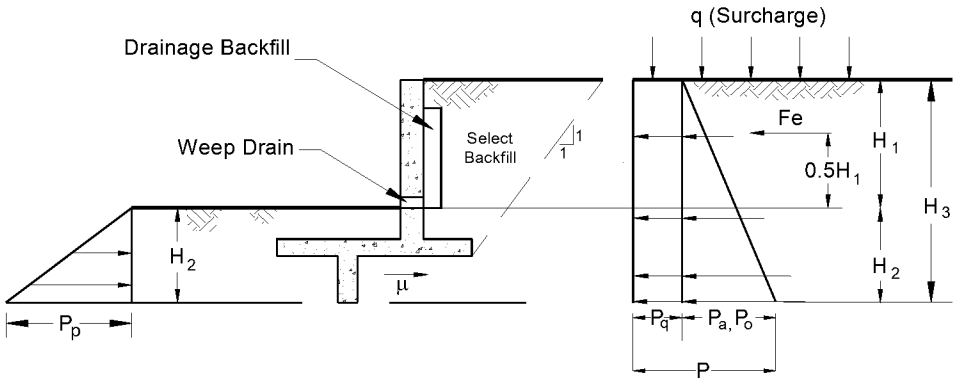
Uplift capacities for 8- and 12-inch CIDH piles calculated using the computer program SHAFT 6.0 (Ensoft, 2007) are shown on Figure 5. A lateral pile analysis similar to that performed for the pipe piles indicated the CIDH piles would also require approximately 10 feet of pile embedment to anchor the toe against rotations.

4.4 RESISTANCE TO LATERAL LOADS AND LATERAL EARTH PRESSURES

The lateral resistance may be calculated using the minimum of the following: 50 percent of passive resistance plus 50 percent of base friction, 100 percent passive resistance only, or 100 percent of the base friction only. Lateral loads can be resisted by an allowable passive soil pressure and base friction, as outlined on Figure 6 for compacted fill, applied against below-grade walls and foundation elements.

Retaining and subterranean walls should be designed to resist lateral earth pressures with the equivalent fluid pressures as illustrated on Figure 6. Lateral earth pressures are presented for walls free to rotate and restrained walls. At-rest earth pressures (restrained walls) should be used for basement walls and where the top of the wall is not expected to move laterally more than 0.001 H_1 (see Figure 6). The lateral earth pressures on Figure 6 are based on the backfill material noted in Table 2 or natural onsite recompacted soils. See Figure 7 for typical sections of wall drains.



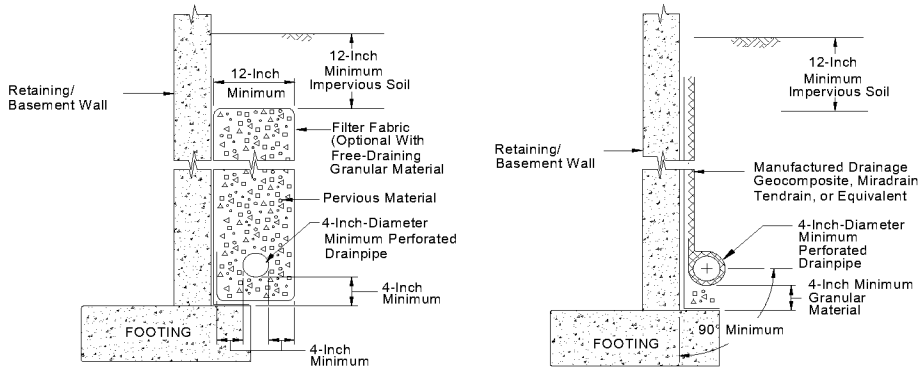


$P_p = 400\ H_2 \leq 4{,}000$ psf $\mu = 0.4$	Cantilever Walls $P = P_a + P_q = 35\ H_3 + 0.4q$ $Fe = 6\ H_1^2$	Restrained Walls $P = P_o + P_q = 50\ H_3 + 0.5q$ $Fe = 10\ H_1^2$

Notes:

- All values of height (H) in feet, pressure (P), and surcharge (q) in pounds per square foot (psf) and force (F) in pounds.
- P_p, P_a, and P_o are the passive, active, and at-rest earth pressures, respectively; Fe is the incremental seismic force.
- P_q is the incremental surcharge pressure; μ is the allowable friction coefficient applied to dead normal loads. Fe is in addition to the active and at-rest pressures. All pressures assume no groundwater.
- For 2H:1V (horizontal to vertical) slopes above the wall, increase the active and at-rest pressures by 50 percent; for 1.5H:1V slope, increase the active and at-rest pressures by 100 percent.
- Neglect the upper 1 foot for passive pressure unless the surface is contained by a pavement or slab.
- Peak ground acceleration (PGA) was used to calculate Fe, 50 percent of the PGA for cantilever walls and 75 percent of PGA for restrained walls was used. PGA based on ASCE 7-10 as shown in Table 1.
- See Figure 7 for drainage details.

Figure 6 - LATERAL EARTH PRESSURES



MATERIAL	CALTRANS SPECIFICATIONS	GREENBOOK SPECIFICATIONS
Free-Draining Granular Material	68-1.025 (Class 2)	300-3.5.2
Geotextile Filter Fabric	68-1.03	300-8
Perforated Pipe	68-1.02	207-13.4

Notes:

- Drainpipe should drain to an outlet.
- Filter fabric wraps completely around perforated drainpipe and pervious materials.

Figure 7 - RETAINING OR BASEMENT WALL DRAINAGE

4.5 SLABS-ON-GRADE AND CONCRETE FLATWORK

Slabs-on-grade should be underlain by compacted free-draining granular materials as outlined on Figure 4. The free-draining granular material should contain less than 5 percent fines (passing the No. 200 sieve) and should be placed immediately below the slab-on-grade.

Moisture vapor will tend to migrate through the slab-on-grade. A waterproofing specialist should be consulted. To reduce vapor migration through the floor building slab, the following should be considered:

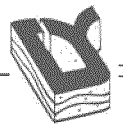
- Minimum 10-millimeter-thick plastic vapor barrier with joints overlapped by at least 6 inches and taped.
- Sealing the plastic vapor barrier around plumbing, electrical, and other conducts.
- No sand above the plastic vapor barrier.
- Minimum 7-day wet cure with no curing compounds.
- Two-month drying period before floor coverings are placed.
- Concrete mix design, materials, placement, curing, and finishing in conformance with the Greenbook and the American Concrete Institute (ACI; 1996, 1997).

The plastic vapor barrier should satisfy the requirements of ASTM E 1745 (Class "A"). ACI 302.1R-96 defines a vapor barrier as having a water vapor transmission rate (WVTR) of 0.00, plus a testing tolerance generally of a WVTR of 0.008 or less when tested in accordance with ASTM E 96. Note that commonly used "poly" or "visqueen" does not meet ASTM E 1745 requirements. Vapor barriers should be installed in accordance with ASTM E 1643. Care should be taken to seal the plastic vapor barrier and avoid puncturing the plastic vapor barrier during construction.

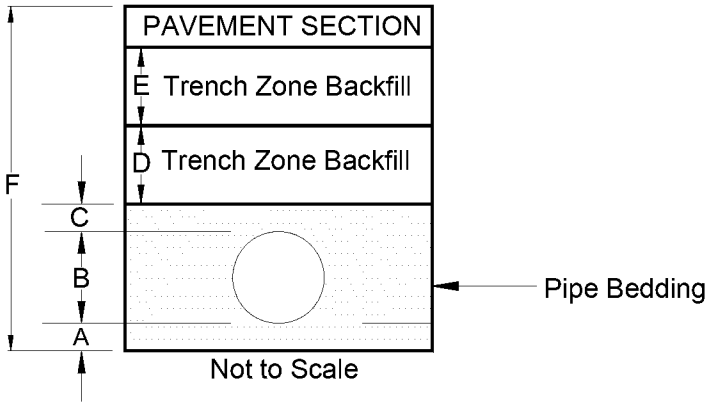
4.6 UTILITY TRENCHES

Utility trenches (either open or backfilled) that parallel structures, pavement, or flatwork should be planned so that they do not extend below a plane with a downward slope of 1.5H:1V from the bottom edge of footings, pavement, or flatwork. Temporary shoring to provide footing, pavement, flatwork, or utility support is recommended unless localized settlements on the order of 1 percent of the trench depth can be tolerated.

All excavations should comply with appropriate safety standards outlined in Section 4.2.2.



Utility pipes should be placed on the bottom of a neatly cut trench on a layer of bedding as outlined on Figure 8 or according to the manufacturer's recommendations, whichever is greater. Jetting should not be allowed for compaction purposes. We anticipate that the near-surface soils will be suitable for use as bedding materials if oversized particles are removed.



MATERIAL	MINIMUM THICKNESS (feet)	MINIMUM RELATIVE COMPACTION[1] (%)	BACKFILL SPECIFICATIONS	
			Caltrans Specifications	Greenbook Specifications
Pipe Bedding	A = 0.33 or B/4	--	19-3.025B	306-1.2.1
Pipe Zone	C = 1	--	19-3.025B	306-1.2.1
Trench Zone	D varies	90[2]	--	--
Trench Zone[3]	E = 2	95	--	--

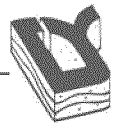
Notes:
1. Based on ASTM D1557.
2. To reduce settlement, use 95 percent relative compaction.
3. E = 0 if no pavement or settlement-sensitive structures at surface.

• Minimum values; use manufacturer's recommendations if greater.

Figure 8 - PIPELINE BACKFILL SCHEMATIC

4.7 PAVEMENT THICKNESS DESIGN

Access roads are proposed throughout the site for maintenance vehicles with AASHTO H-20 loadings. These roads may or may not be paved with hot mix asphalt. At this phase of the project, the volume of traffic, desired design life, and maintenance concerns have not been evaluated. The onsite soils have good pavement supporting characteristics and can support a properly designed pavement section when the design parameters are determined.



4.8 SOIL CORROSION POTENTIAL

Analytical chemical results from six tests performed during this investigation indicated 38 to 88 parts per million (ppm) soluble sulfate concentrations in the near-surface soils. Based on these test results, Type II cement can be used in accordance with California Building Code (CBC) 1904.3.

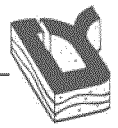
Six soil samples were tested for pH, soluble chloride and soluble sulfate, and soil electrical resistivity to check for corrosion potential. The range of test values is summarized in Table 5. Caltrans (2003) corrosion criteria are also presented. The corrosion potential test results from each boring location are presented in Appendix B. Based on Caltrans standards and other published correlations and the chemical test results, the tested soils are classified as non-corrosive. Additional corrosion testing should be performed in the second phase of this investigation when additional areas of the site become accessible.

Table 5 - CORROSION POTENTIAL

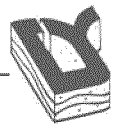
TEST	CALTRANS CRITERIA FOR CORROSIVE MATERIALS	RANGE OF VALUES
pH	<5.5	7.1 to 8.1
Soluble sulfate content (ppm)	>2,000	38 to 88
Soluble chloride content (ppm)	>500	30 to 40
Electrical resistivity (ohm-cm)	<1,000	4,300 to 10,900
Note: • ppm = parts per million		

4.9 SOIL FERTILITY

As stated in the Wallace report in Appendix C, "*The soils are alkaline with pH's ranging from 7.52 to 8.05. The majority of the samples have low to moderate salinity values. Sample DYB10-11 has a high salinity with a value of 4.28 millimho/cm. Nitrogen is low in all the samples except for Sample DYB10-06 and Sample DYB10-11 which have high nitrogen. Phosphorus is low across the board. Potassium ranges from modest to moderate, with Sample DYB10-11 having the highest at 180 parts per million. Iron, magnesium, zinc, and copper are low in all the samples. Sodium is low except for Samples DYB10-09 and DYB10-11. Sample DYB10-09 has a moderate amount of sodium. Sample DYB10-11 has high sodium at over 400 parts per million. Chloride is also high in Sample DYB10-11 at over 800 parts per million. Limestone is present in all the samples which may cause iron deficiency in acid loving plants. Boron is elevated in DYB10-11 at 0.84 parts per million in the saturation extract.*"



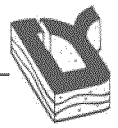
We understand the results of the soil fertility analysis, and recommendations for soil amendments in the Wallace report, together with the soil grain size distribution drainage characteristics contained in this report will be used by RMT or others to evaluate the applicability of the site soils for use as a growing medium.



5.0 PHASE 2 ADDITIONAL FIELD WORK AND LABORATORY TESTING

The results of this Phase 1 B investigation should be integrated with the results of the Phase 1 A geologic and geophysical investigations, and the preliminary project design and layout to define the requirements of the Phase 2 Geotechnical investigation.

Additional field investigation and analysis should be performed by DYA as will be required for final design of the project (Phase 2). Additional borings should be drilled in locations that were inaccessible during this phase of the investigation. Test trenches should be performed to better evaluate the extent of cobbles and boulders where deep foundations are proposed. Detailed analysis should be performed for the designs for the final foundation locations and loading conditions.



6.0 PHASE 3, PLAN REVIEW, CONSTRUCTION OBSERVATION, AND TESTING

In Phase 3, the finished grading earthwork and foundation plans and specifications should be reviewed by DYA for conformance with the intent of our recommendations. The review will enable DYA to modify the recommendations if final design conditions are different than presently understood.

During early stage test foundation installation, and throughout construction, DYA should provide field observation and testing to check that the site preparation, excavation, foundation installation, and finished grading conform to the intent of these recommendations, project plans, and specifications. This would allow DYA to develop supplemental recommendations as appropriate for the actual soil conditions encountered and the specific construction techniques used by the contractor.

As needed during construction, DYA should be retained to consult on geotechnical questions, construction problems, and unanticipated site conditions.



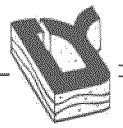
7.0 LIMITATIONS

This report has been prepared for this project in accordance with generally accepted geotechnical engineering practices common to the local area. No other warranty, expressed or implied, is made.

The analyses and recommendations contained in this report are preliminary and based on the literature review, field investigation, and laboratory testing conducted in the area. The results of the field investigation indicate subsurface conditions only at the specific locations and times, and only to the depths penetrated. They do not necessarily reflect strata variations that may exist between such locations. Although subsurface conditions have been explored as part of the investigation, we have not conducted chemical laboratory testing on samples obtained or evaluated the site with respect to the presence or potential presence of contaminated soil or groundwater conditions.

The validity of our recommendations is based in part on assumptions about the stratigraphy. Observations during construction can help confirm such assumptions. If subsurface conditions different from those described are noted during construction, recommendations in this report must be re-evaluated. DYA should be retained to observe earthwork construction in order to help confirm that our assumptions and recommendations are valid or to modify them accordingly. In accordance with CBC Chapter 17 Section 1704, DYA cannot assume responsibility or liability for the adequacy of recommendations if we do not observe construction.

This report is intended for use only for the project described. In the event that any changes in the nature, design, or location of the facilities are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by DYA. We are not responsible for any claims, damages, or liability associated with the interpretation of subsurface data or reuse of the subsurface data or engineering analyses without our express written authorization.



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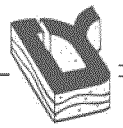
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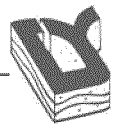


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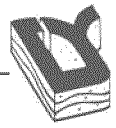
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APPENDIX A
FIELD INVESTIGATION



APPENDIX A - FIELD INVESTIGATION

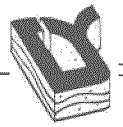
The field investigation for the proposed project consisted of drilling 14 shallow borings (DYB10-01 through DYB10-13, and DYB10-15) to depths ranging from 14 to 21 feet and one deep boring (DYB10-14) to a depth of 100.5 feet, converting six shallow borings to down-hole seismic tests, and preparing six 5-foot deep holes for percolation (in-hole permeability) tests. The percolation test holes were drilled adjacent (5 to 7 feet from the borings along the trail) to the selected shallow borings. The details of the geotechnical field investigation are summarized in Table A1.

Table A1 - SUMMARY OF FIELD INVESTIGATION

BORING ID	DEPTH (feet)	BOREHOLE SIZE (inches)	DATE OF PERFORMANCE	PURPOSE
DYB10-01	19	8[1] / 10[2]	9/2/2010	Soil profile and in-hole permeability test
DYB10-02	21	10[3]	8/31/2010	Soil profile and down-hole seismic test
DYB10-03	19.5	8 / 10	8/31/2010	Soil profile and in-hole permeability test
DYB10-04	17.5	8 / 10	8/31/2010	Soil profile and in-hole permeability test
DYB10-05	18	10	9/2/2010	Soil profile and down-hole seismic test
DYB10-06	18.5	8 / 10	8/30/2010	Soil profile and in-hole permeability test
DYB10-07	21	10	9/2/2010	Soil profile and down-hole seismic test
DYB10-08	19	8 / 10	8/31/2010	Soil profile and in-hole permeability test
DYB10-09	17.5	10	9/2/2010	Soil profile and down-hole seismic test
DYB10-10	18.5	10	8/30/2010	Soil profile and down-hole seismic test
DYB10-11	19.5	8 / 10	8/30/2010	Soil profile and in-hole permeability test
DYB10-12	20.5	10	8/30/2010	Soil profile and down-hole seismic test
DYB10-13	19.5	8	9/1/2010	Soil profile
DYB10-14	100.5	8	9/1/2010	Soil profile
DYB10-15	14	8	9/2/2010	Soil profile

Notes:
1. The hole size of 8 inches is for soil profile.
2. The hole size of 10 inches is for in-hole permeability test.
3. The hole size of 10 inches is for both soil profile and down-hole seismic test.

The boring locations were selected to minimize the amount of land disturbed while still gathering enough information to adequately characterize the geologic units of the site, and approximate boring locations are shown on Figure 2. Prior to drilling the borings, the field investigation locations were marked in the field and Underground Service Alert (USA) was notified.

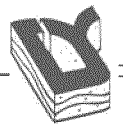


The borings were drilled by Tri-County Drilling, Inc. between August 30 and September 2, 2010, with a Diedrich D120 all terrain drill rig using hollow-stem auger drilling techniques. All borings were drilled along existing roads and care was taken not to impact undisturbed areas. A representative from Kinder-Morgan was present when borings DYB10-01, DYB10-05, DYB10-07, DYB10-09, and DYB10-15 were drilled in the vicinity of their petroleum pipeline. Our field engineer observed the drilling operations and collected drive samples for visual examination and subsequent laboratory testing. Drive samples were collected with a 2.4-inch-inside-diameter (3.0-inch-outside-diameter) modified California split-barrel sampler lined with steel tubes/rings and a standard split-spoon penetrometer with dimensions in accordance with ASTM 3550 and 1586, respectively. Both samplers were driven with a 140-pound hammer falling 30 inches. An automatic trip hammer was used.

The hammer blows required to drive the modified California sampler were converted to equivalent standard penetration test (SPT) N-values by multiplying by 0.65 (N = 0.65 x modified California blows per foot). A sampler driving refusal criteria of 50 hammer blows for less than 6 inches of penetration for the modified California or SPT samplers was used. An equivalent SPT blow count was then calculated by multiplying the sampler blow count (usually 50 blows) by the ratio of 6 inches divided by the actual sampler penetration in inches. If the modified California sampler met driving refusal, then the prorated equivalent SPT blow count was further modified as noted above for samplers that did not meet sampler driving refusal.

Soils encountered in the boring were classified in general accordance with the ASTM Soil Classification System (ASTM D2487 and 2488), which is summarized on Plate A1. The boring log presented on Plates A2 through A18 was prepared from visual examination of the samples, cuttings obtained during drilling operations, and results of laboratory tests.

Six shallow borings were prepared for down-hole seismic tests at the end of drilling. A 4-inch-diameter open-ended solid pipe with a secure cap at the bottom was installed in the borehole while the hollow-stem auger was in place. The pipe top was covered with a temporary cap and grouting was placed annulus (between the pipe and the hollow-stem auger) using a tremie pipe. The auger was continuously lifted and removed while grouting was placed to the top. Water was added into the pipe to keep it in place before removing the augers. The pipe top was covered with tape at the end of grouting. The seismic testing was performed by Terraphysics at a later date.

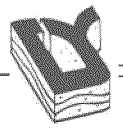


In-hole hydraulic conductivity tests were performed on September 1 and September 2, 2010, in general accordance with methods prescribed in the United States Bureau of Reclamation (USBR) Groundwater Manual and USBR Procedure 7310-89. Six 5-foot-deep borings were drilled at the selected locations and prepared for in-hole permeability tests. Approximately ¾-inch size gravel was placed at the bottom of the boring to a height of 4 inches. A 4-inch-diameter open-ended slotted pipe was installed in the borehole while the hollow-stem auger was in place. Gravel was placed within the annulus (between the pipe and the hollow-stem auger) to the top while auger was continuously lifted and removed. The pipe top was covered with duct tape until in-hole permeability test was performed.

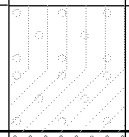
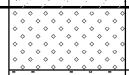
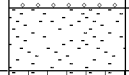
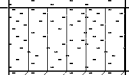
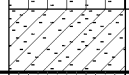
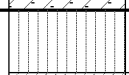
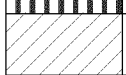
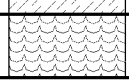
A 60-gallon reservoir equipped with a flow totalizer was used to fill the well with water. The flow from the reservoir was controlled to maintain a constant height of water in the well. Time and flow measurements were used to obtain a discharge rate from the well for steady-state condition. This rate was used with the formulas from USBR 7300-89 to calculate the hydraulic conductivity. The results from the field tests are presented in Table 3 of this report.

Groundwater was not encountered during the field investigation. The borings were backfilled with soil cuttings for regular borings and gravel for in-hole permeability test holes.

The borings were identified in the field by measuring using a hand-held differential global positioning system (GPS) unit with an estimated 6-foot horizontal accuracy. Photographs showing typical site conditions during this investigation are presented at the end of this appendix.



SOIL CLASSIFICATION SYSTEM-ASTM D2487

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE-GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE			GP	POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE			SP	POORLY GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE-GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

 "Push" Sampler

 Split Barrel "Drive" Sampler With Liner

 Standard Penetration Test (SPT) Sampler

 Bag Sample

 Concrete/Rock Core

 Groundwater Surface

SPT "N" = 0.65 x modified California blows per foot

NP = Nonplastic
EI = Expansion Index Test
SG = Specific Gravity
SE = Sand Equivalent
UC = Unconfined Comp.
CD = Consol. Drained Triaxial.
CU = Consol. Undrained Triaxial.
UU = Undrained, Unconsol. Triaxial.
RV = R-Value
CA = Chemical Analysis
DS = Direct Shear
CN = Consolidation
CP = Collapse Potential
SA = Grain size; HD = Hydrometer
MD = Compaction Test
HC = Hydraulic Conductivity Test
[PID] Reading in ppm above background

Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
A1

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1247 MSL
LATITUDE:	35° 11' 48.2" N	**LONGITUDE:**	116° 9' 16.6" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	19
DATE STARTED:	9/2/10	**DATE COMPLETED:**	9/2/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1245				12 18 32	50		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): light yellowish brown, dry, dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size up to 1.5 inches coming out of the hole; granitic, subangular, hard, no calcium carbonate coating						MD SE
				18 42 41	54		moist, very dense, gravel size 2 inches, drill rig chattering		1			11	SA
	5												
1240				15 39 50/5"	99		gravel size 1.5 inches, calcium carbonate coating on sides of gravel, moderately reactive						
				41 50/3"	100		hard drilling, calcium carbonate coating on sides of gravel, trace veining to stringers in matrix of gravel						
	10												
1235				13 24 50/6"	74		very pale brown, gravel size 2 inches, calcium carbonate coating on one side of gravel		1			8	
				50/4"	97								
	15												
1230													
				50/5"	100		some subrounded gravel, some calcium carbonate coating on gravel sides						
	20						Bottom of boring at 19 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings. Adjacent second hole was drilled to 5 feet and prepared for percolation test.						
1225													
	25												
1220													

LOG OF BORING DYB10-01

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A2

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1414 MSL
LATITUDE:	35° 12' 25.5" N	**LONGITUDE:**	116° 9' 37.6" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	10	**BORING DEPTH (feet):**	21
DATE STARTED:	8/31/10	**DATE COMPLETED:**	8/31/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
				10	34		WELL-GRADED SAND with SILT and GRAVEL (SW-SM): light yellowish brown, dry, dense, fine- to coarse-grained sand, fine gravel, gravel size 1/2 inch, granitic, subangular to angular, very hard, slightly to entirely coated with						
				14									
				20									
				9	35		calcium carbonate, mildly reactive						CA
				22			moist, fine to coarse gravel, gravel size 1.5 inches						
1410				32									
	5			5	14		medium dense, fine gravel, gravel size 1/2 inch		1			9	SA
				5									
				9									
				50/3"	100		very dense, no recovery						
1405													
	10			50/6"	100		hard drilling, heavy calcium carbonate coating observed on some gravel						
				16	100		reduced calcium carbonate coating		2				
				50/2"									
1400													
	15			30	100								
				50/2"									
1395													
	20			9	100				2			11	
				34									
				50/2"			Bottom of boring at 21 feet. Groundwater not encountered during drilling. Boring prepared for down hole seismic test.						
1390													
	25												
1385													

LOG OF BORING DYB10-02

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A3

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1517 MSL
LATITUDE:	35° 12' 25.1" N	**LONGITUDE:**	116° 10' 29.4" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	19.5
DATE STARTED:	8/31/10	**DATE COMPLETED:**	8/31/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1515				20 50/6"	65		WELL-GRADED SAND with SILT and GRAVEL (SW-SM): light yellowish brown, dry, very dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 3 inches in sampler shoe, granitic, subrounded to subangular, hard to very hard, partial calcium carbonate coating, mildly reactive						
				6 13 15	28		moist, medium dense, fewer subrounded gravel		1			8	SA
	5												
1510				18 38 50/5"	64		very dense, gravel size 2 inches in sampler shoe						
				16 30 25	55		SILTY SAND with GRAVEL (SM): light yellowish brown, moist, very dense, fine- to medium-grained sand, fine to coarse gravel, gravel size 1.5 inches						
	10												
1505				22 50/3"	100		gravel size 3 inches in sampler shoe, hard drilling, little to no calcium carbonate staining						
				13 50/6"	100				1			13	
	15												
1500				31 50/5"	78								
	20						Bottom of boring at 19.5 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings. Adjacent second hole was drilled to 5 feet and prepared for percolation test.						
1495													
	25												
1490													

LOG OF BORING DYB10-03

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A4

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1451 MSL
LATITUDE:	35° 11' 28.2" N	**LONGITUDE:**	116° 11' 7.2" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	17.5
DATE STARTED:	8/31/10	**DATE COMPLETED:**	8/31/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1450				7 11 22	33		WELL-GRADED GRAVEL with SILT and SAND (GW-GM): very pale brown, dry, dense, fine to coarse gravel, fine- to coarse-grained sand, gravel size 2 inches, granitic, subangular, hard to very hard, occasional partial coating of calcium carbonate deposits, miltely to moderately reactive very hard drilling, cobbles coming out of the hole						MD SE CA
				50/4"	97		very dense, no recovery						
	5												
1445				18 43 23	66		iron oxide veining in matrix of some broken gravel		0				
				11 28 21	49		moist, dense, gravel size 3 inches in sampler shoe, up to 1/8 inch thick calcium carbonate coating on side of occasional gravel						
	10												
1440				16 31 27	38		broken cobbles in sampler shoe		1			7	SA
				14 50/5"	100		very dense, drill rig chattering, little to no calcium carbonate						
	15												
1435				50/2"	100		gravel size 2 inches in sampler shoe Bottom of boring at 17.5 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings. Adjacent second hole was drilled to 5 feet and prepared for percolation test.						
	20												
1430													
	25												
1425													

LOG OF BORING DYB10-04

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A5

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1346 MSL
LATITUDE:	35° 11' 0.3" N	**LONGITUDE:**	116° 10' 25.3" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	10	**BORING DEPTH (feet):**	18
DATE STARTED:	9/2/10	**DATE COMPLETED:**	9/2/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1345				15 50/5"	78		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): very pale brown, dry, very dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 3 inches in sampler shoe, granitic, subrounded to angular, hard, slight to partial coating on all sides, mildly reactive, some iron oxide stringers						
				6 21 50/3"	100		moist, gravel size 2 inches hard drilling						
	5												
1340				10 22 30	34		light yellowish brown, dense, gravel size 3 inches		1			10	SA
				11 23 24	47		no subrounded gravel						
	10												
1335				15 31 50/4"	69		very dense, broken cobbles in sampler shoe, complete calcium carbonate coating on some small gravel						
				12 20 31	51				1				
	15												
1330				27 50/2"	100		very pale brown Bottom of boring at 18 feet. Groundwater not encountered during drilling. Boring prepared for down hole seismic test.					10	
	20												
1325													
	25												
1320													

LOG OF BORING DYB10-05

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A6

SMSP01980

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1378 MSL
LATITUDE:	35° 10' 18.1" N	**LONGITUDE:**	116° 10' 8.1" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	18.5
DATE STARTED:	8/30/10	**DATE COMPLETED:**	8/30/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
				8 10 10	13		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): light yellowish brown, dry, medium dense, fine- to medium-grained sand, fine to coarse gravel, gravel size 1 inch, no clasts					10	SA
1375				10 40 50/5"	100		moist, very dense, fine gravel, gravel size 3/4 inch		1				
	5			21 50/4"	97		light brown						
1370				19 50/6"	100		light yellowish brown, gravel has small calcium carbonate deposit						
	10			24 50/5"	78		fine to coarse gravel, gravel size 1.5 inches, trace iron oxide		2				
1365				50/6"	100		fine gravel, gravel size 1/2 inch						
	15												
1360				50/6"	65		Bottom of boring at 18.5 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings. Adjacent second hole was drilled to 5 feet and prepared for percolation test.						
	20												
1355													
	25												
1350													

LOG OF BORING DYB10-06

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A7

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1401 MSL
LATITUDE:	35° 10' 23.3" N	**LONGITUDE:**	116° 10' 56.3" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	10	**BORING DEPTH (feet):**	21
DATE STARTED:	9/2/10	**DATE COMPLETED:**	9/2/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1400				5 7 11	18		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): light yellowish brown, dry, medium dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 2 inches, granitic, subangular, very hard, little to no calcium carbonate coating						
				5 16 33	32		moist, dense					8	SA MD SE CA
1395	5			9 20 22	42		increase in calcium carbonate coating on sides of gravel						
				7 20 22	27		WELL-GRADED SAND with SILT and GRAVEL (SW-SM): light yellowish brown, moist, medium dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 2 inches		1			9	SA
1390	10			6 16 18	34		dense						
				8 50/5"	78		very dense, no recovery, very hard drilling						
1385	15			7 30 50/4"	100		gravel size 1 inch						
1380	20			25 50/5"	78				1			9	
							Bottom of boring at 21 feet. Groundwater not encountered during drilling. Boring prepared for down hole seismic test.						
1375	25												

LOG OF BORING DYB10-07

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A8

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1512 MSL
LATITUDE:	35° 10' 37.2" N	**LONGITUDE:**	116° 11' 33.0" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	19
DATE STARTED:	8/31/10	**DATE COMPLETED:**	8/31/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1510				8 50/2"	100		WELL-GRADED SAND with SILT and GRAVEL (SW-SM): very pale brown, dry, very dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size upto 3 inches coming out of the hole, granitic, subangular, hard, little to no calcium carbonate coating						
				10 30 29	59		moist, gravel size 2 inches hard drilling		1				
	5			19.26 50/5"	78							12	SA
1505				15 31 49	80		gravel size 2 inches in sampler shoe						
	10			10 35 50/4"	100				1				
1500				9 17 32	49		dense, gravel size 1 inch very hard drilling						
1495	15												
				30 50/3"	100		very dense, gravel size 2 inches in sampler shoe						
	20						Bottom of boring at 19 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings. Adjacent second hole was drilled to 5 feet and prepared for percolation test.						
1490													
	25												
1485													

LOG OF BORING DYB10-08

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A9

SMSP01983

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1519 MSL
LATITUDE:	35° 9' 16.3" N	**LONGITUDE:**	116° 11' 52.9" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	10	**BORING DEPTH (feet):**	17.5
DATE STARTED:	9/2/10	**DATE COMPLETED:**	9/2/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
				6 23 50/5"	83		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): light yellowish brown, dry, very dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 1.5 inches, granitic, subrounded to subangular, hard to very hard, slight to moderate calcium carbonate stringers within matrix, moderately reactive, partial coating of calcium carbonate on sides of some clasts, mildly reactive						
1515				50/2"	100		moist, no recovery						
	5						hard drilling						
				12 31 28	59				1				
1510				10 30 44	48		dense					8	SA
	10						WELL-GRADED SAND with SILT and GRAVEL (SW-SM): light yellowish brown, moist, dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 1.5 inches						
				9 18 27	45								
1505				9 24 33	37		gravel size 2.5 inches, broken cobbles in sampler shoe		1			6	SA
	15						very hard drilling, drill rig chattering						
				50/1"	100		very dense, no recovery, sampler bounced back and possibly on boulder						
1500							Bottom of boring at 17.5 feet. Groundwater not encountered during drilling. Boring prepared for down hole seismic test.						
	20												
1495													
	25												
1490													

LOG OF BORING DYB10-09

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A10

SMSP01984

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1350 MSL
LATITUDE:	35° 9' 25.3" N	**LONGITUDE:**	116° 10' 29.4" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	10	**BORING DEPTH (feet):**	18.5
DATE STARTED:	8/30/10	**DATE COMPLETED:**	8/30/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
				8 8 10	18		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): pale brown, dry, medium dense, fine- to coarse-grained sand, fine gravel, gravel size 3/4 inch					8	SA MD SE CA
1345	5			5 20 21	27		moist, fine to coarse gravel, gravel size 3 inches in sampler shoe		1				
				25 50/6"	100		POORLY GRADED GRAVEL with SILT (GP-GM): light gray, moist, very dense, fine to coarse gravel, gravel size 1.5 inches, gravel is granitic, subangular, very hard, calcium carbonate coating on side of some gravel						
1340	10			25 50/3"	100		WELL-GRADED SAND with SILT and GRAVEL (SW-SM): yellowish brown, moist, very dense, fine- to coarse-grained sand, fine gravel, gravel size 3/4 inch					11	SA
				33 50/3"	100								
1335	15			17 50/5"	78		fine to coarse gravel, gravel size 2 inches, occasional partial calcium carbonate coating on gravel		4				
				23 50/3"	100		fine gravel, gravel size 1/2 inch						
1330	20						Bottom of boring at 18.5 feet. Groundwater not encountered during drilling. Boring prepared for down hole seismic test.						
1325	25												

LOG OF BORING DYB10-10

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A11

SMSP01985

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1358 MSL
LATITUDE:	35° 8' 53.8" N	**LONGITUDE:**	116° 10' 51.0" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	19.5
DATE STARTED:	8/30/10	**DATE COMPLETED:**	8/30/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1355	5			9 19 24	28		SILTY SAND with GRAVEL (SM): pale brown to light yellowish brown, moist, medium dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 2 inches, granitic, subrounded to subangular, hard, isolated calcium carbonate stains in matrix and veins of clasts, mildly to moderately reactive, partial to moderate calcium carbonate coating on sides, mildly reactive		5			17	
				8 24 25	49		dense						
1350	10			13 20 20	26		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): pale brown to light yellowish brown, moist, medium dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 2 inches, partial to significant calcium carbonate coating of some gravels, iron oxide staining on side of large gravel		5			8	SA
				10 14 14	28								
1345	15			25 50/6"	65		very dense, gravel size 3 inches in sampler shoe hard drilling drill rig chattering		2				
				19 50/6"	100		very pale brown hard drilling through cobbles/boulders						
1340	20			30 50/4"	97		reduced calcium carbonate staining						
1335	25						Bottom of boring at 19.5 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings. Adjacent second hole was drilled to 5 feet and prepared for percolation test.						
1330													

LOG OF BORING DYB10-11

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A12

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1384 MSL
LATITUDE:	35° 8' 33.9" N	**LONGITUDE:**	116° 11' 14.1" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	10	**BORING DEPTH (feet):**	20.5
DATE STARTED:	8/30/10	**DATE COMPLETED:**	8/30/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
				3	17		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): pale brown, moist, medium dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 2 inches, granitic, subrounded to subangular, very hard, slight calcium carbonate coating, weak reactivity		1				
				8									
				9									
				10	65								
1380				50/6"			very dense, cobbles coming out of the hole, hard drilling						
	5			7	37		very pale brown, dense, slight increase in calcium carbonate coating						
				14									
				23									
				8	29		medium dense						
1375				21									
				23									
	10			9	51		very dense		2				
				22									
				29									
				22	100							12	SA
1370				50/2"									
	15			29	100		fine gravel, gravel size 3/4 inch						
				50/5"									
1365													
	20			50/6"	65								
							Bottom of boring at 20.5 feet. Groundwater not encountered during drilling. Boring prepared for down hole seismic test.						
1360													
	25												
1355													

LOG OF BORING DYB10-12

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A13

SMSP01987

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1267 MSL
LATITUDE:	35° 8' 20.4" N	**LONGITUDE:**	116° 10' 4.4" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	19.5
DATE STARTED:	9/1/10	**DATE COMPLETED:**	9/1/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1265				15 18 17	23		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): very pale brown, moist, medium dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 2.5 inches, granitic, subangular, very hard, little to no calcium carbonate coating, mildly reactive where present		2			8	SA
				24 30 44	74		brown, very dense, gravel size 1.5 inches						MD SE
	5			20 39 50/4"	74		some gravel is brittle with trace calcium carbonate coating, micaceous		4				
1260				11 30 50/4"	100		POORLY GRADED SAND with SILT (SP-SM): very pale brown, moist, very dense, fine- to coarse-grained sand, few fine gravel, gravel size 3/4 inch					10	
	10			16 50/6"	65		no recovery						
1255				23 50/4"	100		some partial calcium carbonate coating of one side of gravel						
	15						SILTY SAND with GRAVEL (SM): very pale brown, moist, very dense, fine- to coarse-grained sand, fine gravel, gravel size 3/4 inch						
1250				19 32 50/5"	92				4			13	SA
	20						Bottom of boring at 19.5 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings.						
1245													
	25												
1240													

LOG OF BORING DYB10-13

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A14

SMSP01988

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1332 MSL
LATITUDE:	35° 8' 23.3" N	**LONGITUDE:**	116° 10' 35.5" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	100.5
DATE STARTED:	9/1/10	**DATE COMPLETED:**	9/1/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
				7 18 18	36		POORLY GRADED SAND with SILT and GRAVEL (SP-SM): light brown, dry, dense, fine- to coarse-grained sand, fine gravel, gravel size 1/2 inch, no large clasts, gravels are granitic, little to no calcium carbonate coating						
1330				18 25 40	42		strong brown, moist, fine to coarse gravel, gravel size 2.5 inches		5			7	SA CA
	5			10 25 27	52		very pale brown, very dense, gravel size 1.5 inches, partial calcium carbonate coating on one side of gravel					5	
1325				16 46 50/5"	69		POORLY GRADED SAND with SILT (SP-SM): light yellowish brown, moist, very dense, fine- to medium-grained sand, few fine gravel, gravel size 3/4 inch, partial calcium carbonate coating on one side of gravel		4				
	10			21 50/6"	100							7	
1320				28 50/5"	78		no recovery						
	15			17 50/4"	100		trace fine gravel, gravel size 1/2 inch		3				
1315													
	20			19 50/2"	100		few fine gravel, gravel size 3/4 inch					9	SA
1310													
	25			16 50/6"	100		trace fine gravel, gravel size 1/2 inch		4				
1305													

LOG OF BORING DYB10-14

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A15

SMSP01989

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
				50/6"	65		no recovery						
1300				50/5"	78		no recovery POORLY GRADED SAND with SILT and GRAVEL (SP-SM): very pale brown, moist, very dense, fine- to medium-grained sand, fine gravel, gravel size 1/2 inch						
	35			50/4"	100							9	
1295							hard drilling						
	40			50/3"	100								
1290							drill rig chattering						
	45			50/5"	100				3				
1285													
	50			50/5"	78		fine to coarse gravel, gravel size 1 inch					9	
1280													
	55			50/6"	100								
1275													
	60			50/3"	100				3				
1270													
	65			50/5"	100								
1265							SILTY SAND (SM): very pale brown, moist, very dense, fine- to medium-grained sand, few fine gravel, gravel size 1/2 inch						

LOG OF BORING DYB10-14

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A16

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
				50/4"	100							21	SA
1260													
	75			50/5"	100								
1255													
	80			50/4"	100				3				
1250													
	85			50/5"	100								
1245													
	90			50/4"	100							19	SA
1240													
	95			50/3"	100								
1235													
	100			50/4"	100				3				
							Bottom of boring at 100.5 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings.						
1230													
	105												
1225													

LOG OF BORING DYB10-14

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Caithness Soda Mountain Solar Facility

Project No. 2010-024

PLATE

A17

Template: DYLG1-2006; Prj ID: 2010-024.GPJ

BORING LOCATION:	See Figure 2	**ELEVATION AND DATUM (feet):**	1522 MSL
LATITUDE:	35° 8' 53.1" N	**LONGITUDE:**	116° 12' 12.0" W
DRILLING EQUIPMENT:	D 120	**DRILLING METHOD:**	Hollow Stem Auger
BORING DIAMETER (inches):	8	**BORING DEPTH (feet):**	14
DATE STARTED:	9/2/10	**DATE COMPLETED:**	9/2/10
SPT HAMMER DROP: 30 inches	**WT:** 140 lbs	**DRIVE HAMMER DROP:** 30 inches	**WT:** 140 lbs
LOGGED BY: SS	**CHECKED BY:** CS	**DRIVE SAMPLER DIAMETER (inches)**	**ID:** 2.4 **OD:** 3

Elevation (feet)	Depth (feet)	Sampler	Symbol	Blows per 6 Inches	SPT N Blows per Foot	Field Unc. Comp. Str. (tsf)	DESCRIPTION	Dry Density (pcf)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Percent Passing #200 Sieve	Other Tests [PID]
1520	0			13 27 40	44		WELL-GRADED SAND with SILT and GRAVEL (SW-SM): very pale brown, moist, dense, fine- to coarse-grained sand, fine to coarse gravel, gravel size 2.5 inches		1			7	SA
				5 18 20	38		gravel size 2 inches						MD SE CA
	5			22 50/3"	100		POORLY GRADED GRAVEL with SILT and SAND (GP-GM): very pale brown, moist, very dense, fine to coarse gravel, fine- to medium-grained sand, gravel size 2 inches		1				
1515				50/1"	100		no recovery hard drilling						
	10			50/3"	100		no recovery, very hard drilling drill rig chattering						
1510				50/5"	100		refusal at 14 feet		1			12	
	15						Bottom of boring at 14 feet. Groundwater not encountered during drilling. Boring backfilled with cuttings.						
1505													
	20												
1500													
	25												
1495													

LOG OF BORING DYB10-15

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Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
A18

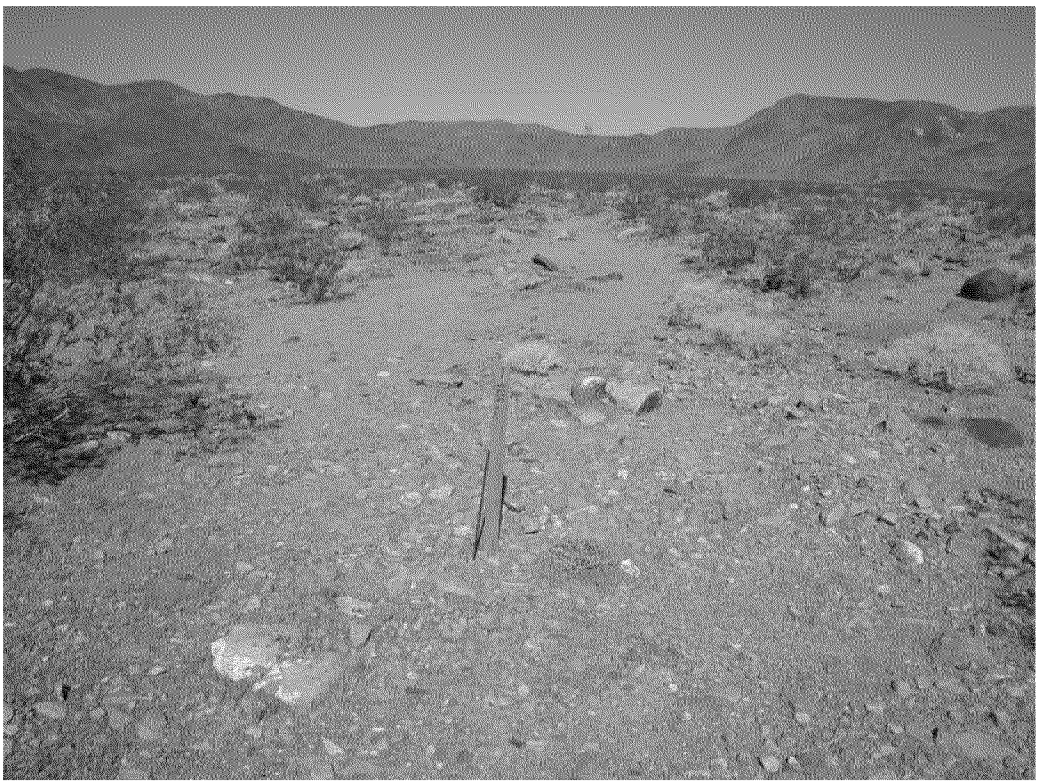


Photograph A1 - Approximately South From DYB10-01



Photograph A2 - Approximately North From DYB10-10

PLATE
A19



Photograph A3 - Approximately North From DYB10-09



Photograph A4 - Approximately South From DYB10-03

PLATE
A20

APPENDIX B
LABORATORY TESTING

APPENDIX B - LABORATORY TESTING

Diaz•Yourman & Associates (DYA) selected soil samples to be tested and the tests to be performed on the selected samples. Laboratory testing was performed by DYA and Leighton and Associates (City of Los Angeles certified testing laboratories). Laboratory data are summarized on the boring logs in Appendix A and presented on Plates B1 through B21. We have reviewed and concur with the test results and accept full responsibility. A summary of the geotechnical laboratory testing is presented in Table B1. A summary of the corrosion test results is presented in Table B2.

Table B1 - LABORATORY TESTING SUMMARY

TEST NAME	PROCEDURE	PURPOSE	LOCATION
Percent Passing the No. 200 Sieve	ASTM D1140-92	Classification, index properties	Boring Logs
Moisture Content	ASTM D2216-92	Classification, index properties	Boring Logs
Grain-Size Distribution	ASTM D422-63	Classification, index properties	Plates B1 through B5
Compaction	ASTM D1557-91	Earthwork	Plates B6 and B7
Sand Equivalent	CTM 217	Earthwork	Plates B8 through B13
pH	CTM 532	Corrosion potential	Table B2 and Plates B14 through B21
Resistivity	CTM 532	Corrosion potential	Table B2 and Plates B14 through B21
Soluble Sulfates	CTM 417-B	Corrosion potential	Table B2 and Plates B14 through B21
Soluble Chlorides	CTM 422	Corrosion potential	Table B2 and Plates B14 through B21

Notes:
- ASTM = American Society for Testing and Materials
- CTM = Caltrans Test Method

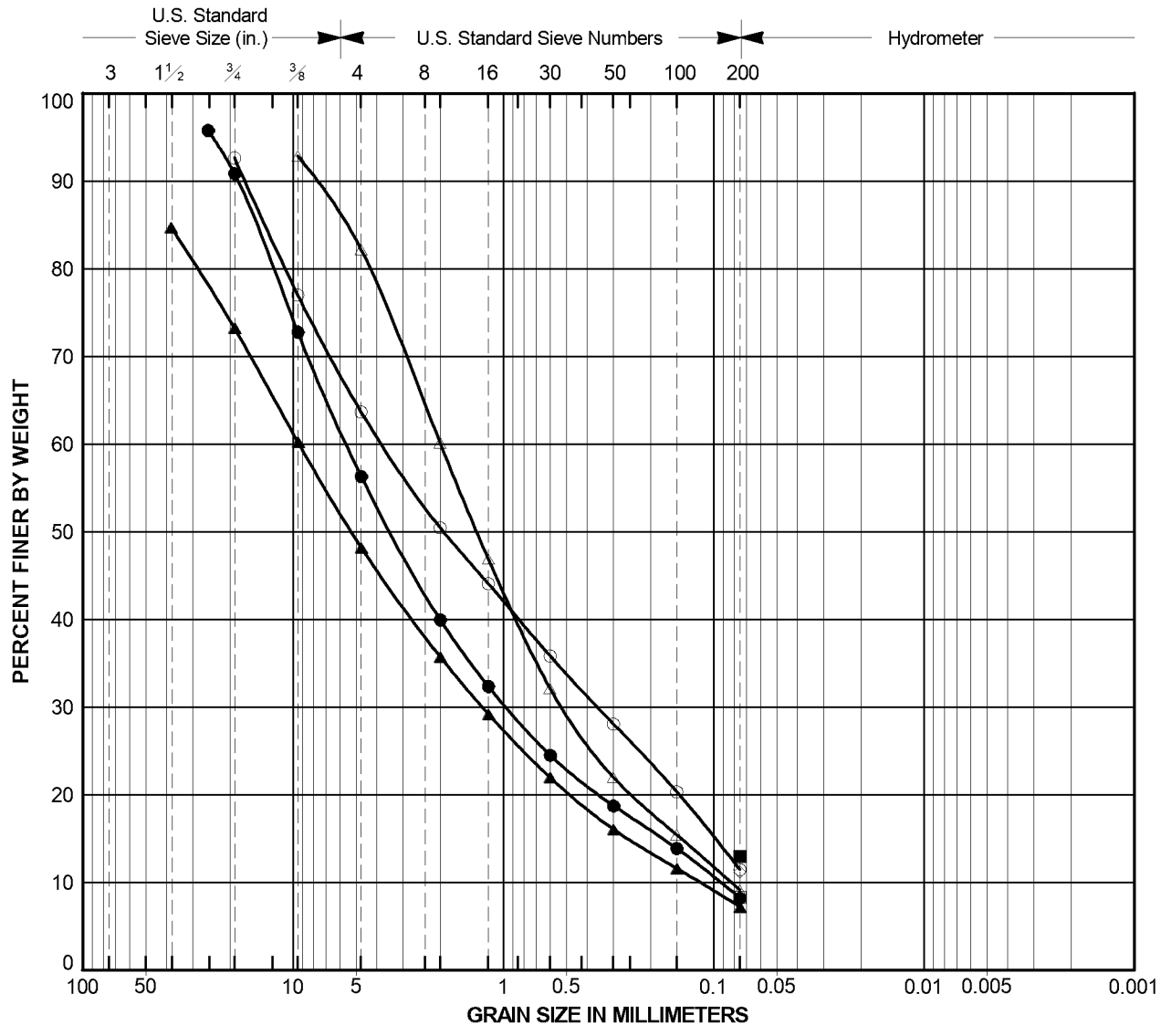
Table B2 - CORROSION POTENTIAL TEST RESULTS

Boring No.	DYB10-02	DYB10-04	DYB10-07	DYB10-10	DYB10-14	DYB10-15
Depth (feet)	0 to 5	0 to 5	0 to 5	0 to 5	0 to 5	0 to 5
pH	7.1	7.9	7.4	7.5	8.1	7.3
Water Soluble Sulfate Content (ppm)	38	54	54	88	68	54
Water Soluble Chloride Content (ppm)	30	40	40	31	31	40
Minimum Resistivity/Moisture Content (ohms-cm / %)	10,900	4,300	6,225	7,000	6,180	7,600

Note:
- ppm = parts per million

SMSP01996

Template: DY_SIEVE_WIN



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

Laboratory Testing by: Diaz Yourman & Associates

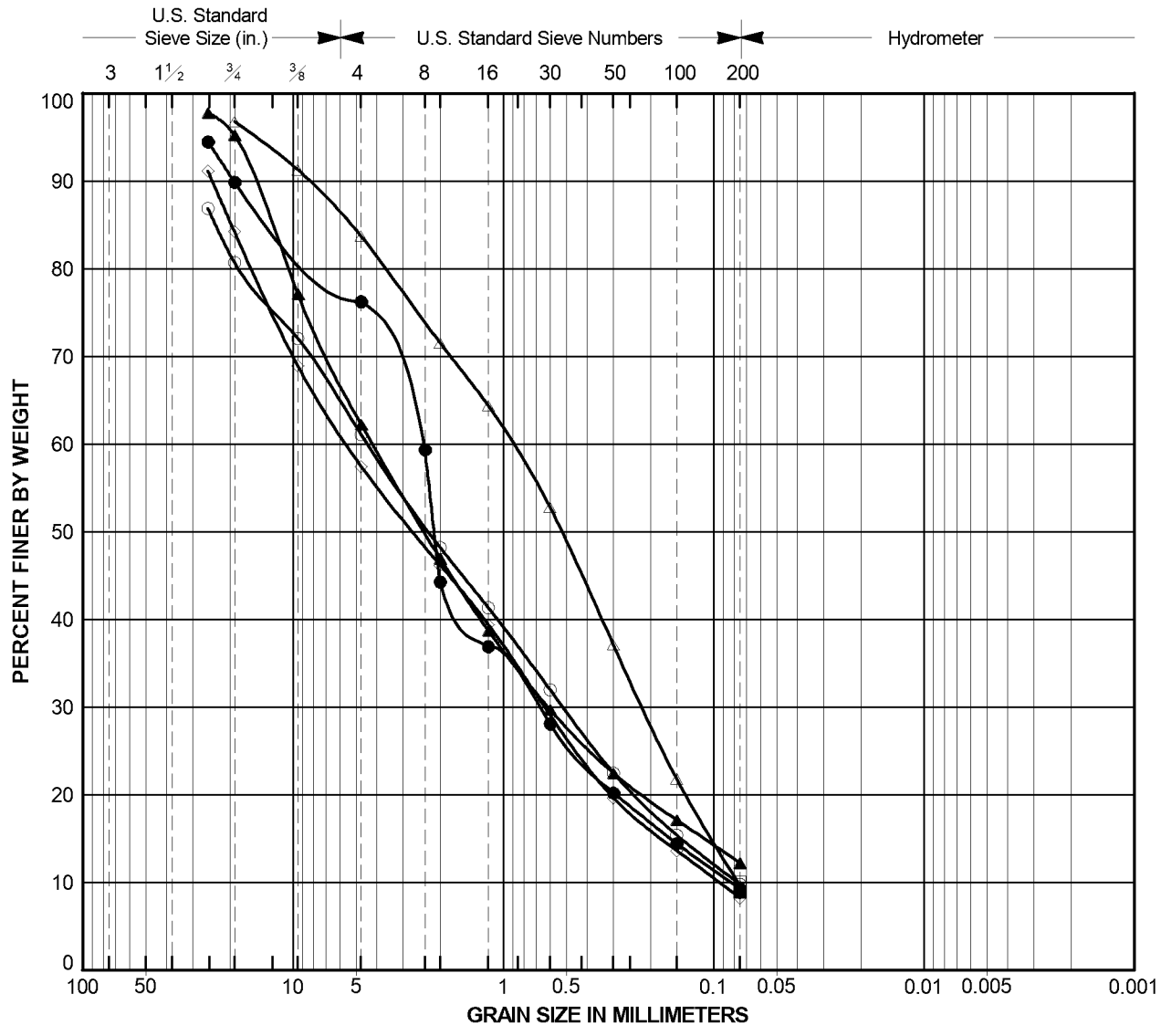
Symbol	Source	Depth (feet)	Classification	Natural M. C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
○	DYB10-01	3.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	1			11
□	DYB10-01	11.0	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	1			8
△	DYB10-02	5.0	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)	1			9
◇	DYB10-02	20.0	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)	2			11
●	DYB10-03	3.5	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)	1			8
■	DYB10-03	13.5	SILTY SAND WITH GRAVEL (SM)	1			13
▲	DYB10-04	11.5	WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM)	1			7

PARTICLE SIZE ANALYSIS

Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
B1

Template: DY_SIEVE_WIN



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

Laboratory Testing by: Diaz Yourman & Associates

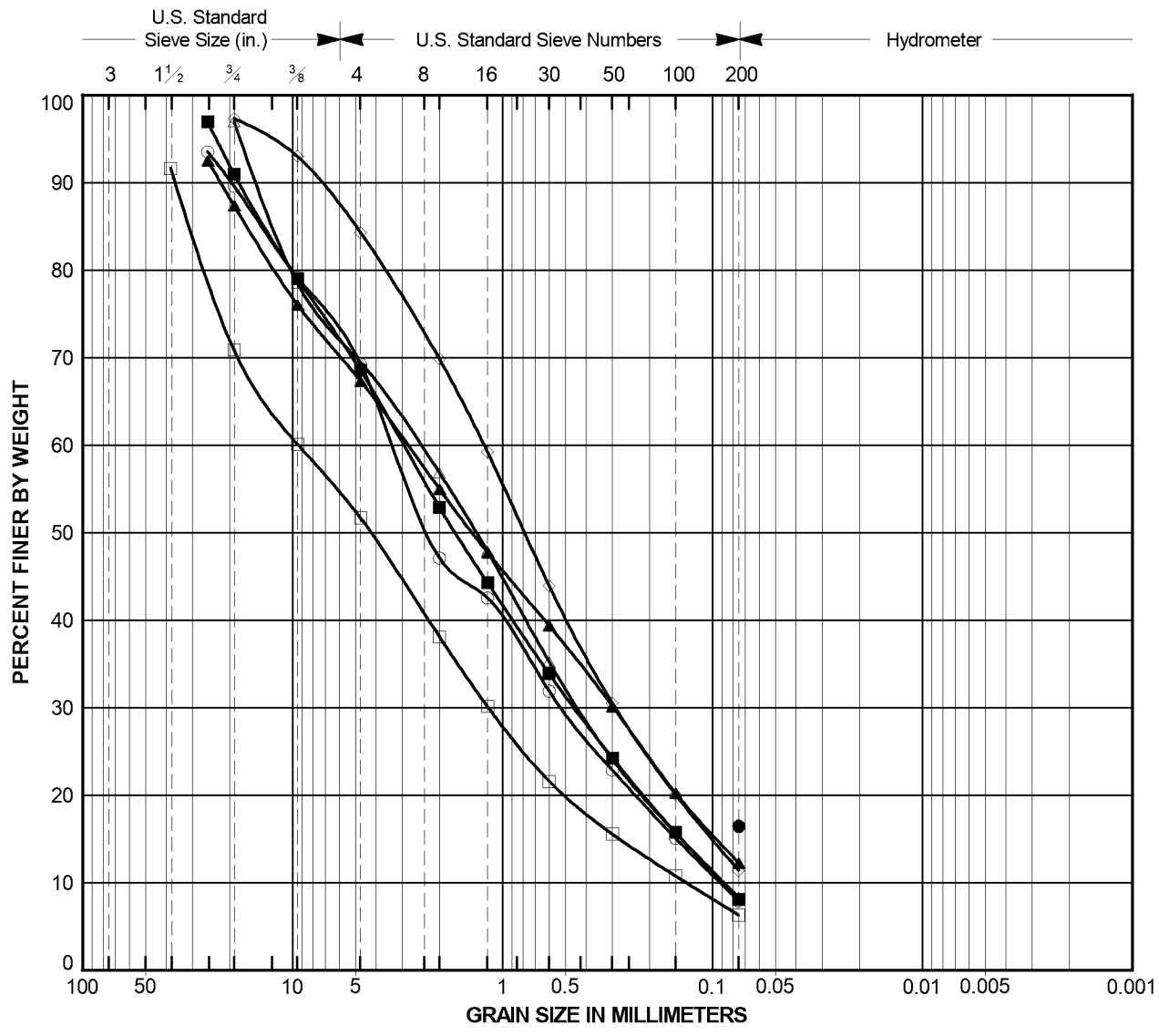
Symbol	Source	Depth (feet)	Classification	Natural M. C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
○	DYB10-05	5.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	1			10
□	DYB10-05	17.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				10
△	DYB10-06	0.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				10
◇	DYB10-07	2.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				8
●	DYB10-07	7.5	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)	1			9
■	DYB10-07	20.0	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)	1			9
▲	DYB10-08	5.5	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)				12

PARTICLE SIZE ANALYSIS

Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
B2

Template: DY_SIEVE_WIN



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

Laboratory Testing by: Diaz Yourman & Associates

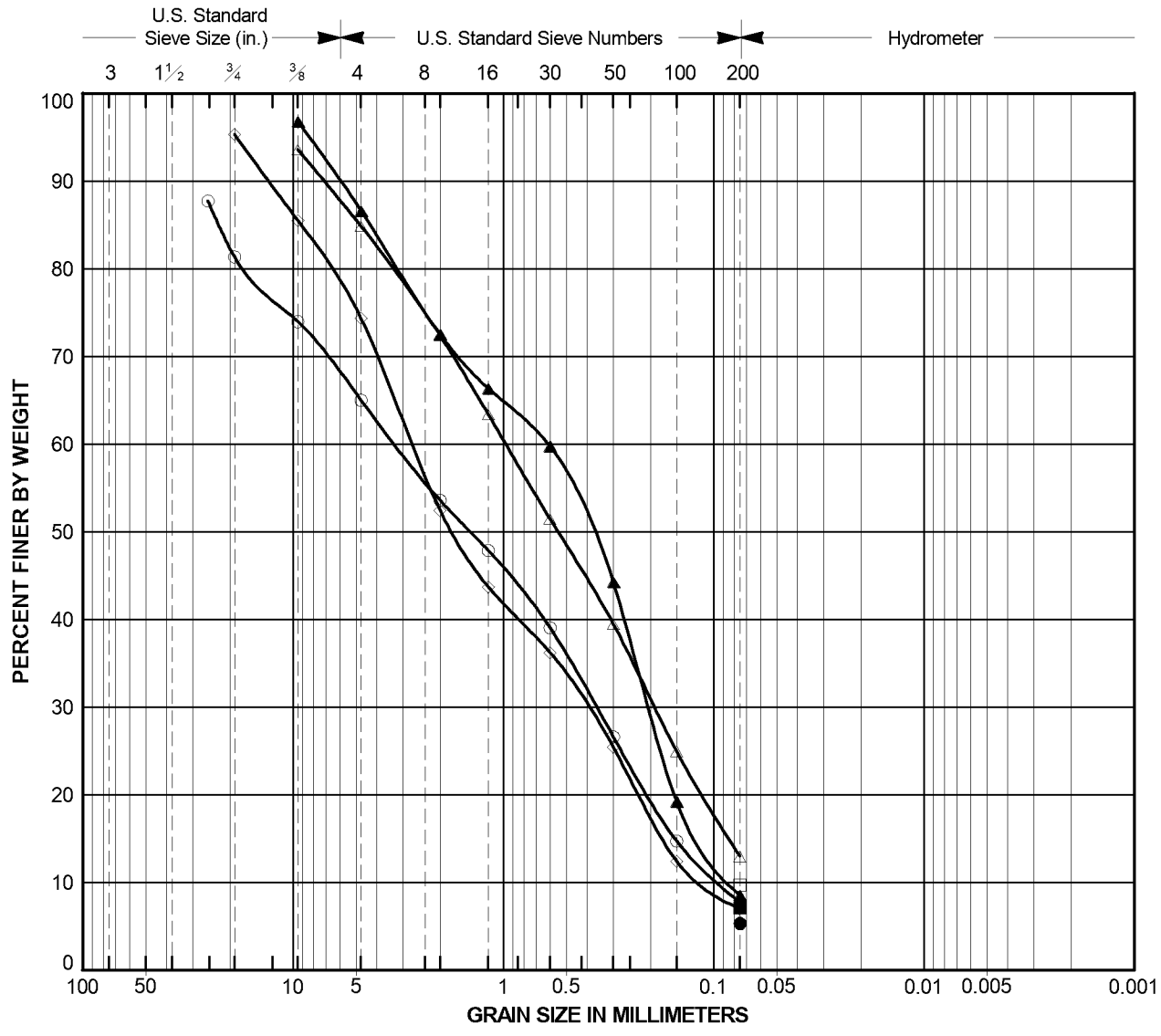
Symbol	Source	Depth (feet)	Classification	Natural M. C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
○	DYB10-09	9.0	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				8
□	DYB10-09	14.0	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)	1			6
△	DYB10-10	1.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				8
◇	DYB10-10	9.0	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)				11
●	DYB10-11	1.0	SILTY SAND WITH GRAVEL (SM)	5			17
■	DYB10-11	6.0	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	5			8
▲	DYB10-12	12.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				12

PARTICLE SIZE ANALYSIS

Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
B3

Template: DY_SIEVE_WIN



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

Laboratory Testing by: Diaz Yourman & Associates

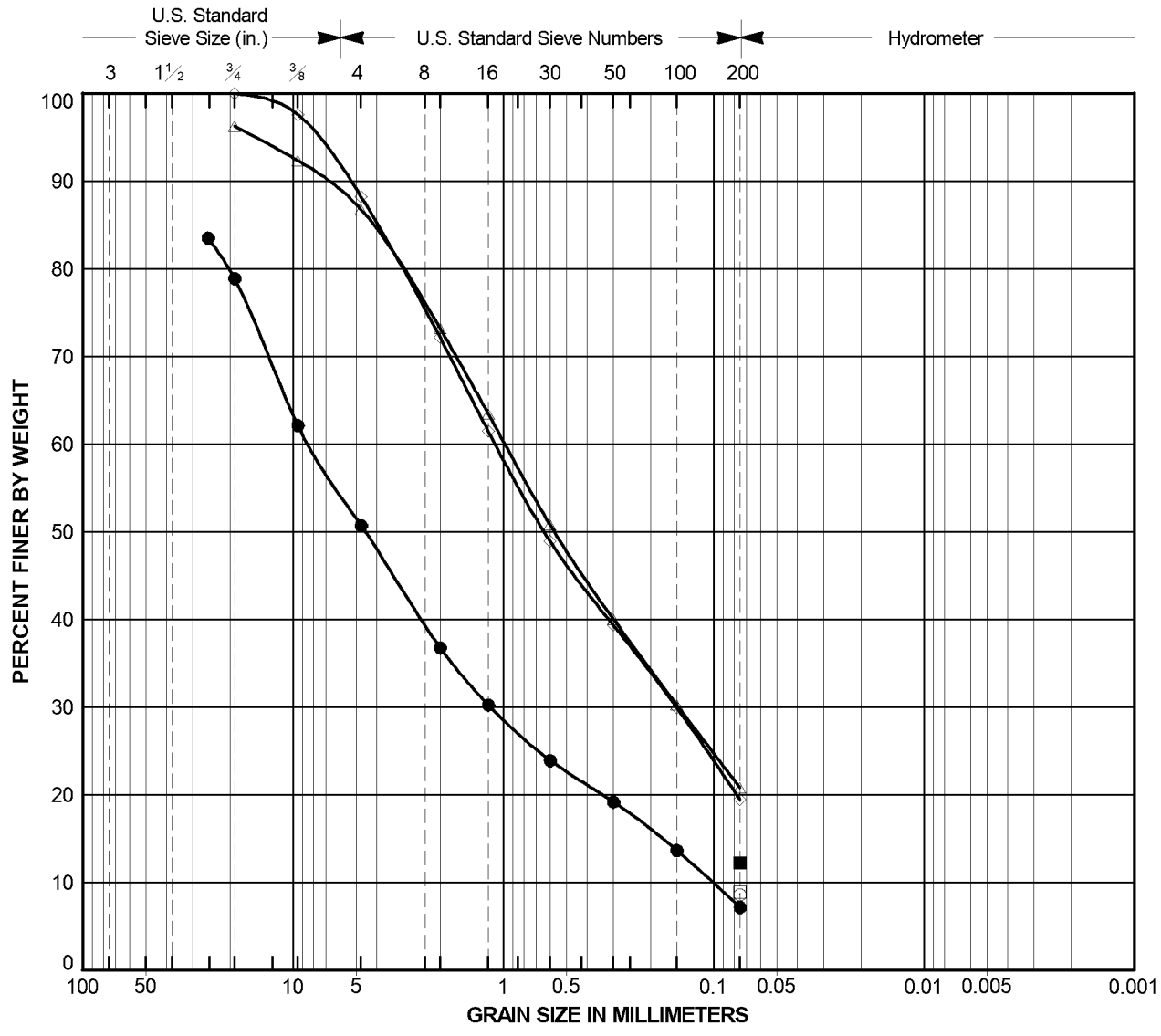
Symbol	Source	Depth (feet)	Classification	Natural M. C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
○	DYB10-13	0.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	2			8
□	DYB10-13	8.0	POORLY GRADED SAND WITH SILT (SP-SM)				10
△	DYB10-13	18.0	SILTY SAND WITH GRAVEL (SM)	4			13
◇	DYB10-14	2.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	5			7
●	DYB10-14	5.0	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				5
■	DYB10-14	10.0	POORLY GRADED SAND WITH SILT (SP-SM)				7
▲	DYB10-14	20.0	POORLY GRADED SAND WITH SILT (SP-SM)				9

PARTICLE SIZE ANALYSIS

Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
B4

Template: DY_SIEVE_WIN



COBBLES	GRAVEL		SAND			SILT or CLAY
	Coarse	Fine	Coarse	Medium	Fine	

Laboratory Testing by: Diaz Yourman & Associates

Symbol	Source	Depth (feet)	Classification	Natural M. C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
○	DYB10-14	35.0	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				9
□	DYB10-14	50.0	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				9
△	DYB10-14	70.0	SILTY SAND (SM)				21
◇	DYB10-14	90.0	SILTY SAND (SM)				19
●	DYB10-15	0.5	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)	1			7
■	DYB10-15	13.0	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM)	1			12

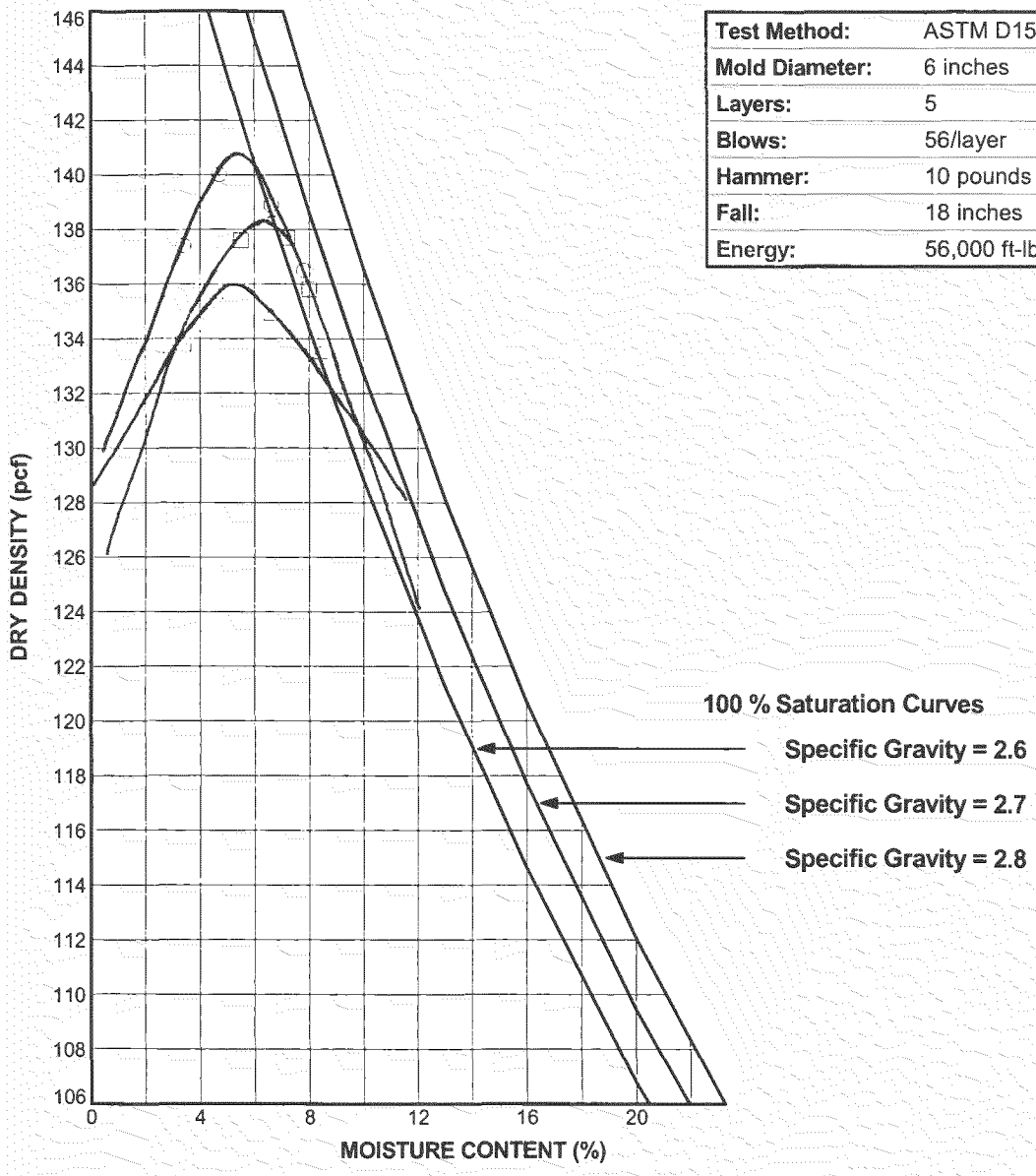
PARTICLE SIZE ANALYSIS

Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
B5

Template: DY_COMPACT_4_PLOTS_WIN

Test Method:	ASTM D1557-91(C)
Mold Diameter:	6 inches
Layers:	5
Blows:	56/layer
Hammer:	10 pounds
Fall:	18 inches
Energy:	56,000 ft-lbs/cu ft



Laboratory Testing by: Diaz Yourman & Associates

Symbol	Source	Depth (feet)	Classification	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
○	DYB10-01	2.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	5	141			
□	DYB10-04	2.5	WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM)	7	138.5			
△	DYB10-07	2.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	5	136			8

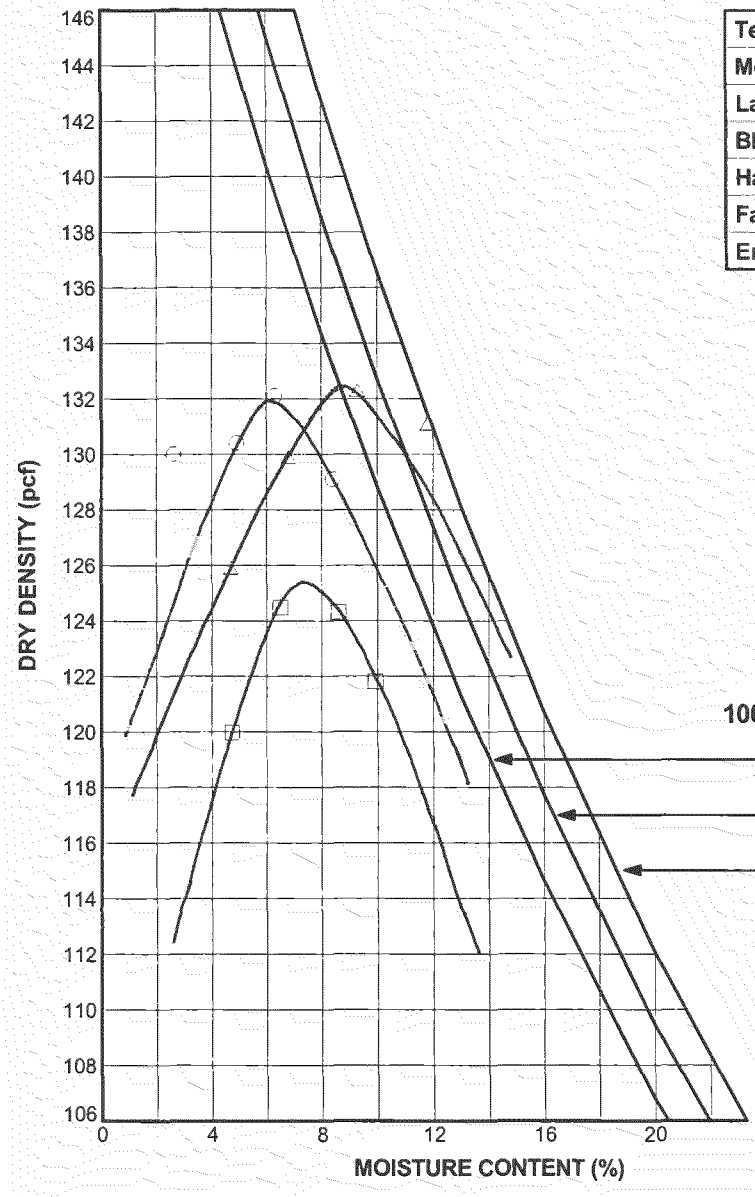
COMPACTION TEST DATA

Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
B6

Template: DY_COMPACT_4_PLOTS_WIN

Test Method:	ASTM D1557-91(C)
Mold Diameter:	6 inches
Layers:	5
Blows:	56/layer
Hammer:	10 pounds
Fall:	18 inches
Energy:	56,000 ft-lbs/cu ft



Laboratory Testing by: Diaz Yourman & Associates

Symbol	Source	Depth (feet)	Classification	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve
○	DYB10-10	2.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	6	132			
□	DYB10-13	2.5	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)	7	125.5			
△	DYB10-15	2.5	WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM)	9	132.5			

COMPACTION TEST DATA

Caithness Soda Mountain Solar Facility
Project No. 2010-024

PLATE
B7

CALIFORNIA TEST 217 - SAND EQUIVALENT

Project No.:	2010-024	**Date Sample Tested:**	9/27/2010
Project Name:	SODA Mountain	**Sampled by:**	SS
Boring:	DYB10-01	**Tested by:**	RA
Depth (feet)	0-5 feet	**Reviewed by:**	JGS
Material Type:	Poorly graded Sand with Silt and Gravel (SP-SM)		

Trial No.	**1**	**2**
Height of Sand Reading (units)	26	33
Height of Clay Reading (units)	59	80
Sand Equivalent	45	42
Average Sand Equivalent	44	

PLATE
B8

CALIFORNIA TEST 217 - SAND EQUIVALENT

Project No.:	2010-024	**Date Sample Tested:**	9/27/2010
Project Name:	SODA Mountain	**Sampled by:**	SS
Boring:	DYB10-04	**Tested by:**	RA
Depth (feet)	0-5 feet	**Reviewed by:**	JGS
Material Type:	Well graded Gravel with Silt and Sand (GW-GM)		

Trial No.	1	2
Height of Sand Reading (units)	36	34
Height of Clay Reading (units)	70	60
Sand Equivalent	52	57
Average Sand Equivalent	55	

PLATE
B9

CALIFORNIA TEST 217 - SAND EQUIVALENT

Project No.:	2010-024	**Date Sample Tested:**	9/27/2010
Project Name:	SODA Mountain	**Sampled by:**	SS
Boring:	DYB10-07	**Tested by:**	RA
Depth (feet)	0-5 feet	**Reviewed by:**	JGS
Material Type:	Poorly graded Sand with Silt and Gravel (SP-SM)		

Trial No.	**1**	**2**
Height of Sand Reading (units)	30	29
Height of Clay Reading (units)	90	81
Sand Equivalent	34	36
Average Sand Equivalent	35	

PLATE
B10

CALIFORNIA TEST 217 - SAND EQUIVALENT

Project No.:	2010-024	**Date Sample Tested:**	9/27/2010
Project Name:	SODA Mountain	**Sampled by:**	SS
Boring:	DYB10-10	**Tested by:**	RA
Depth (feet)	0-5 feet	**Reviewed by:**	JGS
Material Type:	Poorly graded Sand with Silt and Gravel (SP-SM)		

Trial No.	**1**	**2**
Height of Sand Reading (units)	35	36
Height of Clay Reading (units)	59	62
Sand Equivalent	60	59
Average Sand Equivalent	60	

PLATE
B11

CALIFORNIA TEST 217 - SAND EQUIVALENT

Project No.:	2010-024	**Date Sample Tested:**	9/27/2010
Project Name:	SODA Mountain	**Sampled by:**	SS
Boring:	DYB10-13	**Tested by:**	RA
Depth (feet)	0-5 feet	**Reviewed by:**	JGS
Material Type:	Poorly graded Sand with Silt and Gravel (SP-SM)		

Trial No.	**1**	**2**
Height of Sand Reading (units)	30	35
Height of Clay Reading (units)	64	70
Sand Equivalent	47	50
Average Sand Equivalent	49	

PLATE
B12

CALIFORNIA TEST 217 - SAND EQUIVALENT

Project No.:	2010-024	**Date Sample Tested:**	9/27/2010
Project Name:	SODA Mountain	**Sampled by:**	SS
Boring:	DYB10-15	**Tested by:**	RA
Depth (feet)	0-5 feet	**Reviewed by:**	JGS
Material Type:	Well graded Sand with Silt and Gravel (SW-SM)		

Trial No.	**1**	**2**
Height of Sand Reading (units)	36	36
Height of Clay Reading (units)	61	63
Sand Equivalent	60	58
Average Sand Equivalent	59	

PLATE
B13

Leighton

TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS

Project Name: SODA Mountain Facility Tested By : V. Juliano Date: 10/04/10

Project No. : 2010-024 Data Input By: J. Ward Date: 10/06/10

Boring No.	DYB10-02	DYB10-04	DYB10-07	DYB10-10
Sample No.	N/A	N/A	N/A	N/A
Sample Depth (ft)	0-5	0-5	0-5	0-5
Soil Identification:	Light yellowish brown (SW-SM)	Very pale brown (GW-GM)	Light yellowish brown (SP-SM)	Pale brown (SP-SM)
Wet Weight of Soil + Container (g)	164.20	187.10	182.80	160.30
Dry Weight of Soil + Container (g)	162.70	186.30	181.50	158.40
Weight of Container (g)	60.30	67.60	58.80	59.90
Moisture Content (%)	1.46	0.67	1.06	1.93
Weight of Soaked Soil (g)	100.80	100.30	100.20	100.60

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	8	9	11	14
Crucible No.	2	3	7	15
Furnace Temperature (°C)	840	840	840	840
Time In / Time Out	7:40/8:25	7:40/8:25	7:40/8:25	7:40/8:25
Duration of Combustion (min)	45	45	45	45
Wt. of Crucible + Residue (g)	17.2669	18.5293	18.2403	20.3185
Wt. of Crucible (g)	17.2660	18.5280	18.2390	20.3164
Wt. of Residue (g) (A)	0.0009	0.0013	0.0013	0.0021
PPM of Sulfate (A) x 41150	37.04	53.50	53.50	86.41
PPM of Sulfate, Dry Weight Basis	**38**	**54**	**54**	**88**

CHLORIDE CONTENT, DOT California Test 422

ml of Chloride Soln. For Titration (B)	30	30	30	30
ml of $AgNO_3$ Soln. Used in Titration (C)	0.5	0.6	0.6	0.5
PPM of Chloride (C -0.2) * 100 * 30 / B	30	40	40	30
PPM of Chloride, Dry Wt. Basis	**30**	**40**	**40**	**31**

pH TEST, DOT California Test 532/643

pH Value	**7.14**	**7.86**	**7.37**	**7.46**
Temperature °C	19.9	19.8	19.8	19.9

PLATE
B14

Leighton

TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS

Project Name: SODA Mountain Facility Tested By : V. Juliano Date: 10/04/10

Project No. : 2010-024 Data Input By: J. Ward Date: 10/06/10

Boring No.	DYB10-14	DYB10-15		
Sample No.	N/A	N/A		
Sample Depth (ft)	0-5	0-5		
Soil Identification:	Light brown (SP-SM)	Very pale brown (SW-SM)		
Wet Weight of Soil + Container (g)	195.30	194.30		
Dry Weight of Soil + Container (g)	190.70	193.40		
Weight of Container (g)	60.50	68.30		
Moisture Content (%)	3.53	0.72		
Weight of Soaked Soil (g)	100.70	100.50		

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	16	17		
Crucible No.	18	23		
Furnace Temperature (°C)	840	840		
Time In / Time Out	7:40/8:25	7:40/8:25		
Duration of Combustion (min)	45	45		
Wt. of Crucible + Residue (g)	19.7381	18.4177		
Wt. of Crucible (g)	19.7365	18.4164		
Wt. of Residue (g) (A)	0.0016	0.0013		
PPM of Sulfate (A) x 41150	65.84	53.50		
PPM of Sulfate, Dry Weight Basis	**68**	**54**		

CHLORIDE CONTENT, DOT California Test 422

ml of Chloride Soln. For Titration (B)	30	30		
ml of $AgNO_3$ Soln. Used in Titration (C)	0.5	0.6		
PPM of Chloride (C -0.2) * 100 * 30 / B	30	40		
PPM of Chloride, Dry Wt. Basis	**31**	**40**		

pH TEST, DOT California Test 532/643

pH Value	**8.10**	**7.28**		
Temperature °C	19.7	19.8		

PLATE
B15

SMSP02011

Leighton

SOIL RESISTIVITY TEST

DOT CA TEST 532 / 643

Project Name:	SODA Mountain Facility		Tested By :	V. Juliano	Date: 10/05/10
Project No. :	2010-024		Data Input By:	J. Ward	Date: 10/06/10
Boring No.:	DYB10-02		Depth (ft.) :	0-5	
Sample No. :	N/A				

Soil Identification:* Light yellowish brown (SW-SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	10	9.27	18000	18000
2	20	17.07	12000	12000
3	30	24.88	11000	11000
4	40	32.68	13000	13000
5				

Moisture Content (%) (MCi)	1.46
Wet Wt. of Soil + Cont. (g)	164.20
Dry Wt. of Soil + Cont. (g)	162.70
Wt. of Container (g)	60.30
Container No.	
Initial Soil Wt. (g) (Wt)	130.00
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 532 / 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 532 / 643	
10900	**22.8**	**38**	**30**	**7.14**	**19.9**

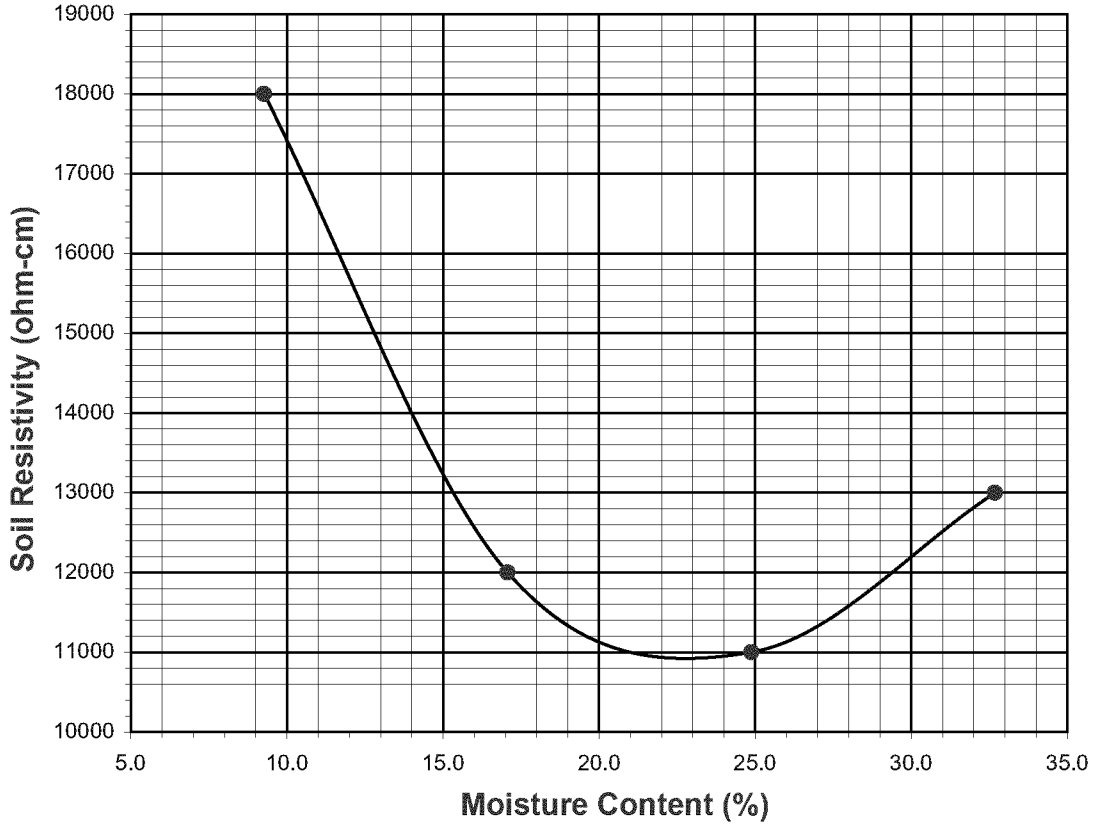


PLATE
B16

Leighton

SOIL RESISTIVITY TEST

DOT CA TEST 532 / 643

Project Name:	SODA Mountain Facility		Tested By :	V. Juliano	Date: 10/05/10
Project No. :	2010-024		Data Input By:	J. Ward	Date: 10/06/10
Boring No.:	DYB10-04		Depth (ft.) :	0-5	
Sample No. :	N/A				

Soil Identification:* Very pale brown (GW-GM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	10	8.42	7800	7800
2	20	16.16	4400	4400
3	30	23.91	4300	4300
4	40	31.65	4400	4400
5				

Moisture Content (%) (MCi)	0.67
Wet Wt. of Soil + Cont. (g)	187.10
Dry Wt. of Soil + Cont. (g)	186.30
Wt. of Container (g)	67.60
Container No.	
Initial Soil Wt. (g) (Wt)	130.00
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Note: Lowest data point taken as minimum resistivity due to plot distortion

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 532 / 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 532 / 643	
4300	**23.9**	**54**	**40**	**7.86**	**19.8**

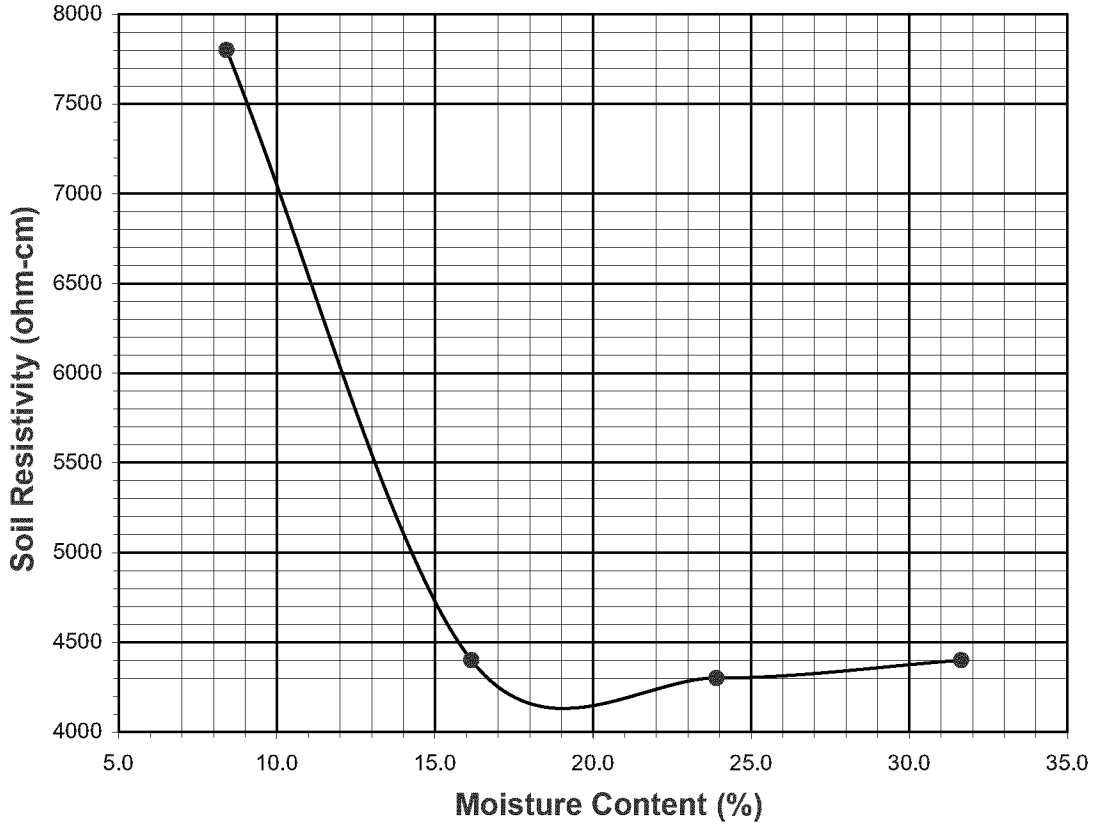


PLATE
B17

Leighton

SOIL RESISTIVITY TEST

DOT CA TEST 532 / 643

Project Name:	SODA Mountain Facility		Tested By :	V. Juliano	Date: 10/05/10
Project No. :	2010-024		Data Input By:	J. Ward	Date: 10/06/10
Boring No.:	DYB10-07		Depth (ft.) :	0-5	
Sample No. :	N/A				

Soil Identification:* Light yellowish brown (SP-SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	10	8.83	9600	9600
2	20	16.61	6500	6500
3	30	24.38	6400	6400
4	40	32.15	6700	6700
5				

Moisture Content (%) (MCi)	1.06
Wet Wt. of Soil + Cont. (g)	182.80
Dry Wt. of Soil + Cont. (g)	181.50
Wt. of Container (g)	58.80
Container No.	
Initial Soil Wt. (g) (Wt)	130.00
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 532 / 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 532 / 643	
6225	**19.6**	**54**	**40**	**7.37**	**19.8**

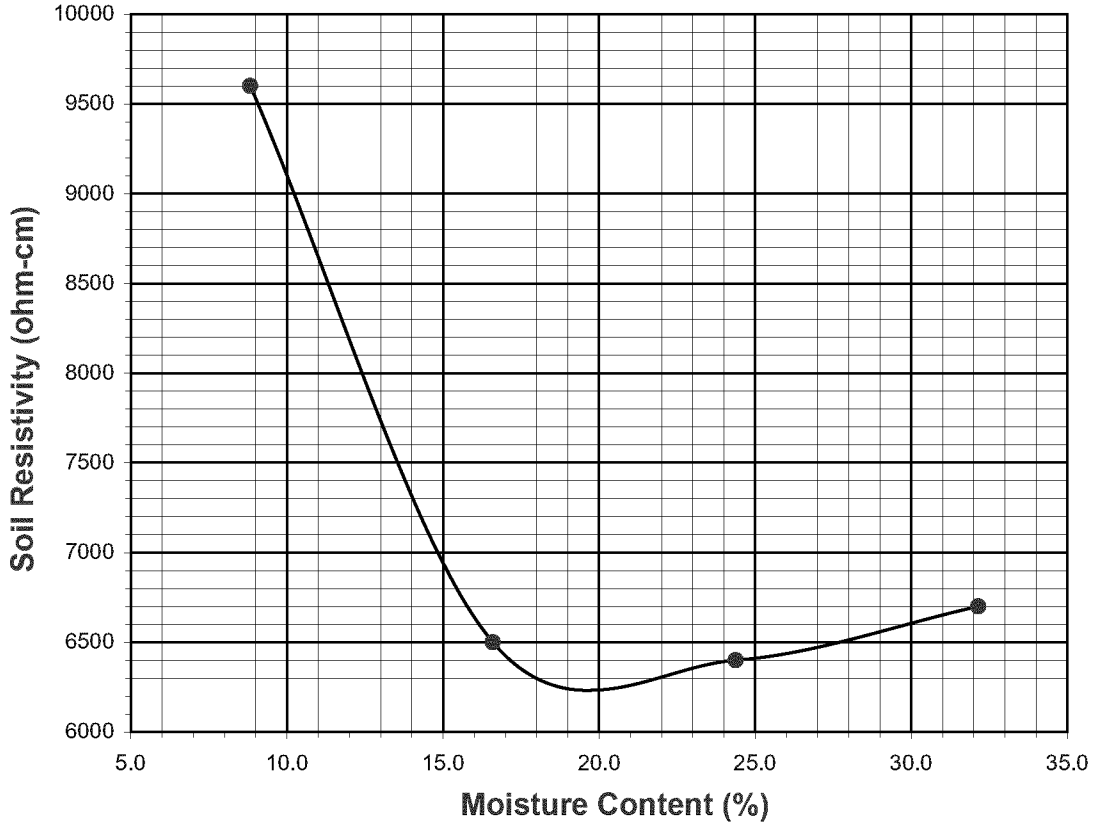


PLATE
B18

Leighton

SOIL RESISTIVITY TEST

DOT CA TEST 532 / 643

Project Name:	SODA Mountain Facility		Tested By :	V. Juliano	Date: 10/05/10
Project No. :	2010-024		Data Input By:	J. Ward	Date: 10/06/10
Boring No.:	DYB10-10		Depth (ft.) :	0-5	
Sample No. :	N/A				

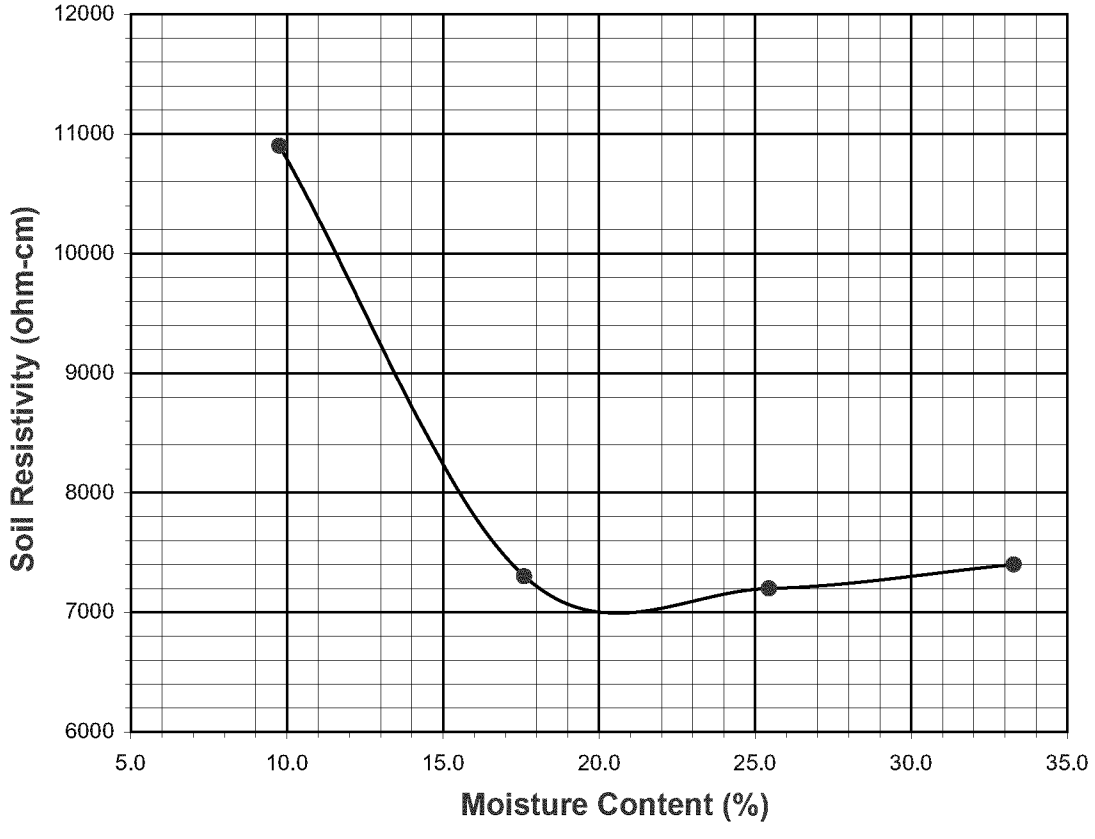
Soil Identification:* Pale brown (SP-SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	10	9.77	10900	10900
2	20	17.61	7300	7300
3	30	25.45	7200	7200
4	40	33.29	7400	7400
5				

Moisture Content (%) (MCi)	1.93
Wet Wt. of Soil + Cont. (g)	160.30
Dry Wt. of Soil + Cont. (g)	158.40
Wt. of Container (g)	59.90
Container No.	
Initial Soil Wt. (g) (Wt)	130.00
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 532 / 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 532 / 643	
7000	**20.6**	**88**	**31**	**7.46**	**19.9**



PLATE

B19

Leighton

SOIL RESISTIVITY TEST

DOT CA TEST 532 / 643

Project Name:	SODA Mountain Facility		Tested By :	V. Juliano	Date: 10/06/10
Project No. :	2010-024		Data Input By:	J. Ward	Date: 10/06/10
Boring No.:	DYB10-14		Depth (ft.) :	0-5	
Sample No. :	N/A				

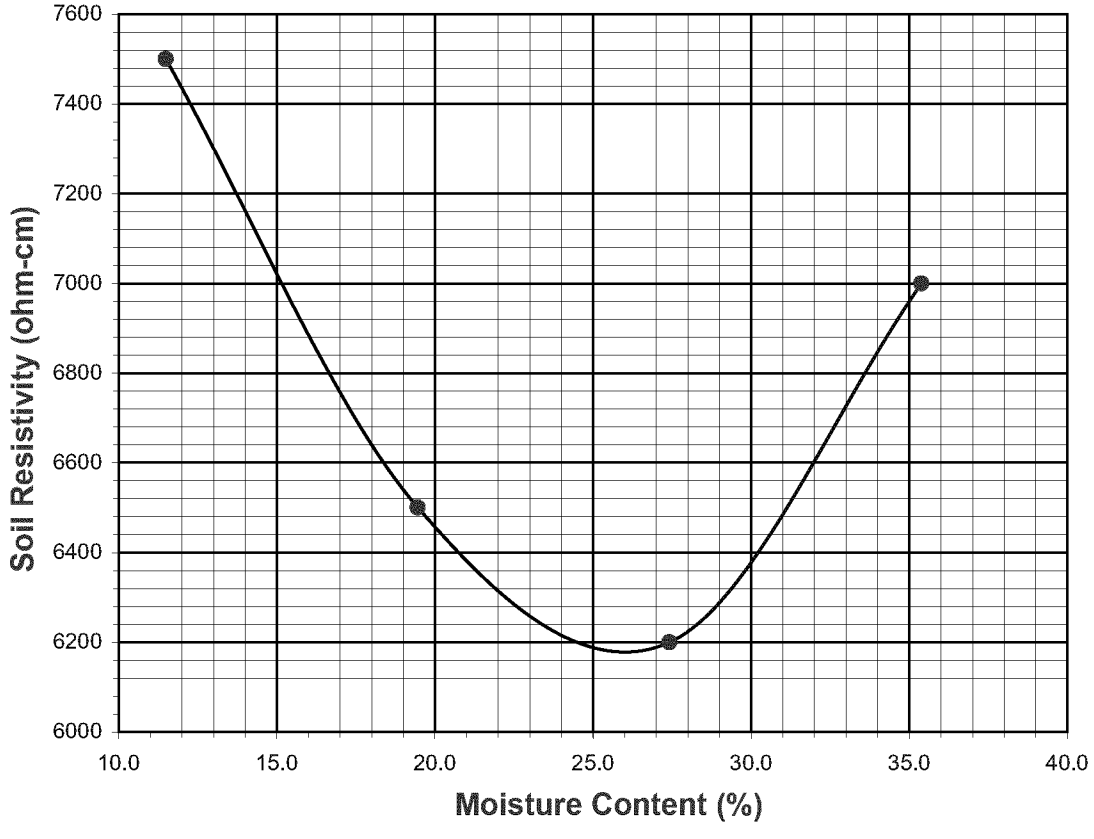
Soil Identification:* Light brown (SP-SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	10	11.50	7500	7500
2	20	19.46	6500	6500
3	30	27.43	6200	6200
4	40	35.39	7000	7000
5				

Moisture Content (%) (MCi)	3.53
Wet Wt. of Soil + Cont. (g)	195.30
Dry Wt. of Soil + Cont. (g)	190.70
Wt. of Container (g)	60.50
Container No.	
Initial Soil Wt. (g) (Wt)	130.00
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 532 / 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 532 / 643	
6180	**26.0**	**68**	**31**	**8.10**	**19.7**



PLATE

B20

SMSP02016

Leighton

SOIL RESISTIVITY TEST

DOT CA TEST 532 / 643

Project Name:	SODA Mountain Facility		Tested By :	V. Juliano	Date: 10/05/10
Project No. :	2010-024		Data Input By:	J. Ward	Date: 10/06/10
Boring No.:	DYB10-15		Depth (ft.) :	0-5	
Sample No. :	N/A				

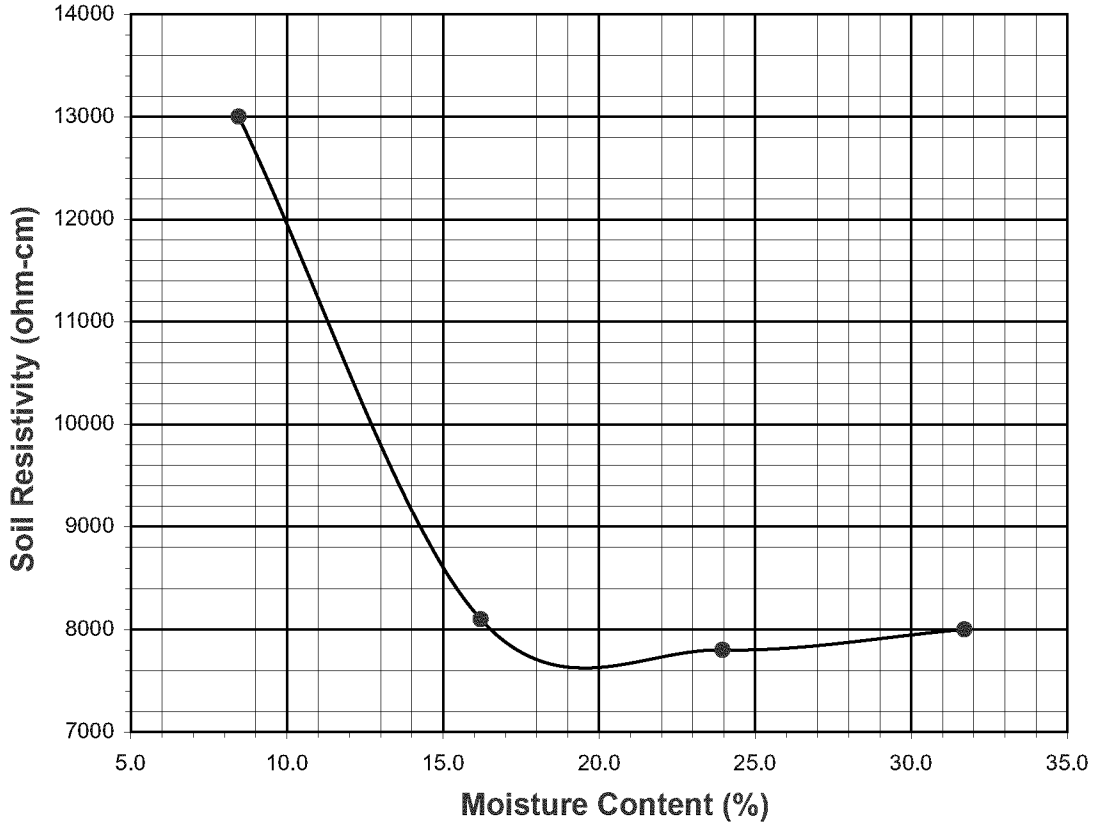
Soil Identification:* Very pale brown (SW-SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	10	8.47	13000	13000
2	20	16.21	8100	8100
3	30	23.96	7800	7800
4	40	31.71	8000	8000
5				

Moisture Content (%) (MCi)	0.72
Wet Wt. of Soil + Cont. (g)	194.30
Dry Wt. of Soil + Cont. (g)	193.40
Wt. of Container (g)	68.30
Container No.	
Initial Soil Wt. (g) (Wt)	130.00
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 532 / 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 532 / 643	
7600	**19.6**	**54**	**40**	**7.28**	**19.8**



PLATE

B21

APPENDIX C
SOIL FERTILITY ANALYSIS

WALLACE LABORATORIES
365 Coral Circle
El Segundo, CA 90245
phone (310) 615-0116 fax (310) 640-6863

October 12, 2010

Diaz•Yourman & Associates
Matt Dennerline, matt@diazyourman.com
1616 East 17th Street
Santa Ana, CA 92705

RE: SODA Mountain Facility, Job No. 2010-024
Received October 11, 2010

Dear Matt,

sample ID		10-285-02	10-285-03	10-285-04	10-285-05	10-285-06	10-285-07
description	target	DYB10-02 0-5'	DYB10-04 0-5'	DYB10-06 0-5'	DYB10-07 0-5'	DYB10-09 0-5'	DYB10-11 0-5'
phosphorus	8-20	2.7	2.1	8.6	2.8	2.9	1.2
potassium	60-180	92.9	109.8	125.3	86.8	124.0	181.2
iron	4-15	1.6	3.4	3.8	2.2	2.7	1.4
manganese	0.6-3	1.4	3.2	12.3	2.3	2.3	1.6
zinc	1-3	0.2	0.9	0.6	0.5	0.2	0.3
copper	0.2-3	0.2	0.3	0.4	0.3	0.2	0.2
boron	0.2-0.5	0.2	0.2	0.2	0.1	0.3	0.5
magnesium	25-100	27.4	33.1	34.9	40.1	35.9	40.0
sodium	<200	19.4	92.3	15.3	16.3	132.3	422.8
sulfur	25-100	2.2	10.2	13.7	4.4	35.3	76.5
pH	6.5-7.9	8.05	7.52	7.52	7.93	8.02	7.63
salinity	0.5-3	0.43	0.92	1.00	0.41	1.35	4.28
chloride	<150	10.2	28.3	2.8	3.6	58.7	814.5
nitrate	20-30	3.6	16.9	54.3	4.4	8.5	55.0
Organic Matter	3-6%	0.12%	0.11%	0.64%	0.17%	0.17%	0.49%
C:N Ratio	10	3.9	2.8	9.0	3.0	5.6	10.4
SAR	<4	2.5	8.5	1.3	2.0	7.1	11.5

The soils are alkaline with pH's ranging from 7.52 to 8.05.

The majority of the samples have low to moderate salinity values. Sample DYB10-11 has a high salinity with a value of 4.28 millimho/cm.

Nitrogen is low in all the samples except for Sample DYB10-06 and Sample DYB10-11 which have high nitrogen. Phosphorus is low across the board. Potassium ranges from modest to moderate, with Sample DYB10-11 having the highest at 180 parts per million.

Iron, magnesium, zinc, and copper are low in all the samples.

Sodium is low except for Samples DYB10-09 and DYB10-11. Sample DYB10-09 has a moderate amount of sodium. Sample DYB10-11 has high sodium at over 400 parts per million. Chloride is also high in Sample DYB10-11 at over 800 parts per million.

Limestone is present in all the samples which may cause iron deficiency in acid loving plants.

Boron is elevated in DYB10-11 at 0.84 parts per million in the saturation extract.

Recommendations

General soil preparation on a square foot basis. Broadcast the following materials uniformly. The rates are per 1,000 square feet. Incorporate them homogeneously 6 inches deep. Remove rock, gravel and debris:

Ammonium sulfate (21-0-0) – 5 pounds for all except DYB10-06 & DYB10-11
Potassium sulfate (0-0-50) – 8 pounds for all except DYB10-11
Triple superphosphate (0-45-0) – 4 pounds for all
agricultural gypsum - 20 pounds for all except 40 pounds for DYB10-11
Organic soil amendment - 3 cubic yards, sufficient for 3% to 5% soil organic matter

For preparation on a volume basis, incorporate uniformly the following materials into the soil. Rates are expressed per cubic yard. Remove rock, gravel and debris:

Ammonium sulfate (21-0-0) – 1/4 pound for all except DYB10-06 & DYB10-11
Potassium sulfate (0-0-50) – 1/2 pound for all
Triple superphosphate (0-45-0) – 1/4 pound for all
agricultural gypsum – 1 pound for all except 2 pounds for DYB10-11
organic soil amendment - 15% by volume, sufficient for 3% to 5% soil organic matter

Organic soil amendment:

1. Humus material shall have an acid-soluble ash content of no less than 6% and no more than 20%. The organic matter content shall be at least 50% on a dry weight basis.
2. The pH of the material shall be between 6 and 7.5.
3. The salt content shall be less than 10 millimho/cm @ 25° C. on a saturated paste extract.
4. Boron content of the saturated extract shall be less than 1.0 parts per million.
5. Silicon content (acid-insoluble ash) shall be less than 50%.
6. Calcium carbonate shall not be present if to be applied on alkaline soils.
7. Types of acceptable products are composts, manures, mushroom composts, straw, alfalfa, peat mosses etc. low in salts, low in heavy metals, free from weed seeds, free of pathogens and other deleterious materials.
8. Composted wood products are conditionally acceptable [stable humus must be present]. Wood based products are not acceptable which are based on red wood or cedar.

9. Sludge-based materials are not acceptable.
10. Carbon:nitrogen ratio is less than 25:1.
11. The compost shall be aerobic without malodorous presence of decomposition products.
12. The maximum particle size shall be 0.5 inch, 80% or more shall pass a No. 4 screen for soil amending.

    Maximum total permissible pollutant concentrations in amendment in parts per million on a dry weight basis:

arsenic	20	copper	150	selenium	50
cadmium	15	lead	200	silver	10
chromium	300	mercury	10	vanadium	500
cobalt	50	molybdenum	20	zinc	300
		nickel	100		

    Higher amounts of salinity or boron may be present if the soils are to be preleached to reduce the excess or if the plant species will tolerate the salinity and/or boron.

For DYB10-11 0-5', 10-285-04, leach to reduce the sodium, chloride and alkalinity. Reduce the pH to less than 8.0 or 8.5, reduce the chloride to less than 150 parts per million, reduce the sodium to less than 150 parts per million, all depending on the tolerance of the plant palette. After leaching apply ammonium sulfate (21-0-0) at 5 pounds per 1,000 square feet where nitrogen is low.

Verify the suitability of these soils after amending and leaching.

For maintenance fertilization, apply ammonium sulfate (21-0-0) at 5 pounds per 1,000 square feet about once per quarter. Monitor the site with periodic soil testing. Correct iron deficiency if it develops with Becker Underwood Sprint 138 Fe or other FeEDDHA chelated iron.

Sincerely,

John S. Wallace
JSW:n

WALLACE LABS 365 Coral Circle El Segundo, CA 90245 (310) 615-0116	**SOILS REPORT**	Print Date	Oct. 12, 2010	Receive Date	10/11/10
	Location	Soda Mountian Solar			
	Requester	Matt, Diaz Yourman & Associates			

graphic interpretation: * very low, ** low, *** moderate, **** high, ***** very high

ammonium bicarbonate/DTPA

extractable - mg/kg soil

Interpretation of data

low medium high

Sample ID Number	10-285-02		10-285-03		10-285-04	
Sample Description	DYB10-02 0-5'		DYB10-04 0-5'		DYB10-06 0-5'	
elements		graphic		graphic		graphic
phosphorus	2.70	*	2.06	*	8.60	***
potassium	92.87	***	109.85	***	125.28	****
iron	1.55	*	3.36	**	3.78	**
manganese	1.35	****	3.20	****	12.25	*****
zinc	0.21	*	0.94	**	0.61	**
copper	0.17	*	0.26	**	0.36	***
boron	0.18	**	0.21	***	0.22	***
calcium	357.76	***	343.41	***	349.97	***
magnesium	27.41	*	33.07	**	34.89	**
sodium	19.39	*	92.33	**	15.32	*
sulfur	2.21	*	10.16	*	13.70	*
molybdenum	n d	*	n d	*	n d	*
nickel	n d	*	0.04	*	0.10	*
aluminum	n d	*	n d	*	n d	*
arsenic	n d	*	n d	*	n d	*
barium	1.14	*	1.00	*	1.08	*
cadmium	n d	*	n d	*	0.03	*
chromium	n d	*	n d	*	n d	*
cobalt	0.01	*	0.06	*	0.05	*
lead	0.32	*	0.50	*	1.01	**
lithium	0.07	*	0.09	*	0.07	*
mercury	n d	*	n d	*	n d	*
selenium	0.17	*	n d	*	n d	*
silver	n d	*	n d	*	n d	*
strontium	4.08	*	4.06	*	3.07	*
tin	n d	*	n d	*	n d	*
vanadium	0.11	*	0.15	*	0.09	*
Saturation Extract						
pH value	8.05	****	7.52	****	7.52	****
ECe (milli-mho/cm)	0.43	**	0.92	***	1.00	***
		millieq/l		millieq/l		millieq/l
calcium	11.6	0.6	14.8	0.7	110.9	5.5
magnesium	5.8	0.5	4.7	0.4	12.7	1.1
sodium	42.0	1.8	146.5	6.4	54.2	2.4
potassium	15.2	0.4	15.5	0.4	32.4	0.8
cation sum		3.3		7.9		9.8
chloride	10	0.3	28	0.8	3	0.1
nitrate as N	4	0.3	17	1.2	54	3.9
phosphorus as P	0.8	0.0	0.0	0.0	0.0	0.0
sulfate as S	10.8	0.7	38.3	2.4	37.1	2.3
anion sum		1.2		4.4		6.3
boron as B	0.36	**	0.38	**	0.33	**
SAR	2.5	**	8.5	****	1.3	*
est. gypsum requirement-lbs./1000 square feet	3		16		3	
infiltration rate inches/hour	slow/fair		slow/fair		fair/slow	
soil texture	gravelly sand		gravelly sand		sand	
lime (calcium carbonate)	yes		yes		yes	
Total nitrogen, dry weight basis	0.016%		0.020%		0.036%	
Total carbon, dry weight basis	0.060%		0.055%		0.322%	
carbon:nitrogen ratio	3.9		2.8		9.0	
organic matter based on carbon	0.12%		0.11%		0.64%	
moisture content of soil	1.6%		1.1%		1.1%	
half saturation percentage	11.8%		10.3%		14.8%	

The following trace elements may be toxic. The degree of toxicity depends upon the pH of the soil, soil texture, organic matter, and the concentrations of the individual elements as well as to their interactions.

The pH optimum depends upon soil organic matter and clay content- for clay and loam soils: under 5.2 is too acidic, 6.5 to 7 is ideal, over 8 is too alkaline

The ECe is a measure of the soil salinity: 1-2 affects a few plants, 2-4 affects some plants, > 4 affects many plants.

problems over 150 ppm

toxic over 800

toxic over 1 for many plants

increasing problems start at 4

Elements are expressed as mg/kg dry soil or mg/l for saturation extract.

pH and ECe are measured in a saturation paste extract. nd means not detected.

Analytical data determined on soil fraction passing a 2 mm sieve.

WALLACE LABS 365 Coral Circle El Segundo, CA 90245 (310) 615-0116	SOILS REPORT	Print Date	Oct. 12, 2010	Receive Date	10/11/10
	Location	Soda Mountian Solar			
	Requester	Matt, Diaz Yourman & Associates			

graphic interpretation: * very low, ** low, *** moderate, **** high, ***** very high

ammonium bicarbonate/DTPA

extractable - mg/kg soil

Interpretation of data

low medium high

Sample ID Number	10-285-05		10-285-06		10-285-07	
Sample Description	DYB10-07 0-5'		DYB10-09 0-5'		DYB10-11 0-5'	
elements		graphic		graphic		graphic
phosphorus	2.76	*	2.91	*	1.22	*
potassium	86.79	***	123.97	****	181.20	*****
iron	2.19	*	2.74	**	1.43	*
manganese	2.30	****	2.28	****	1.57	****
zinc	0.52	**	0.25	*	0.33	*
copper	0.30	**	0.16	*	0.16	*
boron	0.06	*	0.30	***	0.53	****
calcium	321.48	***	366.36	***	321.70	***
magnesium	40.08	**	35.94	**	40.03	**
sodium	16.30	*	132.27	***	422.84	*****
sulfur	4.37	*	35.29	**	76.49	**
molybdenum	n d	*	0.02	**	n d	*
nickel	0.04	*	0.07	*	0.03	*
aluminum	n d	*	n d	*	n d	*
arsenic	n d	*	n d	*	n d	*
barium	1.42	*	1.08	*	1.00	*
cadmium	n d	*	n d	*	n d	*
chromium	n d	*	n d	*	n d	*
cobalt	0.02	*	0.05	*	0.05	*
lead	0.51	*	0.33	*	0.50	*
lithium	0.07	*	0.10	*	0.13	*
mercury	n d	*	n d	*	n d	*
selenium	n d	*	n d	*	0.43	*
silver	n d	*	n d	*	n d	*
strontium	2.98	*	5.60	**	6.65	**
tin	n d	*	n d	*	n d	*
vanadium	0.08	*	0.11	*	0.15	*
Saturation Extract						
pH value	7.93	****	8.02	****	7.63	****
ECe (milli-mho/cm)	0.41	**	1.35	***	4.28	*****
		millieq/l		millieq/l		millieq/l
calcium	26.6	1.3	46.5	2.3	177.3	8.9
magnesium	3.4	0.3	5.8	0.5	12.4	1.0
sodium	40.7	1.8	193.4	8.4	587.7	25.6
potassium	9.5	0.2	15.6	0.4	25.0	0.6
cation sum		3.6		11.6		36.1
chloride	4	0.1	59	1.7	814	22.9
nitrate as N	4	0.3	8	0.6	55	3.9
phosphorus as P	0.0	0.0	0.0	0.0	0.1	0.0
sulfate as S	18.0	1.1	102.5	6.4	161.3	10.1
anion sum		1.5		8.7		37.0
boron as B	0.13	*	0.48	***	0.84	****
SAR	2.0	**	7.1	****	11.5	*****
est. gypsum requirement-lbs./1000 square feet	3		22		72	
infiltration rate inches/hour	slow		fair/slow		slow	
soil texture	gravelly sand		gravelly sand		sand	
lime (calcium carbonate)	yes		yes		yes	
Total nitrogen, dry weight basis	0.029%		0.016%		0.024%	
Total carbon, dry weight basis	0.086%		0.087%		0.246%	
carbon:nitrogen ratio	3.0		5.6		10.4	
organic matter based on carbon	0.17%		0.17%		0.49%	
moisture content of soil	1.5%		1.9%		3.9%	
half saturation percentage	11.8%		12.3%		14.5%	

The following trace elements may be toxic. The degree of toxicity depends upon the pH of the soil, soil texture, organic matter, and the concentrations of the individual elements as well as to their interactions.

The pH optimum depends upon soil organic matter and clay content- for clay and loam soils: under 5.2 is too acidic, 6.5 to 7 is ideal, over 8 is too alkaline

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problems over 150 ppm

toxic over 800

toxic over 1 for many plants

increasing problems start at 4

Elements are expressed as mg/kg dry soil or mg/l for saturation extract.

pH and ECe are measured in a saturation paste extract. nd means not detected.

Analytical data determined on soil fraction passing a 2 mm sieve.

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QUALITY CONTROL REVIEWER

Saroj Weeraratne, P.E., G.E.
Senior Engineer

MD/GMD:cfp

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 9/8/2025 6:08:53 PM
To: Daye, Fadi [fadi.daye@cpuc.ca.gov]; Wilson, Michelle [Michelle.Wilson@cpuc.ca.gov]; Sison-Lebrilla, Elaine [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5b28ad52bafd4f489ca5cbf9a5361f86-a8d83116-84]; Mulligan, Jack M. [jack.mulligan@cpuc.ca.gov]; Wu, Chihsien "Eric" [eric.wu@cpuc.ca.gov]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

This project is LADWP, but we are trying to find out in general for any projects that don't have the first point of interconnect already constructed, like Darden is and Soda Mountain Solar Project is with LADWP being the utility.

The CEC has a third party

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Daye, Fadi <fadi.daye@cpuc.ca.gov>
Sent: Monday, September 8, 2025 11:05 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: RE: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Michele:

Banu Acimis is the PPS who oversees all Energy Storage issues (GO 167-C) and Rick Tse oversees issues related to PG&E. You should include them in this discussion along with Eric Wu, who is the PM of ESRB. I only oversee issues related to SCE and SDG&E.

Thanks

Fadi Daye, P.E.
Program and Project Supervisor
Electric Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
Telephone: (213) 576-7017

Safety is not a job, it is a commitment

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From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 8, 2025 10:19 AM
To: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi Michele,

I think I must have been reading calendars from the wrong week. Here is our staff availability:

Monday 9/8 3:30-4
Tuesday 9/9 8:30-9
Wednesday 9/10 8:30-9, 3-3:30
Thursday 9/11 8:30-9, 3-4:30

Monday 8/15 8:30-9:30
Tuesday 8/16 8:30-9, 4-4:30

Please let me know which dates work for you.

Thanks,

Lisa Worrall

Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Sent: Monday, September 8, 2025 9:40 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: RE: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Thurs. 9/11 from 10 to 10:30 works according to folks' calendars

Michelle Wilson (she/her)
Program and Project Supervisor
CEQA and Energy Permitting Group, CEQA and FERC Branch
Energy Division, California Public Utilities Commission
505 Van Ness Ave
San Francisco, CA 94102
(415) 696-7371
Michelle.Wilson@cpuc.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, September 8, 2025 8:14 AM
To: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi Michelle.

I am happy to meet. We are available on the following days and times this week:
Wednesday 8:30 am to 11, 1 pm to 4:30 pm
Thursday 8:30 am to 4:30 pm
Friday 8:30 am to 10 am, 1pm to 1:30 pm, 3 pm to 4:30 pm

Please let me know all dates and times that will work for you.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Sent: Friday, September 5, 2025 6:30 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi Lisa,

I'm sorry but I think I misunderstood your original email. I thought your questions pertained to the Darden project but it appears you may be referring to another project? It sounds like a quick meeting may be helpful to go over the components of the project in question to determine how we may assist in answering your questions.

Michelle Wilson (she/her)
Program and Project Supervisor
CEQA and Energy Permitting Group, CEQA and FERC Branch
Energy Division, California Public Utilities Commission
505 Van Ness Ave

San Francisco, CA 94102
(415) 696-7371
Michelle.Wilson@cpuc.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, September 5, 2025 6:00:45 PM
To: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>; Daye, Fadi <fadi.daye@cpuc.ca.gov>; Wu, Chihsien "Eric" <eric.wu@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Thank you Michelle.

The LADWP switchyard, which will be the last point of interconnect, once constructed, and possibly the two 500 kV loop in lines and 6 steel towers that will be installed between the LADWP switchyard and Mead-Adelanto Transmission Line. The applicant will be constructing these, but LADWP will be operating them.

I understand from working on Darden that the utility would not want to purchase the applicant-built switchyard if when tested, it doesn't function as it should. As the applicant would be constructing the switchyard for the utility and the construction is being carried out by the applicant under the CEC certification, I would think constructing the switchyard consistent with design standards would need to be confirmed by the CEC.

The BESS for Darden and this new project are proposed on the project site and are under the CEC's jurisdiction and certification. The CEC would ensure through compliance that the BESS is designed and constructed according to the applicable design standards.

Getting confirmation on who ensures compliance with design standards will assist our staff as they review the project and prepare the EIR (which will be in the Staff Assessment).

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Sent: Friday, September 5, 2025 5:07 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Mulligan, Jack M. <jack.mulligan@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: RE: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hello Lisa (+ cc'ing CPUC Legal, Jack Mulligan),

My understanding is that CEC would be responsible for ensuring compliance with, and enforcing, all mitigation measures included in CEC's EIR for the project as a whole, including PG&E's portion of the interconnection facilities. CPUC has issued a disposition letter for an Advice Letter approving PG&E's portion of the interconnection facilities.

Having said this, I do not want to speak out of turn regarding CPUC's authority to enforce General Order (GO) 167-C (regarding the BESS portion of the project), GO 95 (regarding PG&E transmission facilities), or any other section of the Public Utilities Code. At a minimum, it is recommended that CPUC Electric Safety and Reliability Branch (ESRB) of the Safety and Enforcement Division (SED) be contacted to determine CPUC's requirements for the design and construction of the BESS portion of the project pursuant to GO 167-C. Recommended points of contact with ESRB are:

Eric Wu (Branch Manager) – eric.wu@cpuc.ca.gov
Fadi Daye (Supervisor) – fadi.daye@cpuc.ca.gov

Michelle Wilson (she/her)
Program and Project Supervisor
CEQA and Energy Permitting Group, CEQA and FERC Branch
Energy Division, California Public Utilities Commission
505 Van Ness Ave
San Francisco, CA 94102
(415) 696-7371
Michelle.Wilson@cpuc.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, September 4, 2025 9:08 AM
To: Sison-Lebrilla, Elaine <Elaine.Sison-Lebrilla@cpuc.ca.gov>; Wilson, Michelle <Michelle.Wilson@cpuc.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: [EXTERNAL] Questions about how to handle design review for infrastructure constructed and connected to CAISO

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Hi Elaine and Michelle,

Darden was one of the first projects we had under this new Opt In Program and where the first point of interconnection to the electric grid was not already in existence.

The applicant constructed the switchyard for PG&E and PG&E would then purchase and operate it. In our analysis, we applied conditions of certification to mitigate impacts associated with construction of the switchyard and also included conditions of certification to address design review by the CEC.

We wanted to confirm whether this is correct that the CEC's Chief Building Official would handle design review through COCs for project components that would be operated by a utility and interconnect with the electric grid or is that supposed to be delegated to the CPUC. We have a project that has a complete application and staff is in the analysis stages of environmental review.

I would appreciate confirmation of what agency would handle design review for utility components as soon as possible so I can advise staff.

Thanks kindly,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Ed Larue [ed.larue@verizon.net]
Sent: 9/3/2025 8:01:14 PM
To: Energy - STEP Siting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=14e6ac2919ec428bb3378e30ce9a58e9-Energy - ST]; mcpherson.ann@epa.gov; brian_croft@fws.gov
Subject: Environmental Scoping Comments for Preparation of a Draft Environmental Impact Report for the Soda Mountain Solar Project (Docket No. 24-OPT-03)
Attachments: Soda Mtn. Solar Project Scoping Comments to CEC.9-3-2025.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Worrall,

Please find attached formal comments on the above-referenced project.

Thank you for your consideration,

Ed LaRue
Ecosystems Advisory Committee, Chair
Desert Tortoise Council

DESERT TORTOISE COUNCIL
3807 Sierra Highway #6-4514
Acton, CA 93510
www.deserttortoise.org
eac@deserttortoise.org

Via email only

September 3, 2025

Lisa Worrall
California Energy Commission
715 P Street
Sacramento, CA 95814
STEPsiting@energy.ca.gov

RE: Environmental Scoping Comments for Preparation of a Draft Environmental Impact Report for the Soda Mountain Solar Project (Docket No. 24-OPT-03)

Dear Ms. Worrall,

The Desert Tortoise Council (Council) is a non-profit organization comprising hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and northern Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

Both our physical and email addresses are provided above in our letterhead for your use when providing future correspondence to us. When given a choice, we prefer to receive emails for future correspondence, as mail delivered via the U.S. Postal Service may take several days to be delivered. Email is an "environmentally friendlier way" of receiving correspondence and documents rather than "snail mail."

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats known to be occupied by the Mojave desert tortoise (*Gopherus agassizii*) (synonymous with Agassiz's desert tortoise), our comments include recommendations intended to enhance protection of this species and its habitat during activities that may be authorized by the California Energy Commission (CEC), which we recommend be added to project terms and conditions in the authorizing documents [e.g., issuance of right-of-way (ROW) grants, management plan and decision document, etc.] as appropriate. Please accept, carefully review, and include in the relevant project file the Council's following comments and attachments for the proposed action.

SMSP02033

The Mojave desert tortoise is among the top 50 species on the list of the world's most endangered tortoises and freshwater turtles. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers the Mojave desert tortoise to be Critically Endangered (Berry et al. 2021), "… based on population reduction (decreasing density), habitat loss of over 80% over three generations (90 years), including past reductions and predicted future declines, as well as the effects of disease (upper respiratory tract disease/mycoplasmosis). *Gopherus agassizii* (sensu stricto) comprises tortoises in the most well-studied 30% of the larger range; this portion of the original range has seen the most human impacts and is where the largest past population losses have been documented. A recent rigorous rangewide population reassessment of *G. agassizii* (sensu stricto) has demonstrated continued adult population and density declines of about 90% over three generations (two in the past and one ongoing) in four of the five *G. agassizii* recovery units and inadequate recruitment with decreasing percentages of juveniles in all five recovery units."

This status, in part, prompted the DTC to join Defenders of Wildlife and the Desert Tortoise Preserve Committee (DTPC) to petition the California Fish and Game Commission in March 2020 to elevate the listing of the Mojave desert tortoise from Threatened to Endangered under the California Endangered Species Act (CESA) (Defenders of Wildlife et al. 2020). Importantly, following California Department of Fish and Wildlife's (CDFW) (2024a) status review, in their April 2024 meeting the California Fish and Game Commission voted unanimously to accept the CDFW's petition evaluation and recommendation to uplist the tortoise from threatened to endangered under the CESA based on the scientific data provided on the species' status, declining trend, numerous threats, and lack of effective recovery implementation and land management (CDFW 2024b). On July 15, 2025, the tortoise was officially uplisted to endangered status under the CESA.

We appreciate that the CEC contacted the Council directly via email on 8/22/2025, which enabled Ed LaRue to attend the public meeting in Barstow on 8/29/2025. The Notice of Information and Environmental Scoping Meeting for the Proposed Soda Mountain Solar Project (NoI) attached to the email indicated that the public meeting would occur between 1 and 5 p.m. With about 20 people in the room and 60 on Zoom (as announced by a CEC member during the meeting), there were only 10 public comments during the meeting, which was adjourned at about 2:30 p.m. We note that one of our Board members entered the room at about 3:00 p.m. to find CEC personnel there but the meeting to have ended. It would have been more appropriate for CEC to run the meeting as announced until 5:00 p.m. so that members of the public who could not be there until later would still be able to comment.

According to CEC's website (https://www.energy.ca.gov/powerplant/solar-photovoltaic-pv-battery-energy-storage/soda-mountain-solar-project), "Soda Mountain Solar, LLC (applicant), proposes to construct, operate, and maintain a utility-scale solar photovoltaic (PV) electrical generating and storage facility and associated infrastructure to generate and deliver renewable electricity to the statewide electricity transmission grid. The Soda Mountain Solar Project (project) would generate up to 300 megawatts (MW) of renewable energy and include up to 300 MW of battery storage. The project also includes future decommissioning, which is anticipated to occur after 30 years of operation. The project is located on approximately 2,670 acres of land administered by the U.S. Department of Interior, Bureau of Land Management, California Desert District, within the jurisdiction of the Barstow Field Office in San Bernardino County.

"The project components are as follows: 1) The solar plant site (i.e., all facilities that create a footprint in and around the field of solar panels, including the solar field consisting of solar power arrays), operation and maintenance buildings and structures, stormwater infrastructure, and related infrastructure and improvements. 2) A substation and switchyard for interconnection to the existing transmission system. 3) Approximately 300 MW of battery energy storage system across 18 acres.

"The project would operate year-round and would generate electricity during daylight hours. The project would generate and deliver solar-generated power to the regional electrical grid through an interconnection with the existing Marketplace-Adelanto 500-kilovolt (kV) transmission line operated by the Los Angeles Department of Water and Power."

The Council has formally opposed this project since 2012 in a series of formal comment letters to the Bureau of Land Management (BLM), CDFW, and San Bernardino County Supervisors, with three of these letters included in Attachment A (Desert Tortoise Council 2012, 2014, and 2023). Although the proposed project design has changed since its initial conception (e.g., there are no longer project areas proposed north of I-15), many of our comments are still pertinent and are submitted herein to the CEC for the first time. Whereas we believe that most of the information given in these letters is still applicable, we have taken the time to highlight in green those pertinent outstanding issues that we believe should be addressed in the CEC's current draft environmental impact report (DEIR).

Available information for the current proposal that was reviewed by the Council included the CEC's website for which the link is given above, the 7-page NoI dated 8/20/2025, the 43-page Revised Project Description dated 7/18/2025, the Power Point presentation given by the CEC during the public meeting in Barstow on 8/29/2025, and numerous posts on the CEC's Docket Log. Of particular interest to the Council, is the letter submitted by Defenders of Wildlife (Defenders 2025) dated 8/29/2025. In their letter, Defenders references a desert bighorn sheep study completed by Dudek (2024); a SWCA Environmental Consultants (2024) report titled "Desert Bighorn Sheep Literature Review and Technical Report;" a February 2025 "revised biological resources report;" a July 2025 "revised impact and compensatory mitigation report;" a protocol survey for desert tortoises performed in April and May of 2023; and a burrowing owl survey performed in the spring and summer of 2023.

Several of these documents appear in the CEC's Docket Log[1] that we accessed on 8/31/2025, but were mostly confidential and could not be reviewed. We ask that these recent documents, particularly biological survey reports, be included as appendices to the DEIR so that we and the public can review them as information for our future comments on the DEIR. So that they are all available in one place to allow comparisons between current and previous conditions, we ask that the following and any other pertinent biological resource reports be included in the DEIR: AMEC (2001), Epps et al. (2013), Kiva Biological Consulting (2013), and Panorama Environmental, Inc. (2012, 2013).

[1] https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=24-OPT-03

Again, we expect the three attached letters to be entered into the current public record, and, without reiterating them here, that the issues highlighted in green be specifically addressed in the DEIR. In addition to these outstanding concerns, we provide the following issues and comments that were identified by attending the public meeting, given in the order in which they were revealed:

1. We understand that the CEC, serving as the California Environmental Quality Act (CEQA) lead agency, is necessarily confining its impacts analyses to the DEIR. This has been a highly controversial, contested project, and we expect that the associated draft environmental impact statement (DEIS) may be even more complicated given the regulations identified in the Desert Renewable Energy Conservation Plan (DRECP, BLM 2016) and the recently issued programmatic solar energy EIS (BLM 2024). Given this interplay between federal- and state-related issues, we ask that the DEIR include a detailed description of the federal process that must also occur for this project to be approved. In its consultation with the BLM, has a date been identified for the release of the new DEIS (or perhaps supplemental EIS) by the BLM?

The project description includes construction, operation and maintenance, and decommissioning. It should also include restoration. BLM is obligated under the Federal Land Policy and Management Act (FLPMA) "to manage public lands for multiple uses that consider the long-term needs of future generations for renewable and non-renewable resources." Also, under FLPMA, BLM is required to "take any action necessary to prevent unnecessary or undue degradation of the lands." While these are federal requirements and the current process that the CEC is implementing to analyze the proposed project is a State requirement, this is another example of why a combined EIR/EIS is appropriate for this project.

2. During the public meeting, the CEC identified outstanding or "key issues" that have been identified in previous planning efforts. We note that there was no mention of the physical, visual, and aesthetic impacts of this project on the adjacent Mojave National Preserve. We understand that the National Park Service formally opposed this project and note that CEC did not identify this as a key impact, which the Council believes it is. For example, when the Eagle Mountain Landfill project was proposed adjacent to Joshua Tree National Park in the 1990s, it was revealed in public comments that the perception and idea that a large landfill would be located adjacent to the National Park would adversely affect the public's experience in visiting the park. The DEIR should consider similar perception impacts on visitors to Mojave National Preserve.

3. Please indicate the destination for the electricity that would be generated by this proposed project. Will the electricity be transported north and/or south or used locally? The answer to this question is important; unless the energy is being provided to Baker or Barstow, which are the two nearest human communities, it seems counterintuitive that solar fields would be developed in such an isolated area far from degraded human developments that are more proximate to the targeted destination.

4. Although there is brief mention of one of our concerns in the attached letter (bottom of page A-18 herein, Desert Tortoise Council 2023), we feel it is important enough to reiterate it here: the DEIR must clearly outline the conditions that have changed for this failed project to now be resurrected. What is different now that a fatally-flawed, much-opposed project in pristine desert habitats is being pursued again, particularly since the plight of the tortoise is worse now than it was in 2016 (see Appendix A to Desert Tortoise Council 2023, pages A-39 through A-45) when the project failed to be developed?

5. Based on the testimony by an off-highway vehicle (OHV) proponent at the public meeting, it appears that the recreation community expects to benefit from development of the solar field, expressing hope that picnic tables and shade structures could be developed in conjunction with project development. Our experience with BLM-designated open areas is that they disturb native soils and result in windblown dust affecting desert habitats many miles distant from the disturbance source. We do not recall that any of the previous environmental documents considered the potential impairment of the efficacy of the solar facilities by placing them adjacent to the Razor Open Area. Have there been any studies to show the dust generated by this particular open area compared to a control area where unrestricted OHV activities are prohibited, and where does that dust travel? Will the fugitive dust created by the adjacent Razor Open Area require heightened use of water to clean solar panels to promote maximum electricity generation?

6. Please be sure that growth-inducing impacts are addressed in the DEIR. There are many examples, including southern Nevada, eastern Riverside County, and eastern Kern County that show once a solar field is developed, it is likely that other solar fields will be developed in adjacent and nearby areas. Much of this development is driven by the designation of those areas for solar development, which does not apply to the current location of the proposed project. We note that in DRECP terms, the site is not identified as a Development Focus Area; rather it would require development in the context of a Variance Area. (It is issues like this one that cause us to question why this project is not being addressed in a combined EIR/EIS to cover all important state and federal contingencies in one place.) Are there any other currently-proposed solar fields in the area between Barstow and Baker?

7. We echo the concerns of a member of the Baker Fire Department during the public meeting, who indicated that their small staff of emergency responders covers the largest fire district in the U.S.A. He indicated that if the staff is called simultaneously to another emergency, it could be hours before they could respond to a fire-related emergency at the solar facility. This reality should be addressed in the Fire Management Plan drafted specifically for this project, if it goes forward.

8. The project would have substantial negative impacts on desert bighorn sheep, as indicated in an analysis by Dr. Christina Aiello and Dr. Clinton Epps at Oregon State University (Aiello, C. and C. Epps. 2023), and would interfere with an effort to restore habitat connectivity via construction of a wildlife overcrossing on the Interstate 15 transportation corridor. Implementing their three mitigations is essential for maintaining the Soda Mountain movement corridor intact: (a) maintain a minimum buffer of 0.62 miles, and ideally 1.24 miles between the solar installation and desert bighorn sheep habitat; (b) if not deny, delay construction of the solar installation until after the wildlife overpass has been constructed and adopted by desert bighorn sheep; and, (c) impacts of the project and mitigations must be re-assessed once the wildlife overpass becomes functional.

We appreciate this opportunity to provide the above comments and trust they will help protect tortoises during any resulting authorized activities. Herein, we reiterate that the Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the CEC that may affect desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above.

Please respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this Project.

Respectfully,



Edward L. LaRue, Jr., M.S.
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

Cc: Ann McPherson, Environmental Review, U.S. Environmental Protection Agency, mcpherson.ann@epa.gov
Brian Croft, Assistant Field Supervisor, Palm Springs Fish and Wildlife Office, U.S. Fish and Wildlife Office, brian_croft@fws.gov

Literature Cited

Aiello, C. and C. Epps. 2023. Potential impacts of the proposed Soda Mountain Solar development on desert bighorn sheep. A report prepared for the National Park Service and California Department of Fish and Wildlife. Oregon State University, Department of Fisheries, Wildlife, and Conservation Sciences. https://www.dropbox.com/scl/fi/ld44iat30jyjrffxee7qi/Aiello-and-Epps-2023-Soda-Mtn-impacts-on-sheep.pdf?rlkey=4ugzevf6p723z7wwnx37clnua&dl=0

AMEC. 2001. Desert Tortoise Survey of the Opah Ditch Mine. Unpublished report prepared by AMEC.

Averill-Murray, R.C., P.C. Rosen, C.A. Jones, T.R. Jones, R.A. Lara-Resendiz, T. Edwards, A. Karl, & K.H. Berry. 2023. *Gopherus morafkai*. The IUCN Red List of Threatened Species 2023: e.T97246109A97246177. https://dx.doi.org/10.2305/IUCN.UK.2023-1.RLTS.T97246109A97246177.en

Berry, K.H., L.J. Allison, A.M. McLuckie, M. Vaughn, and R.W. Murphy. 2021. *Gopherus agassizii*. The IUCN Red List of Threatened Species 2021: e.T97246272A3150871. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T97246272A3150871.en

[CDFW] California Department of Fish and Wildlife. 2024a. Status Review for Mojave Desert Tortoise (*Gopherus agassizii*) Report to the Fish and Game Commission, February 2024. https://nrm.dfg.ca.gov/documents/ContextDocs.aspx?cat=CESA-Listing

[CDFW] California Department of Fish and Wildlife. 2024b. 2022-2024 News Releases. California Fish and Game Commission Holds Hybrid Meeting, April 23, 2024. https://wildlife.ca.gov/News/Archive/california-fish-and-game-commission-holds-hybrid-meeting11

[Defenders et al.] Defenders of Wildlife, Desert Tortoise Preserve Committee, and Desert Tortoise Council. 2020. A Petition to the State of California Fish And Game Commission to move the Mojave desert tortoise from listed as threatened to endangered. https://defenders.org/sites/default/files/2020-03/Desert%20Tortoise%20Petition%203_20_2020%20Final_0.pdf

SMSP02038

[Defenders] Defenders of Wildlife. 2025. Jeff Aardahl Comments - Comments on Notice of Preparation of a Draft Environmental Impact Report for the Soda Mountain Solar Project. Letter TN# 265827 submitted to Lisa Worrall, dated 8/29/2025. Folsom, CA. https://www.dropbox.com/scl/fi/5f11wuzpthmrmgs2yh7xy/Soda-Mt-Solar-Project-Comments-by-Defenders-of-Wildlife.8-29-2025.pdf?rlkey=lsjlt2yk6e0rcvvn20as7nhu5&dl=0

[Council] Desert Tortoise Council. 2012. Public scoping comments on the proposed Soda Mountain Solar project (CACA 49584). Comment letter submitted to Mr. Jeffrey Childers of the BLM on 12/13/2012. Ridgecrest, CA. Pages A-1 through A-6.

[Council] Desert Tortoise Council. 2014. Formal comments on the Draft Environmental Impact Statement for Soda Mountain Solar project (CACA 49584). Comment letter submitted to Mr. Jeffrey Childers of the BLM on 3/1/2014. Ridgecrest, CA. Pages A-7 through A-13.

[Council] Desert Tortoise Council. 2023. Soda Mountain Solar Project, San Bernardino County, California – Notice of Preparation (NOP) of a Draft Environmental Impact Report. Comment letter submitted to Dr. Shankar Sharma of the CDFW on 2/16/2023. Acton, CA. Pages A-15 to A-68.

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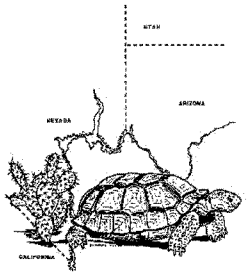
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Attachment A. Formal Comment Letters Submitted by the Council On the Proposed Soda Mountain Solar Project

Desert Tortoise Council. 2012. Public scoping comments on the proposed Soda Mountain Solar project (CACA 49584). Comment letter submitted to Mr. Jeffrey Childers of the BLM on 12/13/2012. Ridgecrest, CA. Pages A-1 through A-6. https://www.dropbox.com/scl/fi/ingb7rp1h8itqq44oatkr/Soda-Mountain-Desert-Tortoise-Council-Scoping-Comments.12-13-2012.pdf?rlkey=uj6xar4ri0pw97hiomlm2eb6d&dl=0

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DESERT TORTOISE COUNCIL
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Date: 13 December 2012

To: Mr. Jeffery Childers, Soda Mountain Solar Project Manager
22835 Calle San Juan De Los Lagos
Moreno Valley, CA 92553
sodamtnsolar@blm.gov

From: Ed LaRue, Ecosystems Advisory Committee

RE: Public scoping comments on the proposed Soda Mountain Solar project (CACA 49584)

Dear Mr. Childers,

The Desert Tortoise Council (Council) is a private, non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of this species. Established in 1976 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council regularly provides information to individuals, organizations and regulatory agencies on matters potentially affecting the desert tortoise within its historical range.

Herein the Council formally requests to be considered an "Affected Party," and asks that all correspondence regarding analysis of this potential project be sent to the address given above, attention Ed LaRue.

It was my pleasure yesterday to spend about eight hours in the field on the proposed project site to become familiar with biological resources, then to attend the public scoping meeting held in Lenwood, California between 4:00 and 6:00 p.m. During those eight hours, I walked approximately 11 miles through the three proposed array areas, referred to on a project map (Panorama Environmental, Inc., dated 9/14/2012) as "North Array," "South Array," and "East Array." The Council also appreciates the time and effort spent by Mr. Michael Radakovich, tortoise biologist, who accompanied LaRue on those surveys.

I was able to review the following documents before visiting the site:

- Panorama Environmental, Inc. July 2012. Analysis of habitat suitability and connectivity in the Soda Mountain area, San Bernardino County, California (herein, "Panorama")
- RMT, Inc. March 2011. Plan of Development, Soda Mountain Solar Project (herein "RMT")
- Soda Mountain Solar, LLC. 9 August 2012. Comments from Ms. Adriane Wodey representing this subsidiary of Bechtel Development Company, Inc. (herein "Ms. Wodey")

All three documents extensively reference 2009 focused desert tortoise surveys of the 4,400 acres± performed by URS (2009). However, when I asked for a copy of that document during the public scoping meeting, Mr. Childers indicated that the document was currently under internal review and not available to the public. This is unfortunate, as all documents I reviewed before visiting the site refer to URS results that the Council cannot review for an independent assessment of those results. If there are problems with that document, the Bureau of Land Management (BLM) should be forthcoming with that information, or publicly reject the report. In the meantime, the limited information available to the Council comes from third parties citing the URS 2009 document as if it is good science. As described below, we have good reason to believe that it is not good science.

Furthermore, when Mr. Childers was asked if there had been any recent surveys performed, he was hesitant and noncommittal. We are aware that there have been additional surveys, but it is not clear why these materials are being withheld. The Council would be much better informed if existing materials had been made available. It is important that the BLM remain independent in its assessment of this project, and not become a project proponent.

All three documents reviewed thus far come across as being subjectively one-sided, first reporting published results of other studies then, without good scientific basis, rejecting those results. For example, Ms. Wodey's assertion on page 16 that the site be reclassified from "High Biological Sensitivity – Public" to "Unclassified Land" is self-serving and not supported by any data. Similarly, there is no evidence that the site should be removed from its current designation as a "High Conflict Development Focus Area," as identified in the Desert Renewable Energy Conservation Plan. We sincerely hope and expect that the draft EIS will not be fraught with preconceived conclusions promoting development of this project in the current location.

The Council strongly feels that the following issues must be pursued and resolved in the draft EIS:

1. The Bechtel representative at the meeting indicated that this was one of five potential sites, that the other four had been rejected, and that this one was the preferred alternative. The draft EIS should clearly report the data behind this decision, both the reasons the other sites are not suitable and the reason this site is preferred. How have these sites already been rejected in the absence of rigorous analyses that would presumably result from an EIS-level review?

2. The Council would like to see additional sites (not just those already rejected) analyzed in the draft EIS. We support the determination that this particular site at Soda Mountains be identified as an alternative considered but rejected.

3. All three documents suggest that the three arrays are substantially affected by their proximity to the BLM's Rasor Open Area. This is simply not true. The North Array is separated from the open area by Interstate 15. According to the odometer on my GPS unit, I walked 4.72 miles of transects on the southern half of the North Array area. I observed only 15 cross-country vehicle tracks along those 4.7 miles of transects. The substrates are dissected by numerous washes and far too cobbly to accommodate most off-road vehicles. I also walked 6.97 linear miles of transects through the South Array, which is on the same side of I-15 and contiguous to the open area. There I tallied 45 tracks alongside the eastern hills and 88 tracks throughout the property. Most of these were along the south side of my survey area, adjacent to Rasor Road. In any case, these numbers are not indicative of degraded habitats.

4. Rather than make unsubstantiated statements about habitat degradation due to the proximity to the open area, additional studies should assess the levels of impacts in all three array areas and situate a few transects inside the Rasor open area for comparison. We are confident that such a comparison will reveal that the proposed sites are not nearly degraded as Ms. Wodey and Panorama would have us believe.

5. As per U.S. Fish and Wildlife Service (USFWS 2010) survey protocol, which states that survey results will remain valid for the period of one year, the 2009 tortoise surveys are now outdated. Assuming the site is not rejected based on scoping comments, new surveys should be performed to see if tortoises are truly absent. There should be complete disclosure of surveyor qualifications. If tortoises do occur in low densities, inexperienced surveyors should not be employed. The current tendency given the USFWS four-month survey period is to have hydrologists, geologists, ornithologists, even office staff and secretaries perform tortoise surveys. We strongly believe that only qualified tortoise biologists should perform any new surveys.

6. Based on what I saw yesterday, particularly throughout the North Array, which is very cobbly, the new survey should tighten up the survey intervals from the proposed 10-meter intervals to perhaps 5-meter intervals. It would also be prudent to orient transects in an east-west direction to facilitate detection in washes. I and Radakovich visually inspected about 150 wood rat middens for tortoise scat and carcass pieces on surveyed portions of the North Array. There must be thousands of such middens, which should be individually checked for tortoise signs. If tortoises occur at low densities as Ms. Wodey and Panorama suggest, this heightened survey methodology would be warranted.

7. Prior to beginning any new surveys, project proponents and intended biologists should confer with USFWS biologists to determine an affected "action area" (see definition in USFWS 2010) for this project. In 2009, only the project footprint was surveyed. Had a larger action area encompassing both direct and indirect impact areas been surveyed, we are certain that tortoises or their signs would have been detected in the hills immediately adjacent to the project footprint. Failure to survey the action area for this project would violate the USFWS 2010 protocol.

8. Even if new surveys do not find tortoises within the North Array area, the BLM should conclude that the project "May Effect" tortoises based on the 2001 AMEC findings at the Opah Ditch Mine, which is located within a half-mile to the west (see Figure 10 in Panorama 2012). During that survey, 5 burrows, 3 rock cover sites, 9 scat, and 3 carcasses were found, demonstrating that tortoises are in the immediate vicinity of the proposed project. Based on this information, the Council believes that the "May Effect" determination is warranted. As such, there should also be formal consultation with USFWS as required on page 6 of the survey protocol (USFWS 2010).

9. Although Ms. Wodey (apparently referring to the URS 2009 survey on page 11 in her letter) concludes that there is no habitat for Mojave fringe-toed lizard, I believe that there are suitable habitats within the eastern portions of both the East and South arrays, in sand fields against the west slopes of Soda Mountains. If not already, the Council believes that additional surveys are warranted for this species.

10. The Council did not have access to the URS 2009 document, so we are not sure what information sources were used therein to determine tortoise occurrence, but Ms. Wodey's letter cites only the AMEC 2001 study. The draft EIS must review additional materials to determine the potential local and regional impacts to tortoises. At the very least, this should include reviews of the Fort Irwin expansion data, any findings associated with the proposed high-speed rail line, and any data Caltrans may have.

11. Radakovich found burrowing owl sign in three locations on the northern portion of the North Array. This species was not identified in the RMT assessment. There should be focal surveys for burrowing owl and the results presented in the draft EIS.

12. Although not mentioned in any of the materials reviewed, both LaRue and Radakovich found evidence of American badger in all three array areas. The draft EIS should analyze the extent of impacts to this species, which is a California Species of Special Concern.

13. Citing the URS 2009 survey, which was not available to the Council for review, Ms. Wodey (page 9) states "…that conditions are not likely to support populations of desert tortoise because: the elevation of the area (less than 1,600 feet) is low for desert tortoise; vegetation is sparse with low diversity; soils are very rocky; habitat is fragmented by Interstate-15; and disturbance from off-highway vehicle use and construction of two transmission lines, a cellular tower, a distribution line, a fiber optic cable, and two fuel pipelines." Similarly on page 38, Panorama (2012) states: "The presence of surrounding mountains, abundant rocks and cobbles, sparse vegetation, low vegetation diversity, low elevation (below 470 meters), sand and gravel soils, and level of human disturbance indicate that the habitat is fragmented and not highly suitable for desert tortoise."

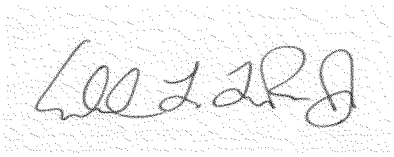
In fact, none of these conditions preclude tortoises from the three arrays. Though not common at very low elevations, I have observed tortoises at 500-feet elevation. Elevations ranging from about 1,200 to 1,600 feet throughout the three arrays are entirely suitable for tortoise occurrence. Though as I observed yesterday the creosote bushes *are* sparse, this represents a natural condition; I have observed tortoises in these exact same conditions. The sites are not too rocky for tortoises to occur. Though, regionally, habitats are fragmented by Interstate 15, this does not mean that some 4,000 acres of adjacent habitats are not capable of supporting tortoises. As mentioned above, the impacts associated with the adjacent open area are likely minimal compared to those occurring inside the open area. From what I saw yesterday, habitats have not been compromised by their proximity to the open area. Nor has serious habitat fragmentation occurred as a result of the transmission lines and other linear impacts; habitats within several hundred feet of these existing developments are intact and entirely capable of supporting tortoises.

14. As stated in their abstract, Nussear et al. (2009) indicate that their habitat modeling exercise is intended to provide "…output of the statistical probability of habitat potential that can be used to map potential areas of desert tortoise habitat." Both Ms. Wodey and Panorama report that Nussear's analysis produced a habitat rating of 0.6 to 0.8, where 1.0 is the most suitable habitat. Both then go on to say that this estimate is too high because no tortoise sign was found by URS in 2009. Nussear is not predicting the likely occurrence of tortoises, he is predicting habitat suitability. Just because tortoises are not abundant onsite does not dismiss Nussear's relatively high habitat suitability index for this site.

In conclusion, there is a real concern that the environmental documents reviewed thus far are subjective in favor of the proposed project. Claiming that the Opah Ditch Mine is better tortoise habitat than adjacent undisturbed lands is an example. All three documents claim that low elevations, existing disturbances, cobbly substrates, and sparse vegetation warrant the development of this site. That was not my impression yesterday. Although the arrays are not "crawling with tortoises," none is considered unsuitable or highly disturbed. Had I not visited the site, I would have assumed from the three documents I reviewed that low shrub cover is due to excessive impacts from cross country vehicle travel. In fact, shrub cover is naturally sparse and vehicle impacts seem minimal.

We sincerely hope that the draft EIS does not continue to interpret biological baseline data in such a skewed, subjective manner so as to present to the public the impression that this is an ideal location to destroy about 4,000 acres of an intact, functioning habitat.

Regards,



Desert Tortoise Council
Edward L. LaRue, Jr.
Ecosystems Advisory Committee

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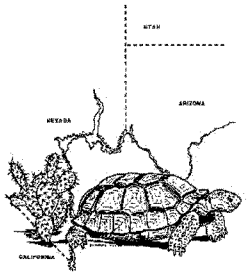
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1 March 2014

To: Mr. Jeffery Childers, Soda Mountain Solar Project Manager
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RE: Formal comments on the Draft Environmental Impact Statement for Soda Mountain Solar project (CACA 49584)

Dear Mr. Childers,

The Desert Tortoise Council (Council) is a private, non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of this species. Established in 1976 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council regularly provides information to individuals, organizations and regulatory agencies on matters potentially affecting the desert tortoise within its historical range.

Herein, we provide formal comments on the Draft Environmental Impact Statement (Draft EIS) for Soda Mountain Solar project (CACA 49584):

1. Measure 71 in Table 2-5, page 2-32 of the Draft EIS states: "An adequate number of trained and experienced monitors must be present during all construction and decommissioning activities in unfenced areas, depending on the various construction tasks, locations, and season. The approved biologist shall be on site from April 1 through May 31 and from September 1 through October 31 (active season) during ground-disturbing activities in areas outside the exclusion fencing, and shall be on-call from November 1 to March 14 (inactive season)." This particular measure implies that only active tortoises found aboveground are subject to impacts. In fact, ground-disturbing activities are just as likely to impact tortoises in their burrows, regardless of the season. Additionally, both adult and subadult tortoises may be active and out of their burrows year-round, which is facilitated by warmer temperatures in the winter months and rainfall in the summer months.

We strongly recommend that authorized biologists be onsite for **all** ground-disturbing activities, throughout the year. The wording in APM 71 on page 3.4-29 should require that authorized biologists and/or environmental monitors be onsite whenever ground-disturbing activities occur, regardless of the time of year; excepting those fenced areas that have already been cleared of tortoises during previous clearance surveys. We also note that none of these seasonal restrictions are reiterated in Section 3.4.8, where detailed descriptions of tortoise mitigation measures are presented.

2. Measure 73 in Table 2-5, page 2-32 states: "Compensatory habitat mitigation shall be provided at a 1:1 ratio for impacts to suitable desert tortoise habitat during construction. A habitat compensation plan will be prepared to the approval of CDFW, USFWS, and BLM." Whereas the BLM is likely to assess a per-acre compensation fee for development, California Department of Fish and Wildlife (CDFW) will require habitat compensation, endowment funds, and enhancement fees. It is extremely unlikely that CDFW will accept only 1:1 habitat compensation. Rather than state the compensation ratio will be 1:1, it is advisable to state that the compensation ratio will be determined in consultation with CDFW and other agencies. We suggest that AMP 73 given on page 3.4-29 be modified to reflect this reality. Discussions under Mitigation Measure 3.4-2d on pages 3.4-60 and -61 may also need to be modified.

3. Under **Alternative E**, the No Action Alternative, "The BLM would continue to manage the land consistent with the site's multiple use classification as described in the CDCA Plan. Based on the CDCA Plan amendments made in the Solar PEIS ROD, for future applications the site would be identified primarily as variance areas open to future applications for solar development, subject to the procedures identified in the Solar PEIS, and some exclusion areas in the southeast portion of the site that would be closed to such applications. In the case of variance areas, future projects would still require a CDCA Plan Amendment to move forward. These projects would be subject to applicable laws and land use plans" (Section 2.6.1., page 2-36). Although the Council appreciates that this alternative would result in no project at this site, we prefer Alternative G, since Alternative E would leave the site open to future solar development.

4. Under **Alternative G**, "The BLM would continue to manage the land consistent with the site's multiple use classification as described in the CDCA Plan with the exception that solar development would be precluded on the site" (Section 2.6.3., page 2-37). As such, Alternative G has the advantage of specifically excluding this particular site from future solar development, and is the Council-preferred alternative.

5. It is not clear in the Section 2.8.1 discussion of site alternatives that the proponent considered thousands of acres of biologically-impaired habitats east of Barstow, between Interstate-15 and Interstate-40, for example, although there is one mention of the Barstow Marine Corps Logistics Base on page 2-41. In a number of places, it seems that if the alternative site does not occur between Las Vegas and Barstow, it is unacceptable, which dismisses thousands of acres of impaired private lands in the Victor Valley, for example. It seems as if all potential alternatives had the same regional restriction that the site must occur along I-15 between Vegas and Barstow, which eliminates many other, better suited alternative sites outside this corridor.

6. Section 2-7, page 2-38 concludes, "The CEQA Guidelines define the environmentally superior alternative as that alternative with the least adverse impacts to the project area and its surrounding environment; therefore, Alternative E [No Action Alternative] is considered the environmentally superior alternative for CEQA purposes because it would not create any of the localized impacts of the Project, even though would have a less beneficial impact than that of the Project on greenhouse gases." Although Alternative G is preferred, Alternative E is also an acceptable alternative to the Council.

7. The proponent hired Peter Woodman to conduct protocol tortoise surveys, which are reported in Kiva Biological Consulting (2013). Therein, Woodman recommends that the eastern half of the East Array be excluded from development to avoid occupied tortoise habitat. Which of the alternative configurations follow this considered recommendation? It is not clear from the alternatives presented in the Draft EIS that Woodman's recommendations were followed. We recommend that such an alternative be included in the Final EIS and that it be fully analyzed for its reduced impacts to tortoises compared to the proponent's preferred alternative.

8. Contrary to the statements in Section 3.3.3.1 on page 3.3-17, the West Mojave Coordinated Management plan (WEMO Plan) was not adopted as a habitat conservation plan, was not implemented by either San Bernardino County or the City of Barstow, and does not provide for streamlined approaches for private entities to satisfy endangered species act requirements. Its prescriptions do apply to public lands managed by the BLM, as stated in the Draft EIS. These inaccuracies are repeated in Section 3.4.3.1 on page 3.4-21.

9. On page 3.4-9, the Draft EIS reports the following with regards to tortoise distribution in the study area: "Tortoise activity on the Project site *seems to be limited to the East Array area* [emphasis added], where sign was moderately wide-spread, particularly at the foot of the mountains to the east. Carcasses of two tortoises were detected in the North Array study area, but south of the North Array site, and tortoise sign was not detected in the South Array study area." The statement is somewhat misleading with regards to tortoise activity northwest of Interstate 15, as the presence of carcasses is still indicative of tortoise activity, even if only historical, in the North Array study area. This is critically important when the amount of compensable habitat is determined; **all** portions of all arrays, including those with only carcasses, are compensable.

10. Importantly, the descriptions referenced above fail to recognize that 5 tortoise burrows, 3 rock cover sites, 9 scat, and 3 carcasses were found at the Opah Ditch Mine in 2001 by AMEC, which is in the vicinity of the North Array study area, as reported in Panorama's 2012 report and depicted in Figure 10, therein. We note that these tortoise sign are presented in Figure 3.4-1 of the Draft EIS, but are not mentioned in the text, and provide evidence that tortoise sign is not limited to the East Array area as stated on page 3.4-9. Survey Results presented in the text on pages 3.4-8 and 3.4-9 must be augmented by results depicted in the appendices to be comprehensive in the Final EIS, particularly when known, published data clearly show that more than two dead tortoises occur (or have recently occurred) within the North Array study area, all of which must be considered compensable habitat.

11. On page 3.4-15, the Draft EIS fails to acknowledge that on 26 June 2013, Townsend's big-eared bat was identified as a candidate species for endangered species listing in California by the Fish and Game Commission. Whereas the state and federal statuses are given for all other animals in Section 3.4.2.3., State and federal statuses are omitted for Townsend's big-eared bat in this discussion. This may be explained by the date of the comprehensive biological report of March 2013 (Panorama Environmental Inc. 2013), but since the Draft EIS is dated November 2013, the June 2013 designation should have been acknowledged in the Draft EIS and impacts to this candidate species must be analyzed in the Final EIS.

12. Since Townsend's big-eared bat is currently designated as a candidate for State listing, we feel that the analysis in the Final EIS must be substantially greater than that given in the Draft EIS. As above, the Final EIS also needs to divulge this recent designation, which may warrant more mitigation than is currently provided for in the Draft EIS. The significance discussion given under Section Impact Wild-7 on page 3.4-69 should be expanded to discuss impacts to this new candidate species.

13. On page 3.4-19, the Draft EIS indicates that only one burrow with American badger digs was found. During our brief reconnaissance surveys on 12/12/2012, LaRue and Radakovich found 11 diagnostic badger digs within the North Array area and 8 digs within the East and South Array areas. We note that there are no mitigation measures identified in Table 2-5 for this species. Given our survey observations on only a fraction of the project area, we suggest that American badger is far more common than the Draft EIS suggests, and that mitigation measures are warranted to minimize impacts to this California Species of Special Concern. Although Kiva Biological Consulting (2013) indicates that badger sign was recorded (page 2 in Methods), it is not mentioned in the Results section. We cannot tell in Figures 7 and 8 which digs were attributed to badgers versus canids, as they are depicted with the same symbol.

14. Although we understand that the raven management plan is still to be submitted to the regulatory agencies, the Council believes that the proponent should commit to providing funds to the U.S. Fish and Wildlife Service (USFWS) for raven control and management. In a February 2011 biological opinion (8-8-10-F-66) to the Joshua Basin Water District, the USFWS (2011) required that the water district provide $105/acre of impact to this raven control program. As a recent standard applied to other projects in the West Mojave, the Council feels that this fee should also apply to this project.

15. With regards to impacts, it is not clear why on page ES-1 of the Executive summary, the Draft EIS indicates that **2,557 acres** would be disturbed; on page 3.4-31, **2,455.57 acres** are identified as being permanently lost; and in the biological technical report (page E.1-12 in Appendix E), Table 1.3-1 reports that **2,968.5 acres** would be permanently lost. As the Draft EIS indicated in footnotes to several tables and on page E.1-10 in Volume 2, all impacts are considered permanent, so it's not clear why there are so many discrepancies among reported impact acreages. We strongly suggest that the estimated compensable habitat be identified in the Final EIS under Mitigation Measure 3.4-2d, which currently describes compensable impacts without ever estimating the acreage to be compensated.

16. Although the fourth paragraph on page 3.4-33 indicates there is an undisclosed estimate of the number of tortoises that may be present on the Project site, the Draft EIS never reveals this number. Assuming the biologists used the USFWS formula for estimating the number of tortoises that may occur based on survey findings, this estimated number must be included in the Final EIS to accurately determine the level of anticipated take, and to allow the regulatory agencies to determine how accurate that estimate is, if the project is developed.

17. Although the Draft EIS was circulated in November 2013, it never refers to Peter Woodman's (Kiva Biological Consulting 2013) April and May 2013 surveys of the three arrays, a North Translocation Area, South Relocation Area, and Burrowing Owl Buffer Areas. In fact, translocation areas are not specifically discussed in the Draft EIS, as they must be in the Final EIS. Many of the results given in the Draft EIS are corroborated by Woodman's findings, which are never divulged. Woodman also reports the estimated tortoise density of two adult animals, but this is not in the Draft EIS. The Final EIS must fully divulge the results of Woodman's survey results for it to be complete and acceptable.

18. The Final EIS needs to assess Woodman's (Kiva Biological Consulting 2013) findings to determine if the South Relocation Area and North Translocation Area are appropriate to receive displaced tortoises. On page 4, Woodman reports that five tortoise carcasses were found in the North Translocation Area. Does this indicate that the North Translocation Area may not be acceptable if only dead tortoises are found there? Similarly, tortoise sign had a "limited distribution" in the South Relocation Area; as such, is it still appropriate to receive displaced tortoises? The Final EIS needs to consider these data and determine if these translocation areas will or will not be appropriate. If not, does the proponent plan to survey new translocation areas?

19. Please note in Section 3.4.8 on page 3.4-51 that the Designated Biologist and field contact representative are not synonymous. Whereas the Designated Biologist serves to implement all protective measures and minimize impacts to tortoises and occupied habitats, the field contact representative serves as the liaison among the many involved parties, particularly in regards to compliance reporting. In practice, the Designated Biologist and field contact representative are rarely the same person.

20. We strongly recommend that Mitigation Measure 3.4-2b on page 3.4-58 be modified to indicate that the agency-approved Desert Tortoise Translocation Plan (DTTP) must be finalized and approved **before** any ground-disturbance activities occur or any tortoises are handled. As written, the Draft EIS indicates that a draft DTTP has been written (see page 3.4-33) but the formal mitigation measure fails to indicate a timeframe in which the DTTP must be completed. As above, will the proponent choose new translocation areas and analyze them in the Final EIS? We strongly discourage displacing tortoises into areas where only dead or no evidence of tortoises are found. How will potential for disease transmission among translocated and host tortoises be considered in the DTTP?

21. Under Mitigation Measure 3.4-2c-4b on page 3.4-59, in the event a tortoise is found dead, the Final EIS should reference any restrictive measures that may be required by either USFWS or CDFW. If that mortality results in exceeding the mortality take limit identified in the federal biological opinion, for example, project construction may need to be halted until formal consultation is reinitiated. This and any other remedial actions should be documented in the Final EIS.

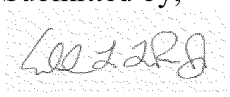
22. Mitigation Measure 3.4-2d on pages 3.4-60 through 3.4-63 provides extensive, detailed information about acquiring compensation lands but only indirectly refers to habitat management without requiring that an agency-approved habitat management plan is drafted by the approved management entity. The Final EIS must specify that a habitat management plan will be written for acquired lands, address threats to those lands based on field surveys identifying those threats, and state that the compensatory lands will be managed in perpetuity and not be subject to future development.

23. We suggest that Mitigation Measure 3.4-5a on page 3.4-64 be amended with a fourth stipulation that indicates emergency measures to be implemented if a tortoise is accidentally injured or killed during routine operations and maintenance. This amended measure should also indicate that BLM, USFWS, and CDFW will be contacted immediately to provide input into how future injuries and mortalities can be avoided. It should also assess whether incidental take statements in the biological opinion or State 2081 permit have been met or exceeded by the particular event.

24. Mitigation Measure 3.4-5b on pages 3.4-64 and -65 fails to mention that the Worker Education Awareness Program (WEAP) should be administered on, at least, an annual basis to all facility employees, which is the industry standard for all other public agencies whose employees provide routine operation and maintenance activities in occupied tortoise habitats.

In conclusion, we appreciate that the Draft EIS dealt with most of the points the Council raised in our scoping letter (Desert Tortoise Council 2012), including points 1 and 2 (alternative sites are discussed); 3 and 4 (no longer emphasizing how badly disturbed the habitats are); 5, 6, and 7 (survey quality increased with detection of tortoises, where the proponent formerly asserted no impacts would occur); 8 (incidental take permits are being solicited); 9 (fringe-toed lizards were found in the area like we had suggested); 10 (better reference to existing studies); 11 (like we found in December 2012, burrowing owls are known to be on the site); 12 (similarly, American badger occurs, though the Draft EIS still fails to determine the level of impact); and 13 and 14 (the Draft EIS is more accurate regarding tortoise occurrence rather than referring to inferior tortoise habitats). Finally, we are still in support of Alternative G, as the location of the proponent's preferred alternative site was poorly chosen and would result in the loss of good-to-pristine habitats.

Submitted by,



Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson
Edward L. LaRue, Jr.

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Via email only

16 February 2023

CDFW Inland Deserts Region Office
Attention: Dr. Shankar Sharma
3602 Inland Empire Boulevard, Suite C-220
Ontario, California 91764
shankar.sharma@wildlife.ca.gov

RE: Soda Mountain Solar Project, San Bernardino County, California – Notice of Preparation (NOP) of a Draft Environmental Impact Report

Dear Dr. Sharma,

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

Both our physical and email addresses are provided above in our letterhead for your use when providing future correspondence to us. When given a choice, we prefer that the California Department of Fish and Wildlife (CDFW) email to us future correspondence, as mail delivered via the U.S. Postal Service may take several days to be delivered. Email is an "environmentally friendlier way" of receiving correspondence and documents rather than "snail mail."

We appreciate this opportunity to provide comments on the above-referenced project. Further, we appreciate CDFW contacting the Council about this proposed project and making us aware of the opportunity to provide comments through the public comment process under the California Environmental Quality Act (CEQA).

Given the location of the proposed project in habitats occupied by Mojave desert tortoise (*Gopherus agassizii*) (synonymous with Agassiz's desert tortoise), our comments include recommendations that will enhance protection of this Federally and State-listed species and its habitat, including habitat needed for connectivity among tortoise populations but not continuously occupied by tortoises. We request that these recommendations be added to all authorizing documents, (e.g., permit, grant, right-or-way, agreement, etc.), as appropriate, if the project is authorized. Please accept, carefully review, and include in the project file the Council's following comments and attachments for the proposed project.

The Mojave desert tortoise is among the top 50 species on the list of the world's most endangered tortoises and freshwater turtles. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers the Mojave desert tortoise to be Critically Endangered (Berry et al. 2021), as it is a "species that possess an extremely high risk of extinction as a result of rapid population declines of 80 to more than 90 percent over the previous 10 years (or three generations), population size fewer than 50 individuals, or other factors." It is one of three turtle and tortoise species in the United States to be critically endangered. This status, in part, prompted the Council to join Defenders of Wildlife and the Desert Tortoise Preserve Committee (Defenders of Wildlife et al. 2020) to petition the California Fish and Game Commission in March 2020 to elevate the listing of the Mojave desert tortoise from threatened to endangered in California.

Description of Proposed Action

Original Project

The Original Soda Mountain Solar Project from 2007 included the construction, operation, maintenance, and decommissioning of a 358-megawatt photovoltaic (PV) solar energy generating plant and related facilities on approximately 4,179 acres of land managed by the BLM in San Bernardino County (County). It included installing and using ground water that required a groundwater well permit from the County. BLM and the County jointly prepared a draft EIR/EIS for the original project under the National Environmental Policy Act (NEPA) and CEQA, respectively (BLM and County 2013).

Revised Project

BLM and the County published the final Plan Amendment and EIS/EIR document on June 12, 2015. In 2016, BLM issued a Record of Decision (ROD) approving a Revised Project that included several changes to the Original Project. The changes to the Revised Project included:

- The construction, operation, maintenance, decommissioning, and reclamation of the East Array as a single, larger array block. In the reconfigured design, solar panels would cover an area previously avoided for drainage needs, but upon further analysis, does not require avoidance.
- Reconfiguration of the proposed South Array (=South Arrays 1, 2, and 3) including the array fence line, to avoid encroachment on 52 acres of the Rasor Off-highway Vehicle (OHV) Open Area and avoiding construction of solar arrays within the existing alignment of Rasor Road.

- Relocation of the proposed flood control berms between the southernmost array blocks to an area just outside of the array fence line to coincide with the revised boundaries of the East and South Arrays.
- Reconfiguration of the East Array and South Array (=South Arrays 1, 2, and 3) to provide greater acreage (1,726 acres) for solar arrays than described in the Final EIS/EIR (1,594 acres).
- Increases from 150 to 200 feet for corridor width to install the collector circuits and allow for sufficient spacing between the collector lines.
- Removal of groundwater treatment features, including the brine ponds from the Original Project.
- Change in the construction schedule from 30 months to an 18-month to 5-year period depending on Revised Project phasing. The arrays and array blocks could be installed in phases where the substation/switchyard, buildings, and groundwater wells would be installed with the first phase.
- Change in temporary and permanent disturbance to 1,767 acres for permanent disturbance and 292 acres of temporary disturbance = total of 2,059 acres of disturbance.
- Total permanent disturbance of the Project in the amended plan of development would be 1,767 acres. The total disturbance, including temporarily disturbed areas, would be 2,059 acres.

BLM posted the NEPA and CEQA documents on the Original and Revised Projects at https://eplanning.blm.gov/eplanning-ui/project/66043/570.

Description of Proposed Project:

The current proposed project (Proposed Project) is similar to the Revised Project described above and approved in BLM's ROD. However, the Proposed Project does not rely on groundwater wells, so constructing new wells is not part of the Proposed Project. The County completed CEQA compliance because it would need to issue a permit for the groundwater well(s). Because the Proposed Project no longer requires a permit from the County, CEQA compliance is being done by CDFW, as it anticipates it will need to issue an Incidental Take Permit under the California Endangered Species Act (CESA) and/or a Lake and Streambed Alteration Agreement under California Fish and Game Code. However, these proposed actions in combination do not include or involve the proposed approval by CDFW of the full scope of activities proposed by the Applicant. The permits, if issued, will simply condition how the Applicant implements certain activities subject to CDFW's related regulatory authority under the California Fish and Game Code. Accordingly, the proposed approval requiring CDFW to comply with CEQA as a lead agency does not include the approval of the Applicant's activities overall.

According to CDFW, the Proposed Project is the construction, operation, maintenance, and future decommissioning of a 300-megawatt photovoltaic (PV) solar facility (East Array and South Arrays 1, 2, and 3), and related facilities (e.g., operation and maintenance buildings and structures, stormwater infrastructure, battery energy storage systems across 16 acres, and substation and switchyard, etc.) on approximately 1,490 acres of land administered by BLM (Figure 1) . The Proposed Project would generate and deliver solar-generated power to the regional electrical grid via an interconnection (gen-tie) line following a zigzag path approximately 1.5-miles long to the existing Mead-Adelanto 500-kilovolt transmission line north of Interstate (I)-15. The transmission line is operated by the Los Angeles Department of Water and Power (LADWP).

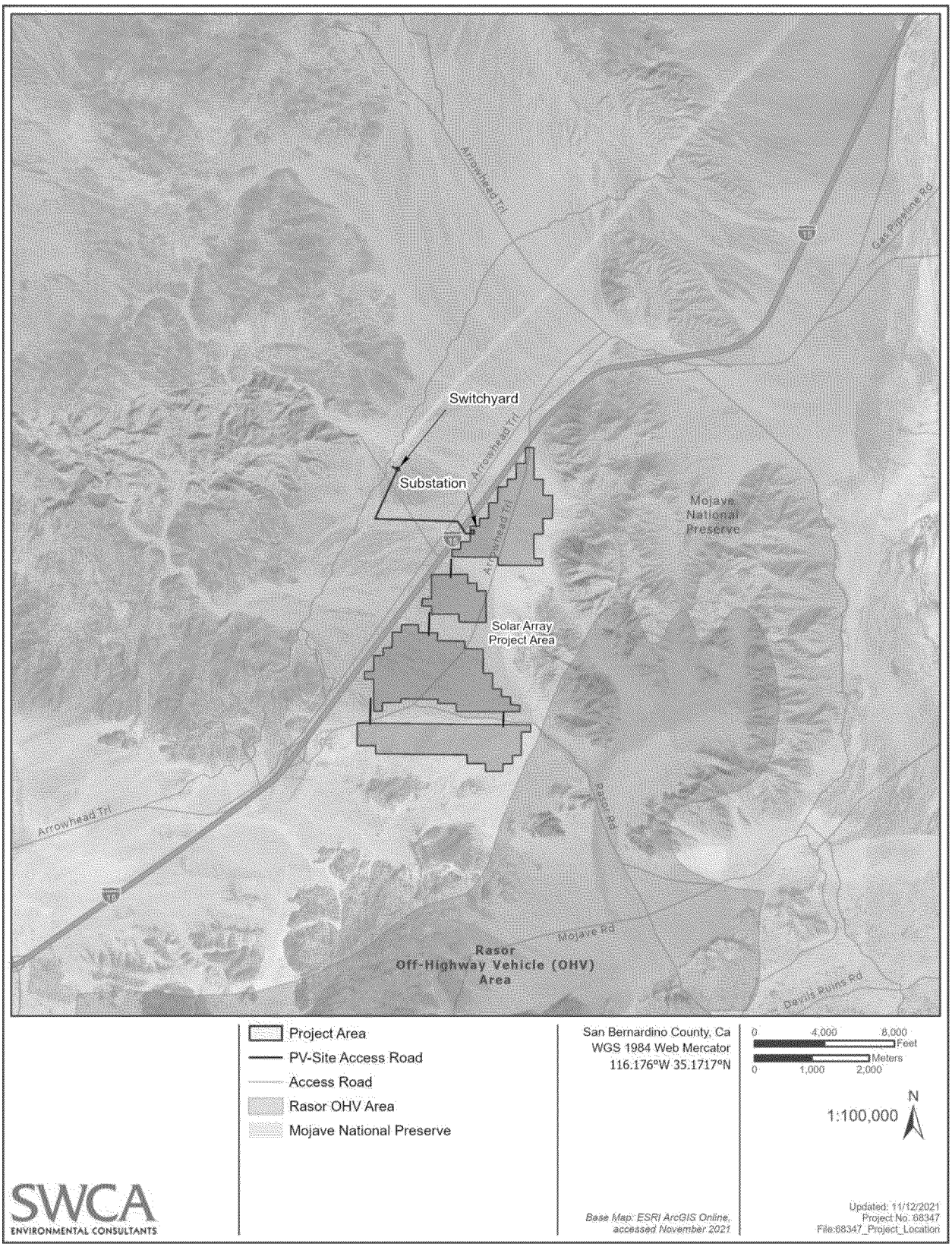


Figure 1. Location and layout of Soda Mountain Solar Project.

Access to the Proposed Project south of I-15 would be from Rasor Road via a gated entrance. A California Department of Transportation access road to the Opah Ditch pit mine would be used for access to the gen-tie line to the substation and for project site access north of I-15.

The Proposed Project is located approximately 6 miles southwest of the town of Baker, California, 50 miles northeast of the city of Barstow, and 0.5 mile from the western boundary of the Mojave National Preserve. It is bounded on the east by Mojave National Preserve and on the south and southeast by the Rasor Off-highway Vehicle (OHV) Open Area managed by BLM.

Scoping Comments

In considering the following comments, we ask an overarching question: Why is this project, which would be developed on public lands managed by BLM, not being analyzed in a joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS), which we feel is the appropriate level of review? We ask this as the Project Description has changed three times. The Original Project Description was analyzed in a DEIS/DEIR and FEIS/FEIR. The Revised Project that was approved by BLM under was changed in the ROD and included a description but no analysis of the changes on the resource issues and was not circulated for public review and comment. Now there is the Proposed Project that will undergo analysis under CEQA but not NEPA.

In addition, since BLM issued the ROD for Soda Mountain Solar Project, the demographic status of the tortoise has changed with the release of USFWS documents on the results of rangewide monitoring that show a trend of substantial declines in tortoise numbers and densities especially in the Western Mojave Recovery Unit (please see Appendix A. Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit). [Note: the appendix that appears at the end of this letter has been updated to provide current data as of June 2025]. Given these ongoing changes, we note the requirements of NEPA's implementing regulations are "to ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA (40 Code of Federal Regulations 1500.1(b). Consequently, we request that BLM issue a revised NEPA document for public review and comment on the Proposed Project with updated analyses on impacts to the human environment including the tortoise and other Special animals and special status plants.

Project Description

In comparing the acreage that would be impacted by the Proposed Project in the NOP (1,490 acres) and the Revised Project described by BLM (2,059 acres), the acreages obviously differ. Please explain this difference. One way would be to provide a list of the acres impacted for each component of the solar facility (including access roads) and whether the impacts would persist throughout the construction and operation and maintenance of the project (= long-term permanent impacts) or be restored (= long-term temporary impacts).

We note, too, that this project has already failed once to be developed, and received substantial resistance from environmental groups, including the Council (see Appendix C). Rumors include that LADWP was not willing to buy the Power Purchase Agreement. Others are that the project would have had a significant enough impact to the environment, and particularly to the proximate Mojave National Preserve, that it was abandoned in the response to the public's opposition. We ask that the DEIR address these issues, and document the reasons the earlier project failed. And, in so doing, please explain which conditions have changed that the project is now being reconsidered.

In the NOP under Section D, Potential Environmental Effects, CDFW provided a link to an Environmental Checklist Form to assist the public and agencies in preparing written comments. Unfortunately, when we tried to access it, we received an error message. Consequently, the Council is providing comments following our past practices of commenting on NEPA and CEQA documents without the benefit of seeing the checklist.

Alternatives to Analyze in the DEIR

In the NOP CDFW says, "[t]he Draft EIR will describe and evaluate the effects of a reasonable range of alternatives to the proposed project, including a no-project alternative" and "any environmentally superior alternative(s). The alternatives analyzed in the Draft EIR will be developed during the environmental review process, including consideration of public comments received during the public comment period."

The Council supports alternatives to reduce the need for additional solar energy projects in relatively undisturbed habitats in the Mojave Desert. The Council's persisting concern is that proponents of solar projects continue to identify a single site for development without identifying other viable alternative sites. As such, when focused surveys reveal significant numbers of tortoises on the proponent's selected site, because there is only one site identified for the project, there is no opportunity to select an alternative site where impacts would be substantially reduced. The Council requests that the following alternatives be evaluated in the DEIR:

- Urban/Suburban Solar Alternative – "rooftop solar" or solar placed in already developed areas (= urban/suburban solar), which we believe constitute other reasonable courses of actions. For example, the City of Los Angeles has implemented a rooftop solar Feed-in Tariff (FiT) program, the largest of its kind in America. The FiT program enables the owners of large buildings to install solar panels on their roofs, and sell the power they generate back to utilities for distribution into the power grid.

  This alternative puts the generation of electricity where the demand is greatest, in populated areas. It may also reduce:

- Transmission construction costs;
  - greenhouse gas emissions from constructing energy projects far from the sources of power demand and materials for construction;
  - loss of plants from construction and for the life of the project that sequester carbon;
  - the loss/degradation of numerous natural and cultural resources in the desert that must be analyzed under the CEQA; and,
  - mitigation costs for all direct, indirect, and cumulative impacts; monitoring and adaptive management costs; and habitat restoration costs following decommissioning.

- Previously Used Lands Alternative – locating solar projects on bladed or highly degraded tracts of land (e.g., abandoned agricultural fields, etc.). Such an alternative would not result in the destruction of desert habitats and mitigation for the lost functions and values of these habitats. These losses and mitigation are costly from an economic, environmental, and social perspective. There are large areas of land near Barstow and farther west in the Antelope Valley with previously used, degraded lands.

- Distributed Generation Alternative – Distributed Generation installs smaller scale PV facilities at or near the point of energy use, i.e., metropolitan/urban areas. Distributed Generation Alternatives may include BLM-land only and a combination of BLM land and land owned/managed by others (e.g., private and State lands).

- Vegetation Left In Place Alternative – the monitoring results of recently developed solar projects where soils have been bladed versus those facilities where the vegetation has been mowed or crushed and allowed to grow the area. In the latter case, it may be appropriate to allow tortoises to enter the facilities and re-establish residency (i.e., repatriate) under the solar panels as vegetation recolonizes the area. This could be an option for the currently described Proposed Project. It should be designed/implemented as a scientific experiment to add to the limited data on this approach to determine the extent of effects on Mojave desert tortoise populations and movements/connectivity between populations, which is an important issue for this species, particularly over the long-term (see Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units below). Long-term monitoring for the life of the project would need to be included to accurately evaluate the effectiveness of this strategy.

- Other Locations in the Mojave Desert – CDFW [CEC] should use the results of research conducted by Cameron et al. (2012) in the Mojave Desert to determine initial locations that would be potentially suitable for solar energy projects and reduce impacts to biodiversity. In addition, CDFW [CEC] should incorporate climate change into conservation planning and include strategies for building adaptive capacity, ameliorating the threat posed by climate, and accounting for future changes in human land usage (Smith et al. 2023). Combining these three strategies with genomic and ecological studies of the tortoise and other target species will have the greatest success (Smith et al. 2023).

- Options to the Proposed Project – CDFW should eliminate the arrays in habitats used by tortoises [e.g., Kiva Biological Consulting (2013) surveyed the project area and recommended the eastern half of the East Array be excluded from development to avoid occupied tortoise habitat]. Other options should include reducing/eliminating impacts to desert bighorn sheep movement areas and following existing roads for the gen-tie line.

Evaluating these alternatives in the DEIR is important to minimize or avoid the loss of vegetation that sequesters carbon and to reduce adverse impacts to biodiversity. Studies around the world have shown that desert ecosystems can act as important areas to capture and store carbon. For example, the California deserts account for nearly 10 percent of the state's carbon sequestration; below ground in soil, in root systems, and above ground in biomass. Protecting this biome can contribute to securing carbon stores in the state (MDLT 2021). Given the current climate change conditions, there is an increasing need for carbon sequestration. Vascular plants are a primary user of carbon and the Proposed Project would result in the loss/degradation of thousands of acres of plants that would (1) release stored carbon currently stored in these plants, and (2) prevent carbon from being captured and held because of the loss of plants from about 1500 acres during the construction, operations and maintenance, and decommissioning phases of the Proposed Project until the vegetation is restored. This time of lost carbon sequestration would be several decades or longer (Abella 2010), longer than the time of production of solar energy. It is imperative that the Proposed Project not result in the loss of native vegetation. Please see "Climate Change" below.

Environmentally superior alternatives would include the No Action Alternative, the Urban/Suburban Alternative, and Previously Used Land Alternative.

Environmental Setting/Affected Environment

The Endangered Mojave Desert Tortoise: The Council believes that the Mojave desert tortoise meets the definition of an endangered species. In the Federal Endangered Species Act (FESA), Congress defined an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range…" Because most of the populations of the Mojave desert tortoise were non-viable in 2014, most are declining, and the threats to the Mojave desert tortoise are numerous and have not been substantially reduced throughout the species' range, the Council believes the Mojave desert tortoise should be designated as an endangered species by the U.S. Fish and Wildlife Service (USFWS) and CDFW.

The summary of data included in "Appendix A – Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit" indicates that recovery actions are not obviously recovering the desert tortoise. As the primary land manager of tortoise habitat, BLM has been ineffective in halting population declines, which has resulted in non-viable populations. The available data support the conclusion that current management actions are inadequate in preventing the extirpation of the Mojave desert tortoise in California and Nevada.

The Mojave desert tortoise is an indicator species and umbrella species of ecosystem health (Berry and Medica 1995). Indicator species are used to monitor environmental changes, assess the efficacy of management, and provide warning signals for impending ecological shifts. An umbrella species is a species whose conservation is expected to confer protections to a large number of co-occurring species. Thus, when the Mojave desert tortoise is declining in density, numbers, and recruitment, this decline is an indicator of environmental change that is degrading the desert environment, ineffective management by land management agencies, and a warning that ecological shifts in the Mojave and Colorado deserts are occurring. In addition, this decline indicates that other species in the Mojave and Colorado deserts are also declining in density, numbers, and recruitment. Consequently, land management and wildlife resource agencies should consider the data on the demographic trend of the tortoise as a "wake-up call," that more must be done to effectively manage for the tortoise and other species in the Mojave and Colorado deserts. Impacts to other local and wide-ranging species and their habitats should be analyzed in this DEIR.

Standardized Surveys – Desert Tortoise and Other Species

Species designated as Special Animals (= Species of Special Concern or Species at Risk) by CDFW (CNDDB 2023) occur or use lands at/near the Proposed Project. These include the Mojave desert tortoise, Mohave tui chub (*Siphateles bicolor mohavensis*), desert bighorn sheep (*Ovis canadensis nelsoni*), Western burrowing owl (*Athene cunicularia*), American badger (*Taxidea taxus*), Mohave fringe-toed lizard ((*Uma scoparia*), and kit fox (*Vulpes macrotis*).

For the Draft EIR, the following surveys should be performed to determine the extent of rare plant and animal populations occurring within the impact area. The impact area extends beyond the Project footprint and differs for each species. The survey methodologies and survey results should be provided in the DEIR, are needed to fully assess the effects and identify potentially significant impacts of the Proposed Project and alternatives, will determine appropriate permits/authorizations required from CDFW, USFWS, and perhaps others, and will help develop effective mitigation measures to fully offset the impacts. Because of the wetter than average rainfall in much of the Western Mojave Desert this winter, we strongly suggest conducting these surveys during the upcoming survey season as drought conditions may have subsided, and animal species may be more active and plant species may have germinated. This is important as, to the best of our knowledge, there have been no protocol surveys (USFWS 2019) since 2013, and the impact footprint of the Proposed Project has changed sufficiently that new surveys are warranted.

Prior to conducting surveys, a knowledgeable biologist should perform a records search of the California Natural Diversity Data Base (CNDDB 2023) for rare plant and animal species reported from the region. The results of the CNDDB review would be reported in the Draft EIR with an indication of suitable and occupied habitats for all rare species reported from the region based on performing species specific surveys described below.

Focused plant and animal surveys should be conducted by knowledgeable biologists for respective taxa (e.g., rare plant surveys should be performed by botanists), and to assess the likelihood of occurrence for each rare species or resource (e.g., plant community) that has been reported from the immediate region. Focused plant surveys should occur only if there has been sufficient winter rainfall to promote germination of annual plants in the spring. Alternatively, the environmental documents may assess the likelihood of occurrence with a commitment by the proponents to perform subsequent focused plant surveys prior to ground disturbance, assuming conditions are favorable for germination.

Mojave Desert Tortoise Surveys: Formal protocol surveys for Mojave desert tortoise (USFWS 2019) must be conducted at the proper times of year and by biologists determined to be qualified by USFWS and CDFW. Per this protocol, if the impact area is larger than 500 acres, the surveys must be performed in the time periods of April-May or September-October so that a statistical estimate of tortoise densities can be determined for all areas to be affected directly or indirectly by the Proposed Project and not merely the immediate area involved in the action area/project footprint. If any tortoise sign is found, an incidental take permit from CDFW and federal authorization from USFWS must be obtained prior to ground disturbance.

To determine the full extent of occurrence and impacts to tortoises and to facilitate compliance with the FESA, qualified biologist(s) should consult with the Palm Springs Office of the USFWS to determine the action area for this project. The USFWS defines "action area" in 50 Code of Federal Regulations 402.2 and their Desert Tortoise Field Manual (USFWS 2009) as "all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action (50 CFR §402.02)."

We request that protocol-level surveys be performed at the area of the proposed project *and the alternatives that are being considered* in the DEIR. The results of these surveys, including tortoise sign encountered, should be published in the DEIR and should include density estimates for each alternative assessed.

Too often, a single impact footprint is identified, all surveys are restricted to that site, and no alternative sites are assessed. We are concerned that this project has pre-determined the project footprint. As such, there may be other areas of lower tortoise densities where impacts could be minimized. However, those areas would not be considered if the project footprint is pre-determined before survey data are available. As such, we request that more than one site, preferably three, be identified and analyzed in the DEIR and that the alternative with the fewest impacts to tortoises be adopted for development.

If that is not feasible, we ask that the "action area" of the proposed project be several times larger than the project footprint so that those portions of the site with fewer tortoises could be selected for development. Proponents of the Gemini Solar Site in southern Nevada, for example, ignored these recommendations, and displaced more than 100 tortoises, when based on their presence-absence tortoise surveys, a shift of the site to the east would have avoided many of those animals.

Current practice is to require desert tortoise protocol surveys (USFWS 2019) on a proposed development site, but all too often potential translocation sites are ignored. We assert that protocol surveys should occur on all proposed translocation sites (USFWS 2020), assuming tortoises will be translocated.

Desert Bighorn Sheep Surveys: CDFW has designated desert bighorn sheep (*Ovis canadensis nelsoni*) in California as "S3: Vulnerable – At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors." Chapter 11 section 4900 of California Fish and Game Code says. "[t]he Legislature declares that bighorn sheep are an important wildlife resource of the state to be managed and maintained at sound biological levels."

Bighorn sheep scat, tracks, and live sheep were observed on the Project site in 2012 and 2013 (Kiva Biological Consulting 2013). This and the results of past and current surveys should be included in the DEIR.

Mohave Fringe-toed Lizard Surveys: Focused surveys for Mojave fringe-toed lizards should be performed, preferably using the methodology from the University of California Riverside, Center for Conservation Biology (2005). Results and effective mitigation measures, as needed, should be published in the Draft EIR.

Western Burrowing Owl Surveys: Protocol surveys for western burrowing owl (*Athene cunicularia*) (CDFG 2012) should be completed. Note that the protocol (CDFG 2012) requires that peripheral transects be surveyed at 30-, 60-, 90-, 120-, and 150-meter intervals in all suitable habitats adjacent to the subject property to determine the potential indirect impacts of the project on this species. If burrowing owl sign is found, CDFG (2012) describes appropriate mitigation measures that would be required. Survey results should be reported in the DEIR and all appropriate mitigation measures listed that would be implemented.

Special Status Plant Surveys: There are likely special status plant species found in the Project area as determined by a CNDDB (2023) literature review. These species should be surveyed for during field surveys and their presence/absence/abundance discussed in the Draft EIR. Surveys should be completed at the appropriate time of year by qualified biologists (preferably botanists) using the latest acceptable methodologies (CDFG 2009).

California Department of Fish and Game (CDFG 2010) lists hundreds of plant communities occurring in California, including those that are considered Communities of Highest Inventory Priority, or "CHIPs." Biologists completing surveys on behalf of the Proponent should document such communities where they occur and indicate how impacts to them will be minimized.

Migratory Birds Surveys: CDFW should ensure that all actions it authorizes are implemented in compliance with the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and California Fish and Game Code to avoid mortality or injury to migratory birds and harassment of eagles.

Special Land Management Designations: The DEIR should discuss how this Proposed Project fits within the management structure of the current land management plans for the area [e.g., California Desert Conservation Area Plan (CDCA Plan) (BLM 1980 as amended), Desert Renewable Energy Conservation Plan (DRECP; BLM 2016), Mojave Preserve General Management Plan, etc.]. It should provide maps of critical habitat for the Mojave desert tortoise (USFWS 1994), Areas of Critical Environmental Concern (ACECs), and other areas identified for special management by BLM; National Park Service lands; other lands with special management designation/use (e.g., Desert Studies Center, etc.); State lands; and any private lands. Similar maps of occurrence/habitat for other special animal species mentioned above should be included in the DEIR.

Analysis of Direct, Indirect, and Cumulative Impacts

Economic Analysis of Resources Degraded/Destroyed: The alternatives analysis should include an economic analysis that provides the total cost of constructing the Proposed Project versus other alternatives, so the public can see how much the total cost of each alternative is. This would include an analysis of the costs of replacing all resource issues, including biological resources, that would be adversely impacted from implementing the Proposed Project – direct, indirect, and cumulative impacts. Please note, this analysis would include habitat replacement or restoration costs including the time needed to achieve full replacement (i.e., the temporal loss), not just acquisition, management, monitoring, and adaptive management costs.

Mojave Desert Tortoise: The Proposed Project is in the Western Recovery Unit for the Mojave desert tortoise (USFWS 2011). The DEIR should include a thorough analysis of the status and trend of the tortoise in the action area, tortoise conservation area(s), recovery unit(s), and range wide (see Appendix A). Tied to this analysis should be a discussion of all likely sources of mortality for the tortoise and degradation and loss of habitat from implementation of solar development including construction, operation and maintenance, decommissioning, and restoration of the public lands. The DEIR should use the data from focused plant and wildlife surveys in their analysis of the direct, indirect, and cumulative impacts of the proposed project on the Mojave desert tortoise and its habitat, other listed species, and species of concern/special status species.

We expect that the DEIR will document how many acres would be impacted directly by solar arrays, access roads to the site, administration/maintenance buildings, parking areas, transmission towers, switchyards, laydown areas, internal access roads, access roads along gen-tie lines, perimeter roads, perimeter fencing, substations, battery storage, etc., which comprise the project footprint. We also request that separate calculations document how many acres of desert tortoise habitats would be temporarily and permanently impacted both directly and indirectly (e.g., "road effect zone," etc.) by the proposed Project. As given below, these acreages should be based on field surveys for tortoises not just available models.

The DEIR should include a description and analysis of "heat sink" impacts on the tortoise from solar arrays.

Road Effect Zone: We request that the DEIR include information on the locations, sizes, and arrangements of roads to the proposed project and within it, who will have access to them, whether the access roads will be secured to prevent human access or vandalism, and if so, what methods would be used. The presence/use of roads even with low vehicle use has numerous adverse effects

on the desert tortoise and its habitats that have been reported in the scientific literature. These include the deterioration/loss of wildlife habitat, hydrology, geomorphology, and air quality; increased competition and predation (including by humans); and the loss of naturalness or pristine qualities. We provide Appendix B into the record as an accumulation of pertinent literature so that the CDFW may thoroughly analyze the impacts of vehicles on tortoises and their habitats.

Vehicle use on new roads and increased vehicle use on existing roads equates to increased direct mortality and an increased road effect zone for desert tortoises. Road construction, use, and maintenance adversely affect wildlife through numerous mechanisms that can include mortality from vehicle collisions, and loss, fragmentation, and alteration of habitat (Nafus et al. 2013, von Seckendorff Hoff and Marlow 2002).

In von Seckendorff Hoff and Marlow (2002), they reported reductions in Mojave desert tortoise numbers and sign from infrequent use of roadways to major highways with heavy use. There was a linear relationship between traffic level and tortoise reduction. For two graded, unpaved roads, the reduction in tortoises and sign was evident 1.1 to 1.4 km (3,620 to 4,608 feet) from the road. Nafus et al. (2013) reported that roads may decrease tortoise populations via several possible mechanisms, including cumulative mortality from vehicle collisions and reduced population growth rates from the loss of larger reproductive animals. Other documented impacts from road construction, use, and maintenance include increases in roadkill of wildlife species as well as tortoises, creating or increasing food subsidies for common ravens, and contributing to increases in raven numbers and predation pressure on the desert tortoise.

Please include in the DEIR analyses, the five major categories of primary road effects to the tortoise and special status species: (1) wildlife mortality from collisions with vehicles; (2) hindrance/barrier to animal movements thereby reducing access to resources and mates; (3) degradation of habitat quality; (4) habitat loss caused by disturbance effects in the wider environment and from the physical occupation of land by the road; and (5) subdividing animal populations into smaller and more vulnerable fractions (Jaeger et al. 2005a, 2005b, Roedenbeck et al. 2007). These analyses should be at the population, recovery unit, and rangewide levels.

In summary, road establishment/increased use is often followed by various indirect impacts such as increased human access causing disturbance of species' behavior, increased predation, spread of invasive species that alters/degrades habitat, and vandalism and/or collection. The analysis of the impacts from road establishment and use should include cumulative effects to the tortoise with respect to nearby critical habitat and other Tortoise Conservation Areas (TCAs), areas identified as important linkage habitat for connectivity between nearby critical habitat units/TCAs as these linkage areas serve as corridors for maintaining genetic and demographic connectivity between populations, recovery units, and rangewide (see *Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units* below). These and other indirect impacts to the Mojave desert tortoise should be analyzed in the DEIR from project construction, operations and maintenance, decommissioning, and habitat restoration.

Desert Tortoise Habitat Linkages/Connectivity among Populations and Recovery Units: The DEIR should analyze how this proposed project will impact the movement of tortoises relative to linkage habitats/corridors. The DEIR should include an analysis of the minimum linkage design necessary for conservation and recovery of the desert tortoise (e.g., USFWS 2021; Averill-Murray et al. 2013, 2021; Hromada et al. 2020), and how the project, along with other existing projects, would

impact the linkages between tortoise populations and all recovery units that are needed for survival and recovery. We strongly request that the environmental consequences section of the DEIR include a thorough analysis of this indirect impact and appropriate mitigation to maintain the function of population connectivity for the Mojave desert tortoise and other wildlife species. Similarly, please document how the Proposed Project would impact proximate conservation areas, such as BLM-designated ACECs and the National Park Service's Mojave National Preserve.

Desert Tortoise Translocation: The Draft EIR should include an analysis of the effectiveness of tortoise translocation. Although viewed as a mitigation measure, tortoise translocation has adverse impacts on the resident and translocated tortoises including failure of translocated males to mate during the years they were monitored (Mulder et al. 2017). These impacts should be analyzed in the DEIR. Review of past translocation efforts, their successes and failures, and modifications to avoid future failures should be presented in the DEIR.

Cumulative Impacts: The DEIR should list and analyze all project impacts within the region including future state, federal, and private actions affecting listed species on state, federal, and private lands. We also expect that the environmental documents will provide a detailed analysis of the "heat sink" effects of solar development on adjacent desert areas and particularly Mojave desert tortoise in addition to climate change.

To help CDFW and the public understand the complexity of the cumulative and interactive nature of multiple anthropogenic threats to desert tortoise populations and to help develop an accurate analysis of cumulative impacts in the DEIR, we have included a map of some of these multiple threats and their relationships to other threats (Tracy et al. 2004) (please see Figure 2 below).

Mohave Tui Chub (MTC): Although new groundwater wells would not be constructed and operated for the Proposed Project, will existing wells near the Proposed Project/in the Soda Lake Valley Groundwater Basin be used? If so, the amount of water needed for each of the three phases of the Proposed Project should be provide in the EIR and an analysis of the potential impacts to water quality and quantity at MC Spring, Lake Tuendae, and West Pond located about 3 miles away and in the Soda Lake Valley Groundwater Basin, the likely source of the water for the Proposed Project. We are concerned about possible indirect impacts to the ground water and the spring that supplies water to the Mohave tui chub (*Siphatales bicolor mohavensis* = *Gila bicolor mohavensis*), an endangered species under FESA and CESA and a fully protected species under California Fish and Game Code.

The DEIR should provide data and an analysis of the direct, indirect, and cumulative impacts to the ground water and water bodies that the MTC relies on. MC Spring is the only natural water body – it is about 8 feet in diameter – where the MTC occurs. All other water bodies that support MTCs are man-made and intensively managed or located outside the Mojave River system, which is the historic range of the species. We suggest coordinating with the Science and Natural Resources Advisor at Mojave National Preserve and the Desert Studies Center in Zzyzx as a starting point to obtain data; also, the California State Water Resources Control Board and U.S. Geological Survey for groundwater data, models, and modeling expertise.

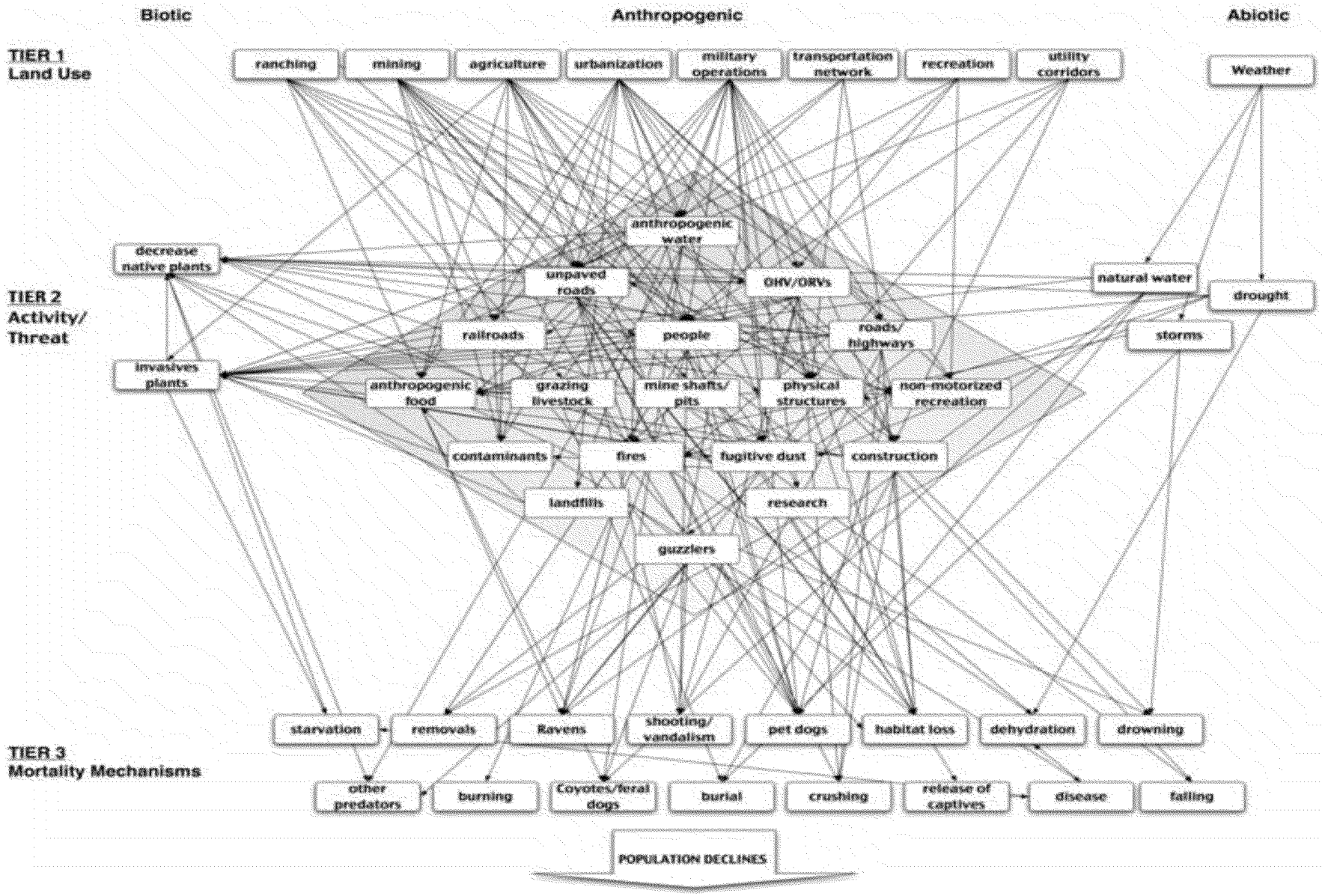


Figure 2. Network of threats demonstrating the interconnectedness between multiple human activities that interact to cause mortality and prevent recovery of tortoise populations. Tier 1 includes the major land use patterns that facilitate various activities (Tier 2) that impact tortoise populations through a suite of mortality factors (Tier 3). Just one land use results in several activities that are threats to the tortoise and cause numerous mortality mechanisms (from Tracy et al. 2004).

Desert Bighorn Sheep: The three water bodies – MC Spring, Lake Tuendae, and West Pond – located near the Project site also provided crucial waters for desert bighorn sheep in the area. The occurrence of perennial water means that bighorn sheep occur during the dry season at/near these water bodies and near the Proposed Project.

The DEIR should include an analysis of the impacts of increased human presence, noise, use of motorized vehicle and equipment, and other actions that may disturb or prevent bighorn sheep from accessing these water bodies or population movements especially during the construction and decommissioning phases of the Proposed Project when the number of people, operational equipment, and noise will be greatest.

Regarding future management and persistence of desert bighorn sheep, Epps et al. (2013) conducted an analysis of the impacts of the Proposed Project in 2013. The findings of that report were the Original Project would preclude the reestablishment of a critical bighorn sheep movement corridor. The "North-South Soda Mountain Connection is the most important restorable corridor for long term demographic potential across the entire southeastern Mojave Desert of California as it would provide the best and only opportunity for movement of bighorn populations in the Mojave National Preserve and the large complex of populations to the north of Interstate 15, and would facilitate gene flow as well as resulting in long term connections with bighorn sheep populations in Death Valley National Park" (Epps et al. 2013). We contend that this conclusion has not changed, would still be applicable to the Proposed Project, and is a solid reason why this project should not be developed.

Mitigation Plans and Mitigation Implementation

In the NOP, CDFW says, "the Draft EIR will describe feasible mitigation measures to avoid or substantially reduce the proposed project's significant adverse environmental impacts."

The DEIR should include effective mitigation for all direct, indirect, and cumulative effects to the tortoise and its habitats. The mitigation should use the best available science with a commitment to implement the mitigation commensurate to impacts to the tortoise and its habitats. Mitigation should include a fully-developed desert tortoise translocation plan, including protection of tortoise translocation area(s) from future development and human disturbance in perpetuity; raven management plan; non-native plant species management plan; fire prevention plan; compensation plan for the degradation and loss of tortoise habitat that includes protection of the acquired, improved, and restored habitat in perpetuity for the tortoise from future development and human use; and habitat restoration plan to be implemented when the lease/right-or way is terminated and the Proposed Project is decommissioned.

All mitigation plans should be provided in the DEIR so the public and the decisionmaker can determine their adequacy (i.e., whether they are scientifically rigorous and would be effective in mitigating for the displacement and loss of tortoises and degradation and loss of tortoise habitat from project implementation). Too often, such plans are alluded to in the draft environmental document and promised later, which does not allow the reviewers to assess their adequacy, which is unacceptable. Their inclusion is necessary to determine their adequacy for mitigating direct, indirect, and cumulative impacts, and monitoring for effectiveness and adaptive management regarding the desert tortoise. If these plans are not provided, it is not possible for the decisionmaker and the interested public to determine the environmental consequences of the project to the tortoise.

These mitigation plans should include an implementation schedule that is tied to key actions of the construction, operation, maintenance, decommissioning, and restoration phases of the project so that mitigation occurs concurrently with or in advance of the impacts. The plans should specify success criteria, include an effectiveness monitoring plan to collect data to determine whether success criteria have been met, and identify/implement actions that would be required if the mitigation measures do not meet the success criteria.

The monitoring plan should (1) be scientifically and statistically credible; (2) be implementable; and (3) require the Project proponent to implement adaptive management to correct land management practices if the mitigation is not accomplishing its intended purposes. Mitigation should be applied only in areas where the lands are effectively managed for the benefit of the tortoise for both the short-term and long-term. For example, as currently managed, BLM ACECs in Nevada and in the CDCA are not meeting this criterion. Consequently, mitigation should be implemented on lands with a durable conservation designation, or on privately owned lands with a conservation easement or other legal instrument that ensures conservation in perpetuity.

These comments on mitigation and monitoring plans would apply for other Special Animal and Plant species and their mitigation plans.

Translocation Plan - Translocated Tortoises, Resident Tortoises & Translocation Sites: How many tortoises will be displaced by the proposed project? How long will translocated tortoises be monitored? Will the monitoring report show how many of those tortoises lived and died after translocation and over time? Are there any degraded habitats or barren areas that may impair success of the translocation? Are there incompatible human uses in the new translocation area that need to be eliminated or managed to protect newly-translocated tortoises? Were those translocation areas sufficiently isolated that displaced tortoises were protected by existing or enhanced land management? How will the proponent minimize predation of translocated tortoises and avoid adverse climatic conditions, such as low winter rainfall conditions that may exacerbate translocation success? Will tortoises translocated to a site be protected from threats (e.g., off-highway vehicles, future development, etc.)? These questions should be answered in the DEIR.

The Project proponent should implement the USFWS's Translocation Guidance (USFWS 2020) and coordinate translocation with CDFW and BLM. In addition, the proponent's project-specific translocation plan should be based on current data and developed using lessons learned from earlier translocation efforts (e.g., increased predation, drought). (see *Desert Tortoise Translocation Bibliography Of Peer-Reviewed Publications*[2] in the footnote).

The Translocation Plan should include implementation of a science-based monitoring plan approved by the Desert Tortoise Recovery Office that will accurately access these and other issues to minimize losses of translocated tortoises and impacts to their habitat. For example, the health of tortoises may be jeopardized if they are translocated during drought conditions, which is known to undermine translocation successes (Esque et al. 2010). If drought conditions are present at the time of project development, we request that the proponent confer with the USFWS immediately prior to translocating tortoises and seek input on ways to avoid loss of tortoises due to stressors associated with drought. One viable alternative if such adverse conditions exist is to postpone site development until which time conditions are favorable to enhance translocation success.

[2] https://www.fws.gov/nevada/desert_tortoise/documents/reports/2017/peer-reviewed_translocation_bibliography.pdf

Moving tortoises from harm's way, the focus of the Translocation Guidance, does not guarantee their survival and persistence at the translocation site, especially if it will be subject to increased human use or development. In addition to the Translocation Guidance and because translocation sites are mitigation for the displacement of tortoises and loss of habitat, these sites should be managed for the benefit of the tortoise in perpetuity. Consequently, a conservation easement or other durable legal designation should be placed on the translocation sites. The project proponent should fully fund management of the site to enhance it for the benefit of the tortoise in perpetuity.

Tortoise Predators and a Predator Management Plan: Common ravens are known predators of the Mojave desert tortoise and their numbers have increased substantially because of human subsidies of food, water, and sites for nesting, roosting, and perching to hunt (Boarman 2003). Coyotes and badgers are also predators of tortoises. Because ravens can fly at least 30 miles in search of food and water daily (Boarman et al. 2006) and coyotes can travel an average of 7.5 miles or more daily (Servin et al. 2003), this analysis should extend out at least 30 miles from the proposed project site.

The DEIR should analyze if this new use would result in an increase in common ravens and other predators of the desert tortoise in the action area. During construction, operation, maintenance, decommissioning, and restoration phases of the Proposed Project, the Applicant should be required to implement science-based management of common ravens, coyotes, and badgers to reduce predation on tortoises in the action area. This would include the translocation sites.

For local impacts, the Predator Management Plan should include reducing/eliminating human subsidies of food and water, and for the common raven, sites for nesting, roosting, and perching to address local impacts (footprint of the proposed project). This includes buildings, fences, and other vertical structures associated with the project site. In addition, the Predator Management Plan should include provisions that eliminate the pooling of water on the ground or on roofs.

The Predator Management Plan should include science-based monitoring and adaptive management throughout all phases of the project to collect data on the effectiveness of the Plan's implementation and implement changes to reduce/eliminate predation on the tortoise if existing measures are not effective.

For regional and cumulative impacts, the Applicant should be required to participate in efforts to address regional and cumulative impacts. For example, the project proponent should be required to contribute to the National Fish and Wildlife Foundation's Raven Management Fund to help mitigate for regional and cumulative impacts. Unfortunately, this Fund that was established in 2010 has not revised its per acre payment fees to reflect increased labor and supply costs during the past 13 years to provide for effective implementation. The National Fish and Wildlife Foundation should revise the per acre fee.

We request that for any gen-tie lines, the project use infrastructure (particularly towers) that prevent raven nesting and perching for hunting. For example, for gen-tie/transmission lines the tubular design pole with a steep-pointed apex and insulators on down-sloping cross arms is preferable to lattice towers, which should not be used. New fencing should not result in new raven perching and nesting site opportunities.

Fire Prevention/Management Plans: The proposed project could include numerous infrastructure components that have been known to cause fires. Lithium-ion batteries at the project site have the potential to explode and cause fires and are not compatible with using water for fighting fires. Photovoltaic panel malfunctions have caused vegetation to burn onsite. We request that the DEIR include a Fire Prevention Plan in addition to a Fire Management Plan specifically targeting methods to deal with explosions/fires produced by these batteries/panels as well as other sources of fuel and explosives on the project site. The purpose of these Fire Plans is to prevent a fire, but if one occurs, to ensure there are sufficient resources to immediately detect the fire and extinguish it before it spreads to desert vegetation/habitat.

Restoration Phase Implemented After/Concurrent with Decommissioning Phase: The Proposed Project should include a Restoration Phase – restore the lands impacted by the Proposed Project to their pre-construction condition to the extent feasible (i.e., soils, soil crust, vegetation, etc.). We provide Abella and Berry (2016)[3] as an excellent resource to be implemented as best management practices for arid lands restoration.

Kiva Biological Consulting (2013) also recommended tortoise exclusion fencing. If the Vegetation Left in Place Alternative is selected, we recommend that tortoise exclusion fencing be installed and maintained only during the construction and decommissioning phases and removed at the completion of these phases.

Climate Change and Non-native Plants: The Council finds it ironic that BLM is proposing to destroy hundreds of thousands of acres of native vegetation on BLM land for several decades or longer when this native vegetation sequesters carbon so that we can reduce our emissions of carbon from fossil fuel burning, especially when other viable alternatives are available (see Cameron et al. 2012, Smith et al. 2023). The irony of converting wild lands in the Mojave Desert to energy production is that it threatens the biodiversity in the Mojave Desert (Parker et al., 2018, cited in Smith et al. 2023). Fifty-eight Mojave Desert species are now recognized as rare, threated, or endangered under Federal and California Endangered Species Acts (Smith et al. 2023).

We request that the DEIR address the effects of the Proposed Project on climate change and the effects that climate change may have on the Proposed Project. For the latter, we recommend including: an analysis of habitats in the Project area that may provide connectivity for tortoise populations; an analysis of how the Proposed Project would contribute to the spread and proliferation of nonnative invasive plant species; how this spread/proliferation would affect the desert tortoise and its habitats (including the frequency and size of human-caused fires); and how the proposed action may affect the likelihood of human-caused fires. We strongly urge CDFW to require the Proponent to develop and implement a management and monitoring plan using this analysis and other relevant data that would reduce the transport to and spread of nonnative seeds and other plant propagules to and within the Project area and eliminate/reduce the likelihood of human-caused fires. The plan should integrate vegetation management with fire prevention and fire response during all phases of the Proposed Project.

[3] https://www.dropbox.com/s/nx1b5m2b5ehya12/%23Abella%20and%20Berry%202016.pdf?dl=0

Proliferation of Nonnative Plant Species and Management Plan: The DEIR should include an analysis of how the Proposed Project would contribute to the spread and proliferation of non-native invasive plant species; how this spread/proliferation would affect the desert tortoise and its habitats (including the frequency and size of human-caused fires) and other Special Animal and Plant species; and how the Proposed Project may affect the frequency, intensity, and size of human-caused and naturally occurring fires. For reasons given in the previous paragraph, we strongly urge CDFW to require the Project Proponent to develop and implement a management and monitoring plan for nonnative plant species. The plan should integrate management for and enhancement of native vegetation, substantial reduction of non-native plant species, and fire prevention and fire response to wildfires.

Water Quality, Water Quantity, and Surface Hydrology: Regarding water quality of surface and ground water, the DEIR should include an analysis of the impacts of water acquisition, use, and discharge for construction and decommissioning, panel washing, potable uses, dust suppression, any other uses associated with the Proposed Project, and cumulative impacts from water use and discharge on native perennial shrubs and annual vegetation used for forage by the Mojave desert tortoise and other Special Animals and Plants in the vicinity of the Proposed Project, including downstream and downslope impacts. The DEIR should analyze how much water is proposed to be used during construction, operation, maintenance, decommissioning, and restoration phases; how grading, placement, and/or use of any Project facilities will impact downstream/downslope flows that are reduced, altered, eliminated, or enhanced. This analysis should include impacts to native and non-native vegetation and habitats for Special Animals including the Mojave desert tortoise, for which washes are of particular importance for feeding, shelter, and movements (Jennings and Berry 2015, Todd et al. 2016). In addition, any impacts to downstream channels and washes will need to be monitored long-term to ensure that the stormwater plan is successful and both washes and habitats are protected during potential project operation.

The description of the Revised Project in the ROD (BLM 2015) stated that certain drainages would now have solar panels as these drainages would no longer need to be avoided. Consequently, a jurisdictional waters analysis should be performed for all potential impacts to washes, streams, and drainages. This analysis should be reviewed by the CDFW as part of the permitting process and a Streambed Alteration Agreement acquired.

The Proposed Project has a stormwater plan. Details of this plan should be provided along with an analysis of how these structures may adversely impact both hatchling and adult tortoises, including entrapment and drowning.

We request that the DEIR include an analysis of how water used during construction, operation, maintenance, decommissioning, and habitat restoration will impact the levels of ground water in the region. These levels may then impact surface and near-surface flows at springs, seeps, wetlands, pools, and groundwater-dependent vegetation in the basin. The analyses of water quality and quantity of surface and ground water should include appropriate measures to ensure that these impacts are fully mitigated, preferably by avoidance.

Restoration Plan: The Proposed Project should include a restoration phase that occurs with decommissioning. The DEIR should include a restoration plan with (1) the measurable objectives that would be required to be met before restoration was determined to be completed and (2) monitoring to restore that all areas impacted by the Proposed Project to their pre-Project condition. Given the important role that native vegetation plays in sequestering carbon and reducing the impacts of climate change, the development, implementation, monitoring, and adaptive management of a restoration plan should be a major component of the Proposed Project.

Previous Comments on Soda Mountain Solar Project: Previously, the Council provided comments on the Soda Mountain Solar Project to BLM and Senator Dianne Feinstein. A summary of these comments is provided in Appendix C. Synopsis of Comments Submitted by the Desert Tortoise Council from 2012 to 2016 for the Soda Mountain Solar Project. These persisting comments are entered into the Scoping Record and should also be addressed in the DEIR.

We appreciate this opportunity to provide comments on this project and trust they will help protect tortoises during any resulting authorized activities. Herein, we reiterate that the Desert Tortoise Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the CDFW that may affect species of desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above. Additionally, we ask that you respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this project.

Respectfully,



Edward L. LaRue, Jr., M.S.
Ecosystems Advisory Committee, Chairperson
Desert Tortoise Council

Attachments:
Appendix A: Status and Trend of the Mojave Desert Tortoise (*Gopherus agassizii*)
Appendix B: Bibliography on road impacts in desert ecosystems
Appendix C. Synopsis of Comments Submitted by the Desert Tortoise Council from 2012 to 2016 for the Soda Mountain Solar Project

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Appendix A
Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit

Status of the Population of the Mojave Desert Tortoise: The Council provides the following information for resource and land management agencies so that these data may be included and analyzed in their project and land management documents and aid them in making management decisions that affect the Mojave desert tortoise (tortoise).

There are 17 populations of Mojave desert tortoise described below that occur in Critical Habitat Units (CHUs) and Tortoise Conservation Areas (TCAs); 14 are on lands managed by the BLM; 8 of these are in the California Desert Conservation Area (CDCA).

As the primary land management entity in the range of the Mojave desert tortoise, the Bureau of Land Management's (BLM's) implementation of a conservation strategy for the Mojave desert tortoise in the CDCA through implementation of its Resource Management Plan and Amendments through 2014 has resulted in the following changes in the status for the tortoise throughout its range and in California from 2004 to 2014 (**Table 1**, **Table 2**; USFWS 2015, Allison and McLuckie 2018). The Council believes these data show that BLM and others have failed to implement an effective conservation strategy for the Mojave desert tortoise as described in the recovery plan (both USFWS 1994a and 2011), and have contributed to tortoise declines in density and abundance between 2004 to 2014 (**Table 1, Table 2**; USFWS 2015, Allison and McLuckie 2018) with declines or no improvement in population density from 2015 to 2024 (**Table 3**; USFWS 2016, 2018, 2019, 2020, 2022a, 2022b, 2025).

Important points from these tables include the following:

Change in Status for the Mojave Desert Tortoise Range-wide

- Ten of 17 populations of the Mojave desert tortoise declined from 2004 to 2014.

- Eleven of 17 populations of the Mojave desert tortoise are below the population viability threshold. These 11 populations represent 89.7 percent of the range-wide habitat in CHUs/TCAs.

Change in Status for the Western Mojave Recovery Unit – California

- This recovery unit had a 51 percent decline in tortoise density from 2004 to 2014.

- Tortoise populations in all three TCAs in this recovery unit have densities that are below viability.

Change in Status for the Superior-Cronese Tortoise Population in the Western Mojave Recovery Unit.

- The population in this recovery unit experienced declines in densities of 61 percent from 2004 to 2014. In addition, there was a 51 percent decline in tortoise abundance.

- This population has densities less than needed for population viability (USFWS 1994a).

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Table 1. Summary of 10-year trend data for the 5 Recovery Units and 17 CHUs/TCAs for Mojave desert tortoise. The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km^2 and standard errors = SE), and the percent change in population density between 2004 and 2014. Populations below the viable level of 3.9 breeding individuals/km^2 (10 breeding individuals per mi^2) (assumes a 1:1 sex ratio) or showing a decline from 2004 to 2014 are in red.

Recovery Unit: Designated Critical Habitat Unit[1]/Tortoise Conservation Area	Surveyed area (km^2)	% of total habitat area in Recovery Unit & CHU/TCA	2014 density/km^2 (SE)	% 10-year change (2004–2014)
Western Mojave, CA	**6,294**	**24.51**	**2.8 (1.0)**	**–50.7 decline**
Fremont-Kramer	2,347	9.14	2.6 (1.0)	–50.6 decline
Ord-Rodman	852	3.32	3.6 (1.4)	–56.5 decline
Superior-Cronese	3,094	12.05	2.4 (0.9)	–61.5 decline
Colorado Desert, CA	**11,663**	**45.42**	**4.0 (1.4)**	**–36.25 decline**
Chocolate Mtn AGR, CA	713	2.78	7.2 (2.8)	–29.77 decline
Chuckwalla, CA	2,818	10.97	3.3 (1.3)	–37.43 decline
Chemehuevi, CA	3,763	14.65	2.8 (1.1)	–64.70 decline
Fenner, CA	1,782	6.94	4.8 (1.9)	–52.86 decline
Joshua Tree, CA	1,152	4.49	3.7 (1.5)	+178.62 increase
Pinto Mtn, CA	508	1.98	2.4 (1.0)	–60.30 decline
Piute Valley, NV	927	3.61	5.3 (2.1)	+162.36 increase
Northeastern Mojave	**4,160**	**16.2**	**4.5 (1.9)**	**+325.62 increase**
Beaver Dam Slope, NV, UT, AZ	750	2.92	6.2 (2.4)	+370.33 increase
Coyote Spring, NV	960	3.74	4.0 (1.6)	+ 265.06 increase
Gold Butte, NV & AZ	1,607	6.26	2.7 (1.0)	+ 384.37 increase
Mormon Mesa, NV	844	3.29	6.4 (2.5)	+ 217.80 increase
Eastern Mojave, NV & CA	**3,446**	**13.42**	**1.9 (0.7)**	**–67.26 decline**
El Dorado Valley, NV	999	3.89	1.5 (0.6)	–61.14 decline
Ivanpah Valley, CA	2,447	9.53	2.3 (0.9)	–56.05 decline
Upper Virgin River	**115**	**0.45**	**15.3 (6.0)**	**–26.57 decline**
Red Cliffs Desert	115	0.45	15.3 (6.0)	–26.57 decline
Range-wide Area of CHUs - TCAs/Range-wide Change in Population Status	**25,678**	**100.00**		**–32.18 decline**

[1] U.S. Fish and Wildlife Service. 1994b. Endangered and threatened wildlife and plants; determination of critical habitat for the Mojave population of the desert tortoise. Federal Register 55(26):5820-5866. Washington, D.C.

Table 2. Estimated change in abundance of adult Mojave desert tortoises in each recovery unit between 2004 and 2014 (Allison and McLuckie 2018). Decreases in abundance are in red.

Recovery Unit	Modeled Habitat (km^2)	2004 Abundance	2014 Abundance	Change in Abundance	Percent Change in Abundance
Western Mojave	23,139	131,540	64,871	-66,668	-51%
Colorado Desert	18,024	103,675	66,097	-37,578	-36%
Northeastern Mojave	10,664	12,610	46,701	34,091	270%
Eastern Mojave	16,061	75,342	24,664	-50,679	-67%
Upper Virgin River	613	13,226	10,010	-3,216	-24%
Total	**68,501**	**336,393**	**212,343**	**-124,050**	**-37%**

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Table 3. Summary of data for Agassiz's desert tortoise, *Gopherus agassizii* (=Mojave desert tortoise) from 2004 to 2024 for the 5 Recovery Units and 17 Critical Habitat Units (CHUs)/Tortoise Conservation Areas (TCAs). The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km^2 and standard errors = SE), and percent change in population density between 2004-2014 (USFWS 2015). Populations below the viable level of 3.9 breeding individuals/km^2 (10 breeding individuals per mi^2) (assumes a 1:1 sex ratio) (USFWS 1994a, 2015) or showing a decline from 2004 to 2014 are in **red.**

Recovery Unit: Designated CHU/TCA &	% of total habitat area in Recovery Unit & CHU/TCA	2004 density / km^2	2014 density/ km^2 (SE)	% 10-year change (2004–2014)	2015 density / km^2	2016 density / km^2	2017 density / km^2	2018 density / km^2	2019 density / km^2	2020 density / km^2	2021 density / km^2	2024 density /km^2
Western Mojave, CA	**24.51**		**2.8 (1.0)**	**–50.7 decline**								
Fremont-Kramer	9.14		2.6 (1.0)	–50.6 decline	4.5	No data	4.1	No data	2.7	1.7	No data	1.8
Ord-Rodman	3.32		3.6 (1.4)	–56.5 decline	No data	No data	3.9	2.5/3.4*	2.1/2.5*	No data	1.9/2.5*	2.7
Superior-Cronese	12.05		2.4 (0.9)	–61.5 decline	2.6	3.6	1.7	No data	1.9	No data	No data	No data
Colorado Desert, CA	**45.42**		**4.0 (1.4)**	**–36.25 decline**								
Chocolate Mtn AGR, CA	2.78		7.2 (2.8)	–29.77 decline	10.3	8.5	9.4	7.6	7.0	7.1	3.9	7.4
Chuckwalla, CA	10.97		3.3 (1.3)	–37.43 decline	No data	No data	4.3	No data	1.8	4.6	2.6	No data
Chemehuevi, CA	14.65		2.8 (1.1)	–64.70 decline	No data	1.7	No data	2.9	No data	4.0	No data	No data
Fenner, CA	6.94		4.8 (1.9)	–52.86 decline	No data	5.5	No data	6.0	2.8	No data	5.3	No data
Joshua Tree, CA	4.49		3.7 (1.5)	+178.62 increase	No data	2.6	3.6	No data	3.1	3.9	No data	No data
Pinto Mtn, CA	1.98		2.4 (1.0)	–60.30 decline	No data	2.1	2.3	No data	1.7	2.9	No data	No data
Piute Valley, NV	3.61		5.3 (2.1)	+162.36 increase	No data	4.0	5.9	No data	No data	No data	3.9	4.0

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Northeastern Mojave AZ, NV, & UT	**16.2**		**4.5 (1.9)**	**+325.62 increase**								
Beaver Dam Slope, NV, UT, & AZ	2.92		6.2 (2.4)	+370.33 increase	No data	5.6	1.3	5.1	2.0	No data	No data	1.7
Coyote Spring, NV	3.74		4.0 (1.6)	+ 265.06 increase	No data	4.2	No data	No data	3.2	No data	No data	2.7
Gold Butte, NV & AZ	6.26		2.7 (1.0)	+ 384.37 increase	No data	No data	1.9	2.3	No data	No data	2.4	No data
Mormon Mesa, NV	3.29		6.4 (2.5)	+ 217.80 increase	No data	2.1	No data	3.6	No data	5.2	5.2	No data
Eastern Mojave, NV & CA	**13.42**		**1.9 (0.7)**	**–67.26 decline**								
El Dorado Valley, NV	3.89		1.5 (0.6)	–61.14 decline	No data	2.7	5.6	No data	2.3	No data	No data	
Ivanpah Valley, CA	9.53		2.3 (0.9)	–56.05 decline	1.9	No data	No data	3.7	2.6	No data	1.8	
Upper Virgin River, UT & AZ	**0.45**		**15.3 (6.0)**	**–26.57 decline**								
Red Cliffs Desert**	0.45	29.1 (21.4-39.6)**	15.3 (6.0)	–26.57 decline	15.0	No data	19.1	No data	17.2	No data	No data	17.5†
Rangewide Area of CHUs - TCAs/Rangewide Change in Population Status	**100.00**			**–32.18 decline**								

*This density includes the adult tortoises translocated from the expansion of the MCAGCC, that is resident adult tortoises and translocated adult tortoises.

**Methodology for collecting density data initiated in 1999.

†Results from 2023

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Change in Status for the Mojave Desert Tortoise in California

- Eight of 10 populations of the Mojave desert tortoise in California declined from 29 to 64 percent from 2004 to 2014 with implementation of tortoise conservation measures in the Bureau of Land Management's Northern and Eastern Colorado Desert (NECO), Northern and Eastern Mojave Desert (NEMO), and Western Mojave Desert (WEMO) Plans.

- Eight of 10 populations of the Mojave desert tortoise in California are below the viability threshold for density. These eight populations represent 87.45 percent of the habitat in California that is in CHU/TCAs.

- The two viable populations of the Mojave desert tortoise in California are declining. If their rates of decline from 2004 to 2014 continue, these two populations will no longer be viable by about 2030.

Change in Status for the Mojave Desert Tortoise on BLM Land in California

- Eight of eight populations of Mojave desert tortoise on lands managed by the BLM in California declined from 2004 to 2014.

- Seven of eight populations of Mojave desert tortoise on lands managed by the BLM in California are no longer viable.

Change in Status for Mojave Desert Tortoise Populations in California that Are Moving toward Meeting Recovery Criteria

- The only population of Mojave desert tortoise in California that did not decline is on land managed by the National Park Service, which increased 178 percent from 2004 to 2014.

Important points to note from the data from 2015 to 2024 in Table 3 are:

Change in Status for the Mojave Desert Tortoise in the Western Mojave Recovery Unit:

- The density of tortoises continues to decline in the Western Mojave Recovery Unit
- The density of tortoises from 2015 to 2024 continues to fall below the density needed for population viability.

Change in Status for the Mojave Desert Tortoise in the Colorado Desert Recovery Unit:

- Many of the populations in this recovery unit have densities that are barely above the threshold for population viability.

Change in Status for the Mojave Desert Tortoise in the Northeastern Mojave Recovery Unit:

- Two of the three population with densities greater than needed for population viability declined to level below the minimum viability threshold.
- Three of the four populations in this recovery unit have densities below the minimum density needed for population viability.

Change in Status for the Mojave Desert Tortoise in the Eastern Mojave Recovery Unit:

- Both populations in this recovery unit have densities below the minimum density needed for population viability.

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Change in Status for the Mojave Desert Tortoise in the Upper Virgin River Recovery Unit:
● The one population in this recovery unit is small and appears to have stable densities after declining for several years.

The Endangered Mojave Desert Tortoise: The Council believes that the Mojave desert tortoise meets the definition of an endangered species. In the FESA, Congress defined an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range…" In the California Endangered Species Act (CESA), the California legislature defined an "endangered species" as a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant, which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes (California Fish and Game Code § 2062). Because most of the populations of the Mojave desert tortoise were non-viable in 2014, most are declining, and the threats to the Mojave desert tortoise are numerous and have not been substantially reduced throughout the species' range, the Council believes the Mojave desert tortoise should be designated as an endangered species by the USFWS and California Fish and Game Commission. Despite claims by USFWS (Averill-Murray and Field 2023) that a large number of individuals of a listed species and an increasing population trend in part of the range of the species prohibits it from meeting the definitions of endangered, we are reminded that the tenants of conservation biology include numerous factors when determining population viability. The number of individuals present is one of a myriad of factors (e.g., species distribution and density, survival strategy, sex ratio, recruitment, genetics, threats including climate change, etc.) used to determine population viability. In addition, a review of all the available data does not show an increasing population trend (please see Tables 1 and 3).

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SMSP02097

Appendix C. Synopsis of Comments Submitted by the Desert Tortoise Council from 2012 to 2016 for the Soda Mountain Solar Project

[Those recommendations not give above are highlighted in green here]

The Desert Tortoise Council (Council) has been involved in the proposed Soda Mountain Solar Project (Project) since the public was allowed to participate in its review during the National Environmental Policy Act (NEPA) Scoping Process in 2012. Below is a chronological compilation of comments the Council submitted on the Project to the Bureau of Land Management (BLM) and San Bernardino County (County) from 2012 to 2016. A copy of submitted letters and literature cited is available from the Council upon request. We consider each of these issues to be persisting and applicable to the current Project, so we incorporate these comments by reference, and expect them to be addressed in the DEIR.

December 13, 2012 Scoping Comments to Bureau of Land Management (BLM)

The Desert Tortoise Council (Council) formally requested of BLM to be considered an "Affected Party," and asks that all correspondence regarding analysis of this potential project be sent to the Council's address.

Three documents were available to review prior to the scoping meeting:

- Panorama Environmental, Inc. July 2012. Analysis of habitat suitability and connectivity in the Soda Mountain area, San Bernardino County, California (herein, "Panorama")
- RMT, Inc. March 2011. Plan of Development, Soda Mountain Solar Project (herein "RMT")
- Soda Mountain Solar, LLC. 9 August 2012. Comments from Ms. Adriane Wodey representing this subsidiary of Bechtel Development Company, Inc. (herein "Ms. Wodey").

The Council reviewed these documents.

Comments on Alternatives

The Bechtel representative for the Project indicated at the public scoping meeting that this was one of five potential sites, that the other four had been rejected, and that this one was the preferred alternative. The draft EIS should clearly report the data behind this decision, both the reasons the other sites are not suitable and the reason this site is preferred.

The Council would like to see additional viable sites (not just those already rejected) analyzed in the draft EIS.

Comments on Affected Environment

Tortoise Surveys: All three documents extensively reference 2009 focused desert tortoise surveys of the 4,400 acres± performed by URS (2009). When asked for a copy of the document, BLM's response was the document was currently under internal review and not available to the public. BLM should be forthcoming with the document, or publicly reject it.

The 2009 tortoise surveys are now outdated. Assuming the site is not rejected based on scoping comments, new surveys should be performed to see if tortoises are truly absent. There should be complete disclosure of surveyor qualifications. If tortoises do occur in low densities, inexperienced surveyors should not be employed. The current tendency given the USFWS four-month survey period is to have hydrologists, geologists, ornithologists, even office staff and secretaries perform tortoise surveys. We strongly believe that only qualified tortoise biologists should perform any new surveys.

The new tortoise survey should implement transects that are closer together from the proposed 10-meter width to perhaps 5-meter width and orient transects in an east-west direction to facilitate detection in washes. Mr. Ed LaRue and Mr. Michael Radakovick, tortoise biologists, walked approximately 11 miles through the three proposed array areas, referred to on a project map (Panorama Environmental, Inc., dated 9/14/2012) as "North Array," "South Array," and "East Array" on December 12, 2012. They visually inspected about 150 wood rat middens for tortoise scat and carcass pieces on surveyed portions of the North Array. There must be thousands of such middens, which should be individually checked for tortoise sign. If tortoises occur at low densities as Soda Mountain Solar and their consultant suggest, this heightened survey methodology would be warranted.

When the BLM representative was asked if there had been any recent surveys performed, he was hesitant and noncommittal. We are aware that there have been surveys in addition to the 2009 surveys, but it is not clear why these materials are being withheld. The Council would be much better informed if existing materials had been made available. It is important that the BLM remain independent in its assessment of this project, and not become a project proponent.

Prior to beginning any new surveys, the project proponents and biologists should confer with USFWS biologists to determine an affected "action area" (see definition in USFWS 2010 and 50 Code of Federal Regulations 402.2) for this project. In 2009, only the project footprint was surveyed. Had a larger action area encompassing both direct and indirect impact areas been surveyed, we are certain that tortoises or their sign would have been detected.

If new surveys do not find tortoises within the North Array area, the BLM should conclude that the project "May Effect" tortoises based on the 2001 AMEC findings at the Opah Ditch Mine, which is located within a half-mile to the west (see Figure 10 in Panorama 2012). During that survey, 5 burrows, 3 rock cover sites, 9 scat, and 3 carcasses were found, demonstrating that tortoises are in the immediate vicinity of the proposed project.

Affected Environment: Tortoise Habitat - Nussear et al. (2009) indicated that their habitat modeling exercise for the tortoise is intended to provide "…output of the statistical probability of habitat potential that can be used to map potential areas of desert tortoise habitat." Both Ms. Wodey and Panorama report that Nussear's et al. (2009) analysis produced a habitat rating of 0.6 to 0.8, where 1.0 is the most suitable habitat. If survey results indicate tortoises are not abundant onsite, this does not dismiss Nussear's relatively high habitat suitability index for this site.

SMSP02099

Rather than make unsubstantiated statements about habitat degradation due to the proximity to the open area, additional studies should assess the levels of impacts in all three array areas and situate a few transects inside the Rasor open area for comparison. [In other words, use science – i.e., data collected at/near the project area and results and conclusions available from scientific literature should be used to analyze the impacts and implement appropriate mitigation.]

Mohave Fringe-toed Lizard: The project proponent concludes that there is no habitat for Mojave fringe-toed lizard, there is suitable habitat within the eastern portions of both the East and South arrays, in sand fields against the west slopes of Soda Mountains. Additional surveys should be conducted for the occurrence of this species and its distribution.

Western Burrowing Owl: Radakovich found burrowing owl sign at the project site. This species was not identified in the RMT, Inc. document. There should be focal surveys for burrowing owl and the results presented in the draft EIS.

Comments on Regional and Cumulative Impacts

Regional and Cumulative Impacts to the Tortoise: The draft EIS should review additional materials to determine the potential local and regional impacts to tortoises including indirect impacts. At the very least, this should include reviews of the Fort Irwin expansion data, any findings associated with the proposed high-speed rail line, and any data Caltrans may have.

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March 1, 2014 Comment Letter on DEIS to BLM

Comment on Alternatives

The Council's preferred alternative is that "The BLM would continue to manage the land consistent with the site's multiple use classification as described in the CDCA Plan with the exception that solar development would be precluded on the site" also called Alternative G in the DEIS (BLM 2014, Section 2.6.3., page 2-37). As such, this alternative has the advantage of specifically excluding this particular site from future solar development.

Another alternative identified in the DEIS was the No Action Alternative. In this alternative, BLM "would continue to manage the land consistent with the site's multiple use classification as described in the CDCA [California Desert Conservation Area] Plan. Based on the CDCA Plan amendments made in the Solar PEIS [Programmatic Environmental Impact Statement] ROD [Record of Decision], for future applications the site would be identified primarily as variance areas open to future applications for solar development, subject to the procedures identified in the Solar PEIS, and some exclusion areas in the southeast portion of the site that would be closed to such applications. In the case of variance areas, future projects would still require a CDCA Plan Amendment to move forward. These projects would be subject to applicable laws and land use plans" (BLM 2013, Section 2.6.1., page 2-36). Although the Council appreciates that this alternative would result in no project at this site, this alternative would leave the site open to future solar development.

The Council requested that there be a discussion of other site alternatives such as the thousands of acres of biologically-impaired habitats east of Barstow, between Interstate-15 and Interstate-40. In a number of places, it seems that if the alternative site does not occur between Las Vegas and Barstow, it is unacceptable, which dismisses thousands of acres of impaired private lands in the Victor Valley, for example. It seems as if all potential alternatives had the same regional restriction that the site must occur along I-15 between Vegas and Barstow, which eliminates many other, better suited alternative sites outside this corridor.

Kiva Biological Consulting (2013) surveyed the project area and recommended the eastern half of the East Array be excluded from development to avoid occupied tortoise habitat. We requested that this alternative be discussed and analyzed for its reduced impacts to tortoises compared to the proponent's preferred alternative.

Actions to Minimize Take from Direct Impacts

If the Project is authorized, we strongly recommend that authorized biologists be onsite for all ground-disturbing activities, throughout the year. The wording in APM 71 on page 3.4-29 should require that authorized biologists and/or environmental monitors be onsite whenever ground-disturbing activities occur, regardless of the time of year; excepting those fenced areas that have already been cleared of tortoises during previous clearance surveys.

Whatever formula is used for estimating the number of tortoises that may occur based on survey findings, this estimated number must be included in the Final EIS to accurately determine the level of anticipated take, and to allow the regulatory agencies to determine how accurate that estimate is, if the project is developed.

The Designated Biologist and field contact representative are not synonymous. Whereas the Designated Biologist serves to implement all protective measures and minimize impacts to tortoises and occupied habitats, the field contact representative serves as the liaison among the many involved parties, particularly in regards to compliance reporting.

Translocation/Relocation Areas: A Desert Tortoise Translocation/Relocation Plan should be finalized and approved **before** any ground-disturbance activities occur or any tortoises are handled. This Plan should include the areas identified for translocation/relocation and an analysis of the proposed relocation/translocation areas to determine whether they are appropriate to receive displaced tortoises. Issues on tortoise health and disease transmission should also be discussed and analyzed for displaced and resident (host) tortoises.

SMSP02101

In the event a tortoise is found dead, the Final EIS should include restrictive measures that may be required by U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to prevent this from occurring again. If mortality exceeds the mortality take limit identified in the federal biological opinion or section 2081 permit, project construction may need to be halted until formal consultation is completed or the permit is amended. This and any other remedial actions should be described in the FEIS.

Actions to Minimize Take from Indirect and Cumulative Impacts

A raven management plan is still to be submitted to the regulatory agencies for their review and approval. It was not included in the DEIS. In addition, the Council believes that the proponent should commit to providing funds to the USFWS for raven control and management via a fund established at the National Fish and Wildlife Foundation.

In the DEIS, all impacts are considered permanent. The estimated compensable habitat should be tallied and identified in the Final EIS.

Rather than state the compensation ratio will be 1:1, it is advisable to state that the compensation ratio will be determined in consultation with CDFW and other agencies. This suggestion was made because CDFW will require habitat compensation, endowment funds, and enhancement fees. It is extremely unlikely that CDFW will accept only 1:1 habitat compensation.

The DEIS did not recognize that 5 tortoise burrows, 3 rock cover sites, 9 scat, and 3 carcasses were found at the Opah Ditch Mine in 2001 by AMEC, which is in the vicinity of the North Array study area. Survey results presented in the text of the DEIS must be augmented by results depicted in the appendices to be comprehensive in the Final EIS, particularly when known, published data clearly show that more than two dead tortoises occur (or have recently occurred) within the North Array study area, all of which must be considered compensable habitat.

A habitat management plan (habitat plan) will be written for lands acquired for compensation and include in the Final EIS. The habitat plan will analyze threats to those lands based on field surveys identifying those threats, and require that the compensatory lands will be fully funded and managed in perpetuity for the benefit of the compensated species and not be subject to future development or incompatible uses.

Mitigation should be required for all phases of the project including operations and maintenance and decommissioning.

American Badger: The Draft EIS indicates that only one burrow with American badger (*Taxidea taxus*) digs was found. During a brief reconnaissance survey in December 2012, LaRue and Radakovich found 11 diagnostic badger digs within the North Array area and 8 digs within the East and South Array areas. We note that there are no mitigation measures identified in Table 2-5 for this species. Given our survey observations on only a fraction of the project area, we suggest that American badger is far more common than the Draft EIS suggests, and that mitigation measures are warranted to minimize impacts to this California Species of Special Concern.

SMSP02102

Mohave Fringe-Toed Lizard: This species was found on the Project site and impacts to this species from the proposed project should be analyzed in the EIS.

Western Burrowing Owl: Sign from burrowing owls was observed on the Project site. Impacts to this species from the proposed project should be analyzed in the EIS.

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October 7, 2014 Letter to California State Director Jim McKenna on BLM's Soda Mountain Solar and Silurian Valley Solar Projects

The Council and other organizations request that the BLM relocate the Soda Mountain Solar Project to an area that does not jeopardize natural, cultural, archaeological or community resources on the grounds that the project violates:

- The goals and recommendations of the formal independent scientific panel to the Desert Renewable Energy Conservation Plan (DRECP)

- The intent of the Solar Programmatic Environmental Impact Statement (Solar PEIS)

- The Secretary of the Interior's order 3330 and the public's substantial investment in trust resources.

The letter identified critical movement corridors for desert bighorn sheep for long-term demographic potential (Epps et al. 2013) and occurrence of tortoise both north and south of Interstate 15 in the Project site (Kiva Biological Consulting 2013, La Rue personal communication 2013) with a tortoise habitat rating of 0.6 to 0.8 with 1.0 being the highest rating (Nussear et al. 2009). The Department of the Interior seeks to avoid potential environmental impacts from projects through steps such as advanced landscape level planning that identifies areas suitable for development because of low or relatively low natural and cultural resource conflicts" (Department of Interior 2013).

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November 7, 2014 Letter to Senator Dianne Feinstein on BLM's Soda Mountain Solar and Silurian Valley Solar Projects

The Council and other organizations request that the Senator take a position opposing these projects because the projects violate:

- The goals and recommendations of the formal independent scientific panel to the Desert Renewable Energy Conservation Plan (DRECP)
- The intent of the BLM's Solar Programmatic Environmental Impact Statement (Solar PEIS)
- The Secretary of the Interior's Order 3330 and the public's substantial investment in trust resources.

The letter identified critical movement corridors for desert bighorn sheep for long-term demographic potential (Epps et al. 2013) and occurrence of tortoise both north and south of Interstate 15 in the Project site (Kiva Biological Consulting 2013, La Rue personal communication 2013) with a tortoise habitat rating of 0.6 to 0.8 with 1.0 being the highest rating (Nussear et al. 2009). The Department of the Interior seeks to avoid potential environmental impacts from projects through steps such as advanced landscape level planning that identifies areas suitable for development because of low or relatively low natural and cultural resource conflicts" (Department of Interior 2013).

Literature Cited

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March 30, 2016 Letters to San Bernardino County Supervisors Lovingood and Ramos for Well Permit for Soda Mountain Solar Project

The proposed project should not be developed at this location.

Impacts include important travel corridors to desert bighorn sheep and additional impacts to the Mojave desert tortoise that has lost 50 percent of its numbers in the West Mojave Desert since 2004.

BLM rejected the recommendation by their consultant that the project be redesigned to avoid tortoises and occupied habitat.

BLM is not considering the best science in this decision and is unwilling to redesign the project to avoid tortoise impacts. The Board of Supervisors is requested to ensure that the best science is being used, that impaired and degraded habitats be targeted for solar development, and the well permit be denied.

In 2015, Los Angeles Department of Water and Power (LADWP) refused to buy power associated with this project from the Proponent because of the environmental impacts that would occur. Even the National Park Service (NPS) has been an outspoken opponent of this Project, which is within a quarter mile of the boundary of the Mojave National Preserve.

San Bernardino County's Partnership for Renewable Energy and Conservation (SPARC) may provide responsible energy development in impaired habitats and offset, in part, BLM's ill-conceived plans to develop solar energy facilities on pristine public lands in San Bernardino County. The County withdrew from the Desert Renewable Energy Conservation Plan (DRECP), which among other things, would allow for the unprecedented development of up to 8,000 acres of designated desert tortoise critical habitat in the California deserts, including much of the West Mojave Desert in San Bernardino County. Solar development should occur on thousands of acres of fallow agriculture, brown fields, and suburban areas where tortoises have already been eliminated.

August 12, 2016 Letter on San Bernardino County
Well Permit 12 August 2016 to San Bernardino County Supervisors

The site is comprised of pristine habitats, occupied by desert tortoises, and used as a corridor for bighorn sheep. Despite numerous recommendations and objections, we feel that the BLM has ignored all of our and other groups' science-based suggestions and approved this project.

The San Bernardino County Partnership for Renewable Energy and Conservation (SPARC) could be a better way to identify and plan for renewable energy development, in part, because it is smaller in scale than the multi-county, million-acre DRECP and route designation planning documents proposed on public lands managed by the BLM. In a phone conversation with Ms. McClain in April 2016, the Council requested that it be included in future correspondence so that we may participate in future planning efforts to revive and finalize the SPARC planning process.

We support the County's refusal to support DRECP that would develop tortoise critical habitats when so much degraded habitat would be better suited for development, and rooftop solar has never been analyzed or even considered in the DRECP planning process.

SMSP02106

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 10/27/2025 5:47:00 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Collin Crawford [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebc874e994df437ba78978627476586f-c7d37eff-0f]; Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Ackerman, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc35de240cf4253af9cc7d3d2cbb643-Ackerman, J]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]; Sofi, Ardalan@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5599bba4aae5432a8f31f7346822a0dd-3a21e80b-4d]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]; Jamison Miner [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e9a371186e0e402a994145a67d6e7684-546eb26e-f8]; Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Blossom, Gabriel@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f8ee69cb49fa4d6e8563734cf9a495b3-Blossom, Ga]; David, Travis@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=08b483b8d5464b41b536daf809eb1a0d-David, Trav]; Dustin Thaler [dut@vcrenewables.com]; Kyle Nauman [kin@vcrenewables.com]

Subject: Soda Mountain- BHS buffer and MW make up
Location: Microsoft Teams Meeting

Start: 10/30/2025 3:30:00 PM
End: 10/30/2025 4:30:00 PM
Show Time As: Tentative

Recurrence: (none)
Required Attendees: Collin Crawford; Chris Huntley; Crisp, Ann@Energy; Knight, Eric@Energy; Chang, Kaycee@Energy; Ackerman, James@Energy; Khoshmashrab, Shahab@Energy; Sofi, Ardalan@Energy; DeLano, Kevin@Energy; Jamison Miner; Hannah Arkin
Optional Attendees: Blossom, Gabriel@Energy; David, Travis@Energy; Dustin Thaler; Kyle Nauman

Hi all,

We will be meeting to share the figure showing the big horn sheep buffer applied to the proposed project.

CEC and CDFW staff have reviewed the figure and have identified some questions about project design options and ideas to capture lost MWs.

We will have one of our GIS staff in attendance so they can show various options as we discuss options. We have also invited biology, water resources, geology (soil erosion), and facility design staff to this meeting. Our alternatives lead staff will be in attendance as we are currently proposing the BHS buffer as mitigation, unless the applicant chooses to apply it to the project design.

We look forward to meeting on this important topic.

Thank you all.

Lisa

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 289 293 408 918 8

Passcode: VE3df6pw

Dial in by phone

+1 916-562-1816,,238320547# United States, Sacramento

Find a local number

Phone conference ID: 238 320 547#

For organizers: Meeting options | Reset dial-in PIN

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 10/27/2025 5:05:22 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Collin Crawford [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebc874e994df437ba78978627476586f-c7d37eff-0f]; Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Ackerman, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc35de240cf4253af9cc7d3d2cbb643-Ackerman, J]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]; Sofi, Ardalan@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5599bba4aae5432a8f31f7346822a0dd-3a21e80b-4d]
Subject: Re: Soda Mountain- Discussion of BHS buffer and ways to make up MW loss

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Hi Lisa,

Thursday Oct 30- 8:30-9:30 PST works best for our team.

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 21, 2025 4:26:59 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; Collin Crawford <CCrawford@aspeneg.com>; Chris Huntley <chuntley@aspeneg.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>; Sofi, Ardalan@Energy <ardalan.sofi@energy.ca.gov>
Subject: Soda Mountain- Discussion of BHS buffer and ways to make up MW loss

Hi all,

We would like to meet to discuss application of the big horn sheep buffer on the site design and what flexibility is possible to make up lost MW generation.

These are the available days and times we have identified:
Friday Oct 24- 8:30-10:30, 1-4:30
Monday Oct 27- 8:30-9:30
Wednesday Oct 29- 8:30-9:30, 10-11, 3-4:30
Thursday Oct 30- 8:30-9:30
Wednesday Nov 5- 8:30-11, 1-2
Monday Nov 10- 8:30-9:30

Please let me know all days and times that can work for you.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Ponce, Mariah@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC5FAA5D564C4CF3A2F49468B736B6C2-B2346F64-E7]
Sent: 10/1/2025 11:26:55 PM
To: Palmer, Dana [dpalmer@allenmatkins.com]; Aronson, Jacob [jaronson@allenmatkins.com]; Epstein, Barry [bepstein@allenmatkins.com]
CC: Cabrera, Crystal@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed6e32a127144ccfa19a6f4347765a9e-00a33618-ff]; Black, Devin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c6ec9f417a6e448aae52465b9f719b5d-ea9475b4-16]
Subject: RE: Soda Mountain CBA

No worries. I just sent a meeting invite. Thank you for the flexibility.

Best,
Mariah

Mariah Ponce
Attorney I
Chief Counsel's Office
California Energy Commission
(916) 559-4166

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From: Palmer, Dana <dpalmer@allenmatkins.com>
Sent: Wednesday, October 1, 2025 4:22 PM
To: Ponce, Mariah@Energy <Mariah.Ponce@Energy.ca.gov>; Aronson, Jacob <jaronson@allenmatkins.com>; Epstein, Barry <bepstein@allenmatkins.com>
Cc: Cabrera, Crystal@Energy <Crystal.Cabrera@Energy.ca.gov>; Black, Devin@Energy <Devin.Black@Energy.ca.gov>
Subject: RE: Soda Mountain CBA

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Hi Mariah,

Thanks for the availability. Let's go with 1:30 PM. I know in the past the CEC has had problems with my Teams links. To avoid that, would you mind sending the calendar invite?

(We can also meet on Zoom and I can send it out and see if that works better?)

Best,
Dana

From: Ponce, Mariah@Energy <Mariah.Ponce@Energy.ca.gov>
Sent: Wednesday, October 1, 2025 4:01 PM

To: Palmer, Dana <dpalmer@allenmatkins.com>; Aronson, Jacob <jaronson@allenmatkins.com>; Epstein, Barry <bepstein@allenmatkins.com>
Cc: Cabrera, Crystal@Energy <Crystal.Cabrera@Energy.ca.gov>; Black, Devin@Energy <Devin.Black@Energy.ca.gov>
Subject: RE: Soda Mountain CBA

CAUTION: External Email

Hi Dana,

October 7th, 10am-12pm or 1:30-2:00pm, works on our end. Please let me know if I need to provide more availability.

Best,
Mariah

Mariah Ponce
Attorney I
Chief Counsel's Office
California Energy Commission
(916) 559-4166

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From: Palmer, Dana <dpalmer@allenmatkins.com>
Sent: Wednesday, October 1, 2025 2:25 PM
To: Ponce, Mariah@Energy <Mariah.Ponce@Energy.ca.gov>; Aronson, Jacob <jaronson@allenmatkins.com>; Epstein, Barry <bepstein@allenmatkins.com>
Cc: Cabrera, Crystal@Energy <Crystal.Cabrera@Energy.ca.gov>; Black, Devin@Energy <Devin.Black@Energy.ca.gov>
Subject: RE: Soda Mountain CBA

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mariah,

Thanks for your email and nice to hear from you.

If not too delayed, we would like to aim for meeting on October 7th or 8th. Recognizing that your schedule and Crystal's (and probably Devin's too) are usually packed, do you want to suggest a time or two that work for you three?

Best,
Dana

Dana P. Palmer, Esq.
Partner | Allen Matkins Leck Gamble Mallory & Natsis LLP
1901 Avenue of the Stars, Suite 1800, Los Angeles, CA 90067

(310) 788-2444 (direct) | (310) 463-6706 (mobile)
dpalmer@allenmatkins.com
Allen Matkins

From: Ponce, Mariah@Energy <Mariah.Ponce@Energy.ca.gov>
Sent: Wednesday, October 1, 2025 10:24 AM
To: Aronson, Jacob <jaronson@allenmatkins.com>; Palmer, Dana <dpalmer@allenmatkins.com>; Epstein, Barry <bepstein@allenmatkins.com>
Cc: Cabrera, Crystal@Energy <Crystal.Cabrera@Energy.ca.gov>; Black, Devin@Energy <Devin.Black@Energy.ca.gov>
Subject: Soda Mountain CBA

CAUTION: External Email

Good morning,

The CEC Soda Mountain legal team would like to meet to discuss the project's CBA with Friends of El Mirage (Docket No. 265953). Specifically, we'd like to discuss provision 9 (iii) which allows the applicant to terminate the CBA if the list of preconditions in Section 3.2(a) - (f) do not occur within two years from the effective date.

Please let me know your team's availability for either 10/2, 10/3, or early next week.

Thank you,
Mariah

Mariah Ponce
Attorney I
Chief Counsel's Office
California Energy Commission
(916) 559-4166

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From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 10/6/2025 8:20:35 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]; Hannah Arkin [hannah@resolutionenvironmental.com]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Luo, Yiming@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f5df6732dbcf4fd3a7bc7639e421be64-d849b685-c5]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Thea Benson [tbenson@rinconconsultants.com]; Emily Gaston [egaston@rinconconsultants.com]
Subject: Soda Mountain Discussion of JD
Location: Microsoft Teams Meeting
Start: 10/7/2025 8:00:00 PM
End: 10/7/2025 9:00:00 PM
Show Time As: Busy
Recurrence: (none)
Required Attendees: Chris Huntley; Hannah Arkin; Crisp, Ann@Energy; Luo, Yiming@Energy
Optional Attendees: Chang, Kaycee@Energy; Knight, Eric@Energy; Thea Benson; Emily Gaston

Our biological resources staff would like to meet to discuss the current jurisdictional delineation. Here are some of their questions:

- Does the updated delineation rely on use of the subsampled areas alone or were there other methods used to determine the amount of waters that occur on the project site?
- How did use of the subsampled areas account for the larger substantive drainages?
- Do the line features provided have any widths or unique identifiers?
- Were the transects that were inspected used to determine the potential widths of the drainages as a whole, and if so, how were the total number of acreage calculated?
- Did the delineation account for all areas subject to impacts or just the arrays?

Thanks all,

Lisa

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 222 329 810 202 2

Passcode: m2aV3Am7

Dial in by phone

+1 916-562-1816,,12029384# United States, Sacramento

Find a local number

Phone conference ID: 120 293 84#

For organizers: Meeting options | Reset dial-in PIN

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 10/6/2025 6:29:49 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
Subject: Re: Soda Mountain- Meeting request for JD

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Our JD team is available Tuesday, Oct 7 at 1PM or Thursday, Oct 9 at 10.

Thanks!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, October 3, 2025 4:09:05 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chris Huntley <chuntley@aspeneg.com>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Soda Mountain- Meeting request for JD

Thanks Hannah.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Friday, October 3, 2025 4:08 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Chris Huntley <chuntley@aspeneg.com>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Soda Mountain- Meeting request for JD

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Hi Lisa,

I will get you a date on Monday regarding this meeting. Sorry for the delay, our primary JD staffer had to leave town unexpectedly this week.

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, October 3, 2025 3:54:55 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chris Huntley <chuntley@aspeneg.com>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Soda Mountain- Meeting request for JD

Can you and your staff make any of these dates and times to discuss the jurisdictional delineation?

Monday Oct 6, 11-12
Tuesday Oct 7, 1-2:30, 3:30-4:30
Wednesday Oct 8, 8:30-10, 1-4:30
Thursday Oct 9, 10:30-12, 3-4:30

Please let me know as soon as you can so I can set up the meeting.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy
Sent: Tuesday, September 30, 2025 12:44 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chris Huntley <chuntley@aspeneg.com>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Soda Mountain- Meeting request for JD

Hi Hannah,

Our biological resources staff would like to meet with you and your JD staff to discuss how the JD was developed. We noticed that the waters have reduced from the previous JD and would like to understand the data we are seeing.

Our availability is:
Thursday Oct 2, 8:30-9:30, 10:30-12
Friday Oct 3, 8:30-12, 1-2:30, 3:30-4:30
Monday Oct 6, 11-12
Tuesday Oct 7, 1-2:30, 3:30-4:30
Wednesday Oct 8, 8:30-10, 1-4:30
Thursday Oct 9, 10:30-12, 3-4:30

Please let me know all the days and times you can meet. Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov


CALIFORNIA ENERGY COMMISSION
50 YEARS OF ENERGY LEADERSHIP

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 10/8/2025 4:40:00 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Dustin Thaler [dut@vcrenewables.com]
Subject: Re: Soda Mountain - Requests for information and clarification of project details

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Hi Lisa,

Please see my comments below in red. If any of these are an issue for your team and their analysis, we are open to discussing.

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 7, 2025 11:35 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Dustin Thaler <dut@vcrenewables.com>
Subject: Re: Soda Mountain - Requests for information and clarification of project details

Hi Hannah,

I have some more questions:

1. In the Caltrans encroachment permit application (TN 264907), I saw the following that I would like to confirm is accurate as I believe it may not be:

CONSTRUCTION OF A TEMPORARY COMMERCIAL DRIVEWAY AND ACCESS ROAD OFF THE BOTH SOUTHBOUND AND NORTHBOUND SIDES OF I-15, ROUGHLY 440-FT EAST OF EXISTING OPAH DITCH LOCATED AT POST MILE MARKER R126.86.

THE TEMPORARY DRIVEWAYS AND ACCESS ROADS WILL SERVE TO PROVIDE DIRECT ACCESS TO A SWITCHING YARD FOR CONSTRUCTION OF SWITCHING STATION, GENTIE.

I understood that the temporary access road off I-15 was only from the southbound direction only. Temporary access from I-15 would be from the southbound direction only. The reference to the northbound side of I-15 is a typo.

2. Also, regarding the optional access via Zzyzx Road along CL 8847 and CL7682 to access the utility switchyard and gen-tie line is proposed for operation use as well as construction use. Please confirm. Yes, during operation the gen-tie line and utility switchyard will be accessed by using the existing roads CL 8847 and CL 7682.

3. If the temporary driveway and access road off I-15 were the selected route to access the utility switchyard and gen-tie, how would these project components be accessed during operations? I am not aware of a proposed access route for operation. The temporary driveway from I-15 would be for construction only. During operation, the facility would not need construction or oversized vehicles because the facility is remotely operated. Employees would use normal vehicles to drive along CL 8847 and CL 7682, if they need to access the switchyard of gen-tie components.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, October 6, 2025 3:38 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Dustin Thaler <dut@vcrenewables.com>
Subject: Re: Soda Mountain - Requests for information and clarification of project details

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Hi Lisa,

Thank you for sending these information requests. We will start working on them now and can touch base tomorrow during our 9:30am call regarding any follow-up questions.

Thanks!
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, October 6, 2025 3:13 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Soda Mountain - Requests for information and clarification of project details

Hi Hannah,

Our project staff would like the following:

Please provide an aerial figure and corresponding GIS shapefiles showing the current alignment of Rasor Road, with respect the project components within the figure frame, with the proposed Rasor Road modifications, including alignment changes and increased width.

Our Biological Resources staff would like the following:

Please provide the shape files and attribute tables for the most recent Rincon delineation. We would like to see how they calculated linear feet and acreages for each of the drainages.

Our Visual Resources staff would like the following:

Figure 2-9. in the revised Project Description docketed in July showing a simulatee view of the project from KOP 6. This simulatation has changed (panel footprint) since they were originally provided to the CEC.

Please provide the revised :high resolution: images of KOP 6 from both the east-facing panels image and the west-facing panels image.

Additionally, the revised Project Description includes a new KOP 10, which captures the Gen-Tie span of I-15 with the panels facing west.

Please provide a "high resolution" existing view and simulation images for the new KOP 10.

Our Water Resources staff would like the following:

1. Panorama Environmental, Inc., 2014. Groundwater Well Test Report. November.

2. Terra Physics, 2010. Geophysical Characterization of Subsurface Physical Properties, Caithness LLC—Soda Mountain Solar Facility, Southwest of Baker, San Bernardino County, California, dated December 10, 2010, Project No. 09-63, 58 p. Prepared for Wilson Geosciences, December 2011.

Our Hazardous Materials staff would like the following:

Our Hazardous Materials stafff has found conflicting information on water tanks and buildings in the application materials and has a question related to the response to DR HAZ-1:

Worker Safety Fire Protection Section 1.2.4.5.4 General Facility Fire Safety and Suppression (TN 259876) identifies an approximately 22,500-gallon tank would be located near the operation and maintenance building to provide storage of fire suppression water. The revised Project Description (TN 261595) Section 2.6.3 -- states there will be three 10,000-gallon tanks on site.

The revised Project Description (TN 261595) states in 2.4.6.1 that "Three buildings related to operations, maintenance, and storage would be constructed as part of the project. One building would be 2,400 square feet, and the other two buildings would each be 5,000 square feet in area. Each building would be painted Sudan Brown. These buildings would be in the **northwest portion** of the site next to the BESS facilities. All of these facilities would be monitored by on-site O&M personnel and/or remotely."

Section 2.4.6.2 states that "A 13,200-square-foot parking area would be located adjacent to the buildings described above (Section 2.4.6.1), in the **southwest corner of the site**. They would be composed of compacted soil covered with filter fabric and 4-12" of compacted Class II aggregate base. The parking areas are not expected to exceed approximately 0.33 acre, or 13,200 square feet. Parking would be provided for the anticipated employees during project operation, for visitors, and for other equipment anticipated to be on-site at any time."

- Please provide a site plan that shows the approximate locations of the buildings on the project site. Additionally, locate on the site plan the approximate location of the proposed water tanks (including size), groundwater wells and the 13,200 sq/ft parking area.

DR HAZ-1 requested the quantities of hazardous materials stored on site during construction and operation of the project. Upon further review of the response to DR HAZ-1 (TN 259700) the response does not provide the quantities of hazardous materials on site during construction and operation but focuses upon the amount of hazardous waste generated (Tables 3.9.3 and Table 3.9.4) rather than the quantities of hazardous materials on site during construction and operation.

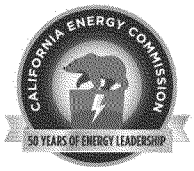
- Please provide quantities of hazardous materials that will be stored on site during construction and operation.

Thanks kindly,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Neal Desai [ndesai@npca.org]
Sent: 10/15/2025 4:57:03 PM
To: Qaqundah, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7da5ec0923de49488685fdaa76c71e51-Qaqundah, J]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Energy - STEP Siting [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=14e6ac2919ec428bb3378e30ce9a58e9-Energy - ST]
CC: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; House, Rosemary@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3fd09f7d0d9e4bc69746863233e8ffdf-3929d70b-14]; Lukanich, Kimberly@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3f1a946e58c54794950425a4010d35a4-e94335c9-4a]; Sandoval-Moreno, Victoria@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c435065cd74a4e2a8162523065d8b11a-Sandoval-Mo]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jimmy,
Probably 1-2 individuals from the following categories:

- Environmental NGOs
- Leading bighorn sheep scientists
- Former National Park Service officials
- Local community leaders

Specific people will depend on availability based on options we come up with.
Thank you,
Neal

From: Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>
Sent: Wednesday, October 15, 2025 8:47 AM
To: Neal Desai <ndesai@npca.org>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Good morning, Mr. Desai,

Thank you for the bump. We are still working on scheduling. Can I ask who would be attending from your side?

Thanks,

Jimmy

JAMES QAQUNDAH
Commissioner Noemí O. Gallardo's Office
California Energy Commission
Website: www.energy.ca.gov

From: Neal Desai <ndesai@npca.org>
Sent: Wednesday, October 15, 2025 12:17 AM
To: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

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Hi Jimmy and Rosemary,
Writing to bump this back up, regarding scheduling. Thank you,
Neal

From: Neal Desai
Sent: Tuesday, September 23, 2025 10:01 AM
To: 'Chang, Kaycee@Energy' <kaycee.chang@energy.ca.gov>; Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Thank you all. Yes, at the meeting, I requested – and Commissioner Gallardo agreed – to visit the site with advocates who have a very different perspective than the applicant, who she already visited the site with. Jimmy and Rosemary, please let us know the next steps towards locking in a date for this visit.
Thank you,
Neal

==========

Neal Desai
Senior Pacific Regional Director
National Parks Conservation Association
Mobile: 510.368.0845 |ndesai@npca.org

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Friday, September 19, 2025 10:20 AM
To: Neal Desai <ndesai@npca.org>; Energy - STEP Siting <STEPsiting@energy.ca.gov>

Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Good morning, Neal,

Thank you for reaching out and for your interest and participation in our proceedings. I added the following CEC team members to this email to help facilitate planning the field visit:

1. James (Jimmy) Qaqundah - Commissioner Gallardo's advisor
2. Rosemary House - Commissioner Gallardo's executive assistant
3. Sally Rodriguez, Kimberly Lukanich, Victoria Sandavol-Moreno - our Executive Office administrative team (working with Executive Director Drew Bohan)
4. Ann Crisp - Biological Resources unit supervisor in the Siting, Transmission, and Environmental Protection Division

Jimmy and Rosemary will lead this planning effort, in coordination with Ann, Sally, Kimberly, and Victoria.

Team: please see email below from Neal Desai, Senior Pacific Regional Director of the National Parks Conservation Association. Neal provided a verbal comment during our 8/29 informational/scoping meeting for the Soda Mountain Solar Project.

Please let me know if anyone needs anything in the meantime.

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
Siting, Transmission, and Environmental Protection Division
Book time to meet with me

From: Neal Desai <ndesai@npca.org>
Sent: Thursday, September 18, 2025 9:34 PM
To: Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

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Good Evening,
Commissioner Gallardo requested me to email this email address to schedule a field trip to the proposed Soda Mt Solar site with our organization and others in our coalition, in response to my testimony/public comments at the recent informational meeting.

Please let me know how to proceed to identify date options available.
Thank you!

Neal

==========

Neal Desai

Senior Pacific Regional Director

National Parks Conservation Association

Mobile: 510.368.0845 |ndesai@npca.org

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 10/30/2025 6:55:33 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]; Dustin Thaler [dut@vcrenewables.com]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]
Subject: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain
Attachments: Questions_Ideas for Big Horn Sheep Buffer.docx

Hi Hannah and Dustin,

We appreciate meeting with you today about the application of the Big Horn Sheep buffer and consideration of ways to re-capture MWs lost through the buffer.

We would appreciate your responses to the attached list of questions. Meanwhile, I will work to get a meeting set up with you, CEC staff and CDFW staff to discuss impacts to the big horn sheep and the buffer.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

Questions/Ideas for Big Horn Sheep Buffer

Areas of flexibility:

1. Chris- Having an energy dissipater inside the buffer would be okay.

Questions for Applicant:

2. Chris- Where can the applicant place solar panels within the project site- are there gaps or possibility to shift project components?
3. Does the refined grading remove the need for some of the stormwater protection/management infrastructure onsite?
4. Can the BESS be moved away from the freeway and placed where the attached figure shows? If not, where else can it be moved to in order to be sufficiently far from the freeway.
5. What's the prevailing wind direction at the project site?
6. For the buffer to be considered, it seems that approximately 4-5 percent of the solar field must be removed (see attached figure). For the project to maintain its maximum MW output of 300 MW, the removed panels must be located elsewhere within the project site boundaries, or their conversion efficiency be increased.
    a. Assuming all the panels have equal power output, there needs to be gaps on the site to accommodate the 4-5 percent panels removed. Where would the applicant consider for these panels within the project site?
    b. As an alternative, to accommodate for the loss of MW of roughly 4-5 percent of the project-wide output of 300 MW, or roughly 12-15 MW, please evaluate the selection of PV panels with higher efficiency rating than the 20 percent rating given in the Application.

       We understand the applicant hasn't begun procuring the equipment yet, but we'd like clarification on the PV panels mentioned in the application. What manufacturer, model, or specs—if any—were used to design the project site panel layout? What type of panels were assumed to reach the stated 20% efficiency? Was this number based on site-specific factors or just a typical manufacturer rating?

From: Selassie, Amanuel [Amanuel.Selassie@ladwp.com]
Sent: 10/31/2025 4:23:56 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Ha, Tin [Tin.Ha@ladwp.com]
CC: Lakshman, Sunaja [Sunaja.Lakshman@ladwp.com]; Nassiri, Ashkan [Ashkan.Nassiri@ladwp.com]; Rucic, Nermina [Nermina.Rucic@ladwp.com]; Enriquez, Rodolfo [Rodolfo.Enriquez@ladwp.com]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Edirisuriya, Sudath@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a5d6cd74e9024972b122d8344f69b3a8-Edirisuriya]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]; Hughes, Joseph@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7dd5e80572b644209e9607ba7bdcb630-Hughes, Jos]
Subject: RE: [EXTERNAL] Re: Soda Mountain Solar Project

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Good morning Lisa,

We received your email. I am working on it. I will reach out to you to set up a meeting to discuss on this.

Thank you

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, October 31, 2025 9:19 AM
To: Ha, Tin <Tin.Ha@ladwp.com>
Cc: Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>; Selassie, Amanuel <Amanuel.Selassie@ladwp.com>; Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: [EXTERNAL] Re: Soda Mountain Solar Project

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello Tin,

I am following up on my emails to you last week. We would very much like to better understand the LADWP process associated with this proposed project in San Bernardino County along the Mead-Adelanto Transmission Line.

We also have questions about the applicant's interconnection agreement to provide 300 MW of solar generation to that transmission line. It may be most efficient to meet. The applicant has informed that, in essence, if they

deliver substantially less MW than their agreement, it will trigger a "material modification process". We are wondering how many MW short of 300 would trigger such a modification.

Please contact me so we can talk. Thanks kindly,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, October 23, 2025 9:04 AM
To: Tin.Ha@ladwp.com <Tin.Ha@ladwp.com>
Cc: Sunaja.Lakshman@ladwp.com <Sunaja.Lakshman@ladwp.com>; Amanuel.Selassie@ladwp.com <Amanuel.Selassie@ladwp.com>; Ashkan.Nassiri@ladwp.com <Ashkan.Nassiri@ladwp.com>; Nermina.Rucic@ladwp.com <Nermina.Rucic@ladwp.com>; Rodolfo.Enriquez@ladwp.com <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: Re: Soda Mountain Solar Project

Hi Tin,

We have a few more specific questions:

1. Would the switching station serve only Soda Mountain Solar, or would it serve other costumers as well (this will help answer the jurisdictional question)

2. If the switching station is jurisdictional to LADWP, what would the coordination look like between our DCBO and LADWP inspector? You asked about this when asking who is responsible for ensuring compliance with building codes during construction, but if the responsibility lies with LADWP, is there some level of coordination with our DCBO for the portions where the project interconnects? Some level of overlap or handoff to LADWP?

It may be helpful to meet on this project. We are undergoing our CEQA environmental analysis and have questions about the switchyard. We don't have a lot of time to clarify our questions as we need to publish our environmental document soon.

Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, October 22, 2025 8:45 AM
To: Tin.Ha@ladwp.com <Tin.Ha@ladwp.com>
Cc: Sunaja.Lakshman@ladwp.com <Sunaja.Lakshman@ladwp.com>; Amanuel.Selassie@ladwp.com <Amanuel.Selassie@ladwp.com>; Ashkan.Nassiri@ladwp.com <Ashkan.Nassiri@ladwp.com>; Nermina.Rucic@ladwp.com <Nermina.Rucic@ladwp.com>; Rodolfo.Enriquez@ladwp.com <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>
Subject: Re: Soda Mountain Solar Project

Hello Tin,

I just had one more request. We are used to CPUC standards like General Order 131E, regulating the planning and construction of electric generation, transmission, power, distribution line facilities, and substations located in California.

Is LADWP required to follow the CPUC standards or does LADWP have their own standards they must comply with? If the latter is the case, please provide us the applicable standards that the switchyard and sections of transmission loop in lines be constructed to, in addition to whether compliance with these regulations is determined by the Los Angeles Board of Water and Power, or would it be under the jurisdiction of the CEC.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit

Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy
Sent: Wednesday, October 22, 2025 8:31 AM
To: Tin.Ha@ladwp.com <Tin.Ha@ladwp.com>
Cc: Sunaja.Lakshman@ladwp.com <Sunaja.Lakshman@ladwp.com>; Amanuel.Selassie@ladwp.com <Amanuel.Selassie@ladwp.com>; Ashkan.Nassiri@ladwp.com <Ashkan.Nassiri@ladwp.com>; Nermina.Rucic@ladwp.com <Nermina.Rucic@ladwp.com>; Rodolfo.Enriquez@ladwp.com <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>
Subject: Soda Mountain Solar Project

Hello Tin,

My name is Lisa Worrall and I am the Project Manager at the California Energy Commission. Joan Patrovski with BLM had sent me some emails from you all regarding the Soda Mountain Solar Project. We have some questions that I hope you or someone else with LADWP can answer.

The California Energy Commission is preparing an environmental analysis in compliance with the California Environmental Quality Act. The applicant has filed an application opting into our jurisdiction. I have previously sent notification of this project to Faranak Sarbaz.

The construction of the switchyard by the applicant would be under the California Energy Commission's (CEC) jurisdiction. Following construction, it is our understanding the LADWP would own and operate the switchyard and LADWP would install and operate the section of two transmission lines that would be looped in and out of the switchyard.

Projects under the CEC jurisdiction or have opted into our jurisdiction also undergo evaluation for conformance with laws, ordinances, regulations, and standards (LORS). We understand that the Los Angeles Board of Water and Power has jurisdiction over LADWP.

We are wondering whether compliance with design standards for the switchyard and sections of transmission loop in line would be verified by the Los Angeles Board of Water and Power at the time the switchyard is turned over to LADWP or would it be under the CEC's jurisdiction during construction. Please let us know what the process is for such facilities.

If you have any question, please let me know. We are currently preparing our Draft Environmental Impact Report, which will be inside a Staff Assessment and need to confirm these details.

Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



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Sent: 10/31/2025 6:44:16 PM
To: Manikhone.Cruz@dpw.sbcounty.gov
Subject: Status of MOU Between the County and BLM Regarding the Implementation of the DGMO on BLM Land

I am preparing the water resources analysis of the Soda Mountain Solar project and was wondering if the memorandum of understanding (MOU) between the County and the BLM to implement the Desert Groundwater Management Ordinance (DGMO)on BLM land is still in place.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov



From: Ackerman, James@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3CC35DE240CF4253AF9CC7D3D2CBB643-ACKERMAN, J]
Sent: 10/23/2025 6:18:47 PM
To: Steinert, Tiffany@Waterboards [Tiffany.Steinert@Waterboards.ca.gov]; Zimmerman, Jan@Waterboards [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6a535479ac2448c29afb308a1cd6fede-Waterboards]
CC: Guerra, Christina@Waterboards [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3c08929c117e4da5bfb45f48fa749c0a-Waterboards]
Subject: RE: Questions Regarding Stormwater/Dewatering, Soda Mountain Solar Project

Thank you Tiffany for your quick response.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: Steinert, Tiffany@Waterboards <Tiffany.Steinert@Waterboards.ca.gov>
Sent: Thursday, October 23, 2025 11:09 AM
To: Zimmerman, Jan@Waterboards <jan.zimmerman@waterboards.ca.gov>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Cc: Guerra, Christina@Waterboards <Christina.Guerra@waterboards.ca.gov>
Subject: RE: Questions Regarding Stormwater/Dewatering, Soda Mountain Solar Project

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Hi James,

The Soda Mountain Project is not required to enroll under the Construction General permit because it is not located in a watershed containing a Water of the United States, but we strongly encourage Dischargers to enroll anyway. There is no volume threshold in the Construction General Permit for dewatering. However, there are monitoring requirements for that discharge. The link below is to Attachment J of the Construction General Permit which outlines all the requirements for dewatering. https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/2022-0057-dwq-with-attachments/cgp2022_att_j.pdf. In instances where the Discharger is not required to obtain coverage under the Construction General Permit, we will write those conditions into their Waste Discharge Requirements to ensure water quality is protected. The Discharger will be required to produce a Dewatering Plan that outlines at minimum how the site will be dewatered, what Best Management Practices (BMPs) will be used, and how long they anticipate dewatering to occur. Please feel free to reach out to me with any further questions.

Tiffany Steinert
Engineering Geologist

R6 LAHONTAN
R6 Land Disposal, Stormwater & 401 Program

Email: Tiffany.Steinert@Waterboards.ca.gov
Phone: +1 (760) 241-7305

Regional Water Quality Control Boards
15095 Amargosa Road, Building 2, Suite 210, Victorville CA 92394
Website: www.waterboards.ca.gov

CALIFORNIA
Water Boards

***Please submit all 401 Certification/Dredge & Fill documentation to the Lahontan email box at lahontan@waterboards.ca.gov. If your Project has been assigned to a staff person please include their name ***

From: Zimmerman, Jan@Waterboards <jan.zimmerman@waterboards.ca.gov>
Sent: Thursday, October 23, 2025 10:36 AM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Cc: Steinert, Tiffany@Waterboards <Tiffany.Steinert@Waterboards.ca.gov>; Guerra, Christina@Waterboards <Christina.Guerra@waterboards.ca.gov>
Subject: RE: Questions Regarding Stormwater/Dewatering, Soda Mountain Solar Project

Hi James, these are great questions. I am asking Tiffany to respond since she is the project manager on our end.

CALIFORNIA
Water Boards

Jan Zimmerman
Assistant Executive Officer

R6 LAHONTAN
Regional Water Quality Control Board

Email: jan.zimmerman@waterboards.ca.gov
Phone: +1 (760) 241-7376
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2501 Lake Tahoe Blvd., So. Lake Tahoe, CA 96150 |
15095 Amargosa Rd., Bldg. 2, Suite 210, Victorville CA 92394

Website: www.waterboards.ca.gov

From: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Sent: Thursday, October 23, 2025 10:18 AM

To: Zimmerman, Jan@Waterboards <jan.zimmerman@waterboards.ca.gov>
Subject: Questions Regarding Stormwater/Dewatering, Soda Mountain Solar Project

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Jan: I have some questions regarding possible stormwater and dewatering discharges associated with the proposed Soda Mountain Solar Project:

1. The watersheds within the project area drain into the Mojave River or Soda Lake, and given enough volume would flow to Death Valley. Therefore, like the Willow Rock project, the Soda Mountain Solar Project would not be eligible for the SWCRB general construction NPDES permit. Is that correct?
2. Since groundwater is son deep (>400') it is very unlikely that dewatering would be needed on the project. However, if dewatering were necessary, and the project was not under the general construction permit, what would be the procedure (if any) for permitting discharge to local ephemeral streams with the LRWQCB?

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: Patrovsky, Joan E [jpatrovs@blm.gov]
Sent: 10/6/2025 5:23:57 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
CC: Donnell, Julie A [jdonnell@blm.gov]; Stamer, Marc R [mstamer@blm.gov]; Cordes, Isabeau J [icordes@blm.gov]
Subject: BLM Project Updates and Furlough

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Hello Lisa and Kaycee,

Due to the lapse in appropriations by Congress, we are limited to periodically working on specific authorized projects, and our responses may be delayed.

Not all staff are readily available during the furlough, and minimal work is occurring, though not on a full-time basis.

As previously discussed, the Soda Mountain Solar project is not a bureau priority project by the Department of Interior at this point and is impacted by the Secretary Order 3438 and Memorandum shared with the CEC.

We understand the holder/applicant continues to make changes to their project proposal and likely a new draft plan of development may be needed to be submitted. Until appropriations are resolved and changes by the Department occur, we will not incur costs to the agency for the Soda Mountain Solar Project amendment.

Best regards,

Joan Patrovsky

Project Manager
U.S. Department of the Interior - Region 8 and 10
Bureau of Land Management
California Desert District Office

"What you do today can improve all your tomorrows."- Ralph Marston

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From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 10/15/2025 3:26:08 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Re: Soda Mountain- LADWP access road
Attachments: Soda Mountain_Draft_MMRP_Table _2025 1014.xlsx

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Hi Lisa,

We will create a figure that shows the existing LADWP access road and get it over to you ASAP.

Also - attached to this email is the project MMRP.

I also just shared a link to the requested KOP files, they were too large to send via email. Please let me know if you have any issues with them.

I am also going to docket the 2 groundwater reports today, they are also too large to send via email.

The cultural resources report will also be transmitted shortly, it has some confidential appendices so Rincon will be sending that directly to your team.

Thank you!

Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 14, 2025 1:39 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mountain- LADWP access road

Thanks Hannah. It would seem that if their current access road will work for LADWP to access the new switchyard and loop in line, they would likely want to use that for operation access.

Have LADWP said anything about how they plan to access and maintain the switchyard and loop in line?

While it might be easier to say that LADWP use the same route as you would use, it seems they may not use that route.

If LADWP would use their current access route, I need to describe that route and ideally show it on a project figure. I can point to the figure to show the route.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Tuesday, October 14, 2025 1:11 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- LADWP access road

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Hi Lisa,

The LADWP access road already exists to maintain the Mead Adelanto line, it is in a different location than CL 8847 and CL 7682 and runs from the zzyzx exit to a location directly under the existing 500 KV transmission line. If it is easier, we can remove any reference to this access road and request LADWP access the switchyard only through CL 8847 and CL 7682.

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 14, 2025 12:10:38 PM

To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain- LADWP access road

Hi Hannah,

Regarding your response below:
CL 8847 and CL 7682 will be utilized during the construction, operation and decommissioning of the project. Additionally, LADWP has an existing access roadway that travels from the Zzyzx exit to the new switchyard area. This access roadway is used currently by LADWP for any operations and maintenance needs along the Marketplace-Adelanto 500kV transmission line.

Does the LADWP access road from Zzyzx to the new switchyard travel along CL 8847 and CL 7682 or is it a different route?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

Mitigation Monitoring Program – Soda M	
Resource	**APM/Mitigation Measure Number**
Aesthetics	APM AES-1
Aesthetics	APM AES-1

Aesthetics	APM AES-1
Aesthetics	APM AES-1

Aesthetics	APM AES-2
Aesthetics	APM AES-3

Aesthetics	APM AES-4
Aesthetics	APM AES-4

Aesthetics	MM AES-5
Air Quality	APM AIR-1
Air Quality	APM AIR-2
Air Quality	APM AIR-3
Air Quality	APM AIR-4
Air Quality	APM AIR-5
Air Quality	APM AIR-6
Air Quality	APM AIR-7

Air Quality	APM AIR-8
Air Quality	APM AIR-9
Biological Resources	APM BIO-1
Biological Resources	APM BIO-2
Biological Resources	APM BIO-3

Biological Resources	APM BIO-4
Biological Resources	APM BIO-5
Biological Resources	APM BIO-6
Biological Resources	APM BIO-7
Biological Resources	APM BIO-8
Biological Resources	APM BIO-9
Biological Resources	APM BIO-10
Biological Resources	APM BIO-11
Biological Resources	APM BIO-12
Biological Resources	APM BIO-12

Biological Resources	APM BIO-13
Biological Resources	APM BIO-14
Biological Resources	APM BIO-15
Biological Resources	APM BIO-16
Biological Resources	APM BIO-17
Biological Resources	APM BIO-18
Biological Resources	APM BIO-19
Biological Resources	APM BIO-20

Biological Resources	APM BIO-21
Biological Resources	APM BIO-22
Biological Resources	APM BIO-23
Biological Resources	APM BIO-24
Biological Resources	APM BIO-25
Biological Resources	APM BIO-26
Biological Resources	APM BIO-27
Biological Resources	APM BIO-28

Biological Resources	APM BIO-29
Biological Resources	APM BIO-30
Biological Resources	APM BIO-31
Biological Resources	APM BIO-32

Biological Resources	APM BIO-33
Biological Resources	APM BIO-34
Biological Resources	APM BIO-35
Biological Resources	APM BIO-36
Biological Resources	APM BIO-37
Biological Resources	MM BIO-1

Biological Resources	MM BIO-2
Biological Resources	MM BIO-3

Biological Resources	MM BIO-3

Biological Resources	MM BIO-4
Biological Resources	MM BIO-5

Biological Resources	MM BIO-6
Biological Resources	MM BIO-7
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Biological Resources	MM BIO-10

Biological Resources	MM BIO-11
Biological Resources	MM BIO-11
Biological Resources	MM BIO-11

Biological Resources	MM BIO-12

Biological Resources	MM BIO-12
Biological Resources	MM BIO-13

Biological Resources	MM BIO-14
Biological Resources	MM BIO-15

Biological Resources	MM BIO-16
Biological Resources	MM BIO-17
Biological Resources	MM BIO-18

Biological Resources	MM BIO-19

Biological Resources	MM BIO-20

Biological Resources	MM BIO-21
Biological Resources	MM BIO-21

Biological Resources	MM BIO-21
Biological Resources	MM BIO-22
Biological Resources	MM BIO-23

Biological Resources	MM BIO-24
Biological Resources	MM BIO-25
Biological Resources	MM BIO-26
Biological Resources	MM BIO-27
Cultural Resources	APM CUL-1

Cultural Resources	APM CUL-2
Cultural Resources	APM CUL-2
Cultural Resources	APM CUL-2
Cultural Resources	APM CUL-3
Geology and Soils	APM GEO-1
Geology and Soils	APM GEO-2
Geology and Soils	APM GEO-3

Geology and Soils	APM GEO-4
Geology and Soils	APM GEO-4
Geology and Soils	APM GEO-4
Geology and Soils	APM GEO-5

Geology and Soils	APM GEO-6
Geology and Soils	APM GEO-7
Geology and Soils	APM GEO-8
Geology and Soils	APM GEO-9

Geology and Soils	APM GEO-9
Geology and Soils	APM GEO-10
Geology and Soils	APM GEO-11

Hazards & Hazardous Materials	APM AIR-1
Hazards & Hazardous Materials	APM BIO-21

Hazards & Hazardous Materials	APM FIRE-1
Hazards & Hazardous Materials	APM HAZ-1

Hazards & Hazardous Materials	APM HAZ-2
Hazards & Hazardous Materials	APM HAZ-3

Hydrology and Water Quality	APM HWQ-1
Hydrology and Water Quality	APM HWQ-2
Land Use and Planning	APM LU-1
Land Use and Planning	APM LU-2
Noise	APM N-1
Recreation	APM REC-1

Transportation	APM TRA-1
Transportation	APM TRA-2
Utilities and Service Systems	APM USS-1
Utilities and Service Systems	APM USS-1

Utilities and Service Systems	APM USS-2

Mountain Solar
APM/Mitigation Measure
Siting and Design. Visual design elements shall be integrated into the construction plans, details, shop drawings and specifications; these shall include, but not be limited to, grubbing and clearing, vegetation thinning and clearing, grading, revegetation, drainage, and structural plans. Visual design elements within the plans shall be measurable by size and monitored while under construction, while operational, and when decommissioned. Visual design elements to be integrated into construction plans, details, shop drawings and specifications must at a minimum include: 1.Vary the grid layout to reduce contrast caused by long straight roads. Employ an offset in the grid layout to reduce visual contrast caused by long straight roads and, to the extent possible, arrays. The result shall be that no road extends from one side of the solar field to the other in a straight line. To further reduce contrast caused by exposing un-oxidized soils and rock in roadways, at select locations of concern from KOPs, spot applications of a product such as Permeon shall be used to dull and darken the ground plane in a short time. 2.Color treat structures to reduce contrasts with the existing landscape. The applicant shall treat surfaces of all permanent, large project structures and buildings (operations and maintenance building, inverters, electrical enclosures, gen-tie poles, conductors, tanks, pipes, and walls) and chain-link fences visible to the public such that: (a) their colors minimize visual intrusion and contrast by blending with (matching) the existing characteristic landscape colors; (b) their colors and finishes do not create excessive glare from surface brightness; and (c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive.
Following consultation with the BLM Visual Resources specialist, and other representatives as deemed necessary, the applicants shall submit for the CDFW's and BLM's review, a specific Surface Treatment Plan that will satisfy these requirements. The consultation would be in-field at the agencies' election, or as a desktop review if preferred by the agencies. The treatment plan shall include: a.A description of the overall rationale for the proposed surface treatment, including the selection of the proposed color(s) and finishes based on the characteristic landscape. Colors will be fielded tested using the actual distances from the KOPs to the proposed structures, using the proposed colors painted on representative surfaces; b.A list of each major project structure, building, tank, pipe, and wall; the transmission line towers and/or poles; and fencing, specifying the color(s) and finish proposed for each. Colors must be identified by vendor, name, and pantone number; or according to a universal designation system; c.One set of color brochures or color chips showing each proposed color and finish; d.A specific schedule for completion of the treatment; and e.A procedure to ensure proper treatment maintenance for the life of the project. The applicant shall not specify to the vendors the treatment of any buildings or structures treated during manufacture or perform the final treatment on any buildings or structures treated in the field, until the applicant receives notification of approval of the treatment plan by the BLM. Subsequent modifications to the treatment plan are prohibited without the BLM's approval for components under their respective authorities; however, the applicant may consider the agencies' failure to respond to a request for review within 60 days an acceptance of the proposal.

3. Lighting – Consistent with safety and security considerations, the applicant shall design and install all permanent exterior lighting and all temporary construction lighting such that (a) lamps and reflectors are not visible from beyond the project site, including any off-site security buffer areas; (b) lighting does not cause excessive reflected glare; (c) direct lighting does not illuminate the nighttime sky, except for required Federal Aviation Administration (FAA) aircraft safety lighting; (d) illumination of the project and its immediate area is minimized and it complies with local policies and ordinances. Prior to construction, the applicant shall submit to BLM and CDFW a Lighting Management Plan that outlines the following:

a. Construction and operational (permanent) lighting – Except as required to meet safety and security requirements, there shall be no exterior nighttime lighting on the project site during the construction and operation periods. For these purposes, "nighttime" means the period of time between two hours after sunset until sunrise. To verify compliance with this measure, safety and security reasons that created the need for nighttime lighting shall be included in the log as well.

b. Facility lighting – Lighting for facilities shall not exceed the minimum number, intensity, and coverage required for safety and basic security. Lighting shall be amber in color when accurate color rendition is not required. Use low-pressure sodium lamps or yellow LED lighting, or equivalent. No bluish-white lighting shall be used in permanent outdoor lighting.

c. Lighting plan – Prior to construction, a lighting plan shall be prepared that documents how security and safety lighting will be designed and installed to minimize night-sky impacts during facility construction and operation. The lighting plan shall include the safety and security reasons that require the need for all nighttime lighting on the facility during construction and operation periods. Lighting for facilities shall not exceed the minimum number of lights and brightness required for safety and security and shall not cause excessive reflected glare. Low-pressure sodium light sources shall be used to reduce light pollution. Full cut-off luminaires shall be used to minimize uplighting. Lights shall be directed downward or toward the area to be illuminated. Light fixtures shall not spill light beyond the project boundary. Lights in highly illuminated areas that are not occupied on a continuous basis shall be equipped with switches, timer switches, or motion detectors so that the lights operate only when the area is occupied. Wherever feasible, consistent with safety and security, lighting shall be kept off when not in use. The lighting plan shall include a process for promptly addressing and mitigating complaints about potential lighting impacts. The applicant shall submit the lighting plan to the BLM and CDFW for review and approval at least 30 days prior to construction.

4. Vegetation and ground disturbance associated with access road construction, and distribution line installations shall be minimized and take advantage of existing clearings wherever feasible.

5. Along all off-site access roads, all off-site distribution line corridors, and all internal access roads 16 feet or wider, graveled surfaces, areas to be permanently cleared of vegetation, and (if applicable) cut slopes shall be treated with rock stains or other color treatment appropriate with the surrounding landscape.

6. Openings in vegetation for facilities, structures, and roads shall be feathered and shaped to repeat the size, shape, and characteristics of naturally occurring openings.

7. The distribution line shall utilize non-specular conductors and non-reflective coatings on insulators.

Construction. A pre-construction meeting with BLM landscape architects or other designated visual/scenic resource specialists shall be held before construction begins to coordinate on the mitigation strategy and confirm the compliance checking schedule and procedures. Final design and construction documents will be reviewed for completeness with regard to the visual mitigation elements, assuring that requirements and commitments are adequately addressed. The construction documents shall include, but not be limited to grading, drainage, revegetation, vegetation clearing, and feathering plans, and must demonstrate how VRM objectives will be met, monitored, and measured for conformance.

1.The applicant shall reduce visual impacts during construction by clearly delineating construction boundaries and minimizing areas of surface disturbance; preserving existing, native vegetation to the extent feasible; utilizing undulating surface-disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.

2.Visual impact mitigation objectives and activities shall be discussed with equipment operators before construction activities begin.

3.Existing rocks, vegetation, and drainage patterns shall be preserved to the extent feasible.

4.Brush-beating or mowing or using protective surface matting rather than removing vegetation shall be employed where feasible.

5.Where not in conflict with other mitigation requirements, slash from vegetation removal shall be mulched and spread to cover fresh soil disturbances as part of the revegetation plan. Slash piles shall not be left in sensitive viewing areas.

6.If graveled surfaces are used during construction, the visual color contrast of graveled surfaces shall be reduced with approved color treatment practices.

7.No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate surveyor construction activity limits.

8.All stakes and flagging shall be removed from the construction area and disposed of in an approved facility.

Operation and Maintenance. Terms and conditions for VRM mitigation compliance shall be maintained and monitored on an annual basis for the life of the project for compliance with visual objectives, adaptive management adjustments, and modifications listed below and as necessary and approved by the BLM landscape architect or other designated visual/scenic resource specialist. Minimum measures are as follows:

1.The applicant shall maintain revegetated surfaces until a self-sustaining stand of vegetation which does not require supplemental water or fertilizer is re-established and visually adapted to the undisturbed surrounding vegetation. No new disturbance shall be created during operation without completion of a VRM analysis and approval by the BLM Authorized Officer.

2.Interim restoration shall be undertaken during the operating life of the project as soon as possible after disturbances.

3.Painted facilities shall be kept in good repair and repainted when color fades or flakes.

4.Color-treated solar panel backs/supports shall be kept in good repair and retreated when color fades and/or flakes.

APM AES-4: Decommissioning and Site Reclamation. A Decommissioning and Site Reclamation Plan, covering visual impact mitigation measures, shall be in place prior to construction, and reclamation activities shall be undertaken as soon as possible after disturbances occur and be maintained throughout the life of the project. The following decommissioning/reclamation activities/practices shall be implemented to partially mitigate visual impacts associated with solar energy development, where feasible:

1.Pre-development visual conditions, and the B-Quality scenery, and integrity shall be reviewed, and the visual elements of form, line, color, and texture shall be restored to pre-development visual compatibility or to that of the surrounding landscape setting conditions, whichever achieves the better visual quality and most ecologically sound outcome.

2.A Decommissioning and Site Reclamation Plan shall be developed, approved by the BLM, and implemented. The plan shall require that all aboveground and near-ground structures be removed. Some structures shall be removed only to a level below the ground surface that will allow reclamation/restoration. Topsoil from all decommissioning activities shall be salvaged and reapplied during final reclamation. The plan shall include provisions for monitoring and determining compliance with the project's visual mitigation and reclamation objectives.

3.Soil borrow areas, cut-and-fill slopes, berms, water bars, and other disturbed areas shall be contoured to approximate naturally occurring slopes, thereby avoiding form and line contrasts with the existing landscapes. The applicant shall contour to a rough texture (i.e., use large rocks/boulders, grade uneven surfaces, and/or vegetation mulches/debris) in order to trap seed and to discourage off-road travel, thereby reducing associated visual impacts.

4.A combination of seeding, planting of nursery stock, transplanting of local vegetation within the proposed disturbance areas, and staging of decommissioning activities enabling direct transplanting shall be utilized. Where feasible, native vegetation shall be used for revegetating to establish a composition consistent with the form, line, color, and texture of the surrounding undisturbed landscape.

5.Stockpiled topsoil shall be reapplied to disturbed areas, and the areas shall be revegetated by using a mix of native species selected for visual compatibility with existing vegetation, where applicable, or by using a mix of native and non-native species if necessary to ensure successful revegetation. Gravel and other surface treatments shall be removed or buried.

6.Rocks, brush, and vegetal debris shall be restored whenever possible to approximate preexisting visual conditions.

8.A decommissioning VRM Monitoring and Compliance Plan shall be prepared by the applicant and approved by the BLM that establishes the schedule and terms for monitoring and the conditions and methods of measurement for determining compliance.

Glint and Glare Mitigation and Monitoring. Consistent with Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands (BLM 2013), the applicant shall prepare and submit to the BLM a Glint and Glare Mitigation and Monitoring plan identifies mitigation measures to reduce the potential health, safety, and visual impacts associated with glint and glare, and provides for monitoring of the effectiveness and maintenance of such measures. The goals of the mitigation shall be to ensure that glare with the potential for temporary after-image effects is not visible to drivers on I-15, and that glare visible from observation points does not exceed a cumulative total duration of 30 minutes per day. Mitigation measures to achieve these goals shall include, but not be limited to: 1.Program solar tracker arrays contributing to glare to turn away from affected KOPs during the times of day when glare visible at that KOP is generated. 2.Use solar panels made with textured glass surfaces to diffuse reflected light. If the use of textured glass panels is found not to be feasible, the plan shall describe the reason for its infeasibility. 3.Employ materials to reduce the effect of glare where such materials would not result in greater adverse visual impacts than the glint or glare that would be offset and would not result in shading the solar panels. These materials may include fencing with privacy slats or fabric screening of a BLM standard environmental color that is identified through a site study for color and texture selection and approved by the BLM, earthen berms, or vegetative screening. 4.If glare with the potential for temporary after-image remains visible to drivers on I-15, coordinate with Caltrans to place signs warning drivers of the potential for hazardous glare.
The applicant shall use periodic watering for short-term stabilization of disturbed areas to minimize visible fugitive dust emissions. Use of a water truck to maintain surface moisture on disturbed areas and surface application of water during visible dusting episodes shall be considered sufficient to maintain compliance.
The applicant shall apply best management practices (BMPs) to prevent project-related visible bulk materials transport (trackout) onto paved surfaces. BMPs may include, but not be limited to, the following: oUse of wheel-washers (or equivalent) installed at all access points and laydown areas where trackout onto paved public roads could occur. oConstruction of stabilized construction site entrance/exit areas. oImplementation of regular street sweeping/cleaning of paved surfaces. oInstallation of corrugated steel panels at all site exits.
The applicant shall cover haul vehicles maintained paved surfaces loaded with earthen materials while operating on publicly maintained paved surfaces.
The applicant shall stabilize graded site surfaces upon completion of grading when subsequent development is delayed or expected to be delayed more than 14 days, except when such a delay is due to precipitation that dampens the disturbed surface sufficiently to eliminate visible fugitive dust emissions.
The applicant shall cleanup project-related visible bulk materials transport (trackout) or spills on publicly maintained paved surfaces within 24 hours.
The applicant shall discontinue non-essential earth-moving activities under high wind conditions when wind speeds exceed 25 miles per hour and those activities result in visible dust plumes. All grading activities shall be suspended when wind speeds are greater than 30 miles per hour.
The applicant shall limit the speed of vehicles traveling on unpaved roads and disturbed areas to 15 miles per hour.

The applicant shall apply water to all unpaved roads and unpaved parking areas actively used during construction, except when moisture remains in the soils such that dust is not produced when driving on unpaved roads.
The applicant, when entering into construction contracts or when procuring off road equipment or vehicles for on-site construction or operations and maintenance activities, shall ensure that only new model year equipment or vehicles are obtained. An Exhaust Emissions Control Plan that identifies each off-road unit's certified tier specification, Best Available Control Technology, as well as the model year of all haul trucks to be used on the project that are under direct control of the applicant or its construction contractor shall be submitted to BLM for review and approval at least 30 days prior to commencement of construction activities. The following measures would be included with contract or procurement specifications and in the Exhaust Emissions Control Plan: oAll construction diesel engines not registered under California Air Resources Board's Statewide Portable Equipment Registration Program, with a rating of 50 hp or higher shall meet the Tier 4 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in 13 CCR 2423(b)(1), unless a good faith effort demonstrates that such engine is not available for a particular item of equipment. If a Tier 4 engine is not available for any off-road equipment larger than 50 hp, a Tier 3 engine shall be used or that equipment shall be equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides and diesel particulate matter to no more than Tier 3 levels unless certified by the engine manufacturers that the use of such devices is not practical for specific engine types. oAll diesel-fueled engines used in the construction of the facility shall have clearly visible tags showing that the engine meets the standards of this measure. oAll equipment and trucks used in the construction or operation and maintenance of the facility shall be properly maintained and the engines tuned to the engine manufacturer's specifications. oAll diesel heavy construction equipment shall not idle for more than 5 minutes. Vehicles that need to idle as part
The site shall be revegetated after decommissioning according to the Final Closure Plan described in MM BIO-29 and prepared in conformance with BLM requirements at the time of decommissioning.
The applicant shall prepare and implement a Vegetation Resources Management Plan that contains the following components: •Vegetation Salvage Plans that discuss the methods that will be used to transplant cacti present within the proposed disturbance areas. Salvage and transplant methods used will be approved by the CDFW. In addition, the Vegetation Salvage Plans will also include methods that will be used to transplant special-status plant species that occur within proposed disturbance areas. •Restoration Plans discussing the methods that will be used to restore any of the four native plant community types (creosote bush-white bursage scrub, cheesebush scrub, and creosote bush scrub,) present within the project area that may be temporarily disturbed by construction activities. The applicant will obtain CDFW approval for any seed mixtures used for restoration. •Vegetation Salvage and Restoration Plans that will specify success criteria and performance standards. The applicant will be responsible for implementing the Vegetation Salvage and Restoration Plan according to CDFW requirements.
Herbicides shall not be applied systemically over the entire project area. Herbicides shall be applied in focused treatments in areas where invasive weed infestations have been identified, such as where there is a clump or monotypic stand of invasive weeds. Herbicides shall not be applied within 100 feet of a special-status plant.

Only a State of California and federally certified contractor (i.e., Qualified Applicator), who is also approved by CDFW, and holds and maintains a Qualified Applicator License from California Department of Pesticide Regulation, shall be permitted to perform herbicide applications. Herbicides shall be applied in accordance with applicable laws, regulations, and permit stipulations. All herbicide applications must follow U.S. Environmental Protection Agency label instructions.
Herbicides shall not be applied during rain events, within 48 hours of a forecasted rain event with a 50% or greater chance of precipitation, or when wind velocity exceeds 10 mph (for liquids) and 15 mph for granular herbicides.
The applicant shall implement an Integrated Weed Management Plan (IWMP) to control weed infestations and the spread of noxious weeds in the study area.
After project construction, areas of temporary disturbance shall be closed and the restoration measures in the Vegetation Resource Management Plan shall be implemented.
Foundations shall be removed to a minimum of 3 feet below surrounding grade during decommissioning and covered with soil to allow adequate root penetration for native plants. Petroleum product leaks and chemical releases shall be remediated prior to completion of decommissioning.
Decommissioning methods shall minimize new site disturbance and removal of native vegetation.
All special-status and rare plant (CRPR 1, 2, 3, and 4) occurrences within the project area will be documented during preconstruction surveys. The applicant will also provide a 100-foot buffer area surrounding each avoided occurrence in which no construction activities will take place, if feasible. If avoidance is not feasible, the applicant shall provide on-site mitigation (e.g., vegetation salvage) for impacts to special-status and rare plants.
Before construction of a given phase begins, the applicant shall stake and flag the construction area boundaries, including the construction areas for the solar arrays and associated infrastructure; construction laydown, parking, and work areas; and the boundaries of all temporary and permanent access roads. A CDFW-approved biologist shall then survey all areas of proposed ground disturbance for rare or special-status plant species and cacti during the appropriate period (blooming or otherwise identifiable) for those species having the potential to occur in the construction areas. All rare or special-status plant species and cacti observed shall be flagged for transplantation.
No vehicles or equipment shall be refueled within 100 feet of an ephemeral drainage or wetland unless a bermed and lined refueling area is constructed. Any vehicles driven and/or operated within or adjacent to drainages or wetlands shall be checked and maintained daily to prevent leaks of materials.
The applicant shall implement a Worker Environmental Awareness Program (WEAP) to educate workers about the environmental issues associated with the project and the MMs that will be implemented at the site, including nest awareness and non-disturbance exclusion zones.

Preconstruction clearance surveys to identify active bird nests shall be conducted within 2 weeks of ground disturbance or vegetation removal in all active work areas during the breeding season (February 1–August 31). The work area will need to be resurveyed following periods of inactivity of 2 weeks or more. Active nests shall be avoided using non-disturbance buffer zones as shown below. •Avian Awareness and Baseline Non-Disturbance Buffer Zones •Starting Distance of Awareness or Type Non-Disturbance Exclusion Zones Passerines 300 feet from active nest Raptors 500 feet from active nest Golden Eagles 1 mile and line of sight from active nest Burrowing 250 feet from active burrows during nesting Owls1 season (February 1–August 31) 160 feet from active burrows during the wintering period (September 1–January 31) •Implementation Notes: A qualified biologist may reduce or increase the buffer distance if there is sufficient evidence based on species, habitat, and other factors, that applicant activity would not impact nesting activity. Buffers would be maintained until a qualified biologist has determined that the nest is no longer active.
Monitoring of any active nests within or adjacent to the work areas shall be conducted until nestlings have fledged and dispersed. Ongoing breeding-season monitoring of work areas shall be conducted throughout the duration of construction. Nest monitoring results shall be recorded in a Nest Check Form. Typically, a nest check will have a minimum duration of 30 minutes, but it may be longer or shorter, or more frequent than one check per day, as determined by the Designated Biologist (see MM BIO-7 for Designated Biologist) based on the type of construction activity (duration, equipment being used, potential for construction-related disturbance) and other factors related to assessment of nest disturbance (weather variations, pair behavior, nest stage, nest type, species, etc.). The Designated Biologist shall record the construction activity occurring at the time of the nest check and note any work exclusion buffer in effect at the time of the nest check. Non-project activities in the area should also be recorded (e.g., adjacent construction sites, roads, commercial/industrial activities, recreational use, etc.). The Designated Biologist shall record any sign of disturbance to the active nest, including but not limited to parental alarm calls, agitated behavior, distraction displays, nest fleeing and returning, chicks falling out of the nest or chicks or eggs being predated as a result of parental abandonment of the nest. Should the Designated Biologist determine project activities are causing or contributing to nest disturbance that might lead to nest failure, the Designated Biologist shall coordinate with the Construction Manager to limit the duration or location of work, and/or set other limits related to use of project vehicles and/or heavy equipment. Nest locations, project activities in the vicinity of nests, and any adjustments to buffer areas shall be described and reported in regular monitoring and compliance
Preconstruction surveys for burrows containing suitable bat roosting habitat that could be used as individual bat roosts shall be conducted in all project work areas.
The connection from the substation to the transmission line shall be designed to meet the most recent Avian Power Line Interaction Committee guidelines to the extent practicable.
Roads, power lines, fences, and other infrastructure associated with the project shall be minimized to reduce habitat loss. Fencing will use wildlife compatible design standards.
Collector lines shall be placed underground to reduce avian collisions.
Federal and state measures for handling toxic substances shall be followed to minimize danger from spills to water and wildlife resources. Facility operators shall maintain Hazardous Materials Spill Kits on-site. Personnel shall be trained to use the Hazardous Materials Spill Kits.
The applicant shall clear vegetation outside of the bird breeding season to the maximum extent practicable. Preconstruction avian clearance surveys shall be conducted by a qualified biologist for vegetation clearing during the bird breeding season (February 1–August 31). If a nest(s) is identified in the preconstruction avian clearance surveys, a qualified monitor shall be on-site during vegetation removal in order to enforce non-disturbance buffers and stop activities as necessary should construction disturb nesting activity.

Trash shall be disposed of in covered containers and regularly removed from the site.
Surveys for burrowing owl shall be conducted in suitable burrowing owl habitat prior to construction and if construction is suspended for 2 weeks or more. Surveys shall be performed pursuant to the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). If active burrows are found, they shall be avoided using non-disturbance buffer zones. Passive relocation shall be used as described above once the burrow is determined to be inactive.
A qualified biologist shall conduct a ground-based golden eagle clearance survey for active golden eagle nests in a 2-mile area surrounding the project, as accessible. Golden eagle clearance surveys shall be conducted annually for each year of construction during the golden eagle nesting season. If active nests are found in the study area, the applicant shall coordinate with BLM, USFWS, and CDFW to ensure that construction does not result in disturbance of the golden eagles.
Project personnel shall remove and dispose of roadkill near the study area to avoid attracting raptors and other scavengers to the site and shall regularly remove vegetation around larger facilities (such as the substation) to reduce raptor foraging.
The project shall minimize the use of lighting that could attract migrating birds and bats (that could feed on concentrations of insects at lights). Lighting will be kept to the minimum level necessary for safety and security. High-intensity, steady burning, bright lights such as sodium vapor or spotlights will not be used on project facilities.
Project personnel and visitors shall be instructed to drive at low speeds (<15 mph) and be alert for wildlife, especially in low-visibility conditions.
Fencing shall be removed at the completion of decommissioning.
Desert tortoise exclusion fencing shall be installed at the perimeter of project construction areas (i.e., solar array areas, project buildings, substation/switchyard, earthen berms, and along the edge of access roads and collector line corridors). The fence locations will be determined during final design and will enclose areas of project activity. The fence line and a 30 foot-wide buffer shall be surveyed for desert tortoise before construction of the fence and according to USFWS protocol. Desert tortoise translocation will adhere to guidelines of the desert tortoise translocation plan for the project (see MM BIO-12). Tortoises found in the fence line study area or spotted within 50 m of the fence line study area shall be: •Assigned a USFWS identification number. •Given a health assessment. •Fitted with a transmitter. Tortoises that are too small to accept a transmitter (i.e., no transmitter is available that is 10% or less of the tortoise's body weight) shall be treated as a translocatee and held in situ. •Moved into habitat adjacent outside the fence line. The tortoise shall be moved into an empty burrow if clearance of the fence area takes place outside the tortoise active season (i.e., November–March and June–August). •Any of the moved tortoises that return to the project area before completion of fence construction shall be treated as translocatees. Desert tortoises remaining outside the fence line prior to completion of the fence shall be deemed residents. The transmitter shall be removed from the resident tortoise, and no further action shall be taken for the resident tortoises. USFWS procedures shall be followed to clear and handle the desert tortoise.

The project area desert tortoise preconstruction clearance survey shall be conducted during the desert tortoise active season (April–May and September–October) unless otherwise agreed to by CEC, USFWS, and CDFW. The survey shall be conducted according to USFWS protocol and preferably during early morning hours to increase the chance juvenile tortoises are found, per the Guidelines. Any tortoise scat shall be collected on each pass of a transect, per the Guidelines. USFWS procedures shall be followed to clear and handle the desert tortoise.
The linear facilities desert tortoise preconstruction clearance survey(s) can be conducted at any time throughout the year. Linear facilities for this project include the buried collector lines between arrays and connecting to the substation. Located desert tortoises shall be undisturbed and allowed to clear the site without assistance or interference. Tortoises shall be moved if necessary to reduce the potential for harm from construction activities but shall not be moved more than 500 m in such a scenario. USFWS procedures shall be followed to clear and handle the desert tortoise.
Data shall be collected during desert tortoise clearance surveys as described in this section. The same data shall be collected again on tortoises held in the interim in situ on the day that the tortoise is translocated from the study area. The data include: Date Time Temperature (°C) Project name Site type (project/recipient/control) Landowner (BLM) Permit/BO # Coverage # Field crew vendor Surveyor (first and last name) ID# Midline carapace length (MCL) (millimeters) Sex Universal Transverse Mercator (UTM) (Easting) UTM (Northing) Location (e.g., burrow) Transmitter manufacturer Transmitter serial # Transmitter frequency Transmitter install date Battery life (months) Status (alive/dead/lost)
Following installation of the desert tortoise exclusion fencing, the fencing shall be regularly inspected. Permanent fencing shall be inspected monthly and during and within 24 hours following all major rainfall events. A major rainfall event is defined as one for which flow is detectable within the fenced drainage. Any damage to the fencing shall be temporarily repaired immediately to keep tortoises out of the site, and permanently repaired within 72 hours between March 15 and October 31 and within 7 days between November 1 and March 14 of observing damage. Inspections of permanent site fencing shall occur while desert tortoise fencing is in place.

No construction, operation, or decommissioning activities shall occur in unfenced areas without a USFWS-approved desert tortoise biologist present. These activities include the construction phase (construction, revegetation), decommissioning phase, and maintenance activities during the operations phase that require new surface disturbance. An adequate number of trained and experienced monitors must be present during all construction and decommissioning activities in unfenced areas, depending on the various construction tasks, locations, and season. A biologist shall be on-site from March 15 through October 31 (active season) during ground-disturbing activities in areas outside the exclusion fencing, and shall be on-call from November 1 through March 14 (inactive season). The biologist shall check all construction areas immediately before construction activities begin. The biologist shall inspect construction pipes, culverts, or similar structures 1) with a diameter greater than 3 inches, 2) stored for one or more nights, 3) less than 8 inches aboveground, and 4) within desert tortoise habitat (i.e., outside the permanently fenced area), before the materials are moved, buried, or capped. Alternatively, such materials may be capped before storing outside the fenced area or placing on pipe racks.
A Raven Monitoring and Control Plan shall be prepared consistent with the most current USFWS-approved raven management guidelines. The purpose of the plan is to avoid any project-related increases in raven numbers during construction, operation, and decommissioning. The Raven Monitoring and Control Plan shall be submitted to BLM, CDFW, and USFWS for approval at least 30 days prior to the start of construction.
A Burrowing Owl Relocation Plan shall be prepared and submitted to CDFW for approval. Burrowing owls occupying burrows on-site shall be passively relocated outside the nesting season (February 1–August 31) or after a qualified biologist determines that the burrow does not contain eggs or chicks and after consultation with CDFW. Prior to construction and passive relocation, artificial burrows shall be installed in areas that would not be disturbed during construction at a ratio of 5:1 for each burrow that will be destroyed by project construction. Passive relocation shall be conducted prior to construction and according to guidelines from the California Burrowing Owl Consortium (1993).
Compensatory habitat mitigation shall be provided at a 1:1 ratio for impacts to suitable desert tortoise habitat during construction. A Habitat Compensation Plan shall be prepared to the approval of CDFW, USFWS, and BLM.
No pets or domestic animals shall be allowed on-site prior to or during construction, except kit fox scat detection dogs (with CDFW approval) used for preconstruction surveys or postconstruction kit fox mortality monitoring. The project will not authorize the housing or grazing of domestic animals on the project site. Feeding of animals will be prohibited to discourage the spread of non-native birds, to discourage the spread of disease and pathogens, etc.
Best Management Practices. To reduce indirect impacts to special-status plants and wildlife that may occur in the study area, BMPs shall be implemented prior to and during construction to control dust pollution, prevent discharge of potentially harmful chemicals, and prevent changes in hydrology. BMPs may include the installation of erosion and sedimentation control devices, applying water to control dust, placing drip pans under equipment when not in use, refueling in designated areas, and containing concrete washout properly, among other practices.

Worker Environmental Awareness Program. Prior to project initiation, the Designated Biologist shall develop and implement the WEAP (APM BIO-12), which will be available in English and Spanish. Wallet-sized cards summarizing the information shall be provided to all construction and operation and maintenance personnel. The WEAP shall include the following:

- An explanation of the sensitivity of the vegetation communities and special-status plant and wildlife species within and adjacent to work areas, and proper identification of these resources.
- Biology and status of the desert tortoise, golden eagle, burrowing owl, other nesting birds, desert bighorn sheep, kit fox, and American badger and measures to reduce potential effects on these species.
- Actions and reporting procedures to be used if desert tortoise, burrowing owl, other nesting birds, desert bighorn sheep kit fox, or American badger are encountered.
- An explanation of the function of flagging that designates authorized work areas.
- Driving procedures and techniques to reduce mortality of wildlife on roads.
- Discussion of the federal ESA and CESA, BGEPA, and MBTA and the consequences of non-compliance with these acts.
- The importance of avoiding the introduction of invasive weeds onto the project area and surrounding areas.
- A discussion of general safety protocols such as hazardous substance spill prevention and containment measures and fire prevention and protection measures.
- A review of mitigation requirements that are applicable to their work.

Special-Status Plant Species and Cacti Impact Avoidance and Minimization. This measure will provide guidance on how project personnel can avoid unintended impacts to special-status plants on the project area (e.g., Utah vine milkweed) and provide for the salvage of protected cacti prior to construction. This measure includes the following requirements:

- The applicant shall establish Environmentally Sensitive Areas around Utah vine milkweed that has been identified on the project area and/or may be identified in project disturbance areas during site preparation. A minimum 100-foot exclusion area shall be established around the plants, which shall be clearly identified and maintained throughout construction to ensure that avoided plants are not inadvertently harmed. ESAs shall be clearly delineated in the field with temporary construction fencing and signs prohibiting movement of the fencing or sediment controls under penalty of work stoppages or compensatory mitigation.
- Worker Environmental Awareness Program. The WEAP (APM BIO-12; MM BIO-2) shall include training components specific to protection of special-status plants that occur on the project area.
- Herbicide and Soil Stabilizer Drift Control Measures. Special-status plant occurrences within 100 feet of the project disturbance area, including Utah vine milkweed, shall be protected from herbicide and soil stabilizer drift. The IWMP includes measures to avoid chemical drift or residual toxicity to special-status plants consistent with guidelines such as those provided by the Nature Conservancy's Global Invasive Species Team (Hillmer and Liedtke 2003), the U.S. Environmental Protection Agency, and the Pesticide Action Network Database.
- Erosion and Sediment Control Measures. Erosion and sediment control measures shall not inadvertently impact special-status plants (e.g., by using invasive or non–Mojave Desert native plants in seed mixtures, introducing pest plants through contaminated seed or straw, etc.). These measures shall be incorporated in the Comprehensive Drainage, Stormwater, and Sedimentation Control Plan.

•Preconstruction Vegetation Salvage. The applicant shall provide a draft Vegetation Resources Management Plan detailing the methods for the salvage and transplantation of target succulent species covered under the CDNPA. The plan shall be submitted to CDFW for review and approval at least 30 days prior to the start of ground-disturbing activities and shall include, at a minimum, the following elements:

a.Soil baseline characterization. The characterization shall be presented to CDFW prior to ground disturbance and shall include:

i.Profile description of three representative pedons. (A pedon is the smallest three-dimensional sampling unit displaying the full range of characteristics of a particular soil and typically occupies an area ranging from about 1 to 10 square yards.)

ii.Characterization of surface application (desert pavement or biological soil crust present). Description of biological soil crust shall include major groups of organisms identified at the site (filamentous cyanobacteria, other cyanobacteria, mosses, lichens, liverworts) and the characteristics by which they were identified (see item b, below).

iii.Documentation of soil macro-invertebrates (that is, presence of ants, termites, and other significant macro-invertebrates).

•Bulk density, along with a reference to a generally accepted method for making the determination.

•Fertility (nutrient status, electrical conductivity, sodium adsorption ratio), along with methods by which composite samples were collected and the laboratory methods used to determine these properties. Composite samples will contain equal contributions from at least six randomly located collection points within the soil donor area.

•Organic matter content and total carbon and nitrogen content, along with a reference to generally accepted methods for making the determinations.

a.Soil compaction shall be determined by measurement of bulk density in grams per cubic centimeter (or numerically equivalent units). Bulk density may be determined by any of several standard measurements, but the method used must be referenced to a widely accepted soil methodology publication. In no case shall soil be compacted to a bulk density that exceeds 1.6 grams per cubic centimeter except where no planting is to take place. Penetrometer measurements are not a substitute for bulk density measurements.

Once characterized, the top 3 inches of topsoil shall be salvaged from the areas where traditional grading will be used per the following protocol, and stored within the project area. The upper 0.25 inch may be collected separately to preserve biological crust organisms. Topsoil may not be distinguishable from subsoils by color or

Biological Monitoring. Biological Monitor(s) shall be employed to assist the Designated Biologist in conducting preconstruction surveys and monitoring ground disturbance, grading, construction, decommissioning, and restoration activities. Additionally, biological monitoring shall be performed during any ground disturbance or grading activities that occur during operation and maintenance. The Biological Monitor(s) shall have sufficient education and field experience to understand resident wildlife species biology; have experience conducting desert tortoise, burrowing owl, kit fox, and badger field monitoring; and be able to identify these species and their sign (including active burrows). The Designated Biologist shall submit a resume, at least three references, and contact information for each prospective Biological Monitor to CDFW and USFWS for approval. To avoid and minimize effects on biological resources, the Biological Monitor(s) shall assist the Designated Biologist with the following:

- Be present during construction activities that take place in suitable habitat for desert tortoise, burrowing owl, kit fox, badger, or other protected species to prevent or minimize harm or injury to these species. This also includes unfenced construction activities for desert bighorn sheep.
- Activities of the Biological Monitor(s) include, but are not limited to, ensuring compliance with all avoidance and minimization measures; monitoring for desert tortoise, burrowing owl, kit fox, badger, and other protected species; halting construction activity in the area if an individual is found; and checking the staking/flagging of all disturbance areas to be sure that they are intact and that all construction activities are being kept within the staked/flagged limits. If a desert tortoise, burrowing owl, desert bighorn sheep, kit fox, badger, or other protected species is found within a work area, the Biological Monitor(s) shall immediately notify the Designated Biologist, who shall determine measures to be taken to ensure that the individual is not harmed.
- Inspect the study area for any special-status wildlife species.
- Ensure that potential habitats within the construction zone are not occupied by special-status species (e.g., potential burrows or nests are inspected).
- In the event of the discovery of a non-listed, special-status ground-dwelling animal, recover and relocate the animal to adjacent suitable habitat at least 200 feet from the limits of construction activities.
- At the end of each work day, inspect all potential wildlife pitfalls (e.g., trenches, bores, other excavations) for wildlife and remove wildlife as necessary. If the potential pitfalls will not be immediately backfilled following inspection, the Biological Monitor(s) will ensure that the construction crew slopes the ends of the excavation (3:1 slope), provides wildlife escape ramps, or completely and securely covers the excavation to prevent wildlife entry.
- Inspect the site to ensure trash and food-related waste is placed in closed-lid containers and that workers do not

Designated Biologist. The applicant shall assign at least one Designated Biologist to the project. The applicant shall submit the resume of the proposed Designated Biologist(s), with at least three references and contact information, to the BLM Authorized Officer for approval in consultation with CDFW and USFWS.

The Designated Biologist must meet the following minimum qualifications:

- Have a bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field;
- Have 3 years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society;
- Have at least 1 year of field experience with biological resources found in or near the study area;
- Meet the current USFWS Authorized Biologist qualifications criteria, demonstrate familiarity with protocols and guidelines for the desert tortoise, and be approved by the USFWS;
- Possess a CESA Memorandum of Understanding pursuant to Section 2081(a) for desert tortoise.

In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the BLM Authorized Officer, in consultation with CDFW and USFWS, that the proposed Designated Biologist or alternate has the appropriate training and background to effectively implement the MMs.

Fence Design and Site Permeability. Permanent site fencing installed around the project should be designed to allow for the passage of wildlife, to the extent feasible given the need for the fencing to prevent ingress by desert tortoise. Depending on the fencing material, the fence line should have gaps of approximately 4 to 6 inches accessible to wildlife other than desert tortoise and the fencing material should be knuckled back to create a smooth edge. Alternate designs may also be constructed with prior written approval from CDFW and USFWS. Regardless, the project shall ensure that any such fence meets existing specifications that have been developed to preclude accidental entanglement of desert bighorn sheep, deer, and other animals.

Fencing should be sufficient to prevent desert bighorn sheep passage (e.g., 2m-2.5m tall chain-link) – should be installed at the corridor entrances between (a) the East Array and South Array 1, (b) South Array 1 and South Array 2, and (c) South Array 2 and South Array 3 on the east side (Figure 2, Project Design). Gaps of approximately 4 to 6 inches should occur at the bottom of the fence to allow small wildlife, mesocarnivores, coyote and American badger to pass under. Additionally, the project shall extend a line of project fencing to the north to connect with the wildlife exclusion fencing associated with the I-15 overcrossing structure (Figure 13, Fencing Plans of the Desert Bighorn Sheep Study). Approximately 1,640 linear feet of this can be accomplished within the existing project boundary, but the additional approximately 300 linear feet will need to be coordinated with BLM and possibly Caltrans. The project will secure the necessary encroachment permits or other mechanism to continue fencing between the project boundary and the wildlife exclusion fencing associated with the I-15 overcrossing structure. Care should be taken when connecting the fences to make sure that they are physically connected or directly abut one another such that wildlife can't pass through or get stuck between them. The ultimate fencing plans should be reviewed by CDFW for final approval prior to site disturbance activities.

Compliance Monitoring by the Designated Biologist. Prior to ground-disturbing activities, an individual shall be designated and approved by CDFW as a Designated Biologist (i.e., field contact representative). Designated Biologist qualifications are presented below.

The Designated Biologist shall be employed for the period during which ongoing construction and postconstruction monitoring and reporting by an approved biologist is required. Each successive Designated Biologist shall be approved by CDFW. The Designated Biologist shall have the authority to ensure compliance with all measures set forth in the BO and CESA Section 2081 take authorization and with all MMs included herein, and shall be the primary agency contact for the implementation of these measures. The Designated Biologist shall have the authority and responsibility to halt any project activities that are in violation of the terms of the BO, Section 2081 take authorization, or project MMs. A list of responsibilities of the Designated Biologist is summarized below.

To avoid and minimize effects to biological resources, the Designated Biologist shall:

- Notify CDFW and USFWS at least 14 calendar days before initiation of ground-disturbing activities.
- Immediately notify the CDFW in writing if the applicant/owner does not comply with any of the MMs or terms of the BO and/or the Section 2081 take authorization including, but not limited to, any actual or anticipated failure to implement such measures within the periods specified.
- Ensure performance of daily compliance inspections during ongoing construction as clearing, grubbing, and grading are completed, and submit a monthly compliance report to CDFW until construction is complete.

Speed Limits. Speed limits along all access roads outside of permanent desert tortoise fencing shall not exceed 15 mph to minimize dust during construction activities. Speed limits within permanent desert tortoise fencing shall not exceed 25 mph to minimize impacts during operation and maintenance. Nighttime vehicle traffic associated with project activities shall be kept to a minimum volume and speed (maximum of 15 mph) to prevent mortality of nocturnal wildlife species.

Desert Tortoise Protection. The applicant/owner shall undertake appropriate measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to desert tortoise. Methods for clearance surveys, fence specification and installation, tortoise handling, artificial burrow construction, egg handling, and other procedures shall be consistent with those described in the USFWS's Desert Tortoise (Mojave Population) Field Manual (USFWS 2009) or more current guidance provided by CDFW and USFWS. The applicant/owner shall also implement all terms and conditions described in the BO to be prepared by USFWS and CESA ITP. These measures include, but are not limited to, the following, subject to modification by the terms of incidental take authorizations issued by the USFWS and CDFW:

•Desert Tortoise Fencing along I-15. If required by CDFW, to avoid increases in vehicle-related mortality from disruption of local movement patterns along the existing ephemeral wash systems, desert tortoise-proof fencing shall be installed along the existing freeway ROW fencing on both sides of I-15 for the entire east-west dimension of the project area. The tortoise fencing shall be designed to direct tortoises to existing undercrossing to provide safe passage under the freeway and shall be regularly inspected and maintained for the life of the project.

•Desert Tortoise Exclusion Fence Installation. To avoid impacts to desert tortoise, permanent desert tortoise exclusion fencing shall be installed along the permanent perimeter security fence and temporarily installed along road corridors during construction. The proposed alignments for the permanent perimeter fence and temporary fencing shall be flagged and surveyed within 24 hours prior to the initiation of fence construction. Clearance surveys of the perimeter fence and temporary fencing areas shall be conducted by the Designated Biologist(s) using techniques outlined in the USFWS's Desert Tortoise (Mojave Population) Field Manual and may be conducted in any season with USFWS and CDFW approval. Biological Monitors may assist the Designated Biologist under his or her supervision. These fence clearance surveys shall provide 100% coverage of all areas to be disturbed and an additional transect along both sides of the fence line covering an area approximately 90 feet wide centered on the fence alignment. Transects shall be no greater than 15 feet apart. All desert tortoise burrows and burrows constructed by other species that might be used by desert tortoise shall be examined to assess occupancy of each burrow by desert tortoise and handled in accordance with the USFWS's Desert Tortoise Field Manual. Any desert tortoise located during fence clearance surveys shall be handled by the Designated Biologist in accordance with the USFWS's 2009 Desert Tortoise (Mojave Population) Field Manual (USFWS 2009).

a.Timing, Supervision of Fence Installation. The exclusion fencing shall be installed prior to the onset of site clearing and grubbing. The fence installation shall be supervised by the Designated Biologist and monitored by the Biological Monitors to ensure the safety of any tortoise present.

b.Fence Material and Installation. The permanent tortoise exclusionary fencing shall be constructed in accordance with the USFWS's Desert Tortoise (Mojave Population) Field Manual (Chapter 8 – Desert Tortoise Exclusion Fence) (USFWS 2009).

c.Security Gates. Security gates shall be designed with minimal ground clearance to deter ingress by tortoises. The gates may be electronically activated to open and close immediately after the vehicle(s) have entered or exited to prevent the gates from being kept open for long periods of time. Cattle grating designed to safely exclude desert tortoise shall be installed at the gated entries to discourage tortoises from gaining entry.

d.Fence Inspections. Following installation of the desert tortoise exclusion fencing for both the permanent site fencing and temporary fencing, the fencing shall be regularly inspected. If tortoises were moved out of harm's way during fence construction, permanent and temporary fencing shall be inspected at least two times per day for the first 7 days to ensure a recently moved tortoise has not been trapped within the fence. Thereafter, permanent fencing shall be inspected monthly and during or within 24 hours following all major rainfall events. Exceptions to

•Desert Tortoise Clearance Surveys within Solar Arrays and Gen-tie. Clearance surveys shall be conducted in accordance with the USFWS Desert Tortoise (Mojave Population) Field Manual (USFWS 2009) (Chapter 6 – Clearance Survey Protocol for the Desert Tortoise – Mojave Population) and shall consist of two surveys covering 100% of the study area by walking transects no more than 15 feet apart. If a desert tortoise is located during the second survey, a third survey shall be conducted. Each separate survey shall be walked in a different direction to allow opposing angles of observation. Clearance surveys of the project area may only be conducted when tortoises are most active (April–May or September–October) unless the project receives approval from CDFW and USFWS. Clearance surveys of linear features may be conducted during any time of the year. Any tortoise located during clearance surveys of solar arrays shall be translocated or relocated and monitored in accordance with the DTTP (MM 3.4-2b). The Designated Biologist, who may be assisted by the Biological Monitors, shall assess occupancy of each burrow by desert tortoise in accordance with the USFWS Desert Tortoise (Mojave Population) Field Manual (USFWS 2009). All potential desert tortoise burrows located during clearance surveys shall be excavated by hand, tortoises removed, and burrows collapsed or blocked to prevent occupation by desert tortoise in accordance with the DTTP.
•Monitoring Following Clearing. Following the desert tortoise clearance and removal from the project area, workers and heavy equipment shall be allowed to enter the project area to perform clearing, grubbing, leveling, and trenching activities. A Designated Biologist or Biological Monitor shall be on-site for clearing and grading activities to move tortoises missed during the initial tortoise clearance survey. Should a tortoise be discovered, it shall be relocated or translocated as described in the DTTP.
•Reporting. The Designated Biologist shall record the following information for any desert tortoise handled: a) the locations (narrative and maps) and dates of observation; b) general condition and health, including injuries, state of healing and whether desert tortoise voided their bladders; c) location moved from and location moved to (using GPS); d) gender, carapace length, and diagnostic markings (i.e., identification numbers or marked lateral scutes); e) ambient temperature when handled and released; and f) digital photograph of each handled tortoise. Desert tortoise moved from within the project area shall be marked and monitored in accordance with the DTTP. All collected data related to tortoise relocation shall be provided to CDFW and USFWS.
Desert Tortoise Translocation Plan. The applicant/owner shall develop and implement a USFWS- and CDFW-approved DTTP. The DTTP, which shall be approved prior to any ground disturbance or tortoise relocation, shall include measures to minimize the potential for repeated translocations of individual desert tortoise. The goals of the DTTP shall be to relocate all desert tortoise from the project area to nearby suitable habitat; minimize impacts on resident desert tortoise outside the project area; minimize stress, disturbance, and injuries to relocated/translocated tortoises; and assess the success of the translocation effort through monitoring. The DTTP shall follow the Translocation of Mojave Desert Tortoises from Project Sites: Plan Development Guidance (USFWS 2011b) and shall clearly define how it addresses the 11 steps outlined in the guidance. The final DTTP shall be based on the draft DTTP prepared by the applicant/owner and shall include all revisions deemed necessary by CDFW and USFWS. The final plan will be subject to modification for consistency with the CESA ITP, USFWS take authorization and/or BO conservation requirements.

Desert Tortoise Compliance Verification. The applicant/owner shall provide CDFW and USFWS staff with unfettered access to the project area and compensation lands under the control of the project owner and shall otherwise fully cooperate with the CDFW's efforts to verify the project owner's compliance with, or the effectiveness of, adopted MMs. The Designated Biologist shall do all of the following:

•Notification. Notify CDFW at least 14 calendar days before initiating construction-related ground disturbance activities; immediately notify CDFW in writing if the project owner is not in compliance with any conditions of certification, including but not limited to any actual or anticipated failure to implement MMs within the time periods specified in the conditions of certification;

•Monitoring During Grubbing and Grading. Remain on-site daily while vegetation salvage, grubbing, grading, and other ground-disturbing construction activities are taking place to avoid or minimize take of listed species, and verify personally or have Biological Monitor(s) verify compliance with all impact avoidance and minimization measures, including checking all exclusion zones to ensure that signs, stakes, and fencing are intact and that human activities are restricted in these protective zones.

•Monthly Compliance Inspections. Conduct compliance inspections at a minimum of once per month after clearing, grubbing, and grading are completed and submit a monthly compliance report to CDFW and USFWS during construction.

•Notification of Injured or Dead Listed Species. If an injured or dead federally or state-listed species is detected on or near the project area CDFW and USFWS shall be notified immediately by phone. Notification shall occur no later than noon on the business day following the event if it occurs outside normal business hours so that the agencies can determine whether further actions are required to protect listed species. Written follow-up notification via facsimile or electronic communication shall be submitted to these agencies within 2 calendar days of the incident and include the following information as relevant:

a.Injured Desert Tortoise. If a desert tortoise is injured as a result of project-related activities during construction, the Designated Biologist or Biological Monitor(s) shall immediately take it to a CDFW-approved wildlife rehabilitation and/or veterinarian clinic. Any veterinarian bills for such injured animals shall be paid by the applicant/owner. Following phone notification as required above, CDFW and USFWS shall determine the final disposition of the injured animal, if it recovers. Written notification shall include, at a minimum, the date, time, location, and circumstances of the incident and the name of the facility where the animal was taken.

b.Desert Tortoise Fatality. If a desert tortoise is killed by project-related activities during construction, operation and maintenance, or decommissioning, a written report with the same information as an injury report shall be submitted CDFW and USFWS. These desert tortoises shall be salvaged according to federally established guidelines. The applicant/owner shall pay to have the desert tortoises transported and necropsied. The report shall include the date and time of the finding or incident.

1.Final Listed Species Mitigation Report. The Designated Biologist shall provide CDFW a Final Listed Species Mitigation Report that includes, at a minimum, 1) all available information about project-related incidental take of listed species; 2) information about other project impacts to the listed species; 3) construction dates; 4) an assessment of the effectiveness of conditions of certification in minimizing and compensating for project impacts; 5) recommendations on how MMs might be changed to more effectively minimize and mitigate the impacts of future projects on the listed species; and 6) any other pertinent information, including the level of take of the listed species associated with the project.

2.Stop Work Order. CDFW may issue the project owner a written stop work order to suspend any activity related to the construction or operation of the project to prevent or remedy a violation of one or more conditions of certification (including but not limited to failure to comply with reporting, monitoring, or habitat acquisition obligations) or to prevent the illegal take of an endangered, threatened, or protected species. The project owner shall comply with the stop work order immediately upon receipt thereof.

Desert Tortoise Compensatory Mitigation: To fully mitigate for habitat loss and potential take of desert tortoise, the project owner shall provide compensatory mitigation consistent with federal requirements, adjusted to reflect the final project footprint. The acreage for mitigation of desert tortoise habitat will be at a 1:1 ratio. For the purposes of this condition, the project footprint means all lands disturbed in the construction and operation of the project, including all project linears, as well as undeveloped areas inside the project's boundaries that will no longer provide viable long-term habitat for the desert tortoise. To satisfy this condition, the project owner shall acquire, protect, and transfer 1 acre of desert tortoise habitat for every acre of habitat within the final project footprint, and provide associated funding for the acquired lands, as specified below. In lieu of acquiring land itself, the project owner may satisfy the requirements of this condition by depositing funds into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), as provided below in Section 3.i. of this measure.

If compensation lands are acquired in fee title or in easement, the requirements for acquisition, initial improvement, and long-term management of compensation lands include all of the following, subject to modification by the terms of incidental take authorizations issued by USFWS and CDFW:

•Selection Criteria for Compensation Lands. The compensation lands selected for acquisition in fee title or in easement shall:

a.be within the Western Mojave Recovery Unit, or, with prior USFWS and CDFW approval, within the Eastern Mojave Recovery Unit as defined in the 2011 Revised Recovery Plan (USFWS 2011b), with potential to contribute to desert tortoise habitat connectivity and build linkages between desert tortoise designated critical habitat, known populations of desert tortoise, and/or other preserve lands;

b.provide habitat for desert tortoise with capacity to regenerate naturally when disturbances are removed;

c.be prioritized near larger blocks of land that are either already protected or planned for protection, such as Desert Wildlife Management Areas within the Western Mojave Recovery Unit (or nearby portions of the Eastern Mojave Recovery Unit with prior USFWS and CDFW approval) or which could feasibly be protected long term by a public resource agency or a non-governmental organization dedicated to habitat preservation;

d.be connected to lands with desert tortoise habitat equal to or better quality than the project area, ideally with populations that are stable, recovering, or likely to recover;

e.not have a history of intensive recreational use or other disturbance that does not have the capacity to regenerate naturally when disturbances are removed or might make habitat recovery and restoration infeasible;

•Compensation Lands Acquisition Requirements. The project owner shall comply with the following requirements relating to acquisition of the compensation lands after BLM, in consultation with CDFW and USFWS, have approved the proposed compensation lands:

a.Preliminary Report. The project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the BLM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by BLM and CDFW, in consultation with USFWS. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission, and the Wildlife Conservation Board.

b.Title/Conveyance. The project owner shall transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement as required by the BLM and CDFW. Transfer of either fee title or an approved conservation easement will usually be sufficient, but some situations, e.g., the donation of lands burdened by a conservation easement to BLM, will require that both types of transfers be completed. Any transfer of a conservation easement or fee title must be to CDFW, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or BLM under terms approved by the BLM. If an approved non-profit organization holds title to the compensation lands, a conservation easement shall be recorded in favor of CDFW in a form approved by CDFW. If an approved non-profit holds a conservation easement, CDFW shall be named a third-party beneficiary.

c.Initial Habitat Improvement Fund. The project owner shall fund the initial protection and habitat improvement of the compensation lands. Alternatively, a non-profit organization may hold the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code Section 65965) and if it meets the approval of CDFW and BLM. If CDFW takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFW or its designee.

d.Property Analysis Record. Upon identification of the compensation lands, the project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate long-term maintenance and management fee to fund the in perpetuity management of the acquired mitigation lands.

e.Long-term Maintenance and Management Fund. The project owner shall deposit in NFWF's REAT Account a capital long-term maintenance and management fee in the amount determined through the PAR or PAR-like analysis conducted for the compensation lands. BLM, in consultation with CDFW, may designate another non-profit

Minimize Vehicle and Equipment Impacts during Operation and Maintenance. The applicant/owner shall implement measures to minimize the potential for desert tortoise and other wildlife species mortality along access and maintenance roads. These measures shall include:

•Speed limits identified in MM BIO-8 shall continue to be applied during operation and maintenance.

•Pedestrian access outside the limits of the designated access/maintenance roads is permitted year-round as long as no ground-disturbing activities take place.

•Vehicle traffic and parking shall be confined to designated access roads, and equipment and materials staging areas shall be clearly defined to avoid impacting habitat during the operation phase.

Mojave Fringe-toed Lizard Protection Measures. A qualified biologist will conduct a focused survey for Mojave fringe-toed lizard prior to ground disturbance in suitable habitat (aeolian sand deposits) within all active work areas. Two survey replicates will be performed during the Mojave fringe-toed lizard active season (March–October) during appropriate weather conditions. Qualified biologists will walk transects spaced 10m apart throughout areas with suitable habitat within the study area. Detections of Mojave fringe-toed lizard will be recorded using a GPS unit. If Mojave fringe-toed lizards are not detected, then no further action is needed. If Mojave fringe-toed lizards are found, then a pre-construction survey should be conducted no more than one week before ground disturbance begins, and any Mojave fringe-toed lizards should be moved to suitable habitat south of the Project area where the species was confirmed to be present.

Avian Monitoring and Mitigation Program. An Avian Monitoring and Mitigation Program (AMMP) shall be initiated and approved by the BLM in consultation with CDFW and USFWS prior to construction and continue for at least 5 years following commercial operation (and longer if determined necessary and appropriate by the Designated Biologist). The AMMP shall prevent substantial adverse effects to special-status species through implementation of the approach outlined in the postconstruction monitoring and adaptive management provisions of Region 8 Interim Guidelines for the Development of a Project-specific Avian and Bat Protection Plan for Solar Energy Plants and Related Transmission Facilities (USFWS 2010), in conjunction with any measures required after consultation with USFWS and/or CDFW under the ESA, CESA, or BGEPA, if applicable. The Program shall use surveys and monitoring of on-site avian and bat use and behavior to document species composition and changes in avian and bat use over time. The purpose of the AMMP is to provide an adaptive management and decision-making framework for reviewing, characterizing, and responding to avian and bat monitoring results, and reducing long-term impacts on these taxa. The AMMP shall include the following components:

•A description of the baseline and ongoing avian and bat survey methods, including identification of onsite survey locations and seasonal survey considerations, and a description of acoustic bat monitoring methods.

•Avian and bat mortality and injury monitoring that includes:

a.Onsite monitoring of representative locations in the facility, at a level of effort that accounts for potential spatial bias and allows for the extrapolation of survey results to non-surveyed areas. The AMMP will provide a rationale justifying the proposed schedule of carcass searches.

b.Low-visibility and high-wind weather event monitoring to document potential weather-related collision risks that may be associated increased risk of avian or bat collisions with project features, including foggy, highly overcast, or rainy night-time weather typically associated with an advancing frontal system, and high wind events (40-mph winds) are sustained for period of greater than 4 hours. The monitoring report shall include survey frequency, locations, and methods.

c.Scavenger and searcher efficiency trials to document the extent to which avian or bat fatalities remain visible over time and can be detected, and to adjust the survey timing and survey results to reflect scavenger and searcher efficiency rates.

d.A description of statistical methods used to generate facility estimates of potential avian and bat impacts based on the number of detections during standardized searches during the monitoring season for which the cause of death can be determined.

Avoid Disturbance to Nesting Birds. Vegetation clearing shall take place outside of the general avian breeding season (February 15–September 1), when feasible. If vegetation clearing cannot occur outside the avian breeding season, the Designated Biologist/Biological Monitor(s) shall conduct a preconstruction survey for nesting birds no more than 3 days prior to vegetation clearing. If no active nests are found, clearing can proceed. If active nests are found, no clearing shall be allowed within 150 feet (for passerines) to 250 feet (for raptors) of the active nests until the Designated Biologist/Biological Monitor(s) determines the nest is no longer active or the nest fails. Based on observation of the individual birds' tolerance to human activity, this buffer may be reduced by a qualified biologist. Encroachment into the buffer may occur at the discretion of a qualified biologist. The Designated Biologist/Biological Monitor(s) shall submit the results of the preconstruction nesting bird surveys to BLM, USFWS, and CDFW. Following agency coordination, the size of the next buffer may be adjusted based upon the magnitude of proposed activities and observed sensitivity of the bird to disturbance.
Lighting Specifications to Minimize Bird and Bat Impacts. The applicant/owner shall minimize night lighting during construction by using shielded directional lighting that is pointed downward, thereby avoiding illumination to adjacent natural areas and the night sky.
Bird and Bat Conservation Strategy (BBCS). The applicant/owner shall develop a BBCS to address project impacts to special-status avian and bat species that shall be consistent with the Region 8 Interim Guidelines for the Development of a Project-specific Avian and Bat Protection Plan for Solar Energy Plants and Related Transmission Facilities (USFWS 2010). The applicant/owner shall submit the BBCS to the CDFW and USFWS for review and approval prior to initiation of project construction. The BBCS shall include an assessment of potential avian and bat impacts from lighting, noise, collision, electrocution, and attraction of ravens, as applicable; measures to mitigate for the effects to birds; a description of general avoidance and minimization measures applicable during construction, operation and maintenance, and postconstruction to include nest management and postconstruction monitoring; a description of the reporting requirements and reporting schedule and duration; and the adaptive management strategy. A raven management element shall be included in the BBCS or provided separately that includes measures such as storage of garbage in raven-proof containers and installation of anti-nesting devices on structures where raven nests could be built.

Burrowing Owl Protection Measures. No more than 14 days prior to the start of ground disturbance, a preconstruction survey for burrowing owls in conformance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) shall be completed within suitable habitat at every work area and within a 150-m buffer zone of each work area. Work areas will be resurveyed following periods of inactivity of 2 weeks or more. The applicant/owner shall submit the results of the preconstruction survey to BLM's Authorized Officer and CDFW. The applicant/owner shall also submit evidence of conformance with federal and state regulations regarding the protection of the burrowing owl by demonstrating compliance with the following:

- Unless otherwise authorized by BLM and CDFW, no disturbance shall occur within 160 feet (50 m) of occupied burrows during the non-breeding season (September 1–January 31) or within 650 feet (200 m) during the breeding season (February 1–August 31). Eviction outside the nesting season may be permitted pending evaluation of eviction plans (developed in accordance with CDFW protocol for burrowing owls) by CDFW and receipt of formal written approval from CDFW authorizing the eviction. A Burrowing Owl Mitigation and Monitoring Plan following the guidance in the CDFW's Staff Report on Burrowing Owl Mitigation (CDFW 2012) shall be submitted to the BLM's Authorized Officer and CDFW for review and approval prior to passive relocation.
- In the event that an occupied burrow cannot be avoided, passive relocation of owls may be implemented prior to construction activities only if a qualified biologist approved by BLM verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Eviction outside the nesting season may be permitted pending evaluation of eviction plans (developed in accordance with BLM protocol for burrowing owls) by CDFW and receipt of formal written approval from BLM authorizing the eviction. A Burrowing Owl Mitigation and Monitoring Plan shall be submitted to the BLM, and CDFW for review and approval prior to passive relocation.
- Occupied burrows shall not be disturbed during the nesting season (February 1–August 31). In the event that an occupied burrow absolutely cannot be avoided (e.g., due to physical or safety constraints), passive relocation of owls may be implemented prior to construction activities only if a qualified biologist approved by CDFW verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
- Unless otherwise authorized by CDFW, a 650-foot buffer within which no activity will be permissible shall be maintained between project activities and nesting burrowing owls during the nesting season. This protected area shall remain in effect until August 31 or at CDFW's discretion and, based on monitoring evidence, until the young

American Badger and Desert Kit Fox Protection. To avoid direct impacts to American badger and desert kit fox, preconstruction surveys shall be conducted for these species concurrently with the desert tortoise surveys. Surveys shall be conducted as described below:

- Biological Monitors shall perform preconstruction surveys for badger and kit fox dens in the project disturbance area, including a 20-foot swath beyond the disturbed area, utility corridors, and access roads. If dens are detected, each den shall be classified as inactive, potentially active, or definitely active.
- Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.
- Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for 3 consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.
- If no tracks are observed in the tracking medium or no photos of the target species are captured after 3 consecutive nights, the den shall be excavated and backfilled by hand.
- If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den.
- If an active natal den is detected on the site, the BLM Authorized Officer and CDFW shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. The course of action would depend on the age of the pups, location of the den on the site (e.g., is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around active natal dens.
- The following measures are required to reduce the likelihood of distemper transmission:

a.No pets shall be allowed on the site prior to or during construction, with the possible exception of kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFW approval;

b.Any kit fox hazing activities that include the use of animal repellents such as coyote urine must be cleared through CDFW prior to use; and

c.Any documented kit fox mortality shall be reported to CDFW and the BLM Authorized Officer within 24 hours of identification. If a dead kit fox is observed, it shall be retained and protected from scavengers until CDFW

Vegetation Best Management Practices. The applicant shall undertake the following measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to vegetation resources:

•Limit Area of Disturbance. The boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) shall be delineated with stakes and flagging prior to construction activities in consultation with the Designated Biologist. Spoils and topsoil shall be stockpiled in disturbed areas within the project area. Parking areas and staging and disposal site locations shall similarly be located in areas without native vegetation or special-status species habitat. All disturbances, project vehicles, and equipment shall be confined to the flagged areas.

•Minimize Road Impacts. New and existing roads that are planned for construction, widening, or other improvements shall not extend beyond the flagged impact area as described above. All vehicles passing or turning around would do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route shall be clearly marked (i.e., flagged and/or staked) prior to the onset of construction.

•Minimize Traffic Impacts. Vehicular traffic during project construction and operation shall be confined to existing routes of travel to and from the project area, and cross-country vehicle and equipment use outside designated work areas shall be prohibited.

•Monitor During Construction. In areas that have not been fenced with desert tortoise exclusion fencing and cleared, a Designated Biologist shall be present at the construction site during all project construction activities that have potential to disturb soil, vegetation, and wildlife. The Designated Biologist or Biological Monitor shall review areas immediately ahead of equipment during brushing and grading activities.

•Minimize Impacts of Staging Areas. Staging areas for construction on the project area shall be within the area that has been fenced with desert tortoise exclusion fencing. For construction activities outside of the solar project area, access roads, pulling sites, and storage and parking areas shall be designed, utilized, and maintained with the goal of avoiding or minimizing impacts to native plant communities and sensitive biological resources. Staging areas outside of the project area shall maintain a minimal disturbance footprint, avoid jurisdictional wetlands, and avoid disturbance to native plant communities whenever possible.

•Avoid Use of Toxic Substances. Soil bonding and weighting agents used on unpaved surfaces (per MM 3.2-1) shall be non-toxic to plants and wildlife.

•Implement Erosion Control Measures. All erosion control measures promoted by the Lahontan Regional Water

•Revegetation of Temporarily Disturbed Areas. The applicant shall prepare and implement a Temporary Disturbance Revegetation Plan to restore all areas subject to temporary disturbance to pre-project grade and conditions. The plan shall be submitted to the BLM and CDFW for review and approval at least 30 days prior to the start of ground-disturbing activities. Temporarily disturbed areas within the project area include, but are not limited to, all proposed locations for linear facilities, temporary access roads, berms, areas surrounding the drainage diffusers, construction work temporary lay-down areas not converted to part of the solar field, and construction equipment staging areas. The Temporary Disturbance Revegetation Plan shall include a description of topsoil salvage and seeding techniques and a monitoring and reporting plan, and plan to achieve the following performance standards by the end of monitoring year 2:

a.At least 80% of the species observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats; and

b.Relative cover and density of plant species within the temporarily disturbed areas shall equal at least 60% relative to pre-disturbance conditions.

•Integrated Weed Management Plan. This measure provides further detail and clarifies requirements for the applicant's draft IWMP. Prior to beginning construction on the project, the applicant shall prepare, circulate to BLM for comment and approval, and then implement an IWMP that meets the approval of BLM's Authorized Officer and conforms to the CDCA Plan to prevent the spread of existing invasive species and the introduction of new invasive species to the project area. The plan shall be consistent with BLM's Record of Decision for Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM 2007) and the 2008-2012 National Invasive Species Management Plan (National Invasive Species Council 2008). The IWMP shall include, at a minimum, specific management objectives and measures for each target invasive species, baseline conditions, weed risk assessment, measures (both preventative and containment/control) to prevent/limit the introduction and spread of invasive species, monitoring and surveying methods, and reporting requirements. The BLM-approved IWMP shall include: a.Preventative measures to prevent the spread of weeds into new habitats, such as equipment inspections, use of weed-free erosion control materials and soils, and a mandatory site training element that includes weed management; b.Weed containment and control measures such as the removal of invasive species primarily via mechanical means, with the use of herbicides restricted to BLM-policies and approved usage (e.g., BLM's Herbicide Use Standard Operating Procedures provided in Appendix B of the Record of Decision for the Final Vegetation Treatments Using Herbicides Programmatic Environmental Impact Statement (BLM 2007); c.Monitoring and reporting standards annually during construction and for 3 years following the completion of construction to describe trends in weed distribution and direct weed management measures, and; d.Reporting of monitoring and management efforts in annual reports and a final monitoring report completed at the end of 3 years of postconstruction monitoring. Copies of these reports will be provided to BLM for review and comment. BLM will use the results of these reports to determine whether any additional monitoring or control measures are necessary. Weed control will be ongoing on the project area for the life of the project, but plan success will be determined by BLM after the 3 years of operations monitoring through the reporting and review process. Success criteria will be defined as having no more than a 10% increase in a weed species or in overall weed cover in any part of the project area.
Final Closure Plan. At least 12 months prior to project closure, the applicant shall prepare a Final Closure Plan to restore the site's topography and hydrology to a relatively natural condition and to establish native vegetation communities within the project area. The Final Closure Plan shall include a cost estimate for implementing the proposed decommissioning and reclamation activities, and shall cover the estimated cost as though BLM were to contract with a third party to decommission the project and reclaim the project area. The plan shall be subject to review and revisions from the BLM Authorized Officer in consultation with USFWS and CDFW.
Artificial Water Sources. The project will design and install at least five new artificial water sources for desert bighorn sheep to use. The location, design, and method of installations will be determined in cooperation with CDFW and BLM and the ultimate plan will be approved by CDFW and BLM. The locations may be on private or public lands but must be located within 5 miles of the project boundary to mitigate this metapopulation. Because the I-15 wildlife overcrossing will be installed adjacent to the site, water structure installations should occur on both sides on I-15 with a possible preference for one proximate to the overcrossing structure. The project shall establish a non-wasting endowment to monitor and maintain the water features in perpetuity.

Compensatory Mitigation. If MM-BIO-12 (Desert Tortoise Compensatory Mitigation) is adhered to and occurs within approximately 1 kilometer of desert bighorn sheep-occupied or CDFW-identified/modeled desert bighorn sheep habitat, then no additional compensatory habitat mitigation would be required as the acquired habitat would also satisfy the foraging needs of desert bighorn sheep. However, if the mitigation lands acquired for MM-BIO-12 do not satisfy this requirement, then separate compensatory mitigation for loss of desert bighorn sheep foraging habitat (i.e., all lands east of I-15 that are fenced in) at a 1:1 ratio meeting all of the other requirements (i.e., requirements for acquisition, initial improvement, and long-term management of compensation lands) and protections afforded under MM-BIO-12 will be required.
Mitigation and Monitoring Plan. Prior to site disturbance, the project will prepare a desert bighorn sheep mitigation and monitoring plan. The plan will be approved by CDFW and BLM. This plan will require monitoring of wildlife crossings, fencing effectiveness, water sources, and all other implemented mitigation measures for a minimum of 8 years with an annual monitoring report provided to CDFW by January 31, and a final report covering the entire monitoring period (i.e., at least 8 years) by January 31st of the final year. Components of this requirement may be modified if already covered by other monitoring efforts (e.g., Brightline, Caltrans). The plan will include the methods for monitoring, identify what is being monitored, identify the goals of the measures, methods for determining the effectiveness of the measures, and remedial triggers and measures if the mitigation
Limited Operating Period. Noises greater than 85 A-weighted decibels (dBA) maximum sound level (Lmax) will not be allowed within 500 meters of the hinge point (10% slope line) between December 1 and June 30. If loud work must occur, even briefly, then the project must get CDFW concurrence that the desert bighorn sheep lambing period is done or verify, in coordination with CDFW, that there are no desert bighorn sheep on the facing slope within a distance that would be expected to be subject to an 85 dBA Lmax sound level. If the project believes that they may need to ultimately perform loud work during the lambing period, then they shall coordinate with CDFW early (i.e., ideally as soon as possible, but minimally before the lambing period) to determine how much additional desert bighorn sheep-specific monitoring will be needed for CDFW to evaluate whether the request is feasible. Simply monitoring a week or two in advance will not provide enough data to perform the evaluation.
Work Boot Decontamination. All construction personnel will be trained on the importance of and procedures for decontaminating boots to prevent transmission of disease from domesticated sheep and goats to desert bighorn sheep. In addition, all quarry workers who have potential contact with domesticated sheep and/or goats (for example at farms, fairs, etc.) will be identified and shall decontaminate work boots prior to entering the project area. Decontamination shall involve scrubbing the soles of work boots with a 10% bleach solution to remove all organic matter and kill pathogens. Alternatively, footwear may be changed to ensure that potentially contaminated footwear does not enter any quarry area.
Prior to any ground disturbing activities, the Applicant shall retain a qualified archaeologist, defined as one meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology and subject to approval by the BLM, to conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of cultural resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources. The Applicant shall ensure that all construction personnel are made available for and attend the training and shall retain documentation demonstrating attendance.

A Cultural Resources Discovery and Monitoring Plan (CRDMP) shall be developed at least 30 days prior to ground disturbing activities and implemented by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for archaeology. The CRDMP shall detail provisions for the archaeological monitoring of Project construction. Archaeological monitoring during ground- disturbing activities shall be conducted by an archaeologist familiar with the types of historic and prehistoric resources that could be encountered within the APE, who shall have the authority to halt construction in the event of a discovery. The archaeological monitor shall work under the direct supervision of the qualified archaeologist. All cultural resources personnel will be approved by the BLM.
The CRDMP shall detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing National Register- and California Register-eligibility in the event that unknown cultural resources are discovered during construction. The CRDMP shall require that the contractor immediately cease all work activities in the area (within 100 feet) of the discovery until it can be evaluated by a qualified archaeologist. After cessation of excavation, the contractor shall immediately contact the BLM Archaeologist. The contractor shall not resume work until authorization from the BLM is received.
If the qualified archaeologist, in consultation with BLM, determines that the discovery constitutes a historic property per Section 106 of the National Historic Preservation Act or a historical or unique archaeological resource under the California Environmental Quality Act, preservation in place shall be the preferred manner of mitigation (Public Resources Code §21083.2). In the event preservation in place is demonstrated to be infeasible, a treatment plan shall be prepared by the qualified archaeologist and shall be approved by the BLM prior to implementation. The BLM shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. Archaeological materials recovered during any investigation shall be curated at an accredited curational facility. The CRDMP shall include provisions for reporting of monitoring and any treatment of resources in a timely manner.
If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM Authorized Officer shall be informed immediately. The BLM shall ensure that any Native American human remains, funerary objects, sacred objects, and/or objects of cultural patrimony discovered on BLM administered lands during implementation of the Project will be treated in accordance with the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) (Pub. L. 101-601, 25 USC § 3001 et seq.) and 43 CFR Section 10. Avoidance and protection of inadvertent discoveries that contain human remains through Project redesign shall be the preferred protection strategy.
After construction completion, the BLM shall monitor disturbed areas where clearing, grubbing, and cut-and-fill shall be compacted once construction is complete for greater resistance to wind erosion.
During construction, facilities will be built in accordance with San Bernardino County and California State Building Code requirements applicable to "Seismic Zone 3." No human-occupied structures will be placed across the trace of a documented active fault. No human-occupied structure will be placed within 50 feet of the trace of an active fault or within a seismic special studies zone without a fault evaluation report, satisfactory to the State Geologist, demonstrating that no undue hazard would be created by the construction or placement of the structure.
Roads shall be constructed at grade to maintain existing drainage patterns during storm events. Unpaved access roads shall be constructed of compacted native soils. Rock or gravel may be added to unpaved roads for stabilization to prevent rutting or erosion.

The project stormwater pollution prevention plan or best management practices (BMP) plan required by Lahontan Regional Water Quality Control Board (RWQCB) for compliance with its General Permit R6T-2003-0004 and prepared consistent with its Project Guidelines for Erosion Control (Board Order No R6T-2003-0-04 Attachment G; Lahontan RWQCB 2003) shall be prepared and submitted to the BLM and County for review by a watershed specialist, hydrologist, and/or engineer from each lead agency before implementation. Reports shall be submitted 30 days prior to ground-disturbing activities. Erosion control and drainage plans for new and existing roads to be utilized for the project shall be aimed at maintaining to the greatest extent feasible existing soil quality and integrity. In developing the plan, the applicant or its contractor shall consult with the BLM and the County to determine the appropriate soil quality objective(s) to be met following construction (for temporary construction disturbances) and following decommissioning (for total site restoration). As part of the erosion control and drainage plans, the applicant and/or its contractor shall implement an appropriate combination of BMPs in order to meet or exceed the applicable soil quality objective(s) (e.g., maintain or enhance soil quality and function).
All measures and facilities for controlling runoff and erosion shall be in place prior to ground-disturbing activities. Desert tortoise fencing shall be installed consistent with APM BIO-28, which requires approved design to ensure a minimum impact to existing washes and to limit any substantial increase of erosion or sediment transport. Any desert tortoise fencing that creates substantial excess soil shall have straw wattles or other measures installed to prevent soil transport.
All erosion control facilities shall be monitored immediately following a qualified storm event. A major rainfall event is defined as one for which flow is visibly detectable within the fenced drainage. All repairs shall be completed prior to the commencement of ground disturbing activity. Any erosion control facilities that are damaged by rainfall shall be repaired within 72 hours of any damage and shall be monitored after any precipitation. Clearance reports and inspection logs shall be submitted to the BLM and the County. Substantial damage to erosion control facilities shall be reported to the BLM and the County and per the above, no ground disturbing activity shall restart until the facilities are repaired.
Prior to construction of project facilities, a qualified California-licensed geotechnical engineer shall prepare and submit to BLM a final geotechnical investigation that provides design requirements for foundations, retaining walls/shoring, and excavation, compliant with the applicable seismic design standards in the CBC. The scope of the geotechnical report shall include the solar array fields, collection line routes, substation and switchyard site, and the operation and maintenance buildings sites. The geotechnical investigation shall expand upon the preliminary investigations as necessary and identify and evaluate the presence of expansive, compressible, liquefiable, or mechanically unstable soils and, if present, shall make recommendations for site preparation or design necessary to avoid or reduce adverse structural impacts. Structural foundations shall not be founded on engineered fill, nor on native soil, unless it is demonstrated that the soils would be adequate to support the foundation. A California-licensed geotechnical engineer shall be retained by the applicant to be present on the project site during excavation, grading, and general site preparation activities to monitor the implementation of the recommendations specified in the geotechnical investigation. When/if needed, the geotechnical engineer shall provide structure-specific geologic and geotechnical recommendations that shall be documented in a report approved by the permitting agency.

Grading and other methods of ground disturbance in areas covered by desert pavement shall be avoided or minimized. If avoidance of these areas is not possible, the desert pavement surface shall be protected from damage or disturbance from construction vehicles by use of temporary mats on the surface. A Desert Pavement Identification, Avoidance, and Protection Plan shall be prepared and submitted to the BLM for review and approval at least 60 days prior to start of construction which shall include, at a minimum: 1.A preconstruction survey using accepted methodology to identify areas covered by desert pavement; 2.Identification of areas covered by desert pavement that can feasibly be avoided and methods for avoidance, such as through placement of project structures during final design, flagging and/or fencing areas of desert pavement for avoidance, and/or other measures; 3.Identification of areas covered by desert pavement that cannot feasibly be avoided and methods for protection, including at a minimum the use of temporary mats on the surface. Other methods may include restrictions on vehicle weight in addition to the use of mats.
A Project Paleontologist listed as a Principal Investigator on a current California BLM Permit for Paleontological Investigations who meets or exceeds the standards of the BLM will be retained to oversee the execution of all paleontological mitigation measures. The Project Paleontologist shall obtain a curatorial arrangement with a qualified repository prior to construction in the event of significant paleontological resource discoveries during construction.
The Project Paleontologist shall develop Worker Environmental Awareness Program training to educate the project personnel on the legal requirements for preserving fossil resources, the recognition of the types of paleontological resources that could be encountered within the requested right-of-way boundary, and the procedures to be followed in the event of a fossil discovery. This training program shall be given by the Project Paleontologist or their designee to the crew before ground-disturbing work commences and shall include handouts to be given to new workers as needed.
The Project Paleontologist will develop a comprehensive paleontological resources monitoring and mitigation plan (PRMMP) that incorporates the latest project description, engineering plans, and project site. The PRMMP will consider the results of previous paleontological resources assessments, including but not limited to the results of the geologic map review, geotechnical investigation, scientific literature review, museum records searches, reconnaissance surveys, and the accepted provisional paleontological sensitivity classification. The PRMMP will specify locations and depth thresholds that require paleontological monitoring during ground-disturbing activities. The PRMMP will discuss paleontological monitoring of ground-disturbing activities in previously undisturbed sediments identified as having moderate or higher sensitivity, whether present at the surface or anticipated to be present at depth in the subsurface. Geologic units of low and very low paleontological sensitivity, as well as all previously disturbed sediments, regardless of depth, should not be subject to paleontological monitoring unless anticipated to be underlain by previously undisturbed geologic units of relatively higher paleontological sensitivity that could be impacted by earthwork activities at depth. Appropriate mitigation methods may include full-time paleontological monitoring, screening of sediment samples for small fossils, or additional field surveys in the event of changes to the project site boundaries.

Monitoring will be conducted by a BLM-approved paleontological monitor working under the supervision of a BLM-permitted Field Agent or BLM-permitted Principal Investigator (i.e., the Project Paleontologist) in the field, with the overall implementation of the PRMMP overseen by a BLM-permitted Principal Investigator. If field observations of surface or subsurface geologic conditions during construction activities would indicate a differing paleontological sensitivity ranking than that previously assigned, the Project Paleontologist may consult with the BLM, the California Department of Fish and Wildlife (CDFW), other relevant overseeing agencies, and Soda Mountain Solar, LLC, to recommend adjustments to the level of monitoring in response to subsurface conditions. Full-time (or on-site) monitoring can be reduced to part-time inspections (or spot checks) or ceased entirely if this is determined adequate by the Project Paleontologist and approved by all parties. This change can be done verbally and then documented via email or another written format to the BLM, CDFW, other relevant overseeing agencies, and Soda Mountain Solar, LLC. The paleontological monitor will have authority to temporarily divert activity away from exposed fossils to evaluate the significance of the find and, should the Project Paleontologist or Field Agent determine that the fossils are potentially significant, professionally and efficiently recover the fossil specimens for laboratory evaluation, and collect associated data following the procedures and guidelines of the BLM (2008a) and in accordance with the requirements stipulated in the California BLM Permit for Paleontological Investigations and Fieldwork Authorization permit(s). Nonsignificant fossils will be documented and recorded in the field but not collected. Any potentially significant fossil that is collected for further evaluation will be returned to the discovery site or retained for educational purposes if after laboratory analysis it is determined to be a nonsignificant resource. The disposal of the fossil will depend on the requirements of the agency administering the land on which the fossil was discovered. Paleontological monitors will record pertinent geologic and geographic data from any fossil localities.
In the event of a fossil discovery, whether by the permitted and approved paleontological field staff or a member of the construction crew, all work will cease in a 50-foot radius of the find while the Project Paleontologist or Field Agent assesses the significance of the fossil and documents its discovery. Should the Project Paleontologist or Field Agent determine that the fossil locality is potentially significant, it will be salvaged following the procedures and guidelines of the BLM (BLM 2008a) and in accordance with the requirements stipulated in the California BLM Permit for Paleontological Investigations and Fieldwork Authorization permit(s). Nonsignificant fossils will be documented and recorded in the field but not collected. Potentially significant fossils that were collected in the field that were determined to be nonsignificant after laboratory analysis will be returned to the site or retained for educational purposes (depending on the requirements of the overseeing agency administering the land on which the fossil was discovered). Significant fossils will be prepared to the point of morphological identification and/or taxonomic identification to facilitate the requirements of the curation in an accredited repository pre-approved by the BLM, CDFW, and/or another overseeing agency.
Upon conclusion of ground-disturbing activities, the Project Paleontologist will prepare a final report detailing the methods and results of implementing the PRMMP, including full documentation of scientifically significant fossils found, significance assessment of those fossils, repository details for significant fossils, and any recommendations for future work within the project site. If paleontological resources are curated, the final monitoring report and any associated data pertinent to the curated specimen(s) should be submitted to the designated repository. A copy of the final monitoring report should be filed with the BLM, CDFW, and/or another overseeing agency.

Fugitive Dust Control Plan. The applicant shall prepare and implement a Fugitive Dust Control Plan to address fugitive dust emissions during project construction, operation, maintenance, and future decommissioning. The plan shall include measures to minimize fugitive dust emissions from development of laydown and staging areas, site grading, vegetation management, and installation of all project facilities through postconstruction cleanup. The applicant shall take every reasonable precaution to prevent all airborne fugitive dust plumes from leaving the project and to prevent visible particulate matter from being deposited upon public roadways. The applicant shall submit the plan to Mojave Desert Air Quality Management District for review and approval no less than 60 days prior to the start of construction. The applicant shall incorporate the plan into all contracts and contract specifications for construction work. The Fugitive Dust Control Plan shall identify a Dust Control Supervisor that shall have the authority to expeditiously employ sufficient dust mitigation measures. The Dust Control Supervisor shall be on the site or available on-site within 30 minutes during working hours and shall have the authority to implement enhanced (contingency) measures if dust plumes are visible beyond the property line, which indicates that existing mitigation measures are not resulting in effective mitigation.

The following measures would be included within the plan:

- During construction, all unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during construction activities shall be stabilized with a non-toxic soil stabilizer or soil weighting agent or watered two times daily or as frequently as necessary to minimize fugitive dust generation. Non-water-based soil stabilizers shall be as efficient as or more efficient for fugitive dust control than California Air Resources Board-approved soil stabilizers and shall not increase any other environmental impacts, including loss of vegetation, adverse odors, or emissions of ozone precursor reactive organic gases or volatile organic compounds.
- For long-term site operations, the applicant shall establish a Site Operations Dust Control Plan, which includes all applicable fugitive dust control measures identified for operations activities. The Site Operations Dust Control Plan shall include the use of durable non-toxic soil stabilizers on all regularly used unpaved roads, shall restrict vehicular access to established unpaved travel paths within the project boundaries, and shall include the long-term inspection and maintenance procedures that will be undertaken to ensure that the unpaved roads remain stabilized.
- The main access roads through the site shall be either paved or stabilized using soil binders, or equivalent methods, to provide a stabilized surface that is similar for the purposes of dust control to paving, that may or may

Use of chemicals, fuels, lubricants, or biocides will comply with all local, state, and federal regulations. This is necessary to minimize the possibility of contamination of habitat or primary or secondary poisoning of badgers and other predators utilizing adjacent habitats, and the depletion of American badger prey. All uses of such compounds should observe label and other restrictions mandated by the EPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, the use should be restricted to interiors of buildings and zinc phosphide should be used because of the lower risk of poisoning burrowing

The applicant shall prepare and implement a Fire Management and Prevention Plan to ensure the safety of workers and the public during construction, O&M, and future decommissioning activities for the project. The owner must provide the Fire Management and Prevention Plan to the BLM for review and approval and to the San Bernardino County Fire Department for review and comment before construction. The Fire Management and Prevention Plan shall include, but not be limited to, the following elements:

- Procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, and hot work restrictions.
- Work restrictions during Red Flag Warnings and High to Extreme Fire Danger days.
- All internal combustion engines used at the project site shall be equipped with spark arrestors. Spark arrestors shall be in good working order.
- Once initial two-track roads have been cut and initial fencing completed, light trucks and cars shall be used only on roads where the roadway is cleared of vegetation.
- Mufflers on all cars and light trucks shall be maintained in good working order.
- Fire rules shall be posted on the project bulletin board at the contractor's field office and areas visible to employees.
- Equipment parking areas and small stationary engine sites shall be cleared of all flammable materials.
- Smoking shall be prohibited in all vegetated areas and within 50 feet of combustible materials storage and shall be limited to paved areas or areas cleared of all vegetation.
- The construction site (if construction occurs simultaneously at various locations) shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires.
- The applicant shall coordinate with the BLM and the San Bernardino County Fire Department to create a training component for emergency first responders to prepare for specialized emergency incidents that may occur at the project site.
- All construction workers, plant personnel, and maintenance workers visiting the plant and/or transmission lines to perform maintenance activities shall receive training on fire prevention procedures, the proper use of fire-fighting equipment, and procedures to be followed in the event of a fire. Training records shall be maintained and be available for review by the BLM and the San Bernardino County Fire Department. Fire prevention procedures shall be included in the project's Worker Environmental Awareness Program (Mitigation Measure BIO-2).

An Environmental Inspection and Compliance Monitoring program and plan for construction and operation will be developed and implemented to ensure that hazardous materials are properly stored and potentially hazardous waste is properly disposed of. A Project Environmental Manager will be designated to oversee the program and plan. All contractors and employees will be educated about hazardous materials storage, waste sorting, appropriate recycling storage areas, and reduction of landfill waste. The Environmental Inspection and Compliance Monitoring program and plan shall include, but not be limited to, the following elements:

- On-site fueling specifications. On-site fueling of equipment and vehicles shall be completed in areas at least 100 feet away from drainages or in designated fueling areas. Fuel stored on-site will be in areas with secondary containment, unless secondary containment is built into the tank.
- Conductor installation guidance. During conductor installation, guard structures consisting of temporary H-frame poles shall be erected over any natural or human-made obstacles to shield them from falling objects.
- Transformer inspection. Transformers shall be inspected for oil leakage on a regular basis, and diversionary structures shall be provided for all oil-containing equipment, including transformers, at the project site.

A Hazardous Materials Management Plan will be prepared, and all construction crews, contractors, and operations crews will be briefed on the plan prior to starting work on the project. All fuels, fluids, and components with hazardous materials/wastes will be handled in accordance with applicable regulations. All such materials shall be kept in segregated storage with secondary containment as necessary. MSDSs for all hazardous materials stored on-site shall be retained on-site during project construction and operation. The project will maintain all records of storage and inspection and will provide for proper off-site disposal.
Health, Safety, and Noise Plan. A Health, Safety, and Noise Plan shall be prepared in compliance with all OSHA and Cal OSHA guidelines. Prior to start of construction, all construction crews and contractors shall be briefed on the plan prior to starting work on the project. The plan shall address health and safety issues associated with normal and unusual (emergency) conditions and shall include a respiratory protection program. The plan shall include, but not be limited, to the following information and guidance: •Environmental health and safety protocol (including, but not limited to, hazards of valley fever, including the symptoms, proper work procedures, when and how to use personal protective equipment, and informing supervisors of suspected symptoms of work-related valley fever) •An emergency response plan •Worker Education and Awareness Program training, which would include environmental, cultural, health, and safety training. •Noise/ear protection protocol •First aid training •Fire protection and extinguisher maintenance, guidance, and documentation Disposal of hazardous materials and waste guidance in accordance with local, state, and federal regulations.

Prior to site mobilization, the applicant shall submit a Drainage, Erosion, and Sedimentation Control Plan (DESCP) to the CDFW and the BLM for managing stormwater during project construction and operations. The DESCP must ensure proper protection of water quality and soil resources, address exposed soil treatments in the solar fields for both road and non road surfaces, and identify all monitoring and maintenance activities. The plan must also cover all linear project features such as the proposed generation-tie line. The DESCP shall contain, at a minimum, the elements presented below that outline site management activities and erosion and sediment-control BMPs to be implemented during site mobilization, excavation, construction, and postconstruction (operating) activities. Elements of the DESCP: •Vicinity Map: A map(s), at a minimum scale of 1 inch to 500 feet, shall be provided indicating the location of all project elements with depictions of all significant geographic features including swales, storm drains, drainage concentration points, and sensitive areas. •Site Delineation: All areas subject to soil disturbance for the proposed project shall be delineated showing boundary lines of all construction areas and the location of all existing and proposed structures and drainage facilities. •Clearing and Grading Plans: The DESCP shall provide a delineation of all areas to be cleared of vegetation and areas to be preserved. The plan shall provide elevations, slopes, locations, and extent of all proposed grading as shown by contours, cross sections, or other means. The locations of any disposal areas, fills, or other special features shall also be shown. Existing and proposed topography shall be illustrated by tying in proposed contours with existing topography. •Clearing and Grading Narrative: The DESCP shall include a table with the estimated quantities of material excavated or filled for the site and all project elements, whether such excavation or fill is temporary or permanent, and the amount of such material to be imported or exported. •Erosion Control: The plan shall address exposed soil treatments to be used during construction and operation, including specifically identifying all chemical-based dust palliatives, soil bonding, and weighting agents appropriate for use that would not cause adverse effects to vegetation. BMPs shall include measures designed to prevent wind and water erosion, including the application of chemical dust palliatives after rough grading to limit water use. •Best Management Practices Plan: The DESCP shall identify on the topographic site map(s) the location of the site-specific BMPs to be employed during each phase of construction (initial grading, project element excavation and
If crossing existing washes is necessary, then at-grade crossings will be constructed to maintain existing flow channels and sediment transport, thereby leaving stormwater runoff volume unchanged.
Prior to the start of construction, the Applicant shall provide cadastral survey data to the BLM for all sections within the requested ROW. All section corners shall be surveyed and monumented, and a record map completed and filed with San Bernardino County to ensure the descriptions for all lands within the Right-of-Way are recorded correctly.
Prior to issuance of the Notice-To-Proceed, the Applicant shall provide 100 percent design drawings to the BLM for review and approval.
Construction and decommissioning activities associated with the operation and maintenance buildings and pile driving within 1.5 miles of residences shall not occur between the hours of 10:00 p.m. and 7 a.m., Monday through Saturday, or at any time on Sundays.
Travel Management Area Maps for the project site showing open, closed, and limited travel routes and open off-road vehicles areas shall be updated and printed by the applicant for posting by the BLM during each phase of the project when the status or location of routes and/or open areas changes as a result of project construction, operation and maintenance, and/or decommissioning. These notices and signs shall clearly describe which routes and open areas will be closed temporarily or permanently.

Construction Traffic Management Plan: The applicant should prepare a Construction Traffic Management Plan (CTMP) for project construction to minimize adverse effects of project construction traffic. The CTMP may be prepared in consultation with the County of San Bernardino Public Works Department or Caltrans prior to construction activities and identify the following: •A breakdown of the number, type, capacity, and dimensions of the construction vehicles that would service the project site •An estimate of the average daily or weekly number of vehicles per vehicle type during each major phase of the work •Routing of passenger/worker vehicles, delivery vehicles, and excavation and construction vehicles oReview of site access as well as recommendations of signage and markings as needed so accessibility to the Shell Oil gas station is not affected oEnforcement of routing oDelivery hour restrictions, if applicable oTraffic control methods and when each is required oA contact for complaints and how complaints are to be addressed Traffic control shall be implemented during grading and construction of the project's main access point from Rasor Road and when large deliveries in wide-load vehicles or a high volume of deliveries occurs. Traffic control may include escort vehicles for wide loads, signage, and/or flaggers. Traffic control should be consistent with the requirements of the Manual of Uniform Traffic Control Devices (Federal Highway Administration 2023). All roadways should always be open to emergency personnel. Under the proposed plan, the project site would be fenced off with vehicular access via a gate off Rasor Road. With APM TRA 2 the applicant would minimize the adverse effects of project construction traffic on access to the Rasor OHV recreation area.
Recreationalist Access: The proposed solar array areas would be fenced and unavailable to recreationalists. The arrays would block access to Arrowhead Trail Road, which is designated as a closed road by BLM. Rasor Road would remain along the southern boundary of the project site and maintain public access to the Rasor OHV recreation area. Road signage notifying recreationalists of road closures and alternate routes would be installed as needed. Rasor Road would be graded but remain unpaved. The road would conform to BLM specifications and would be approximately 26 feet wide and 2.85 miles long.
Waste Recycling Plan (WRP). Prior to issuance of a notice to proceed, the project applicant shall submit a WRP to the California Department of Fish and Wildlife and the BLM. At a minimum, the WRP must identify the materials (e.g., solar panels, cardboard, concrete, asphalt, wood) that will be generated by construction and development; the projected amounts of each; the applicable state and local laws and regulations governing waste disposal and recycling (e.g., Department of Toxic Substances Control regulations regarding photovoltaic modules); the measures/methods that will be taken to recycle, reuse, and/or reduce the amount of materials; the facilities and/or haulers that will be utilized; and the targeted project-specific recycling or reduction rate.
During construction, the project site shall have, at a minimum, two bins: one for waste disposal and the other for the recycling of Construction and Demolition (C&D) materials. Additional bins are encouraged to be used for further source separation of C&D recyclable materials and shall be provided if required by applicable state and local laws. The project applicant shall maintain accurate records (receipts or other types of verification) for recycling of C&D recyclable materials and solid waste disposal; arrangements for such receipts can be made through the franchise hauler. These receipts will be retained to demonstrate compliance with the approved WRP if requested by the agencies and must clearly identify the amount of waste disposal and C&D materials recycled.

Standard in situ testing (deep percolation tests) would be performed at locations where septic or alternative wastewater disposal systems are proposed. The applicant shall document that any proposed sites for septic or alternative wastewater disposal systems meet all applicable standards, and that documentation shall be made available to BLM.

Time Frame for Implementation	Responsible Monitoring Agency
Prior to final design, during construction, during operation and maintenance	BLM, CDFW, CEC
Prior to construction, during construction, during operation and maintenance	BLM, CDFW, CEC

Prior to construction, during construction, during operation and maintenance	BLM, CDFW, CEC
Prior to final design, during construction, during operation and maintenance	BLM, CDFW, CEC

Prior to construction, during construction	BLM, CEC
During operations and maintenance	BLM, CEC

Prior to construction, during decommissioning	BLM, CEC
Prior to construction, during decommissioning	BLM, CEC

Prior to construction	BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC
During construction	BLM, CEC
During construction	BLM, CEC
During construction	BLM, CEC
During construction	BLM, CEC
During construction	BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC

During construction	BLM, CEC
Prior to construction, during construction, during operation and maintenance	BLM, CEC
Post decommissioning	BLM, CEC
Prior to construction, post construction	BLM, CDFW, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC

During construction, during operation and maintenance, during decommissioning	BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC
Post construction	BLM, CEC
During decommissioning	BLM, CEC
During decommissioning	BLM, CEC
Prior to construction, during construciton, post construction	BLM, CEC
Prior to construction	BLM, CDFW, CEC
During construction	BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC

Prior to construction, during construction	BLM, CEC, USFWS
During construction	BLM, CEC, USFWS
Prior to construction	BLM, CEC
Prior to final design	BLM, CEC
Prior to final design	BLM, CEC
Prior to final design	BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC
Prior to construction, during construction	BLM, CEC, USFWS

During construction, during operation and maintenance, during decommissioning	BLM, CEC
Prior to construction, during construction	BLM, CEC
Prior to construction, during construction	BLM, CEC, USFWS, CDFW
During construction, during operation and maintenance, during decommissioning	BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC
Post decommissioning	BLM, CEC
Prior to final design, prior to construction	BLM, CEC, USFWS

Prior to construction	BLM, CEC, USFWS
Prior to construction	BLM, CEC, USFWS
Prior to construction	BLM, CEC, USFWS
During construction, during operation and maintenance, during decommissioning	BLM, CEC, USFWS

During construction, during operation and maintenance, during decommissioning	BLM, CEC, USFWS
Prior to construction, during construciton	CEC, CDFW, USFWS, BLM
Prior to construction	CEC, BLM, CDFW
Prior to construction, during construction	CEC, CDFW, USFWS, BLM
Prior to construction, during construction, during operation and maintenance	CEC, BLM, CDFW
Prior to construction, during construction	BLM, CEC

Prior to construction, during construction, during operation and maintenance, during decommissioning	BLM, CEC
Prior to construction, during construction	BLM, CEC

Prior to construction, during construction	BLM, CEC, CDFW

Prior to construction, during construction, during operation and maintenance, during decommissioning	BLM, CEC, CDFW, USFWS
Prior to construction	BLM, CEC, CDFW, USFWS

Prior to construction, during construction	BLM, CEC, CDFW, USFWS
Prior to construction, during construction	BLM, CEC, CDFW, USFWS
During construction, during operation and maintenance, during decommissioning	BLM, CEC

Prior to construction, during construction	BLM, CEC, CDFW, USFWS
Prior to construction, during construction, during operation and maintenance, during decommissioning	BLM, CEC, CDFW, USFWS

Prior to construction	BLM, CEC, CDFW, USFWS
During construction	BLM, CEC, CDFW, USFWS
Prior to construction, during construction, during operation and maintenance, during decommissioning	BLM, CEC, CDFW, USFWS
Prior to construction, during construction, during operation and maintenance, during decommissioning	BLM, CEC, USFWS, CDFW

Prior to construction, during construction, during operation and maintenance, during decommissioning	BLM, CEC, USFWS, CDFW
During construction, during operation and maintenance, during decommissioning	BLM, CEC, USFWS, CDFW
During construction, during operation and maintenance, during decommissioning	BLM, CEC, USFWS, CDFW

During construction, during operation and maintenance, during decommissioning	BLM, CEC, USFWS, CDFW

During construction, during operation and maintenance, during decommissioning	BLM, CEC, USFWS, CDFW
During operation and maintenance	BLM, CEC

Prior to construction	BLM, CEC
Prior to construction, during construction, during operation and maintenance	BLM, CEC, CDFW, USFWS

Prior to construction, during construction	BLM, CEC, CDFW, USFWS
During construction	BLM, CEC
Prior to construction, during construction, during operation and maintenance, during decommissioning	BLM, CEC, CDFW, USFWS

Prior to construction, during construction	BLM, CEC, CDFW

Prior to construction, during construction	BLM, CEC, CDFW

Prior to construction, during construction, during operation and maintenance	BLM, CEC
Prior to construction, during construction, post construction	BLM, CEC, CDFW

Prior to construction, during construction, post construction	BLM, CEC
Prior to decommissioning	BLM, CEC, CDFW, USFWS
Prior to construction, during construction, post construction	BLM, CEC, CDFW

Prior to operation and maintenance	BLM, CEC, CDFW
Prior to construction, during construction, during operation and maintenance	BLM, CEC, CDFW
During construction	BLM, CEC, CDFW
During construction	BLM, CEC
Prior to construction	BLM, CEC

Prior to construction, during construction	BLM, CEC
During construction	BLM, CEC
During construction	BLM, CEC
During construction	BLM, CEC
Post construction	BLM, CEC
During construction	BLM, CEC
During construction	BLM, CEC

Prior to construction, during construction	BLM, RWQCB, San Bernadino County
Prior to construction	BLM, CEC
During construction	BLM, San Bernadino County, CEC
Prior to final design, during construction	BLM, CEC

Prior to construction, during construction	BLM, CEC
Prior to construction	BLM, CEC
Prior to construction	BLM, CEC
Prior to construction, during construction	BLM, CDFW, CEC

During construction	BLM, CDFW, CEC
During construction	BLM, CDFW, CEC
Post construction	BLM, CDFW, CEC

Prior to construction, during construction, during operation and maintenance, during decommissioning	Mojave Desert Air Quality Management District, BLM, CEC
During construction, during operation and maintenance, during decommissioning	BLM, CEC

Prior to construction, during construction, during operation and maintenance, during decommissioning	BLM, San Bernardino County Fire Department, CEC
Prior to construction, during construction, during operation and maintenance	BLM, CEC

Prior to construction, during construction, during operation and maintenance	BLM, CEC
Prior to construction, during construction, during operation and maintenance	BLM, CEC

Prior to construction, during construction	BLM, CDFW, CEC
During construction	BLM, CEC
Prior to construction	BLM, CEC
Prior to construction	BLM, CEC
During construction, during decommissioning	BLM, CEC
Duirng construction, during operation and maintenance, during decommissioning	BLM, CEC

Prior to construction, during construction	BLM, CEC
During construction	BLM, CEC
Prior to construction, during construction	BLM, CDFW, CEC
During construction	BLM, CDFW, CEC

Prior to construction	BLM, CEC

Compliance Submittal/Requirement	Monitoring (Y/N)	Notification (Y/N) If so, to whom?
	N	N
-Submit Surface Treament Plan to BLM/CDFW	N	N

-Submit Lighting Management Plan for approval to BLM/CDFW 30 days prior to construction -Maintain a log documenting use of nighttime lighting	N	N
	N	N

-Conduct pre-construction meeting with BLM specialists -Submit final design and construction documents for approval to BLM	N	N
-Conduct annual monitoring of VRM mitigation compliance	Y	N

-Submit Decommissioning and Site Reclamation Plan for approval to BLM	N	N
-Submit VRM Monitoring and Compliance Plan for approval to BLM	N	N

-Submit Glint and Glare Mitigation and Monitoring Plan for approval to BLM	N	N
	N	N
	N	N
	N	N
	N	N
	N	N
	N	N
	N	N

	N	N
-Submit Exhaust Emissions Control Plan for approval to BLM at least 30 days prior to construction	N	N
See MM BIO-29 for plan details/requirements	N	N
-Submit a Vegetation Resources Management Plan (including Vegetation Salvage Plans and Restoration Plans) to the CDFW -Obtain approval from CDFW for salvage and transplant methods and seed mixtures	N	N
	N	N

-Submit Qualified Applicator to CDFW for approval	N	N
	N	N
See MM BIO-21 for plan details/requirements	N	N
See APM BIO-2 for plan details/requirements	N	N
	N	N
	N	N
-Conduct pre-construction surveys for rare plants	N	N
-Submit biologist resumes to CDFW for approval	N	N
	N	N
-Prepare WEAP	N	N

-Conduct pre-construction clearance surveys	N	N
-Conduct nest monitoring -Prepare Nest Check Forms	Y	N
-Conduct pre-construction burrow surveys	N	N
	N	N
	N	N
	N	N
	N	N
-Conduct pre-construction clearance surveys -Conduct monitoring	Y	N

	N	N
-Conduct pre-construction burrowing owl surveys	N	N
-Conduct annual golden eagle clearance surveys -Notify BLM, USFWS, and CDFW if active nests are found	N	Y, BLM, USFWS, CDFW
	N	N
	N	N
	N	N
	N	N
-Conduct pre-construction desert tortoise surveys prior to construction exclusion fencing	N	N

-Conduct pre-construction desert tortoise clearance surveys	N	N
-Conduct pre-construction desert tortoise clearance surveys	N	N
	N	N
-Conduct regular monitoring of temporary desert tortoise exclusion fencing -Conduct monthly monitoring of permanent fencing and within 24 hours of major rainfall events	Y	N

-Submit desert tortoise biologist resumes to USFWS for approval -Conduct monitoring within unfenced areas	Y	N
-Submit Raven Monitoring and Control Plan to BLM, CDFW, and USFWS for approval at least 30 days prior to construction	N	N
-Submit Burrowing Owl Relocation Plan to CDFW for approval prior to construction	N	N
-Submit Habitat Compensation Plan to CDFW, USFWS, and BLM for approval prior to construction	N	N
	N	N
	N	N

-Prepare WEAP in English and Spanish -Prepare wallet cards	N	N
	N	N

-Submit Vegetation Resources Management Plan to CDFW for approval at least 30 days prior to ground disturbance -Present soil baseline characterization to CDFW prior to ground disturbance -Maintain records for transplanted succulents	N	N

-Submit biological monitor resumes, references, and contact information to CDFW and USFWS for approval -Conduct biological monitoring during ground-disturbance or grading activities	Y	N
-Submit designated biologist resume(s), references, and contact information to BLM for approval	N	N

-Submit final fencing plans to CDFW for approval prior to ground disturbance	N	N
-Submit Designated Biologist to CDFW for approval prior to ground disturbance -Notify CDFW and USFWS at least 14 days prior to ground disturbance -Immediately notify CDFW of non-compliances -Submit montly compliance reports to CDFW during construction	Y	Y, CDFW, USFWS
	N	N

	N	N
-Conduct surveys prior to exclusion fence construction -Conduct monitoring of fence installation -Conduct monitoring of all fencing two times per day for the first 7 days -Conduct monitoring of permanent fencing monthly or within 24 hours of a major rainfall event -Conduct monitoring of temproary fencing weekly and during and within 24 hours of major rainfall events at drainages	Y	N

-Conduct pre-construction clearance surveys within solar arrays and gen-ties	N	N
-Conduct monitoring for clearing and grading activities	Y	N
-Submit desert tortoise relocation data to CDFW and USFWS	N	N
-Submit a Desert Tortoise Translocation Plan to the USFWS and CDFW for approval prior to ground disturbance	N	N

-Notify CDFW at least 14 days prior to ground disturbance	N	Y, CDFW
-Conduct monitoring during ground-disturbing activities -Conduct monthly inspections after ground-disturbing activities -Submit monthly compliance reports to CDFW and USFWS during construction	Y	N
-Notify the CDFW and USFWS immediately of an injured or dead listed species -Submit a injury or death report to the CDFW and USFWS -Submit a Final Listed Species Mitigation Report to the CDFW following construction	M	Y, CDFW, USFWS

-Submit an acquisition proposal to BLM, CDFW, and USFWS for approval prior to acquisition	N	N

-Submit preliminary title report, hazardous materials survey report, biological analysis, and other necessary documents to the BLM, CDFW, and USFWS for approval -Conduct a Property Analysis Record after identifying compensation lands -Put agreement in place for long-term maintenance and management fee holder/manager -Obtain approval from BLM, CDFW, and USFWS regarding the form of security that the financial assurance will take -Submit financial assurances to the BLM, CDFW, and USFWS	N	N
	N	N

-Conduct a focused survey for Mojave fringe-toed lizard duirng active season -If lizards are found, conduct a pre-construction survey no more than one week prior to ground disturbance	N	N
-Submit Avian Monitoring and Mitigation Program to BLM -Conduct post-construction morality monitoring studies for 5 years following commerical operation and appoval of program	Y	N

-Conduct pre-construction nesting bird surveys no more than 3 days prior to vegetation clearing -Submit pre-construction nesting bird survey reprots to BLM, USFWS, and CDFW	N	N
	N	N
-Submit Bird and Bat Conservation Strategy to CDFW and USFWS for approval prior to construction	N	N

-Conduct pre-construction burrowing owl surveys no more than 14 days prior to the start of ground disturbance -Submit a Burrowing Owl Mitigation and Monitoring Plan to the BLM and CDFW for approval prior to passive relocation -Submit off-site habitat compensation to BLM and CDFW for approval. -Conduct monthly monitoring of site and fencing during construction	N	N

-Conduct pre-construction american badger and desert kit fox surveys concurrently with desert tortoise -Conduct monitoring for potentially active/active dens -Notify BLM and CDFW within 24 hours of detecting an active natal den -Notify BLM and CDFW within 24 hours of a kit fox mortality	Y	Y, BLM, CDFW

-Delineate disturbance areas -Conduct monitoring in non-fenced areas during all project construction activities that could disturbe soil, vegetation, and wildlife -Conduct sweeps immediately ahead of equipment during brushing and grading activities -Conduct monitoring during pre-construction ground-disturbing activities	Y	N
-Submit a Temporary Disturbance Revegetation Plan to the BLM and CDFW for approval at least 30 days prior to ground disturbance	N	N

-Submit an Integrated Weed Management Plan to the BLM for approval prior to construction -Conduct annual monitoring during construction and for 3 years following construction -Submit annual reporting and a final monitoring report to the BLM for review	Y	N
-Submit a Final Closure Plan to the BLM for review at least 12 months prior to project closure	N	N
-Submit location, design, and methodology for artifical water sources to CDFW and BLM for approval prior to construction -Establish endowment to monitor and maintain features for perpetuity	N	N

	N	N
-Submit a Desert Bighorn Sheep Mitigation and Monitoring Plan to the CDFW and BLM for approval prior to ground disturbance -Conduct monitoring and annual reporting for at least 8 years	Y	N
-Obtain CDFW concurrence for loud work prior to that work occurring -Conduct monitoring if loud work will occur during the lambing period	Y	N
	N	N
-Submit resume(s) for qualified archaeologists to BLM for approval -Prepare cultural resources sensitivity training -Provide documentation of project personnel training	N	N

-Submit Cultural Resources Discovery and Monitoring Plan (CRDMP) to BLM at least 30 days prior to ground-disturbing activities -Submit resume(s) for qualified archaeological monitors to BLM for approval -Conduct archaeological monitoring during ground-disturbing activities	Y	N
-Make notifications per CRDMP after discovery of unknown cultural resources -Prepare evaluation of unknown cultural resources	N	Y, BLM Archaeologist
-If required, submit a treatment plan to the BLM for approval prior to implementation -Consult with Native American representatives to determine treatment for prehistoric or Native American resources -Conduct reporting/montioring of treament plan per CRDMP	Y	N
	N	Y, BLM Authorized Officer
-Conduct monitoring of disturbed areas	N	N
	N	N
	N	N

-Submit Stormwater Pollution Prevent Plan or BMP Plan to BLM and County 30 days prior to ground disturbance	N	N
	N	N
-Monitor following qualified storm events -Submit clearance reports and inspection logs to BLM and County -Notify BLM and County of substantial damage to erosion control facilities	Y	Y, BLM and County
-Submit final geotechnical investigation report to BLM -Monitor implementation of report recommendations -Submit report of structure-specific recommendations for approval by the appropriate permitting agency	Y	N

-If needed, submit a Desert Pavement Identification, Avoidance, and Protection Plan to the BLM for approval 60 days prior to construction	N	N
-Obtain curatorial arrangement with a repository prior to construction	N	N
-Prepare paleontological resources training -Provide documentation of project personnel training -Prepare training handouts	N	N
-Prepare Paleontological Resources Monitoring and Mitigation Plan prior to construction	N	N

-Conduct paleontological monitoring during ground-disturbing activities -Notify BLM, CDFW, and CEC of adjustment to monitoring levels	Y	Y, BLM, CDFW, CEC
	N	N
-Submit final monitoring report to BLM, CDFW, and/or other overseeing agency	N	N

-Submit a Fugitive Dust Control Plan (that includes a Site Operations Dust Control Plan) to the Mojave Desert Air Quality Management District for approval no less than 60 days prior to construction	N	N
	N	N

-Submit Fire Management and Prevention Plan to the BLM for approval and to the San Bernardino County Fire Department (County Fire Department) for comment prior to construction -Maintain documentation of project personnel training for BLM and County Fire Department -Participate in annual fire prevention response and training exercises with the BLM and County Fire Department -Immediately notify BLM and County Fire Department of fire	N	Y, BLM and County Fire Department
-Develop an Environmental Inspection and Compliance Monitoring program and plan	Y	N

-Develop a Hazardous Materials Management Plan -Maintain storage and inspection records	N	N
-Develop a Health, Safety, and Noise Plan	N	N

-Submit a Drainage, Erosion, and Sedimentation Control Plan to the CDFW and BLM	N	N
	N	N
Submit cadastral survey data to BLM prior to construction	N	N
Submit 100% design drawings to BLM prior to NTP issuance	N	N
	N	N
-Post travel management area maps	N	N

-Develop a Construction Traffic Management Plan prior to construction	N	N
	N	N
-Submit a Waste Recycling Plan to CDFW and BLM prior to issuance of notice to proceed	N	N
-Maintain records of recycling and solid waste disposal	N	N

-Perform in-situ testing of proposed sites -Submit documentation of sites that meet applicable standards to BLM	N	N

Plan (Y/N)	Reporting (Y/N)	Cross Reference to ROD Measures
N	N	MM 3.18-1a
Y	N	MM 3.18-1a

Y	N	MM 3.18-1a
N	N	MM 3.18-1a

N	N	MM 3.18-2
N	N	MM 3.18-3

Y	N	MM 3.18-4
Y	N	MM 3.18-4

Y	N	MM 3.18-1b
N	N	APM 1
N	N	APM 2
N	N	APM 3
N	N	APM 4
N	N	APM 5
N	N	APM 6
N	N	APM 7

N	N	APM 8
Y	N	N/A
Y	N	APM 34
Y	N	APM 36
N	N	APM 38

N	N	APM 39
N	N	APM 40
Y	N	APM 50
Y	N	APM 53
N	N	APM 64
N	N	APM 63
N	N	APM 35
N	N	APM 35
N	N	N/A
N	N	APM 44

N	N	APM 46
N	Y	APM 47
N	N	APM 48
N	N	APM 49
N	N	APM 51
N	N	APM 52
N	N	APM 54
N	N	APM 55

N	N	APM 56
N	N	APM 57
N	N	APM 58
N	N	APM 60
N	N	APM 61
N	N	APM 62
N	N	APM 65
N	N	APM 66

N	N	APM 67
N	N	APM 68
N	N	APM 69
N	N	APM 70

N	N	APM 71
Y	N	APM 72
Y	N	N/A
Y	N	APM 73
Y	N	APM 73
N	N	N/A

N	N	MM 3.4-1c
N	N	MM 3.3-3

Y	N	MM 3.3-3

N	N	MM 3.4-1b
N	N	MM 3.3-1

N	N	N/A
N	Y	MM 3.4-1a
N	N	MM 3.4-1d

N	N	MM 3.4-2a
N	N	MM 3.4-2a

N	N	MM 3.4-2a
N	N	MM 3.4-2a
N	Y	MM 3.4-2a
Y	N	MM 3.4-2b

N	N	MM 3.4-2c
N	Y	MM 3.4-2c
N	Y	MM 3.4-2c

N	N	MM 3.4-2d

N	N	MM 3.4-2d
N	N	MM 3.4-5a

N	N	N/A
Y	N	MM 3.4-1h

N	Y	MM 3.4-4
N	N	MM 3.4-1e
Y	N	MM 3.4-1g

Y	N	MM 3.4-1f

N	N	MM 3.4-1i

N	N	MM 3.3-2
Y	N	MM 3.3-2

Y	Y	MM 3.3-2
Y	N	MM 3.3-5
N	N	MM 3.4-3a

N	N	N/A
Y	Y	N/A
N	N	N/A
N	N	N/A
N	N	MM 3.6-1

Y	N	MM 3.6-2
Y	N	MM 3.6-2
Y	Y	MM 3.6-2
N	N	MM 3.6-3
N	N	APM 13
N	N	APM 11
N	N	APM 12

Y	N	MM 3.7-1
N	N	MM 3.7-1
N	Y	MM 3.7-1
N	Y	MM 3.7-2

Y	N	MM 3.7-4
N	N	MM 3.12-3
N	N	MM 3.12-3
Y	N	MM 3.12-3

N	N	N/A
N	N	MM 3.12-4
N	Y	MM 3.12-3

Y	N	N/A
N	N	N/A

Y	N	MM 3.20-1
Y	N	APM 23, APM 24, APM 27

Y	N	APM 22
Y	N	APM 25, APM 26

Y	N	N/A
N	N	APM 20
N	N	MM 3.9-1
N	N	MM 3.9-2
N	N	MM 3.11-1
N	N	MM 3.13-1

Y	N	APM 31
N	N	N/A
Y	N	N/A
N	N	N/A

N	N	MM 3.7-3

Cell: B35
Comment: [Threaded comment]

Your version of Excel allows you to read this threaded comment; however, any edits to it will get removed if the file is opened in a newer version of Excel. Learn more: https://go.microsoft.com/fwlink/?linkid=870924

Comment:
This was included in the Haz section

Cell: B118
Comment: [Threaded comment]

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Comment:
There are two different APM AIR-1 included in the EIR. One is included in the Air Quality section and one is included in the Haz section.

Cell: B119
Comment: [Threaded comment]

Your version of Excel allows you to read this threaded comment; however, any edits to it will get removed if the file is opened in a newer version of Excel. Learn more: https://go.microsoft.com/fwlink/?linkid=870924

Comment:
Another APM BIO-21 included in Haz section that is different than BIO section

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 10/16/2025 3:06:27 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Re: Soda Mountain- LADWP access road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Yes, we will create and docket this figure and we are on track to meet this deadline.

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, October 15, 2025 9:44 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mountain- LADWP access road

Thanks Hannah.

Can you add a figure to represent the new sims you sent us to the docket, that way the public can view what we have been provided.

I have sent those files to our visual resources staff. Thank you.

Regarding the LAPD road, can you also add the road to the two figures in TN 265872 and also, remove the fencing from the gen-tie line and docket these figures.

Great news about the groundwater reports and cultural reports. Our AQ staff also were interested to know when they might expect responses to the Scoping Data Requests. Are the responses on track for Oct 29th?

Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, October 15, 2025 8:26 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- LADWP access road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

We will create a figure that shows the existing LADWP access road and get it over to you ASAP.

Also - attached to this email is the project MMRP.

I also just shared a link to the requested KOP files, they were too large to send via email. Please let me know if you have any issues with them.

I am also going to docket the 2 groundwater reports today, they are also too large to send via email.

The cultural resources report will also be transmitted shortly, it has some confidential appendices so Rincon will be sending that directly to your team.

Thank you!

Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 14, 2025 1:39 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mountain- LADWP access road

Thanks Hannah. It would seem that if their current access road will work for LADWP to access the new switchyard and loop in line, they would likely want to use that for operation access.

Have LADWP said anything about how they plan to access and maintain the switchyard and loop in line?

While it might be easier to say that LADWP use the same route as you would use, it seems they may not use that route.

If LADWP would use their current access route, I need to describe that route and ideally show it on a project figure. I can point to the figure to show the route.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Tuesday, October 14, 2025 1:11 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- LADWP access road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

The LADWP access road already exists to maintain the Mead Adelanto line, it is in a different location than CL 8847 and CL 7682 and runs from the zzyzx exit to a location directly under the existing 500 KV transmission line. If it is easier, we can remove any reference to this access road and request LADWP access the switchyard only through CL 8847 and CL 7682.

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 14, 2025 12:10:38 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain- LADWP access road

Hi Hannah,

Regarding your response below:
CL 8847 and CL 7682 will be utilized during the construction, operation and decommissioning of the project. Additionally, LADWP has an existing access roadway that travels from the Zzyzx exit to the new switchyard area. This access roadway is used currently by LADWP for any operations and maintenance needs along the Marketplace-Adelanto 500kV transmission line.

Does the LADWP access road from Zzyzx to the new switchyard travel along CL 8847 and CL 7682 or is it a different route?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 10/21/2025 3:01:42 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Fw: [EXT] Fw: [External Email] CEC JD Amendment: Expanded Desktop Delineation
Attachments: JD_SodaMountain_SHP_20251017.zip

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

The updated JD shape files are attached. We are updating the report now and will be sending that over/docketing it shortly.

Best,
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 10/21/2025 5:53:24 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Soda Mt. Data Requests
Attachments: 68347_RasorRd_Changes_20251002.pdf; 68347_RasorRd_Changes_w_Components_20251002.pdf; BIO-1 response.pdf; Haz Mat Replacement Table 3.9-1.pdf; SodaMtn_Prelim_Fig2-7_Prj_Overview_Site_Plan_20251015.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Below is a status update for Soda Mt. Solar data requests. I will docket these as a package later this week.

1. AQ 1 - These files have been transmitted to you via SharePoint.
2. BIO 1- Please see attached.
3. Rasor Road before and after figures - I will also send the GIS files shortly.
4. JD - JD files have been transmitted, we will send the full report shortly.
5. LADWP Access Road - I updated Figure 2-7 to show the LADWP access road. If this looks good to you, I will update figure 2-8 in the same way. Alternatively, we can create a separate stand alone.
6. Haz 1 - Please see attached Table 3.9-1. We are still working on the BESS site plan figure that was part of this DR.
7. Fencing - Figure 2-7 (attached) also shows the revised fenceline, removing fencing along the gen-tie.
8. Cultural Resources - I am working with Rincon to make sure the CEC received all the documents, including confidential appendices.
9. Well locations - TBP - This will be shown on updated Figure 2-8.

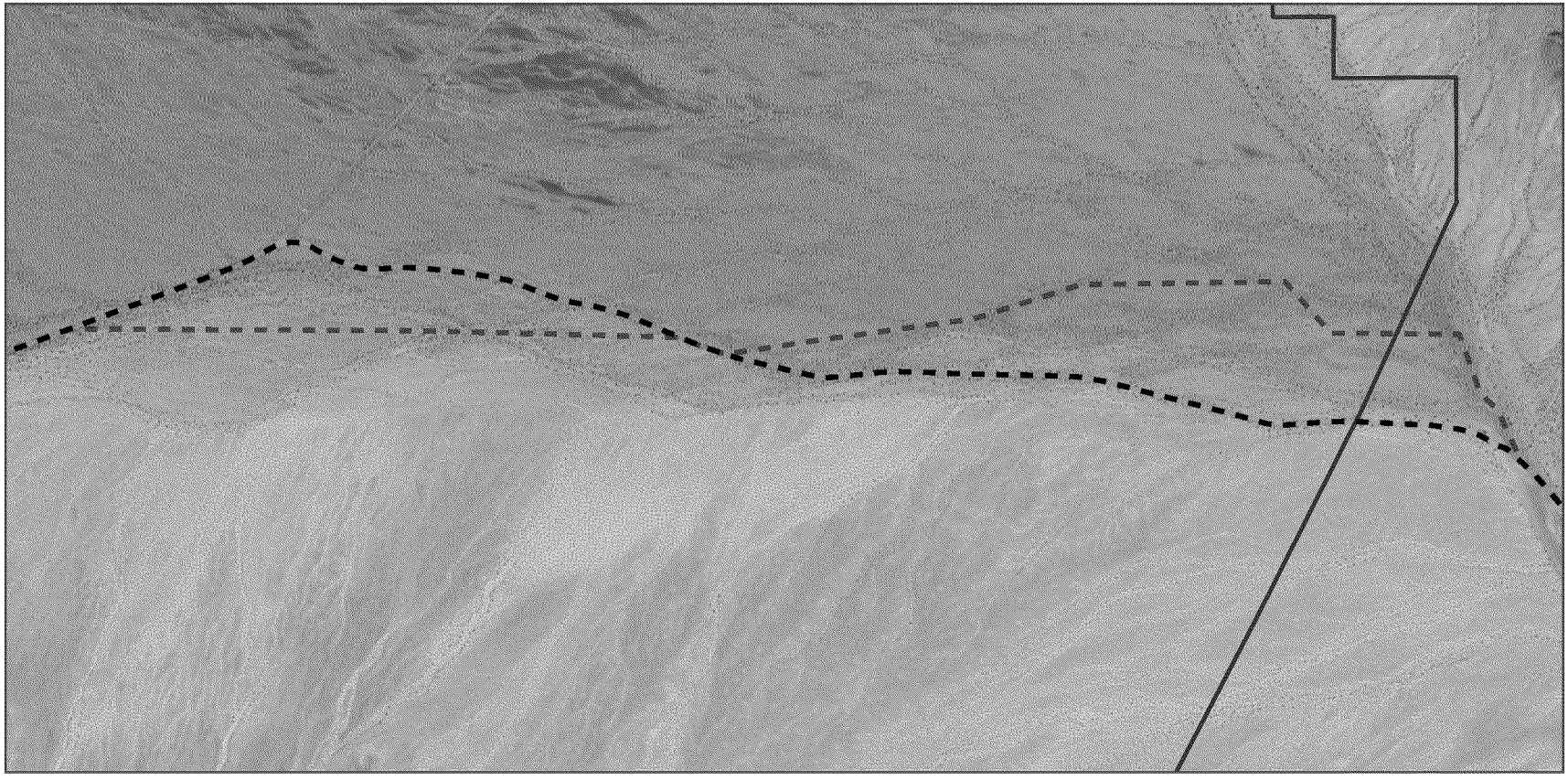
Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109



Proposed Rasor Road
Existing Rasor Road
Project Area

NAD 1983 UTM Zone 11N
35.1396°N 116.1786°W

0 500 1,000 Feet
0 125 250 Meters

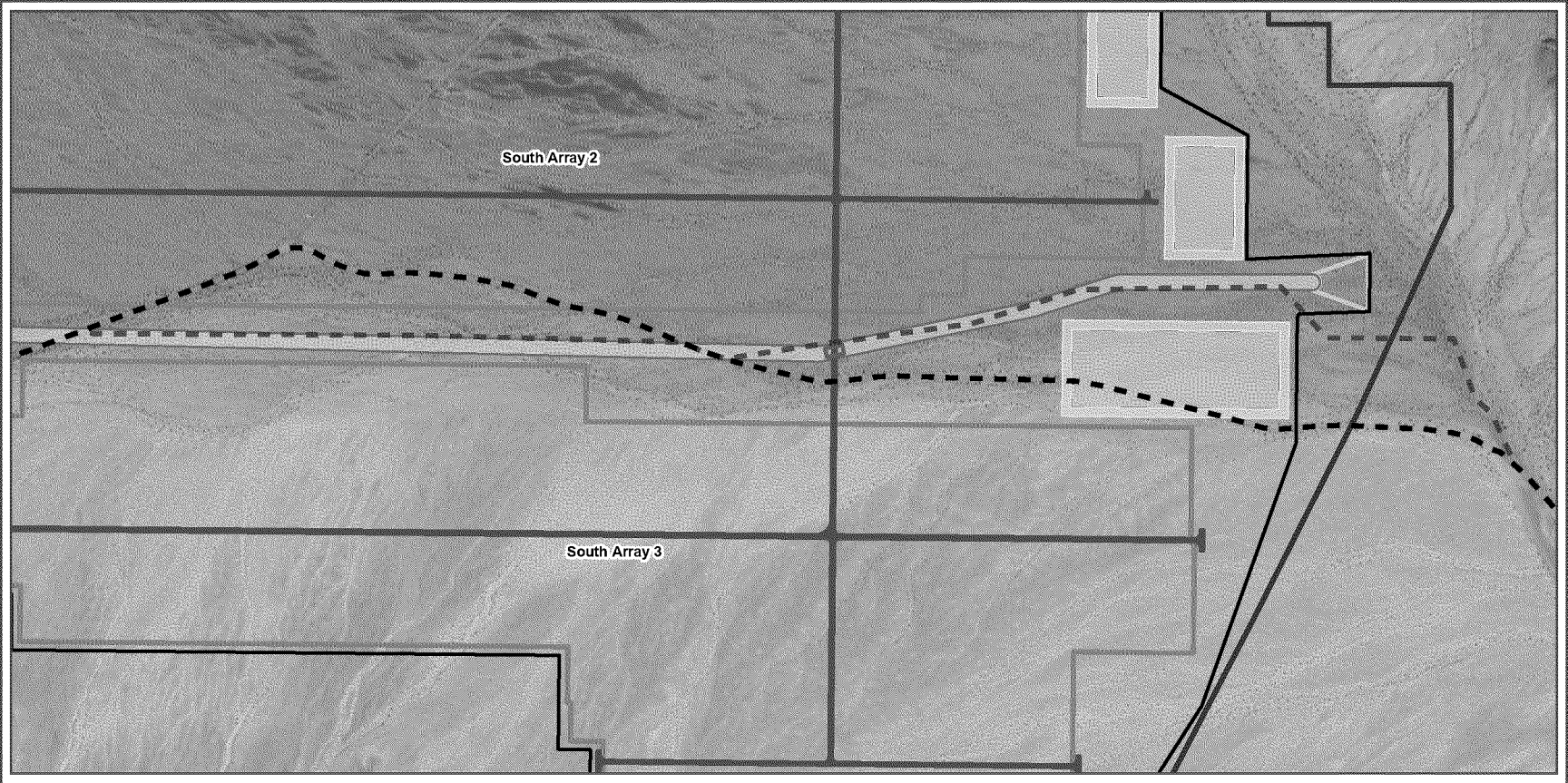
N

1:12,000

Base Map: Esri ArcGIS Online, accessed October 2025
Updated: 10/2/2025
Project No. 68347
Layout: 68347_RasorRd_Changes
Aprx: General

SWCA ENVIRONMENTAL CONSULTANTS

SMSP02337



- Proposed Rasor Road
- Existing Rasor Road
- Access Road
- Drainage Canal
- Limit of Disturbance
- Project Area
- Proposed Box Culverts
- Proposed Grading Footprint
- Proposed Outlet Protection Feature
- Proposed Sediment Basin
- Solar Array

NAD 1983 UTM Zone 11N
35.1396°N 116.1786°W

0 500 1,000 Feet
0 125 250 Meters

N

1:12,000

Base Map: Esri ArcGIS Online, accessed October 2025
Updated: 10/2/2025
Project No. 68347
Layout: 68347_RasorRd_Changes
Aprx: General

SWCA ENVIRONMENTAL CONSULTANTS

SMSP02338

RINCON CONSULTANTS

Rincon Consultants, Inc.
7080 North Whitney Avenue, Suite 101
Fresno, California 93720
559-228-9925

October 17, 2025
25-17245

Subject: Response to SDR BIO-1 Soda Mountain Solar Existing Offsite Proposed Well Location Assessment Project Site, San Bernardino County, California

This memo is a response to Attachment A Supplemental Notice of Preparation Data Requests, SDR BIO-1, to address biological resources and jurisdictional waters that have the potential to occur at the existing offsite proposed well located at 58502 Death Valley Road, Baker, California (35.306000°, -116.088450°).

SDR BIO-1

Staff has the following requests:

a. Please provide a map showing the locations and land ownership of all proposed well locations.
b. Please identify all access roads and or travel routes to gain access to these wells.
c. Please provide the results of water quality testing for any existing wells.
d. Please provide updated biological resource and jurisdictional waters data for any wells located outside of the existing project development footprint.

RESPONSE

a. Please see Figure 1 showing the existing offsite proposed well location. The proposed well location is located within Assessor Parcel Number 0544-241-03 owned by a private citizen.
b. Please see Figure 2 showing the access road and travel route to gain access to the existing offsite proposed well location. The proposed well location will only be accessed from State Route 127 north of Interstate 15. Access will only occur using the existing dirt access road on private property which is currently used for farm cultivation.
c. The results of the water quality testing for the proposed well are included below.
d. A desktop analysis addressing areas within 250 feet of the existing offsite proposed well location is included below.

Water Quality Testing and Results

The existing offsite groundwater well is located within the Silver Lake Valley groundwater basin (see Figure 3). The existing well (Well Completion Report No. WCR2020-016662) was permitted by San Bernardino County Department of Public Health, Environmental Health Services, Safe Drinking Water Permit Program. The well was drilled in September 2020 to a completed depth of 400 feet below ground surface (bgs) with screening from 160 to 400 feet. Static water level was recorded at 30 feet. Well yield was recorded at 400 gallons per minute (DWR 2025).

In January 2025, Title 22 water quality testing was conducted on the existing well (Well Completion Report No. WCR2020-016662) to evaluate water quality using the standard Title 22 analyte panel. Detected analytes are summarized in Table 1, with all other constituents below detection limits. None of the detected analytes exceeded applicable primary or secondary Maximum Contaminant Levels (MCLs or SMCLs). Title 22 water quality thresholds for specific conductance include two separate thresholds: a higher short-term threshold and a lower long-term threshold. The short-term threshold allows for brief fluctuations that might occur in water sources, whereas the long-term threshold is

designed to protect water quality over an extended period. The sample slightly exceeded the long-term SMCL for specific conductance by 100 µmhos/cm but remained below the short-term threshold (SWCA 2025b).

Table 1 Existing Well Detected Analytes Results

Detected Analyte	Result	Unit**	Title 22 MCL
Chloride	250	mg/L	500–1,500 (SMCL)
Nitrate as N*	4.2	mg/L	10
Sulfate	190	mg/L	250
Perchlorate	1.1	µg/L	6
Calcium	26	mg/L	Not specified
Iron	0.21	mg/L	Not specified
Magnesium	14	mg/L	Not specified
Potassium	9.5	mg/L	Not specified
Sodium	320	mg/L	Not specified
Aluminum	200	µg/L	1,000
Arsenic	4.2	µg/L	10
Barium	29	µg/L	1,000
Chromium	11	µg/L	50
Manganese	15	µg/L	50 (SMCL)
Selenium	2.9	µg/L	50
Vanadium	24	µg/L	Not specified
Zinc	21	µg/L	5,000
Total alkalinity as CaCO3	240	mg/L	Not specified
Bicarbonate alkalinity as CaCO3	240	mg/L	Not specified
Specific conductance	1,700	µmhos/cm	Upper: 1,600; Short term: 2,200
TDS	1,000	mg/L	1,000–1,500
Fluoride	1	mg/L	2,000
pH*	8.2	SU	6.5–8.5 (SMCL)

* Sample was received, prepped, or analyzed beyond the specified holding time for this parameter.

** mg/L = milligrams per liter; µg/L = micrograms per liter; µmhos/cm = micromhos per centimeter; SU = standard units

Source: SWCA Environmental Consultants. Water Supply Report for the Soda Mountain Solar Project, San Bernardino County, California. Appendix J Water Supply Report – February 2025 – Revision 1 (TN#261605).

Desktop Analysis

Literature Review

A desktop analysis and literature review were conducted using California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2025a), CDFW Vegetation Classification and Mapping Program (VegCAMP; CDFW 2025b), the United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI; USFWS 2025), the USGS National Hydrology Dataset (USGS 2025), and Section 3.4 of the EIR to assess potential impacts to biological and jurisdictional waters within 250-ft of the existing offsite proposed well location. Attachment 1 illustrates vegetation mapped and jurisdictional aquatic features within 250 feet of the proposed well.

Vegetation Coverage

Developed

Approximately 8.75 acres of developed land cover was mapped per VegCAMP (Figure 4). This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. Developed portions of the proposed existing offsite proposed well location and 250-ft survey buffer include structures, unpaved and graveled roads, disturbed soils, and compacted surfaces with little to no vegetation associated with urban development.

Farm Cultivation

Approximately 3.16 acres of farm cultivation land cover was mapped per VegCAMP (Figure 4). This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. Farm cultivation is generally defined as land used for growing crops and raising livestock. The farm cultivation land cover was identified within the 250-ft survey buffer and includes an orchard.

Saltbush

VegCamp identified approximately 7.53 acres of saltbush (*Atriplex*) land cover adjacent to the proposed well location within the 250-ft survey buffer (Figure 4). The *Atriplex* alliances including *Atriplex canescens* Shrubland Alliance, *Atriplex polycarpa* Shrubland Alliance, and *Atriplex spinifera* Shrubland Alliance were combined into a Saltbush Complex in the *Central Mojave Vegetation Database* (Thomas et al., 2004). The *Atriplex* alliances occur in similar environments, often intermixing, and generally cannot be delineated as separate alliances except from the ground. One or more perennial species of *Atriplex* spp. dominate most alliances within the saltbush scrub collection of alliances. Saltbush is widespread and common in the Mojave Desert (Thomas et al., 2004).

Jurisdictional Aquatic Features

A desktop delineation used NWI, NHD, ESRI imagery (ESRI 2025a), and ESRI hillshade (ESRI 2025b) data to identify potential jurisdictional features within 250 feet of the proposed well location. One jurisdictional feature was identified within the 250-ft buffer and is displayed in Attachment 1, Figure 4. No impacts to this feature are proposed.

Sensitive Species

There are no special status-species documented in CNDDB within 250 feet of the proposed well location within the last 50 years; however, all species identified in Section 3.4 of the draft EIR (SWCA 2025a) have potential to occur within suitable habitat adjacent to the proposed well.

Attachments

Attachment 1 Figures

References

California Department of Fish and Wildlife (CDFW). 2025a. California Natural Diversity Database, Rarefind 5. https://wildlife.ca.gov/data/cnddb/maps-and-data (accessed October 2025).

_____. 2025b. California Vegetation Classification and Mapping Program, VegCAMP. https://wildlife.ca.gov/Data/VegCAMP (accessed October 2025).

California Department of Water Resources. 2025. Well Completion Report Map Application. https://dwr.maps.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37 (accessed October 2025).

ESRI. 2025a. World Imagery.

_____. 2025b. World Hillshade.

Google Earth. October 2025.

SWCA Environmental Consultants (SWCA). 2025a. Draft Soda Mountain Solar Project Biological Resources Technical Report, San Bernardino County, California. Section 3.4 Biological Resources.

_____. 2025b. Water Supply Report for the Soda Mountain Solar Project, San Bernardino County, California. Appendix J Water Supply Report – February 2025 – Revision 1 (TN#261605).

Thomas, K., T. Keeler-Wolf, J. Franklin, and P. Stine. 2004. Mojave Desert Ecosystem Program: Central Mojave Vegetation Database (accessed October 2025).

United States Fish and Wildlife Service. 2025. National Wetland Inventory Data Mapper Available at: https://www.fws.gov/wetlands/Data/Mapper.html (accessed October 2025).

United States Geological Survey (USGS). 2025. National Hydrography Dataset. Available at: https://www.usgs.gov/national-hydrography/national-hydrography-dataset (accessed October 2025.

Attachment 1

Figures

Figure 1 Proposed Well Location



Figure 2 Access Roads to Proposed Well Site



Figure 3 Project Site and Existing Groundwater Well Location

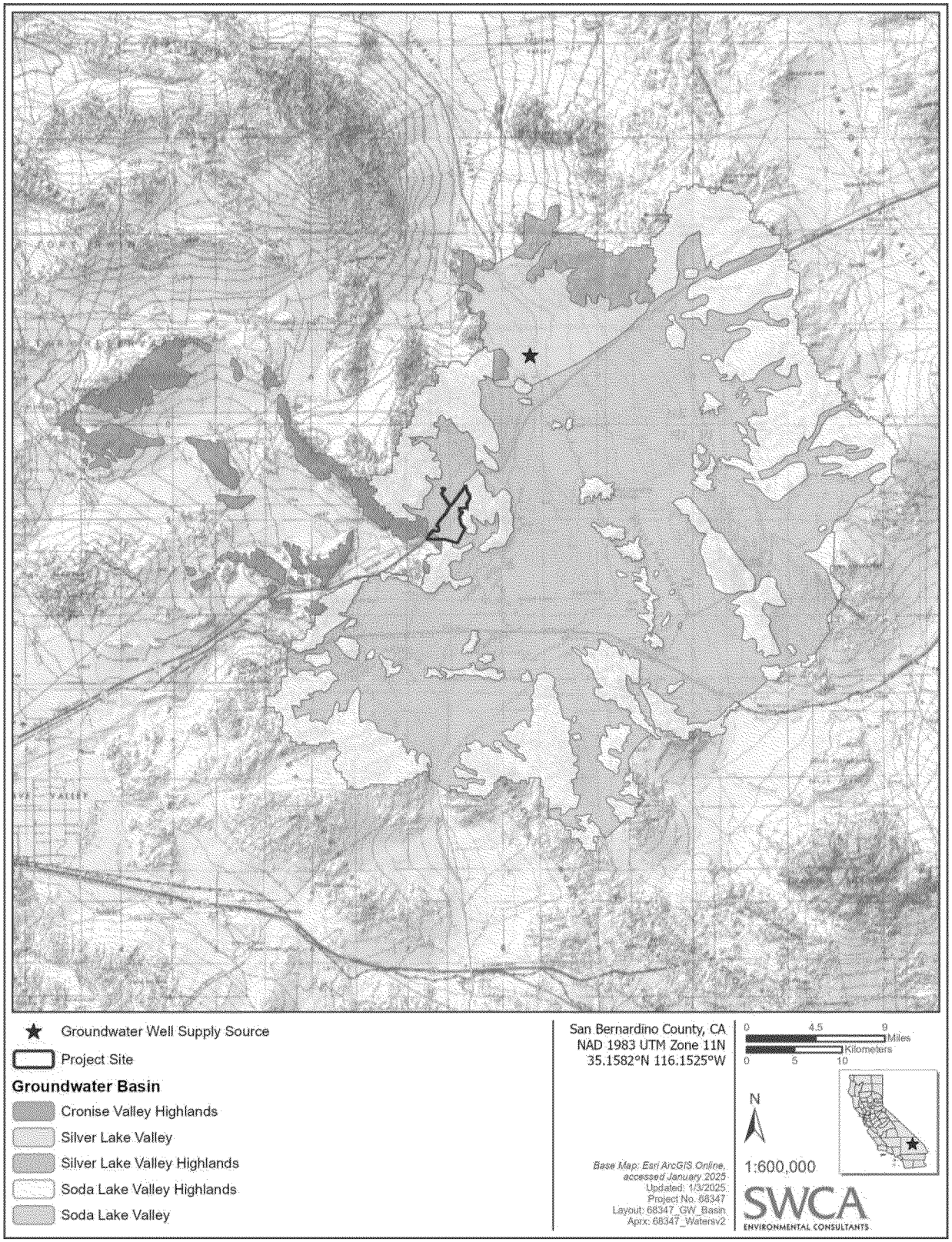


Figure 4 Land Cover and Jurisdictional Features of Proposed Well Site

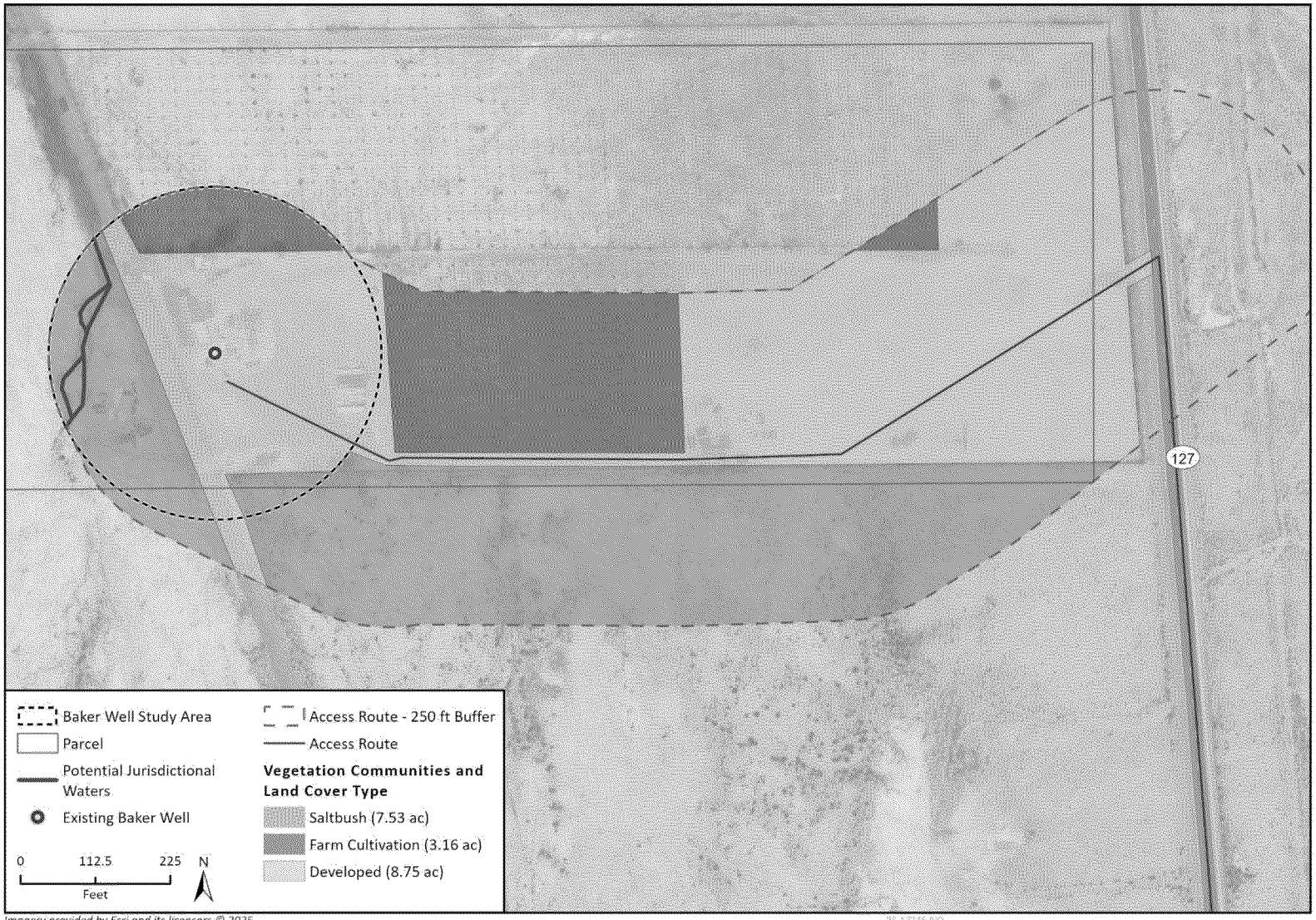
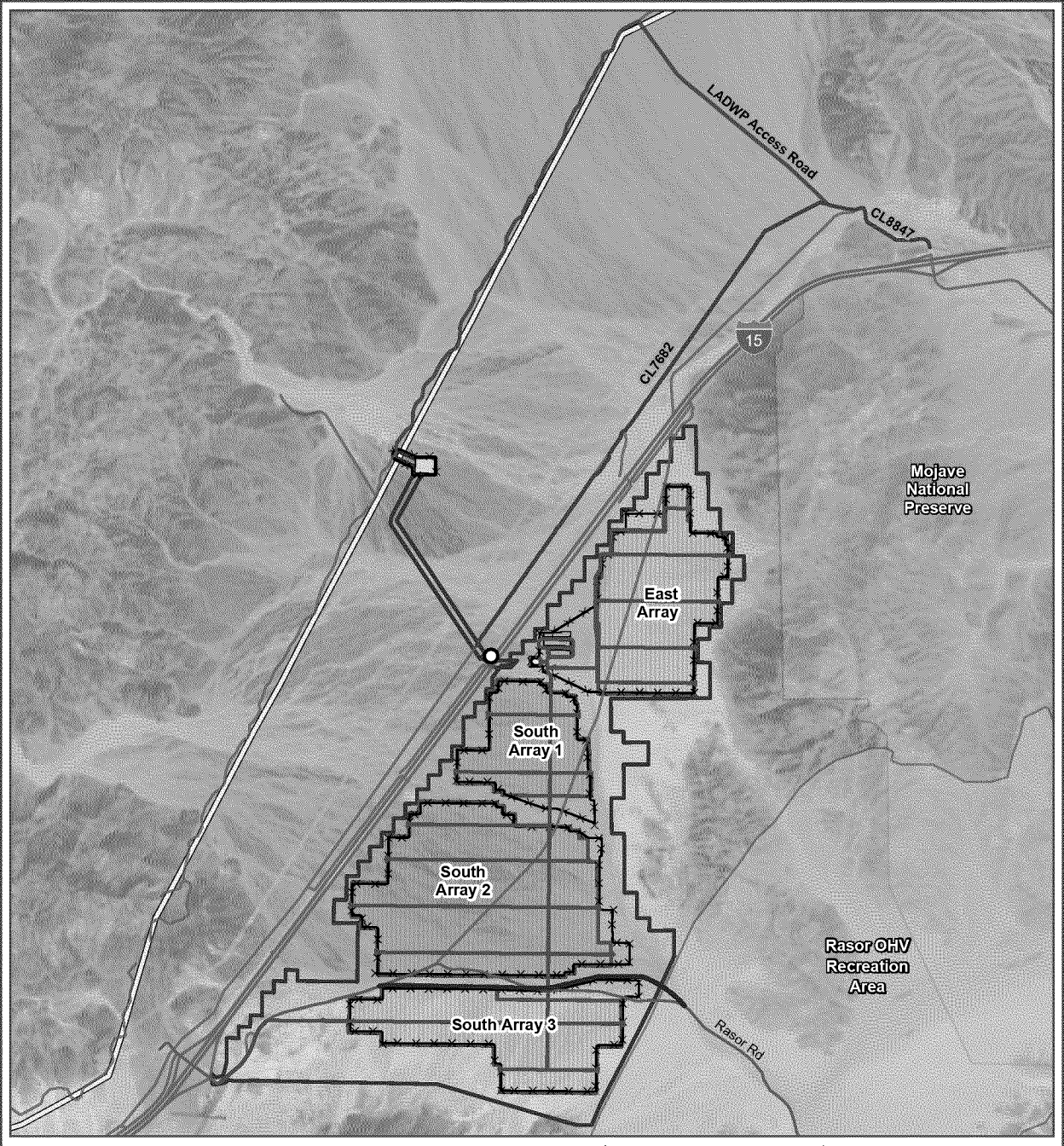


Table 3.9-1: Hazardous Materials Use during Construction and Operation

Material	Uses	Toxicity	Maximum Storage Quantity
Gasoline and diesel fuel	Both would be used as fuel for construction and transportation equipment during construction and decommissioning. Diesel would also be used to power an emergency generator during operation, if needed.	Fuel oils are liquid mixtures produced from petroleum, and their use mostly involves burning them as fuels. Drinking or breathing fuel oils may cause nausea or nervous system effects, including long-term health effects. However, exposure under normal use conditions is not likely to be harmful (U.S. Department of Veterans Affairs 2023).	1,000 gallons
Lubricating oils, grease, hydraulic fluids, gear oils	Lubricating oil would be present in the diesel engine of the emergency generator, and in engines of construction and transportation equipment.	Exposure to hydraulic fluids occurs mainly in the workplace (Agency for Toxic Substances and Disease Registry [ATSDR] 1997).	Unused: <55 gallons per individual lubricant, < 275 gallons total Used: 55 gallons
Glycol-based antifreeze	Used in the diesel engine for the emergency generator.	Ethylene glycol is a clear liquid used in antifreeze and de-icing solutions. Exposure to large amounts of ethylene glycol can damage the kidneys, nervous system, lungs, and heart (ATSDR 2013).	< 55 gallons
Lead-acid storage batteries and electrolyte solution	Present in construction and transportation equipment. Backup power source for control equipment.	The electrolyte solution in lead acid batteries contains sulfuric acid, which is highly corrosive and can cause severe chemical burns to the skin and can damage the eyes. The solution is also poisonous if ingested. In addition, overcharging a lead acid battery can produce hydrogen sulfide gas. The gas is heavier than air and will accumulate at the bottom of poorly ventilated spaces (University of Massachusetts, Amherst 2023).	< 500 lbs (10 batteries at 50 lbs per battery)
Lithium-ion batteries	Used for project operations	Under normal usage conditions, the materials do not exhaust vapors. Cell electrolyte should not be encountered by anyone handling a battery, making the risk of a spill of electrolyte from any commercial battery pack very remote. Furthermore, in most commercial cells, the electrolyte is largely absorbed in electrodes, such that there is no free or “spillable” electrolyte within individual sealed cells. In those instances, severe mechanical damage (e.g., severe crushing) can cause a small fraction of total electrolyte quantity to leak out of a single cell; however, any released electrolyte is likely to evaporate rapidly (NFPA 2016).	7,980 tons

Cleaning solvents	Organic solvents would be used for equipment cleaning and maintenance when water-based cleaning and degreasing solvents cannot be used.	Exposure to solvents and other organic liquids is one of the most common chemical health risk at places of work. Most of the organic solvents are combustible, often highly volatile, and extremely flammable, and they should always be handled with care. Some solvents produce vapors which are heavier than air. These may move on the floor or ground to a distant ignition source, such as a spark from welding or static electricity. The vapors may also explode from smoking. Vapors of solvents can also accumulate in confined places and stay there for a long time, presenting risks for health and property. Solvents enter the body by inhalation, by swallowing, and through the skin. The effect depends on several factors (International Labour Organization 2004).	< 55 gallons per solvent
Dielectric fluids	Used in electrical transformers and other electric power management devices as an electrical insulator.	Mineral oil may cause allergic reactions. Primary routes of entry: Eye and skin contact, inhalation; Target organs: Eyes, skin, respiratory tract. Persons with preexisting skin and respiratory conditions may be more susceptible to the effects of this product. Mineral oil is not listed in the National Toxicology Program Annual Report on Carcinogens and not listed as an OSHA carcinogen (U.S. Department of Health and Human Services 2021).	15,000 gallons
Herbicides	May be used for vegetation control around facilities for fire safety.	If a large amount is swallowed, glyphosate can cause nausea and vomiting. It can be very irritating if it is left on skin or eyes. Glyphosate has been associated with respiratory effects (lung and nose), such as irritation in the nose or asthma in people using glyphosate products. Workers that use large amounts of glyphosate products for long periods of time may be more likely to develop respiratory effects. Studies in animals have shown that glyphosate can cause developmental effects (such as lower body weight and problems with bone and organ growth) when the pregnant animals were given very large amounts of glyphosate (ATSDR 2020).	< 55 gallons



- Project Site
- Temporary On-Off Ramp
- 500kV Mead-Adelanto Transmission Line
- Access Road (On-site)
- Proposed Temporary Access Road (Off-site)
- Rasor Road Re-alignment
- Existing Road
- Proposed BESS Yard
- Proposed Substation
- Proposed Switchyard
- Solar Array
- Permanent Fenceline
- Rasor Off-Highway Vehicle (OHV) Area
- Mojave National Preserve

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1719°N 116.1788°W

0 2,000 4,000 Feet
0 550 1,100 Meters

N

1:55,000

Base Map: Esri ArcGIS Online, accessed October 2025
Updated: 10/15/2025
Project No. 68347
Layout: 68347_Prj_Overview_Site_Plan
Aprx: General

SWCA ENVIRONMENTAL CONSULTANTS

SMSP02350

From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 10/6/2025 9:10:18 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

You will need to file a new confidential request letter as the system requires one in order to take in the confidential file and not post it as publicly available on the docket.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, October 6, 2025 2:08 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

For the Socioeconomic report - Do you know if I need to resubmit a new confidential request letter when I docket this report or does the old letter remain valid since it covered the whole report? No problem either way, I just wanted to check.

Also, did you want me to just email you the confidential version, since I know sometimes the report takes some time to clear confidentiality on the docket?

Thanks!
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, October 6, 2025 8:03 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

Great. Thanks.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, October 6, 2025 8:03 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

We will file this today, one version confidential and one version public.

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, October 6, 2025 8:00:00 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

Hi Hannah,

Just following up on this request. When do you anticipate filing an updated Socioeconomic Report.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, September 18, 2025 2:32 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

Excellent. Thanks Hannah.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Thursday, September 18, 2025 2:28 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Yes, we are in the process of updating the report now and hope to have it to you by next week.

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, September 18, 2025 2:28:02 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Re: Soda Mountain Solar Project- Net benefits to the County and new federal act

Hi Hannah,

Just wanted to follow up on this email and whether the applicant will be updating the Socioeconomic Report. This will help our Socio staff know for our analysis.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy
Sent: Tuesday, September 9, 2025 8:51 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Negar Vahidi <nvahidi@aspeneg.com>; Irene Kaufman <ikaufman@aspeneg.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; unnasch <unnasch@LifeCycleAssociates.com>; Brian Healy <healy@lifecycleassociates.com>
Subject: Soda Mountain Solar Project- Net benefits to the County and new federal act

Hi Hannah,

Socioeconomics staffhave been looking at the new federal "One Big Beautiful Bill Act." There is a provision in the law that they believe may apply to Soda Mountain, since it has a solar component and is on federal land. This provision is included in the "Disposition of revenues" clause is in *Sec. 50303. Renewable Energy Revenue Sharing* on page 80 of OBBBA (see attached and highlighted text). An excerpt is below.

Given this information, it would be helpful if you update the Socioeconomic Report to factor in the potential benefit to the local agency and the State (i.e., update their calculations). The bold text highlights the pertinent text.

> 1. **DISPOSITION OF REVENUES**.-Beginning on January 1, 2026, the amounts collected from a renewable energy project as bonus bids, rentals, fees, or other payments under a right-of-way, permit, lease, or other authorization shall-
>
> a. (A) be deposited in the general fund of the Treasury; and

b.

c. (B) without further appropriation or fiscal year limitation be allocated as follows:

(i) 25 percent shall be paid from amounts in the general fund of the Treasury to the State within the boundaries of which the revenue is derived.

(ii) 25 percent shall be paid from amounts in the general fund of the Treasury to each county in a State within the boundaries of which the revenue is derived, to be allocated among each applicable county based on the percentage of county land from which the revenue is derived.

Thank you,

Lisa

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 10/16/2025 3:26:37 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Soda Mountain- LADWP access road

I just looked at the spreadsheet. I was wondering why there are duplicate APM numbers.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Thursday, October 16, 2025 8:06 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- LADWP access road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Yes, we will create and docket this figure and we are on track to meet this deadline.

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, October 15, 2025 9:44 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mountain- LADWP access road

Thanks Hannah.

Can you add a figure to represent the new sims you sent us to the docket, that way the public can view what we have been provided.

I have sent those files to our visual resources staff. Thank you.

Regarding the LAPD road, can you also add the road to the two figures in TN 265872 and also, remove the fencing from the gen-tie line and docket these figures.

Great news about the groundwater reports and cultural reports. Our AQ staff also were interested to know when they might expect responses to the Scoping Data Requests. Are the responses on track for Oct 29th?

Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, October 15, 2025 8:26 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- LADWP access road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

We will create a figure that shows the existing LADWP access road and get it over to you ASAP.

Also - attached to this email is the project MMRP.

I also just shared a link to the requested KOP files, they were too large to send via email. Please let me know if you have any issues with them.

I am also going to docket the 2 groundwater reports today, they are also too large to send via email.

The cultural resources report will also be transmitted shortly, it has some confidential appendices so Rincon will be sending that directly to your team.

Thank you!

Hannah
Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 14, 2025 1:39 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mountain- LADWP access road

Thanks Hannah. It would seem that if their current access road will work for LADWP to access the new switchyard and loop in line, they would likely want to use that for operation access.

Have LADWP said anything about how they plan to access and maintain the switchyard and loop in line?

While it might be easier to say that LADWP use the same route as you would use, it seems they may not use that route.

If LADWP would use their current access route, I need to describe that route and ideally show it on a project figure. I can point to the figure to show the route.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Tuesday, October 14, 2025 1:11 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- LADWP access road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

The LADWP access road already exists to maintain the Mead Adelanto line, it is in a different location than CL 8847 and CL 7682 and runs from the zzyzx exit to a location directly under the existing 500 KV transmission line. If it is easier, we can remove any reference to this access road and request LADWP access the switchyard only through CL 8847 and CL 7682.

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 14, 2025 12:10:38 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain- LADWP access road

Hi Hannah,

Regarding your response below:
CL 8847 and CL 7682 will be utilized during the construction, operation and decommissioning of the project. Additionally, LADWP has an existing access roadway that travels from the Zzyzx exit to the new switchyard area. This access roadway is used currently by LADWP for any operations and maintenance needs along the Marketplace-Adelanto 500kV transmission line.

Does the LADWP access road from Zzyzx to the new switchyard travel along CL 8847 and CL 7682 or is it a different route?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 10/27/2025 3:39:34 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Soda Mountain Revised JD

Thanks Hannah. Will these reports be docketed?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, October 27, 2025 8:01 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Soda Mountain Revised JD

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,
The revised Jurisdictional Delineation for Soda Mt is complete and the files have been uploaded to the share site below. I will docket this report, and the other items I previously sent, later today. Thank you! - Hannah

https://sftp.rinconconsultants.com/public/folder/akcre1u4tugfjuyfpzmnkq/October%202025%20Revised%20ARDR

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 10/8/2025 7:49:14 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Soda Mountain- need to docket confidential Appendix P update

Just received the confidential document. Thanks.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, October 8, 2025 11:30 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- need to docket confidential Appendix P update

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Weird! Done. Let me know if there are any more issues. THANK YOU!

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, October 8, 2025 11:01 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain- need to docket confidential Appendix P update

Hi Hannah,

Dockets did not receive a confidential version of Appendix P update. Can you resubmit a letter application for confidential status and then follow that submittal with the confidential Appendix P update.

We received the non-confidential Appendix P update successfully.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 10/8/2025 8:34:35 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Re: Soda Mountain- need to docket confidential Appendix P update

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Not a problem! Thank you Lisa! - Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, October 8, 2025 1:21:47 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mountain- need to docket confidential Appendix P update

Just found out that there was a glitch in the docket system that prevented the docket unit from viewing the confidential document you filed yesterday. They have now been able to view it and have made it available to me.

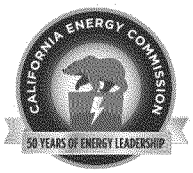
Today's submittal was rejected as it is now a duplicate.

Sorry about the difficulties. All straightened out now.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, October 8, 2025 12:49 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mountain- need to docket confidential Appendix P update

Just received the confidential document. Thanks.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, October 8, 2025 11:30 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- need to docket confidential Appendix P update

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Weird! Done. Let me know if there are any more issues. THANK YOU!

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, October 8, 2025 11:01 AM

To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain- need to docket confidential Appendix P update

Hi Hannah,

Dockets did not receive a confidential version of Appendix P update. Can you resubmit a letter application for confidential status and then follow that submittal with the confidential Appendix P update.

We received the non-confidential Appendix P update successfully.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 10/20/2025 8:17:38 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Soda Mountain - Clarification of grading, cut, and fill

Thanks Hannah,

Bill received the memo. I checked with him and it does not have confidential information in it so please submit it to the docket.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, October 20, 2025 12:10 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain - Clarification of grading, cut, and fill

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

I will add this to our list and get back to you ASAP.

Were you able to receive the cultural resources report for the project? Rincon transmitted it directly to William (Bill) last week, per the request of Gabriel, as it has confidential information contained in it.

Thanks!
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, October 17, 2025 4:18 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain - Clarification of grading, cut, and fill

Hi Hannah,

Our waste management staff have the following questions:

Section 2.5.3 of the revised project description (TN 261595) states that with respect to grading operations, approximately 630,000 cubic yards of cut will be produced, and 180,100 cubic yards will be used for fill on the project. The remaining 449,900 cubic yards of "net cut would be balanced throughout the disturbed area within the project site."

This implies that 449,900 cubic yards of rock and soil would be spread throughout the entire graded area.

1. Why would this volume not also be considered fill.

In addition, this contradicts what has been describing as minimal grading in recent meetings.

2. Please clarify the details about grading, cut and fill.

Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov


CALIFORNIA ENERGY COMMISSION
50 YEARS OF ENERGY LEADERSHIP

Sent: 10/28/2025 5:00:04 PM
To: hannah@resolutionenvironmental.com
Subject: RE: Soda Mountain Application for Confidential Designation

Hi Hannah,

Thanks for the additional information. I'm going to process this application, and you will receive virtually the same response as the first application that was submitted for the Socioeconomic report.

For future applications, records that are the same or similar and previously determined by the CEC's executive director to be confidential qualify for an expedited approval under California Code of Regulations title 20, section 2505(a)(4). The new application only needs to contain a certification, executed under penalty of perjury, stating that the information submitted is substantially similar to the previously submitted information and that all the facts and circumstances relevant to confidentiality remain unchanged.

Please let me know if you have any questions.

Best,
Mariah

Mariah Ponce
Attorney I
Chief Counsel's Office
California Energy Commission
(916) 559-4166

ATTORNEY-CLIENT PRIVILEGED COMMUNICATION. This communication with its contents may contain confidential or information subject to legal privileges, including the attorney-client privilege and attorney work product doctrine. Unauthorized interception, review, use or disclosure is prohibited. If you are not the intended recipient, please contact the sender and destroy all copies of the communication.

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Tuesday, October 28, 2025 8:01 AM
To: Ponce, Mariah@Energy <Mariah.Ponce@Energy.ca.gov>
Subject: Re: Soda Mountain Application for Confidential Designation

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Mariah,

The confidential request for the Socioeconomic report is a duplicate request. The report was recently updated based on a CEC data request and our CEC Project Manager requested I resubmit a confidential designation, even though the prior version of the report was processed and approved as confidential. The only change I made to the confidential letter request is the date and page count.

Moving forward, should I be resubmitting new confidential letter requests when the reports have been updated but previously approved as confidential? Or, do I just resubmit the original letter request? I believe the docket

system requires a request letter be added for any confidential items. I will be docketing the air quality report next, which is the same situation as our socioeconomic report. It was previously given confidential approval but we recently updated it based on a CEC data request.

Sorry for the confusion! I'm happy to set up a call to discuss, if that's easier.

Thanks!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Ponce, Mariah@Energy <Mariah.Ponce@Energy.ca.gov>
Sent: Monday, October 27, 2025 4:47 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain Application for Confidential Designation

Hi Hannah,

I am processing Soda Mountain's Application for Confidential Designation submitted on 10/7/2025 for Appendix P - Socioeconomic Impact Report (TN 266367). The CEC already processed an Application for Confidential Designation for the same or similar information on 12/5/2024 (TN 260486). Can you confirm if the 10/7/2025 application is an accidental duplicate or whether this is a new Socioeconomic report?

Thank you so much,
Mariah

Mariah Ponce
Attorney I
Chief Counsel's Office
California Energy Commission
(916) 559-4166

ATTORNEY-CLIENT PRIVILEGED COMMUNICATION. This communication with its contents may contain confidential or information subject to legal privileges, including the attorney-client privilege and attorney work product doctrine. Unauthorized interception, review, use or disclosure is prohibited. If you are not the intended recipient, please contact the sender and destroy all copies of the communication.

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 11/18/2025 6:24:21 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; agreenberg [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b9bfa77aaf044a8ca270ce3bcef10093-9afec475-67]; Daniel Jones [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=352cfed2f4d849749d3d8f98a9563279-082cef18-97]; Fooks, Brett@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=870df74143964b71ada0039bf13c5a9a-Fooks, Bret]; Shi, Michele@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=06f3d24f840349b896a0eed0c41d0aee-Shi, Michel]; Hannah Arkin [hannah@resolutionenvironmental.com]; cmarkloff@sbcfire.org; JAllen@SBCFire.org [jallen@sbcfire.org]; Paul Miller [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d4ce365f8bd442a8cb7d479381e2476-8906af8e-0e]; bwashington@sbcfire.org; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
CC: Lewis, Katherine@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e019d3ff2796493dabec0794f4a8945f-97c1e534-3a]; Munsey, Dan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0d157db7fb34774bb120f1a375b033f-Munsey, Dan]; Ronchetti, Monica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=61123afbe7184354a1f7f5b920db9869-Ronchetti,]; Ronchetti, Monica [mronchetti@SBCFire.org]

Subject: Soda Mountain Fire Protection- CEC, SBC Fire, Applicant
Location: Microsoft Teams Meeting

Start: 11/19/2025 4:30:00 PM
End: 11/19/2025 5:30:00 PM
Show Time As: Busy

Recurrence: (none)
Required Attendees: agreenberg; Daniel Jones; Fooks, Brett@Energy; Shi, Michele@Energy; Hannah Arkin; cmarkloff@sbcfire.org; JAllen@SBCFire.org; Paul Miller; bwashington@sbcfire.org; Chang, Kaycee@Energy
Optional Attendees: Lewis, Katherine@Energy; Munsey, Dan; Ronchetti, Monica; Ronchetti, Monica

We will meet to discuss fire protection for the Soda Mountain Solar Project and concerns about proposed location of the BESS. This is an opportunity to coordinate with all parties.

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 216 722 664 492 48

Passcode: iz6Mq7iG

Dial in by phone

+1 916-562-1816,,705966640# United States, Sacramento

Find a local number

Phone conference ID: 705 966 640#

For organizers: Meeting options | Reset dial-in PIN

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 11/13/2025 5:59:20 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
CC: agreenberg [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b9bfa77aaf044a8ca270ce3bcef10093-9afec475-67]; Paul Miller [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d4ce365f8bd442a8cb7d479381e2476-8906af8e-0e]; Fooks, Brett@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=870df74143964b71ada0039bf13c5a9a-Fooks, Bret]
Subject: Re: CEC staff availability for Soda Mountain meeting on fire protection

Okay. Thanks Hannah. Curtis Markloff is our contact we have been working with for this project.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Thursday, November 13, 2025 9:17 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: CEC staff availability for Soda Mountain meeting on fire protection

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

I have a call with the fire department tomorrow and will circle back after that regarding a good time for us to have this meeting. We can definitely meet next week, but I want to make sure we get the correct fire department people in the room and I'll have more clarity on who that is tomorrow.

I am also hoping to get you responses to the remaining data requests tomorrow/Monday.

Thanks!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, November 13, 2025 8:50:41 AM
To: Curtis" <CMarkloff@SBCFire.org>
Cc: Paul Miller <pmiller@therchgroup.com>; agreenberg <agreenberg@risksci.com>; Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Fw: CEC staff availability for Soda Mountain meeting on fire protection

Hi Curtis,

Here are our staff availability. Please let me know all dates and times you are available.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, November 12, 2025 11:00 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; agreenberg <agreenberg@risksci.com>; jallen@sbcfire.org <jallen@sbcfire.org>
Cc: Fooks, Brett@Energy <Brett.Fooks@energy.ca.gov>; Shi, Michele@Energy <Michele.Shi@Energy.ca.gov>; Paul Miller <pmiller@therchgroup.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: CEC staff availability for Soda Mountain meeting on fire protection

Hi all,

Following up on Hannah's suggestion to join her next call with Jeff Allen, San Bernardino County Fire District, Division 4 Battalion Chief, to discuss the Soda Mountain Solar Project.

Here are our available dates, and times:

Monday 11/17 10:30-11, 3:30-4
Tuesday 11/18, 11-12, 4-4:30
Wednesday 11/19, 8:30-9:30
Thursday 11/20, 8:30-9:30
Friday 11/21, 10:30-12, 1-4
Monday 11/24, 8:30-9:30
Tuesday 11/25, 8:30-9

Please let me know all dates and times you can meet. We would like to meet before the Thanksgiving holiday. The sooner I hear back, the sooner I can get an invitation out and locked down.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 11/14/2025 6:05:43 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Fooks, Brett@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=870df74143964b71ada0039bf13c5a9a-Fooks, Bret]; Paul Miller [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d4ce365f8bd442a8cb7d479381e2476-8906af8e-0e]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
Subject: Re: Soda Mountain- Questions regarding stormwater and associated infrastructure and batteries

Thanks for pointing that out, Hannah. That is very helpful. I will update the project description section of the Staff Assessment accordingly.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Friday, November 14, 2025 9:11 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Fooks, Brett@Energy <Brett.Fooks@energy.ca.gov>; Paul Miller <pmiller@therchgroup.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Soda Mountain- Questions regarding stormwater and associated infrastructure and batteries

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Hi Lisa,

The Project intends to install either Tesla Megapack 2XL or similar tier-1 technology units for the purposes of energy storage. Detailed information on both the Tesla Megapack 2XL and the CATL EnerC technologies are located within Section 1.2.4.5.2, BESS Hazard Mitigation Analysis and Fire Suppression of Appendix Q Worker Safety July 2025 Update (TN # 265689). If you find any discrepancies between the Project Description and the Worker Safety Plan text, please defer to the Worker Safety Plan text as that is the most detailed analysis on the BESS system and the associated fire suppression system.

If this does not address this question, please let me know and I would be happy to provide more detail.

Thank you!
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, November 7, 2025 1:13 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Fooks, Brett@Energy <Brett.Fooks@energy.ca.gov>; Paul Miller <pmiller@therchgroup.com>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Soda Mountain- Questions regarding stormwater and associated infrastructure and batteries

Hi Hannah,

I have another related question to my questions on the Project Description.

In the Informational and Environmental Scoping Meeting, you stated that the project would be using Tesla Megapack 2XL batteries or equivalent. We are basing our analysis on that battery. I was informed by staff that this battery does not use a suppression control system, as described in the July 18, 2025 Project Description ("The safety system would include a fire detection, alarm, and suppression control system that would be triggered automatically when the system senses imminent fire danger."), rather it uses sparkers.

We want to make sure we are describing what is proposed accurately, so please confirm whether the Tesla Megapack 2XL batteries or similar would be used and describe the safety system that would be used, or if another battery would be used.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy
Sent: Friday, November 7, 2025 10:04 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Soda Mountain- Questions regarding stormwater and associated infrastructure and batteries

Hi Hannah,

Biology staff have the following questions:

1. Please describe how the large floodways or channels that would be constructed between the arrays will be constructed. Please indicate if the angle of the slopes, if they channel will be armored or natural material, and if the channels would be designed to allow passage under culverts for the passage of small wildlife such as desert tortoise.
2. Are the berms intended to direct flow to the basins. Describe how will water flow into the basins. Please confirm they will be soft bottomed. Please indicate the percolation rates and how long the basins are expected to hold water. This information should be based on data rather than an educated assumption.
3. Please describe how the energy dissipaters would be constructed.
4. Please provide design details of the basins.
5. Please provide information on how the berms will be maintained if damaged or overtopped by storm flows.

I have a few questions for Project Description. This sentence is from the discussion on batteries from the July 18, 2025 updated project description (TN 264913)- "Individual lithium-ion or similar cells form the core of the BESS and would be assembled in sealed battery modules."

1. Please provide more details about what is meant by "similar cells".

2. Is there any specifics you can provide to specific battery brands that would be used. There are no specifics in the public record as to battery brands.

Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 11/18/2025 6:14:38 PM
To: Allen, Jeffrey [JAllen@SBCFire.org]; agreenberg [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b9bfa77aaf044a8ca270ce3bcef10093-9afec475-67]
CC: Hannah Arkin [hannah@resolutionenvironmental.com]; Fooks, Brett@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=870df74143964b71ada0039bf13c5a9a-Fooks, Bret]; Shi, Michele@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=06f3d24f840349b896a0eed0c41d0aee-Shi, Michel]; Paul Miller [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d4ce365f8bd442a8cb7d479381e2476-8906af8e-0e]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Washington, Bertral [bwashington@sbcfire.org]; Daniel Jones [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=352cfed2f4d849749d3d8f98a9563279-082cef18-97]; Markloff, Curtis [CMarkloff@SBCFire.org]
Subject: Re: CEC staff availability for Soda Mountain meeting on fire protection

That will work. I can send an invitation. Thanks.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Allen, Jeffrey <JAllen@SBCFire.org>
Sent: Friday, November 14, 2025 3:15 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; agreenberg <agreenberg@risksci.com>
Cc: Hannah Arkin <hannah@resolutionenvironmental.com>; Fooks, Brett@Energy <Brett.Fooks@energy.ca.gov>; Shi, Michele@Energy <Michele.Shi@Energy.ca.gov>; Paul Miller <pmiller@therchgroup.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Washington, Bertral <bwashington@sbcfire.org>; Daniel Jones <djones@therchgroup.com>; Markloff, Curtis <CMarkloff@SBCFire.org>
Subject: Re: CEC staff availability for Soda Mountain meeting on fire protection

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Hi Lisa,

How bout 11/19

830-930 ?

SAN BERNARDINO COUNTY | FIRE DISTRICT
DIVISION 4

JEFF ALLEN
BATTALION CHIEF

6942 Airway Ave., Suite A
Yucca Valley, CA 92284

Office: 760.228.6380 | Fax: 760.365.3337
Cell: 909.361.9723
Email: JAllen@sbcfire.org
www.sbcfire.org

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, November 14, 2025 2:10 PM
To: Allen, Jeffrey <JAllen@SBCFire.org>; agreenberg <agreenberg@risksci.com>
Cc: Hannah Arkin <hannah@resolutionenvironmental.com>; Fooks, Brett@Energy <Brett.Fooks@energy.ca.gov>; Shi, Michele@Energy <Michele.Shi@Energy.ca.gov>; Paul Miller <pmiller@therchgroup.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Washington, Bertral <bwashington@sbcfire.org>; Daniel Jones <djones@therchgroup.com>; Markloff, Curtis <CMarkloff@SBCFire.org>
Subject: Re: CEC staff availability for Soda Mountain meeting on fire protection

Hi Jeff,

That time won't work for all. Can you meet between 11 and 12 on Tuesday Nov 18th, or another day? These are the times that CEC staff and Curtis Markloff can attend.

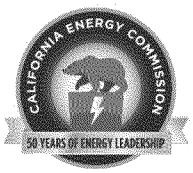
Monday 11/17 10:30-11, 3:30-4
Tuesday 11/18, 11-12
Wednesday 11/19, 8:30-9:30
Thursday 11/20, 8:30-9:30
Monday 11/24, 8:30-9:30

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Allen, Jeffrey <JAllen@SBCFire.org>
Sent: Friday, November 14, 2025 1:30 PM
To: agreenberg <agreenberg@risksci.com>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Hannah Arkin <hannah@resolutionenvironmental.com>; Fooks, Brett@Energy <Brett.Fooks@energy.ca.gov>; Shi, Michele@Energy <Michele.Shi@Energy.ca.gov>; Paul Miller <pmiller@therchgroup.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Washington, Bertral <bwashington@sbcfire.org>
Subject: Re: CEC staff availability for Soda Mountain meeting on fire protection

---

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Good afternoon ,

We would like to meet 11/18 from 4-4:30 p.m. Please advise if this works for everyone.

Thank you ,

Jeff Allen
San Bernardino County Fire
Battalion Chief
909 361 9723

Get Outlook for iOS

From: Dr. Alvin Greenberg <agreenberg@risksci.com>
Sent: Wednesday, November 12, 2025 11:14 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Hannah Arkin <hannah@resolutionenvironmental.com>; Allen, Jeffrey <JAllen@SBCFire.org>; Fooks, Brett@Energy <Brett.Fooks@energy.ca.gov>; Shi, Michele@Energy <Michele.Shi@energy.ca.gov>; Paul Miller <pmiller@therchgroup.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Re: CEC staff availability for Soda Mountain meeting on fire protection

Here is my availability:
Monday 11/17 10:30-11, 3:30-4 - Yes to both
Tuesday 11/18, 11-12, 4-4:30 - Yes to both
Wednesday 11/19, 8:30-9:30 - Yes
Thursday 11/20, 8:30-9:30 - Yes
Friday 11/21, 10:30-12, 1-4 - Yes to both
Monday 11/24, 8:30-9:30 - Yes
Tuesday 11/25, 8:30-9 - NO to both

Dr. Alvin Greenberg
Risk Science Associates
37 Mt. Whitney Dr.
San Rafael, CA 94903
415-472-6056
cell 415-302-0438

On Wed, Nov 12, 2025 at 11:00 AM Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov> wrote:

Hi all,

Following up on Hannah's suggestion to join her next call with Jeff Allen, San Bernardino County Fire District, Division 4 Battalion Chief, to discuss the Soda Mountain Solar Project.

Here are our available dates, and times:

Monday 11/17 10:30-11, 3:30-4
Tuesday 11/18, 11-12, 4-4:30
Wednesday 11/19, 8:30-9:30
Thursday 11/20, 8:30-9:30
Friday 11/21, 10:30-12, 1-4
Monday 11/24, 8:30-9:30
Tuesday 11/25, 8:30-9

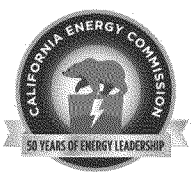
Please let me know all dates and times you can meet. We would like to meet before the Thanksgiving holiday. The sooner I hear back, the sooner I can get an invitation out and locked down.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Selassie, Amanuel [Amanuel.Selassie@ladwp.com]
Sent: 11/13/2025 8:52:32 PM
To: Selassie, Amanuel [Amanuel.Selassie@ladwp.com]; Fooks, Brett@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=870df74143964b71ada0039bf13c5a9a-Fooks, Bret]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Edirisuriya, Sudath@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a5d6cd74e9024972b122d8344f69b3a8-Edirisuriya]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]; Hughes, Joseph@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7dd5e80572b644209e9607ba7bdcb630-Hughes, Jos]; Ha, Tin [Tin.Ha@ladwp.com]; Lakshman, Sunaja [Sunaja.Lakshman@ladwp.com]; Enriquez, Rodolfo [Rodolfo.Enriquez@ladwp.com]; Nassiri, Ashkan [Ashkan.Nassiri@ladwp.com]; Rucic, Nermina [Nermina.Rucic@ladwp.com]
Subject: Soda Mountain Solar Project
Location: Microsoft Teams Meeting
Start: 11/19/2025
End: 11/19/2025 1:00:00 AM
Show Time As: Tentative
Recurrence: (none)

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From: Selassie, Amanuel <Amanuel.Selassie@ladwp.com>
Sent: Thursday, November 13, 2025 11:34:49 AM (UTC-08:00) Pacific Time (US & Canada)
To: Selassie, Amanuel <Amanuel.Selassie@ladwp.com>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Ha, Tin <Tin.Ha@ladwp.com>; Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>
Subject: Soda Mountain Solar Project
When: Tuesday, November 18, 2025 4:00 PM-5:00 PM.
Where: Microsoft Teams Meeting

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All: Meeting to discuss CEC's questions: _

1. We are wondering whether compliance with design standards for the switchyard and sections of transmission loop in line would be verified by the Los Angeles Board of Water and Power at the time the switchyard is turned over to LADWP or would it be under the CEC's jurisdiction during construction. Please let us know what the process is for such facilities.

2. We are used to CPUC standards like General Order 131E, regulating the planning and construction of electric generation, transmission, power, distribution line facilities, and substations located in California. Is LADWP required to follow the CPUC standards or does LADWP have their own standards they must comply with? If the latter is the case, please provide us the applicable standards that the switchyard and sections of transmission loop in lines be constructed to, in addition to whether compliance with these regulations is determined by the Los Angeles Board of Water and Power, or would it be under the jurisdiction of the CEC.

3. Would the switching station serve only Soda Mountain Solar, or would it serve other costumers as well (this will help answer the jurisdictional question)

4. If the switching station is jurisdictional to LADWP, what would the coordination look like between our DCBO and LADWP inspector? You asked about this when asking who is responsible for ensuring compliance with building codes during construction, but if the responsibility lies with LADWP, is there some level of coordination with our DCBO for the portions where the project interconnects? Some level of overlap or handoff to LADWP?

5. If they deliver substantially less MW than their agreement, it will trigger a "material modification process". We are wondering how many MW short of 300 would trigger such a modification.

Thank you

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 296 101 757 273 11

Passcode: ib98zT2V

Dial in by phone

+1 323-433-2408,,902380668# United States, Los Angeles

Find a local number

Phone conference ID: 902 380 668#

Join on a video conferencing device

Tenant key: ladwp@m.webex.com

Video ID: 117 964 184 2

More info

For organizers: Meeting options | Reset dial-in PIN
Privacy and security

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From: Bohan, Drew@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7DD07A25FCBC49B0BBB219CC3B788983-BOHAN, DREW]
Sent: 11/5/2025 9:15:10 PM
To: Bohan, Drew@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7dd07a25fcbc49b0bbb219cc3b788983-Bohan, Drew]

Subject: Soda Mountain tour
Attachments: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo; Agenda for Soda Mt Solar site visit 11-20-25.docx
Location: 49441 Zzyzx Rd, Baker, CA 92309

Start: 11/20/2025 9:30:00 PM
End: 11/20/2025 11:30:00 PM
Show Time As: Busy

Recurrence: (none)

Soda Mountain Solar Site Visit

Participants:

- California Energy Commission Commissioner Noemí Gallardo
- California Energy Commission Executive Director Drew Bohan
- Dr. Christina Aiello (nation's leading California desert bighorn sheep researcher)
- Scott Gibson (California Chapter of the Wild Sheep Foundation)
- Jacob Overson (Baker Community Services District)
- Chance Wilcox (National Parks Conservation Association)
- Neal Desai (National Parks Conservation Association)
    - Neal Desai is Point of Contact: cell/text 510-368-0845
    - If possible, Commissioner or Drew can text Neal when in rental car to share ETA so we know when to expect them and if there are any delays, so we can adjust schedule before they arrive.

Weather:

- Use Baker, California (nearest town) for up-to-date weather

Schedule (2 hour program upon arrival at Zzyzx):

- 10:50AM - Commissioner Gallardo and Drew Bohan land at LAS. Rent car and drive to Zzyzx. Use this address for navigation: 49441 Zzyzx Rd, Baker, CA 92309
- 1:30PM - Commissioner Gallardo and Drew Bohan arrive at Zzyzx.
- 1:30PM-2:30PM at Zzyzx
    - Introductions by all
    - Discussion led by participants
- 2:30PM-3:00PM Drive to Rasor Road exit in two carpools (one group in Scott's vehicle and another group in Jacob's vehicle)
- 3:00PM-3:30PM Continue discussion
- If time permits, Drive 10 mins to Basin Road exit
- Drive 30 mins back to pick up vehicles
- Optional: early/quick dinner together at Mad Greek in Baker
- 7:50PM - flight from Las Vegas for Gallardo, Bohan and Desai

From: Neal Desai [ndesai@npca.org]
Sent: 11/18/2025 8:56:40 PM
To: Rodriguez, Sally@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=436499a85cb14d80bd04cda176e40a85-5f828a60-96]
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo
Attachments: Agenda for Soda Mt Solar site visit 11-20-25.docx

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Hi Sally,
Please see an agenda attached. Is there additional information that would be helpful for you to have? Also, does the Commissioner and Drew like to have printed out materials for their meetings and if yes (and if you're already planning to print stuff out for them), can I send you some items too?
Thank you,
Neal

From: Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>
Sent: Tuesday, November 18, 2025 9:13 AM
To: Neal Desai <ndesai@npca.org>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hello Neal,

That timing works perfectly for me. I look forward to receiving those details later today.

Thank you!

Sally Rodriguez
Executive Assistant
Executive Office | Commissioner Support
Teams Phone: 1-279-226-1063

California Energy Commission
Website: https://www.energy.ca.gov/

Executive Office Document Review Request form.
Commissioner and Executive Office Claim/Travel Assistance Request Form.

From: Neal Desai <ndesai@npca.org>
Sent: Tuesday, November 18, 2025 9:11 AM
To: Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Sally,
Absolutely. I'm going to email you an itinerary with details like my cell phone, schedule for the visit, and logistical info like where to meet us at. I'm at a conference so was going to do that midday during a lunch break. Does that timing work for you?
Thank you,
Neal

From: Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>
Sent: Tuesday, November 18, 2025 9:07 AM
To: Neal Desai <ndesai@npca.org>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hello Neal,

Commissioner Gallardo and Drew would like to accept your offer to carpool once they arrive at the site. Please let me know if you need any other information.

Also, could you please let me know the expected duration of the site visit?

Thank you,

Sally Rodriguez
Executive Assistant
Executive Office | Commissioner Support
Teams Phone: 1-279-226-1063

California Energy Commission
Website: https://www.energy.ca.gov/

Executive Office Document Review Request form.
Commissioner and Executive Office Claim/Travel Assistance Request Form.

From: Neal Desai <ndesai@npca.org>
Sent: Thursday, November 13, 2025 10:48 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Cc: Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Rosemary,

I was suggesting that once they arrived at the site in their rental vehicle, then we could carpool in our vehicles. We won't be able to carpool from the Vegas airport.
Thanks
Neal

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Thursday, November 13, 2025 7:09 PM
To: Neal Desai <ndesai@npca.org>
Cc: Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hi Neal:

I do not think they would mind carpooling to the site visit, but I will check to be sure. Cmsr and Drew both are on the same flight and that information is as follows:

Flight **Sacramento, CA** (SMF) to **Las Vegas, NV** (LAS) Change

Southwest 4271

Departure: 09:25 AM
Sacramento Intl Airport (SMF)
Terminal: B

Duration: 1 hour, 25 minutes
Nonstop

Arrival: 10:50 AM
Harry Reid Intl (LAS)
Terminal: 1

Confirmation: CWLKDC
Status: Confirmed
Air Frequent Flyer Number: WN 92680313

Seat: No seat

Additional Details
Aircraft: Boeing 737-700
E-Ticket
Emissions: 250.9 lbs CO_2
Cabin: CHOICE (N)

Distance: 397 miles

Flight **Las Vegas, NV** (LAS) to **Sacramento, CA** (SMF)

Southwest 1898

Departure: 07:50 PM
Harry Reid Intl (LAS)
Terminal: 1

Duration: 1 hour, 35 minutes
Nonstop

Arrival: 09:25 PM
Sacramento Int'l Airport (SMF)
Terminal: B

Confirmation: CWLKDC
Status: Confirmed
Air Frequent Flyer Number: WN 92680313

Seat: No seat

Additional Details
Aircraft: Boeing 737 MAX 8
E-Ticket
Emissions: 250.9 lbs CO_2
Cabin: CHOICE (U)

Distance: 397 miles

Are you flying in to Las Vegas as well?

Thank you,

Rosemary

From: Neal Desai <ndesai@npca.org>
Sent: Thursday, November 13, 2025 4:09 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Cc: Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

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Thank you Rosemary and Sally. Quick question: will Commissioner Gallardo and Drew be able to hop into a vehicle with us for part of the site visit? We just wanted to confirm that since it will be good to have high clearance vehicle for one of the roads we will be on for a short distance, and they can just jump into one of our vehicles (we will have 4x4 trucks). Also, it's an opportunity to spend time together as we move from one location to another. Also, I know they arrive at LAS at 10:50am. Could you also share when their flight departs, just so we can help keep track and ensure they get on the road in time?
Thank you,
Neal

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Wednesday, November 12, 2025 3:52 PM
To: Neal Desai <ndesai@npca.org>
Cc: Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hi Neal:

The person covering for me is Sally Rodriguez and her contact information is as follows:

Sally Rodriguez
Sally.Rodriguez@energy.ca.gov
Executive Assistant
Executive Office | Commissioner Support
Teams Phone: 1-279-226-1063

Please email the agenda and any other materials you may have for the Soda Mountain site visit to Sally, and she will be sure to share with Commissioner Gallardo. If you need anything else before I depart on Friday at 1pm, please email me and copy Sally to for awareness.

Thank you,
Rosemary

Rosemary House (she/her/hers)
Executive Coordinator
Commissioners
Noemí Gallardo
Teams Phone: 279-250-8829
M:916-664-1670

California Energy Commission
Website: www.energy.ca.gov

From: Neal Desai <ndesai@npca.org>
Sent: Friday, October 31, 2025 2:26 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Rosemary,
Let's plan to do this at 1pm on 11/20. Could we talk next week about logistics? I'm in DC (est time) but can find time to take a call.
Thanks
Neal

From: Neal Desai <ndesai@npca.org>
Sent: Tuesday, October 28, 2025 2:23 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

I don't know yet. I just asked folks since folks had the morning set aside. Will let you know as soon as I hear back.

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Monday, October 27, 2025 9:48 AM
To: Neal Desai <ndesai@npca.org>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hi Neal:

Can your group do the site visit at 1pm on 11/20? That is the only time Drew Bohan is available.

Thank you,
Rosemary

From: Neal Desai <ndesai@npca.org>
Sent: Friday, October 24, 2025 9:32 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Rosemary,
I'm checking right now with folks to see if Thurs 11/20 morning will work. I might not hear back till Monday but will keep you posted. The other options don't work as I have to present at a conference in Sac.

I'm at the National Park of American Samoa right now and next week so my ability to talk isn't great due to time zones and scheduling but I have feelers out right now towards getting confirmations and will email you back as soon as I get them.

Thank you!!
Neal

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Friday, October 24, 2025 8:57 AM
To: Neal Desai <ndesai@npca.org>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Neal:

I apologize it looks like 11/17 will not work for this site visit. We are now looking at the morning of 11/18 or the 11/20. Commissioner Gallardo will be in Marina Del Rey speaking at an event on 11/19 so she could conduct the site visit prior to that engagement or the day after. The other person who needs to be there is Drew Bohan and he is not available on 11/17. He had a pending engagement which has now been confirmed and that's why the 17th was only offered as a tentative back-up originally. Please give me a call when you have a moment.

Thank you,
Rosemary

Rosemary House (she/her/hers)
Executive Coordinator
Commissioners
Noemí Gallardo
Teams Phone: 279-250-8829
M:916-664-1670

California Energy Commission
Website: www.energy.ca.gov



From: House, Rosemary@Energy
Sent: Thursday, October 23, 2025 4:06 PM
To: Neal Desai <ndesai@npca.org>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hi Neal:

The reason I had listed 11/17 as a tentative back-up date is because Commissioner is scheduled to be at Benchmark that same week, we were unsure of the logistics at that time. I am fairly certain we can make the 17th work, just need to iron out a couple of more items and I will let confirm for sure tomorrow .

Thank you,
Rosemary

Rosemary House (she/her/hers)
Executive Coordinator
Commissioners
Noemí Gallardo
Teams Phone: 279-250-8829
M:916-664-1670

California Energy Commission
Website: www.energy.ca.gov

From: Neal Desai <ndesai@npca.org>
Sent: Thursday, October 23, 2025 2:41 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The 21st isn't working for some folks but I know 17th will work for 4 of us, so I think we go with that. What are the scheduling constraints of the Commissioner? Happy to help work thru logistics with you, including reducing driving time as much as possible. Flying into Ontario would be closer to Baker (project site area) than Burbank.

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Tuesday, October 21, 2025 4:21 PM
To: Neal Desai <ndesai@npca.org>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hi Neal:

It's in shown below.

Thank you,
Rosemary

Rosemary House (she/her/hers)
Executive Coordinator
Commissioners
Noemí Gallardo
Teams Phone: 279-250-8829
M:916-664-1670

California Energy Commission
Website: www.energy.ca.gov



From: Neal Desai <ndesai@npca.org>
Sent: Tuesday, October 21, 2025 4:13 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Cc: Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Rosemary,
Is there a good number that I can reach you at? I have a couple logistical questions that would be easiest to go over by talking. Also, I had already sent 11/17 out to folks and was able to confirm participation by 4 of us on 11/17. I'll check with them to see if 11/21 is available instead.
Thanks
Neal

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Tuesday, October 21, 2025 2:33 PM
To: Neal Desai <ndesai@npca.org>
Cc: Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hi Neal:

11/17 & 11/21 with 11/21 now being the preferred date as Commissioner has better availability on that date.

Thank you,

Rosemary

From: Neal Desai <ndesai@npca.org>
Sent: Tuesday, October 21, 2025 1:59 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Cc: Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Rosemary,
So are the options 11/17 and 11/21, or just 11/21?
Thanks
Neal

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Tuesday, October 21, 2025 1:43 PM
To: Neal Desai <ndesai@npca.org>
Cc: Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Neal:

Apologies, for asking about the 10th. I've just received a cancellation for another event and on 11/21 and that date is now open.

Thank you,
Rosemary

From: Neal Desai <ndesai@npca.org>
Sent: Monday, October 20, 2025 5:01 PM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Rosemary,
I'm out of state 11/2-11/11 (per email I sent) so 11/10 can't work. I can look to 11/17, specifically asking other proposed participants if they are available.
Let me try to get back to you by tomorrow. Thanks
Neal

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Monday, October 20, 2025 12:23 PM
To: Neal Desai <ndesai@npca.org>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

HI Neal:

Would be you able to make 11/10 work? 11/17 could be a tentative back-up date.

Thank you,
Rosemary

From: Neal Desai <ndesai@npca.org>
Sent: Friday, October 17, 2025 11:17 AM
To: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

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Hi Rosemary,
I am out of state 11/2-11/11. Are there 2-3 other options that I can bring to the potential participants on this end to gauge what works best for the most people?
Thanks
Neal

From: House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>
Sent: Friday, October 17, 2025 10:01 AM
To: Neal Desai <ndesai@npca.org>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Hi Neal:

Are you available on 11/5 for this site visit?

Thank you,
Rosemary

From: Neal Desai <ndesai@npca.org>
Sent: Wednesday, October 15, 2025 9:57 AM
To: Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

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Hi Jimmy,
Probably 1-2 individuals from the following categories:

- Environmental NGOs
- Leading bighorn sheep scientists
- Former National Park Service officials
- Local community leaders

Specific people will depend on availability based on options we come up with.
Thank you,
Neal

From: Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>
Sent: Wednesday, October 15, 2025 8:47 AM
To: Neal Desai <ndesai@npca.org>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Good morning, Mr. Desai,

Thank you for the bump. We are still working on scheduling. Can I ask who would be attending from your side?

Thanks,

Jimmy

James Qaqundah
Commissioner Noemí O. Gallardo's Office
California Energy Commission
Website: www.energy.ca.gov

From: Neal Desai <ndesai@npca.org>
Sent: Wednesday, October 15, 2025 12:17 AM
To: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

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Hi Jimmy and Rosemary,
Writing to bump this back up, regarding scheduling. Thank you,
Neal

From: Neal Desai
Sent: Tuesday, September 23, 2025 10:01 AM
To: 'Chang, Kaycee@Energy' <kaycee.chang@energy.ca.gov>; Energy - STEP Siting <STEPsiting@energy.ca.gov>

Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: RE: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Thank you all. Yes, at the meeting, I requested – and Commissioner Gallardo agreed – to visit the site with advocates who have a very different perspective than the applicant, who she already visited the site with. Jimmy and Rosemary, please let us know the next steps towards locking in a date for this visit.
Thank you,
Neal

==========

Neal Desai
Senior Pacific Regional Director
National Parks Conservation Association
Mobile: 510.368.0845 |ndesai@npca.org

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Friday, September 19, 2025 10:20 AM
To: Neal Desai <ndesai@npca.org>; Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Qaqundah, James@Energy <James.Qaqundah@energy.ca.gov>; House, Rosemary@Energy <Rosemary.House@Energy.ca.gov>; Rodriguez, Sally@Energy <Sally.Rodriguez@energy.ca.gov>; Lukanich, Kimberly@Energy <Kimberly.Lukanich@Energy.ca.gov>; Sandoval-Moreno, Victoria@Energy <Victoria.Sandoval-Moreno@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: Re: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

Good morning, Neal,

Thank you for reaching out and for your interest and participation in our proceedings. I added the following CEC team members to this email to help facilitate planning the field visit:

1. James (Jimmy) Qaqundah - Commissioner Gallardo's advisor
2. Rosemary House - Commissioner Gallardo's executive assistant
3. Sally Rodriguez, Kimberly Lukanich, Victoria Sandavol-Moreno - our Executive Office administrative team (working with Executive Director Drew Bohan)
4. Ann Crisp - Biological Resources unit supervisor in the Siting, Transmission, and Environmental Protection Division

Jimmy and Rosemary will lead this planning effort, in coordination with Ann, Sally, Kimberly, and Victoria.

Team: please see email below from Neal Desai, Senior Pacific Regional Director of the National Parks Conservation Association. Neal provided a verbal comment during our 8/29 informational/scoping meeting for the Soda Mountain Solar Project.

Please let me know if anyone needs anything in the meantime.

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
Siting, Transmission, and Environmental Protection Division

Book time to meet with me

From: Neal Desai <ndesai@npca.org>
Sent: Thursday, September 18, 2025 9:34 PM
To: Energy - STEP Siting <STEPsiting@energy.ca.gov>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Scheduling field visit to Soda Mt Solar site with Cmsr Gallardo

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Good Evening,
Commissioner Gallardo requested me to email this email address to schedule a field trip to the proposed Soda Mt Solar site with our organization and others in our coalition, in response to my testimony/public comments at the recent informational meeting.

Please let me know how to proceed to identify date options available.
Thank you!
Neal

==========

Neal Desai

Senior Pacific Regional Director

National Parks Conservation Association

Mobile: 510.368.0845 |ndesai@npca.org

Soda Mountain Solar Site Visit

Participants:

- California Energy Commission Commissioner Noemí Gallardo
- California Energy Commission Executive Director Drew Bohan
- Dr. Christina Aiello (nation's leading California desert bighorn sheep researcher)
- Scott Gibson (California Chapter of the Wild Sheep Foundation)
- Jacob Overson (Baker Community Services District)
- Chance Wilcox (National Parks Conservation Association)
- Neal Desai (National Parks Conservation Association)
    - Neal Desai is Point of Contact: cell/text 510-368-0845
    - If possible, Commissioner or Drew can text Neal when in rental car to share ETA so we know when to expect them and if there are any delays, so we can adjust schedule before they arrive.

Weather:

- Use Baker, California (nearest town) for up-to-date weather

Schedule (2 hour program upon arrival at Zzyzx):

- 10:50AM - Commissioner Gallardo and Drew Bohan land at LAS. Rent car and drive to Zzyzx. Use this address for navigation: 49441 Zzyzx Rd, Baker, CA 92309
- 1:30PM - Commissioner Gallardo and Drew Bohan arrive at Zzyzx.
- 1:30PM-2:30PM at Zzyzx
    - Introductions by all
    - Discussion led by participants
- 2:30PM-3:00PM Drive to Rasor Road exit in two carpools (one group in Scott's vehicle and another group in Jacob's vehicle)
- 3:00PM-3:30PM Continue discussion
- If time permits, Drive 10 mins to Basin Road exit
- Drive 30 mins back to pick up vehicles
- Optional: early/quick dinner together at Mad Greek in Baker
- 7:50PM - flight from Las Vegas for Gallardo, Bohan and Desai

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 11/3/2025 4:23:26 PM
To: Dustin Thaler [dut@vcrenewables.com]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]; Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain
Attachments: Questions_Ideas for Big Horn Sheep Buffer_v2.docx

Hi all,

The link to an attached figure was an oversight. There is no attachment. I have updated the list of questions. Please use this for your responses.

Thanks for catching that Dustin.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Dustin Thaler <dut@vcrenewables.com>
Sent: Monday, November 3, 2025 6:51 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: RE: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

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Hi Lisa –

Hope you had a good weekend. The questions list refers to a couple of attachments. Could you please forward those so we can make sure we are getting you accurate responses?

Thank you,

Dustin Thaler

VC Renewables
110 Edison Place, Suite 312
Newark, NJ 07102
M: 201-275-4862
E: dut@vcrenewables.com

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, October 30, 2025 2:56 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; Dustin Thaler <dut@vcrenewables.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>
Subject: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

Hi Hannah and Dustin,

We appreciate meeting with you today about the application of the Big Horn Sheep buffer and consideration of ways to re-capture MWs lost through the buffer.

We would appreciate your responses to the attached list of questions. Meanwhile, I will work to get a meeting set up with you, CEC staff and CDFW staff to discuss impacts to the big horn sheep and the buffer.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

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Questions/Ideas for Big Horn Sheep Buffer

Areas of flexibility:

1. Chris- Having an energy dissipater inside the buffer would be okay.

Questions for Applicant:

2. Chris- Where can the applicant place solar panels within the project site- are there gaps or possibility to shift project components?
3. Does the refined grading remove the need for some of the stormwater protection/management infrastructure onsite?
4. Can the BESS be moved away from the freeway and placed where the attached figure shows? If not, where else can it be moved to in order to be sufficiently far from the freeway.
5. What's the prevailing wind direction at the project site?
6. For the buffer to be considered, it seems that approximately 4-5 percent of the solar field must be removed. For the project to maintain its maximum MW output of 300 MW, the removed panels must be located elsewhere within the project site boundaries or their conversion efficiency be increased.
    a. Assuming all the panels have equal power output, there needs to be gaps on the site to accommodate the 4-5 percent panels removed. Where would the applicant consider for these panels within the project site?
    b. As an alternative, to accommodate for the loss of MW of roughly 4-5 percent of the project-wide output of 300 MW, or roughly 12-15 MW, please evaluate the selection of PV panels with higher efficiency rating than the 20 percent rating given in the Application.

       We understand the applicant hasn't begun procuring the equipment yet, but we'd like clarification on the PV panels mentioned in the application. What manufacturer, model, or specs—if any—were used to design the project site panel layout? What type of panels were assumed to reach the stated 20% efficiency? Was this number based on site-specific factors or just a typical manufacturer rating?

From: Dustin Thaler [dut@vcrenewables.com]
Sent: 11/3/2025 4:26:05 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]; Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: RE: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

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Thank you for the clarification. Question #4 still refers to an attachment.

Dustin Thaler

VC Renewables
110 Edison Place, Suite 312
Newark, NJ 07102
M: 201-275-4862
E: dut@vcrenewables.com



From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, November 3, 2025 11:23 AM
To: Dustin Thaler <dut@vcrenewables.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

Hi all,

The link to an attached figure was an oversight. There is no attachment. I have updated the list of questions. Please use this for your responses.

Thanks for catching that Dustin.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Dustin Thaler <dut@vcrenewables.com>
Sent: Monday, November 3, 2025 6:51 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: RE: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

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Hi Lisa –

Hope you had a good weekend. The questions list refers to a couple of attachments. Could you please forward those so we can make sure we are getting you accurate responses?

Thank you,

Dustin Thaler

VC Renewables
110 Edison Place, Suite 312
Newark, NJ 07102
M: 201-275-4862
E: dut@vcrenewables.com

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, October 30, 2025 2:56 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; Dustin Thaler <dut@vcrenewables.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>
Subject: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

Hi Hannah and Dustin,

We appreciate meeting with you today about the application of the Big Horn Sheep buffer and consideration of ways to re-capture MWs lost through the buffer.

We would appreciate your responses to the attached list of questions. Meanwhile, I will work to get a meeting set up with you, CEC staff and CDFW staff to discuss impacts to the big horn sheep and the buffer.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

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Security and reliability of email is not guaranteed, Communications should be verified from a mailed or faxed copy. All emails to anyone @vcrenewables.com are communications to the firm and are not private or confidential to any named individual.

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 11/24/2025 11:23:28 PM
To: Selassie, Amanuel [Amanuel.Selassie@ladwp.com]
CC: Enriquez, Rodolfo [Rodolfo.Enriquez@ladwp.com]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Edirisuriya, Sudath@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a5d6cd74e9024972b122d8344f69b3a8-Edirisuriya]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]; Hughes, Joseph@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7dd5e80572b644209e9607ba7bdcb630-Hughes, Jos]; Ha, Tin [Tin.Ha@ladwp.com]; Lakshman, Sunaja [Sunaja.Lakshman@ladwp.com]; Nassiri, Ashkan [Ashkan.Nassiri@ladwp.com]; Rucic, Nermina [Nermina.Rucic@ladwp.com]
Subject: Re: [EXTERNAL] Re: Soda Mountain Solar Project

Hello Amanuel,

Thank you for that information. We have a few requests that will help us conduct our analysis.

1. Please send us the applicable standards and specifications that the utility switchyard to be constructed by the applicant and operated by LADWP would need to comply with. We will need to note these in our Environmental Impact Report (part of the Staff Assessment).
2. Are there any standard mitigation measures the LADWP would apply to the downstream network upgrades to the protection settings at the Marketplace and Adelanto substations for construction and operation of the new utility switchyard? If so, please provide these measures and indicate which ones would apply to the downstream upgrade work and which ones would apply to operation of the new utility switchyard.
3. How long would it take for MAP to evaluate and determine if a project downsizing would be considered a material modification that requires a new interconnection request?
4. If a project downsizing requires a new interconnection request, how long that that process take, including approval of such request?

I also would like to post your responses to our first set of questions and the responses to this set of questions in the project's docket (electronic repository). This would be publicly available. This would be very helpful to support our analysis. Please confirm you are okay with our posting these to the project's docket.

We are on a very tight schedule so appreciate your responses as soon as possible.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814

1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Selassie, Amanuel <Amanuel.Selassie@ladwp.com>
Sent: Monday, November 17, 2025 1:55 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Ha, Tin <Tin.Ha@ladwp.com>; Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>; Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>
Subject: RE: [EXTERNAL] Re: Soda Mountain Solar Project

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Good afternoon Lisa,

The Marketplace-Adelanto 500kV transmission line is a joint owned facility among many participants, and that is why it took us a while to put together a response back to you. Please see below in purple a detailed response to your questions. I will go ahead cancel tomorrow's meeting, and please reach out if you have additional questions.

CEC's Questions:

1. We are wondering whether compliance with design standards for the switchyard and sections of transmission loop in line would be verified by the Los Angeles Board of Water and Power at the time the switchyard is turned over to LADWP or would it be under the CEC's jurisdiction during construction. Please let us know what the process is for such facilities.

2. We are used to CPUC standards like General Order 131E, regulating the planning and construction of electric generation, transmission, power, distribution line facilities, and substations located in California. Is LADWP required to follow the CPUC standards or does LADWP have their own standards they must comply with? If the latter is the case, please provide us the applicable standards that the switchyard and sections of transmission loop in lines be constructed to, in addition to whether compliance with these regulations is determined by the Los Angeles Board of Water and Power, or would it be under the jurisdiction of the CEC.

3. Would the switching station serve only Soda Mountain Solar, or would it serve other costumers as well (this will help answer the jurisdictional question)

4. If the switching station is jurisdictional to LADWP, what would the coordination look like between our DCBO and LADWP inspector? You asked about this when asking who is responsible for ensuring compliance with building codes during construction, but if the responsibility lies with LADWP, is there some level of coordination with our DCBO for the portions where the project interconnects? Some level of overlap or handoff to LADWP?

5. If they deliver substantially less MW than their agreement, it will trigger a "material modification process". We are wondering how many MW short of 300 would trigger such a modification.

Our response:

(#1 & #2) The developer of Soda Mountain Solar Project has proposed interconnecting to the Marketplace-Adelanto 500kV Transmission Line, which is part of the Mead–Adelanto Project (MAP). MAP is jointly owned by multiple participants, with LADWP serving as the Operating Agent (OA).

Upon completion of the switchyard and the two looped-in transmission line segments, ownership of these assets will be transferred to MAP Participants, LADWP has executed an Engineering & Procurement Agreement with the developer to facilitate progress on the interconnection, including the construction of the switchyard and the looped-in transmission lines.

To support the construction phase, LADWP has provided the developer with applicable standards and specification. LADWP will oversee and verify the developer's work throughout all phases, engineering, procurement, construction, and commissioning, prior to final turnover to MAP participants. Compliance with these requirements will fall under MAP jurisdictions.

(#3) The proposed switching station is intended for the Soda Mountain Solar Project but once MAP acquires the switching station, it will be opened to future interconnection customers.

(#4) We recommend that the CEC's recommended EIR include language that: a) describes the respective areas that are subject to CEC/DCBO inspection authority and those that are subject to LADWP inspection authority; and b) requires coordination between the CEC's DCBO and the LADWP inspector regarding where the infrastructure in those areas interconnect. For example, where there are technical ratings that need to be aligned with one another, e.g., the same specifications have to be in place on either side in order for the infrastructure to work safely and reliably, the DCBO and LADWP's inspector should inquire whether those specifications are aligned and compare notes. The point in time when that comparison would occur likely would be near the end of construction.

(#5) The Soda Mountain Solar Project has an existing and executed LGIA with SCPPA and Startrans IO, LLC. Material Modifications are defined in that LGIA as "modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date." Typically, analysis of the impacts of Material Modifications are conducted during the Large Generator Interconnection Process before an LGIA is reached between MAP and the Interconnection Customer, not after execution of the LGIA.

The executed Soda Mountain LGIA provisions on Modifications indicate that permitted modifications cannot necessitate a new Interconnection Request. The definition of "Interconnection Request" in the Soda Mountain LGIA includes a request: "to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the JPP."

We are unaware of any industry standard that deems downsizing a facility to be a Material Modification but are aware that some entities, such as CAISO, offer limited downsizing opportunities. MAP does not have standard criteria to determine at what point a project downsizing would be deemed a Material Modification, such that a new Interconnection Request would be required.

Thank you!

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, November 13, 2025 10:10 AM
To: Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>
Cc: Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Selassie, Amanuel <Amanuel.Selassie@ladwp.com>; Ha, Tin <Tin.Ha@ladwp.com>
Subject: Re: [EXTERNAL] Re: Soda Mountain Solar Project

Are you available for a meeting on Tuesday 11/18 from 4-5?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>
Sent: Thursday, November 13, 2025 9:08 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy

<Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Selassie, Amanuel <Amanuel.Selassie@ladwp.com>; Ha, Tin <Tin.Ha@ladwp.com>; Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>
Subject: RE: [EXTERNAL] Re: Soda Mountain Solar Project

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Hello Lisa,

We are working on providing you the response requested. We believe it will also be beneficial to discuss the responses through a meeting. Are you available next Tuesday or Wednesday for a call to discuss the responses to your questions?

Thanks.

Sunaja Lakshman
Manager of Transmission Asset Management
Power System Planning Division
Los Angeles Department of Water & Power
Ph. (213) 367-3281 ; Cell: (213) 554-4654
Email: Sunaja.Lakshman@ladwp.com

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, November 12, 2025 10:27 AM
To: Selassie, Amanuel <Amanuel.Selassie@ladwp.com>; Ha, Tin <Tin.Ha@ladwp.com>
Cc: Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>; Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: Re: [EXTERNAL] Re: Soda Mountain Solar Project

Hi all,

I am circling back on my requests. We are running out of time and need to better understand the LADWP process and what facility design regulations apply. Do you use the CPUC general orders or do you have your own regulations.

Our staff are trying to wrap up their analysis so timing is tight.

Thanks,

Lisa Worrall

Senior Environmental Planner

CEQA Project Management Unit

Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814

1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, October 31, 2025 9:25 AM
To: Selassie, Amanuel <Amanuel.Selassie@ladwp.com>; Ha, Tin <Tin.Ha@ladwp.com>
Cc: Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>; Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: Re: [EXTERNAL] Re: Soda Mountain Solar Project

Wonderful. Thank you very much Amanuel.

Lisa Worrall

Senior Environmental Planner

CEQA Project Management Unit

Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814

1-916-661-8367

California Energy Commission

Website: www.energy.ca.gov

From: Selassie, Amanuel <Amanuel.Selassie@ladwp.com>
Sent: Friday, October 31, 2025 9:23 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Ha, Tin <Tin.Ha@ladwp.com>
Cc: Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>; Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: RE: [EXTERNAL] Re: Soda Mountain Solar Project

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Good morning Lisa,

We received your email. I am working on it. I will reach out to you to set up a meeting to discuss on this.

Thank you

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Friday, October 31, 2025 9:19 AM
To: Ha, Tin <Tin.Ha@ladwp.com>
Cc: Lakshman, Sunaja <Sunaja.Lakshman@ladwp.com>; Selassie, Amanuel <Amanuel.Selassie@ladwp.com>; Nassiri, Ashkan <Ashkan.Nassiri@ladwp.com>; Rucic, Nermina <Nermina.Rucic@ladwp.com>; Enriquez, Rodolfo <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: [EXTERNAL] Re: Soda Mountain Solar Project

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello Tin,

I am following up on my emails to you last week. We would very much like to better understand the LADWP process associated with this proposed project in San Bernardino County along the Mead-Adelanto Transmission Line.

We also have questions about the applicant's interconnection agreement to provide 300 MW of solar generation to that transmission line. It may be most efficient to meet. The applicant has informed that, in essence, if they deliver substantially less MW than their agreement, it will trigger a "material modification process". We are wondering how many MW short of 300 would trigger such a modification.

Please contact me so we can talk. Thanks kindly,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, October 23, 2025 9:04 AM
To: Tin.Ha@ladwp.com <Tin.Ha@ladwp.com>
Cc: Sunaja.Lakshman@ladwp.com <Sunaja.Lakshman@ladwp.com>; Amanuel.Selassie@ladwp.com <Amanuel.Selassie@ladwp.com>; Ashkan.Nassiri@ladwp.com <Ashkan.Nassiri@ladwp.com>; Nermina.Rucic@ladwp.com <Nermina.Rucic@ladwp.com>; Rodolfo.Enriquez@ladwp.com <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>
Subject: Re: Soda Mountain Solar Project

Hi Tin,

We have a few more specific questions:

1. Would the switching station serve only Soda Mountain Solar, or would it serve other costumers as well (this will help answer the jurisdictional question)

2. If the switching station is jurisdictional to LADWP, what would the coordination look like between our DCBO and LADWP inspector? You asked about this when asking who is

responsible for ensuring compliance with building codes during construction, but if the responsibility lies with LADWP, is there some level of coordination with our DCBO for the portions where the project interconnects? Some level of overlap or handoff to LADWP?

It may be helpful to meet on this project. We are undergoing our CEQA environmental analysis and have questions about the switchyard. We don't have a lot of time to clarify our questions as we need to publish our environmental document soon.

Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, October 22, 2025 8:45 AM
To: Tin.Ha@ladwp.com <Tin.Ha@ladwp.com>
Cc: Sunaja.Lakshman@ladwp.com <Sunaja.Lakshman@ladwp.com>; Amanuel.Selassie@ladwp.com <Amanuel.Selassie@ladwp.com>; Ashkan.Nassiri@ladwp.com <Ashkan.Nassiri@ladwp.com>; Nermina.Rucic@ladwp.com <Nermina.Rucic@ladwp.com>; Rodolfo.Enriquez@ladwp.com <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>
Subject: Re: Soda Mountain Solar Project

Hello Tin,

I just had one more request. We are used to CPUC standards like General Order 131E, regulating the planning and construction of electric generation, transmission, power, distribution line facilities, and substations located in California.

Is LADWP required to follow the CPUC standards or does LADWP have their own standards they must comply with? If the latter is the case, please provide us the applicable standards that the switchyard and sections of transmission loop in lines be constructed to, in addition to whether compliance with these regulations is determined by the Los Angeles Board of Water and Power, or would it be under the jurisdiction of the CEC.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy
Sent: Wednesday, October 22, 2025 8:31 AM
To: Tin.Ha@ladwp.com <Tin.Ha@ladwp.com>
Cc: Sunaja.Lakshman@ladwp.com <Sunaja.Lakshman@ladwp.com>; Amanuel.Selassie@ladwp.com <Amanuel.Selassie@ladwp.com>; Ashkan.Nassiri@ladwp.com <Ashkan.Nassiri@ladwp.com>; Nermina.Rucic@ladwp.com <Nermina.Rucic@ladwp.com>; Rodolfo.Enriquez@ladwp.com <Rodolfo.Enriquez@ladwp.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Edirisuriya, Sudath@Energy <sudath.edirisuriya@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>
Subject: Soda Mountain Solar Project

Hello Tin,

My name is Lisa Worrall and I am the Project Manager at the California Energy Commission. Joan Patrovski with BLM had sent me some emails from you all regarding the Soda Mountain Solar Project. We have some questions that I hope you or someone else with LADWP can answer.

The California Energy Commission is preparing an environmental analysis in compliance with the California Environmental Quality Act. The applicant has filed an application opting into our jurisdiction. I have previously sent notification of this project to Faranak Sarbaz.

The construction of the switchyard by the applicant would be under the California Energy Commission's (CEC) jurisdiction. Following construction, it is our understanding the LADWP would own and operate the switchyard and LADWP would install and operate the section of two transmission lines that would be looped in and out of the switchyard.

Projects under the CEC jurisdiction or have opted into our jurisdiction also undergo evaluation for conformance with laws, ordinances, regulations, and standards (LORS). We understand that the Los Angeles Board of Water and Power has jurisdiction over LADWP.

We are wondering whether compliance with design standards for the switchyard and sections of transmission loop in line would be verified by the Los Angeles Board of Water and Power at the time the switchyard is turned over to LADWP or would it be under the CEC's jurisdiction during construction. Please let us know what the process is for such facilities.

If you have any question, please let me know. We are currently preparing our Draft Environmental Impact Report, which will be inside a Staff Assessment and need to confirm these details.

Thanks so much,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



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----------Confidentiality Notice---------- This electronic message transmission contains information from the Los Angeles Department of Water and Power (LADWP), which may be confidential. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the content of this information is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message and any attachment without reading or saving in any manner.

LAND USE SERVICES DEPARTMENT

COUNTY OF SAN BERNARDINO
ECONOMIC DEVELOPMENT
AND PUBLIC SERVICES GROUP

BUILDING AND SAFETY DIVISION
385 North Arrowhead Avenue • San Bernardino, CA 92415-0181 • (909) 387-8311
Fax (909) 387-4301

MICHAEL E. HAYS
Director

December 4, 2003

Ken Downing, Geologist
United States Department of the Interior
Bureau of Land Management
Needles Field Office
101 West Spikes Road
Needles, California 92363

RE: Memorandum of Understanding for Desert Groundwater Management (7200(P) CA-690.24)

Dear Mr. Downing:

At the December 2, 2003 regular session of the County Board of Supervisors, the Board approved the Memorandum of Understanding between the County of San Bernardino and the Bureau of Land Management for implementation of the Desert Groundwater Management Ordinance on public lands within the eastern Mojave Desert. An original wet-signed copy of the approved MOU is enclosed for your files.

Sincerely,

WESSLY A. REEDER, County Geologist
Building and Safety Division
Land Use Services Department
Economic Development and Public Services Group
(909) 387-4240

WAR:ljg

Enclosure

cc: Robin Cochran, Deputy County Counsel
Linda Hansen, California Desert District Office

WALLY HILL
County Administrative Officer
JOHN GOSS
Assistant County Administrator
Economic Development and
Public Services Group

Board of Supervisors
BILL POSTMUS ..... First District
PAUL BIANE ..... Second District
JERRY EAVES ..... Fifth District
DENNIS HANSBERGER ..... Third District
FRED AGUIAR ..... Fourth District

REPORT/RECOMMENDATION TO THE BOARD OF SUPERVISORS OF SAN BERNARDINO COUNTY, CALIFORNIA AND RECORD OF ACTION

December 2, 2003

FROM: **JOHN D. GOSS,** Assistant County Administrator
Economic Development/Public Services Group

SUBJECT: **MEMORANDUM OF UNDERSTANDING FOR DESERT GROUNDWATER MANAGEMENT**

RECOMMENDATION: Approve a Memorandum of Understanding (MOU) (**Agreement No. 03-1211**) with the Bureau of Land Management (BLM) to implement the County Desert Groundwater Management Ordinance on public lands within San Bernardino County.

BACKGROUND INFORMATION: On October 29, 2002, the Board adopted the Desert Groundwater Management Ordinance (San Bernardino Ordinance No. 3872, hereinafter referred to as the "Ordinance") designed to help preserve the most basic resource in the desert—water, while at the same time permitting the responsible development of groundwater in unregulated desert groundwater basins. As such, the ordinance was crafted to encourage reasonable and beneficial water use while preventing overdraft of desert aquifers. The Ordinance requires the development of a proper management and monitoring plan by any prospective large water extractor in unregulated, undeveloped desert groundwater basins. The Ordinance is intended to ensure that the extraction of native, indigenous groundwater in those basins does not create overdraft and/or otherwise damage the aquifer.

Section 33.06552(c)(8) of the Desert Groundwater Management Ordinance states that the ordinance does not apply to "groundwater wells located on federal lands unless otherwise specified by interagency agreement."

As a result of the continued pressure for groundwater development on public lands, BLM requested that the County consider entry into an interagency agreement extending the applicability of the Ordinance to groundwater wells that may be proposed for drilling on federal lands. The proposed MOU, which was developed by BLM and County staff, will help protect and properly manage groundwater resources on BLM land within the County.

REVIEW AND APPROVAL BY OTHERS: This contract and Board item have been reviewed by County Counsel (Robin Cochran, Deputy County Counsel 387-8957) on October 2, 2003; Land Use Services Contract Compliance Coordinator Ruth Rice (387-4148) on October 21, 2003; Wessly A. Reeder, County Geologist (387-4240), on October 2, 2003; and the County Administrative Office (Patricia M. Cole, Administrative Analyst III, 387-5346) on October 21, 2003.

FINANCIAL IMPACT: There is no financial impact. Actual cost fees are established under the provisions of the San Bernardino County Code Schedule of Fees.

SUPERVISORIAL DISTRICT(S): 2nd.

PRESENTER: John D. Goss, 387-4900.

cc: ED/PSG- Goss w/ agreement
Contractor w/agreement c/o ED/PSG
Auditor w/ agreement
IDS w/ agreement
Risk Management
County Counsel- Cochran
LUSD- Rice
LUSD- Wessly
CAO- Cole
File w/ agreement

rm

Record of Action of the Board of Supervisors
Agreement No. 03-1211
APPROVED (CONSENT CALENDAR)
BOARD OF SUPERVISORS
COUNTY OF SAN BERNARDINO

MOTION	SECOND	AYE	AYE	AYE	MOVE
	1	AYE 2	3	4	5

J. RENEE BASTIAN, CLERK OF THE BOARD

BY _____

DATED: December 2, 2003

ITEM 008

SMSP02424

County of San Bernardino

FAS

CONTRACT TRANSMITTAL

FOR COUNTY USE ONLY

Y New / Change / Cancel	Vendor Code	SC	Dept.	A	Contract Number 03-1211
County Department: Economic Development/Public Services Group		Dept. AAA	Orgn. PSG		Contractor's License No.
County Department Contract Representative: John D. Goss, Assistant County Administrator		Telephone 387-4700			Total Contract Amount

Contract Type: ☐ Revenue ☐ Encumbered ☐ Unencumbered ☐ Other:

If not encumbered or revenue contract type, provide reason:

Commodity Code	Contract Start Date	Contract End Date	Original Amount	Amendment Amount

Fund	Dept.	Organization	Appr.	Obj/Rev Source	GRC/PROJ/JOB No.	Amount

Project Name

Estimated Payment Total by Fiscal Year

FY	Amount	I/D	FY	Amount	I/D

CONTRACTOR Bureau of Land Management, California Desert District

Federal ID No. or Social Security No.

Contractor's Representative Linda Hansen, District Manager, California Desert

Address 22835 Calle San Juan De Los Lagos, Moreno Valley, CA 92553-9046 Phone 760-326-7017

Nature of Contract: *(Briefly describe the general terms of the contract)*

This Memorandum of Understanding (MOU) with the Bureau of Land Management (BLM) will implement the County Desert Groundwater Management Ordinance on public lands within San Bernardino County.

Section 33.06552(c)(8) of the Desert Groundwater Management Ordinance states that the ordinance does not apply to "groundwater wells located on federal lands unless otherwise specified by interagency agreement." The proposed MOU extends the applicability of the Ordinance to groundwater wells that may be proposed for drilling on federal lands. The proposed MOU will help protect and properly manage groundwater resources on BLM land within the County.

THIS IS NOT A CONTRACT
THIS IS A COVER
TRANSMITTAL ONLY

(Attach this transmittal to all contracts not prepared on the "Standard Contract" form.)

Approved as to Legal Form (sign in blue ink)	Reviewed as to Contract Compliance	Presented to BOS for Signature
► Robin Cochran	►	►
County Counsel		Department Head
Date 10-21-03	Date	Date

Auditor/Controller-Recorder Use Only

☐ Contract Database	☐ FAS
Input Date	Keyed By

Memorandum of Understanding

Between

San Bernardino County

And

Bureau of Land Management

Regarding County Ordinance No. 3872

Relating To Groundwater Management
In The Unincorporated, Unadjudicated
Desert Region Of San Bernardino County

This Memorandum of Understanding ("MOU") is made and entered into by and between the County of San Bernardino ("County"), a political subdivision of the State of California and the Bureau of Land Management ("BLM").

RECITALS

A. The protection of groundwater resources within the desert region of San Bernardino County is of great importance to both agencies and the public. The people of the State of California and of the County and the natural resources on public lands depend upon the continued availability of groundwater. Responsible management of groundwater must strive to ensure that extraction does not adversely affect the natural resources that depend upon the desert groundwater systems.

B. The County has adopted Ordinance No. 3872 relating to groundwater management in the unincorporated, unadjudicated desert region of the county that requires permitting and monitoring of certain groundwater extraction wells. Wells located on federal lands are excluded unless otherwise specified by inter-agency agreement. Groundwater extraction on non federal lands have the potential to affect resources on public lands administered by BLM. Likewise, groundwater extraction from public lands could affect non federal resources.

C. The BLM administers groundwater resources on public lands that were reserved to the Federal government by Congress in various laws and by Presidential Executive Order. In particular, Section 706 of the California Desert Protection Act of 1994 reserved a Federal water right to fulfill the purposes of the Act as related to wilderness areas on public lands. This water reservation extends to both public and private areas outside wilderness if extraction of groundwater affects resources within wilderness.

D. The State of California water law provides the regulatory framework for all ground water management and adjudication for all groundwater not specifically reserved to the Federal government. The County has the responsibility under its groundwater management ordinance to regulate groundwater extraction.

SMSP02426

E. The purpose of this Memorandum of Understanding is to clarify agency responsibility with respect to groundwater management and monitoring and to incorporate public lands into a coordinated groundwater management regime as provided under County Ordinance No. 3872.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

1. The Bureau of Land Management (BLM) shall:

    a) Notify the County whenever the BLM receives an application, plan or other proposal that involves groundwater extraction on public lands within the County of San Bernardino;

    b) Require proponents, operators, owners, claimants or permittees to fully comply with San Bernardino County Ordinance No. 3872 for proposed projects on public lands that are situated wholly or partly within San Bernardino County and that propose to extract groundwater, or could otherwise affect groundwater resources prior to commencement of any operations;

    c) When requested, provide technical review and comments to the County for all proposed projects that are situated wholly or partly within San Bernardino County that propose to extract groundwater, or could otherwise affect groundwater resources;

    d) Notify the County in writing when BLM has determined that a proposed groundwater extraction project would affect natural resources of a wilderness area or a federal reserved water right and would require approval by the BLM Authorized Officer;

    e) Solicit technical review and comments from the County regarding all proposed projects affecting groundwater resources that are subject to BLM approval for federal reserved water rights; and

    f) Coordinate with, and respond to, the County in a timely fashion as necessary on all proposed projects subject to this MOU.

2. The County of San Bernardino (County) shall:

    a) Notify the BLM of all applications for permit for groundwater extraction projects which are subject to San Bernardino County Ordinance No. 3872 and which could affect groundwater beneath, or other natural resources on, public lands administered by BLM;

b) Provide technical review and comments to the BLM regarding all proposed projects affecting groundwater resources that are subject to BLM approval for federal reserved water rights, as may be requested by BLM; and

c) Provide timely processing of permit applications for water extraction on proposed projects requiring approval by the BLM Authorized Officer.

3. The County and BLM agree to:

a) Work cooperatively to ensure that conditions required of proponents, operators, owners, claimants or permittees by the respective agencies will jointly conform to applicable local, state, and federal laws and regulations;

b) When appropriate, prepare joint environmental documents as required under the National Environmental Policy Act and California Environmental Quality Act for projects on public lands which involve the extraction of groundwater;

c) Coordinate their respective enforcement and monitoring activities in order to provide consistency in the application of groundwater extraction permit terms and conditions;

d) Ensure that all groundwater extraction projects, including those initiated by BLM, comply with federal regulations and County Ordinance No. 3872; and

e) Annually provide to the other Party the names of individuals assigned the responsibility to act as a point of contact for notifications and as necessary the names of individuals that will coordinate efforts for specific projects.

4. This MOU applies only to those groundwater extraction projects subject to San Bernardino County Ordinance No. 3872 and to those groundwater extraction projects subject to BLM approval for federal reserved Water rights.

5. It is expressly stipulated and agreed to by both parties that each and every provision in the Memorandum of Understanding is subject to the laws of the State of California, the laws of the United States, and to the delegated authority assigned in each instance.

6. Nothing in this agreement shall be construed as obligating either party hereto in the expenditure of funds, or the future payment of money, in excess of appropriations authorized by law.

7. The parties will accomplish all cooperative work under the provisions of this memorandum or supplemental memorandum or cooperative agreements without discrimination against any employee, or applicant for employment, because of race, creed, color, or national origin.

8. This Memorandum of Understanding shall become effective when signed by the designated representatives of the parties hereto and shall remain in force until

terminated by mutual agreement, or by either party upon thirty days notice in writing to the other of its intention to terminate upon a date indicated.

9. This Memorandum of Understanding shall be periodically reviewed at the request of either party to resolve any existing or potential problems and to make amendments as necessary to ensure both the workability of the agreement and consistency with county, state, and federal statutes and regulations, or for any other purpose mutually agreed upon by the parties.

10. This MOU may only be modified or amended by written instrument executed by both parties.

BUREAU OF LAND MANAGEMENT

Approved this date, 09-15-2003.

By: Alan Stein
Actg District Manager, California Desert

COUNTY OF SAN BERNARDINO

Approved this date DEC 2 [illegible]

By: [signature]
Dennis Hansberger, Chairman
Board of Supervisors

SIGNED AND CERTIFIED THAT A COPY
OF THIS DOCUMENT HAS BEEN DELIVERED
TO THE CHAIRMAN OF THE BOARD

J. RENEE BASTIAN, Clerk of the
Board of Supervisors

By: [signature]
Deputy

APPROVED AS TO LEGAL FORM
ALAN K. MARKS, County Counsel

Approved this date, 10-21-03

By: Robin Cochran
ROBIN COCHRAN, Deputy

From: Ackerman, James@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3CC35DE240CF4253AF9CC7D3D2CBB643-ACKERMAN, J]
Sent: 11/3/2025 6:34:11 PM
To: planningcsu@lus.sbcounty.gov
CC: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Status of BLM/SB County MOU RE: Implementing Desert Groundwater Management Ordinance

I am preparing the water resources analysis for the Soda Mountain Solar project application with the California Energy Commission (CEC).

Mentioned in the application, is a Memorandum of Understanding (MOU) between the County and the Bureau of Land Management (BLM) regarding the implementation of the Desert Groundwater Management Ordinance (DGMO) on BLM land.

I was wondering if this MOU is still in place.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: Ackerman, James@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3CC35DE240CF4253AF9CC7D3D2CBB643-ACKERMAN, J]
Sent: 11/21/2025 2:58:30 PM
To: Alaniz, David [David.Alaniz@dph.sbcounty.gov]
Subject: RE: BLM MOU

I believe it is. Thank you for your assistance.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: Alaniz, David <David.Alaniz@dph.sbcounty.gov>
Sent: Thursday, November 20, 2025 3:52 PM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: BLM MOU

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi James,

Is this the MOU you were referring to?

Thank you,

David Alaniz, REHS
Program Manager
Division of Environmental Health Services
Phone: 909-387-5159

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www.SBCounty.gov

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From: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Sent: Wednesday, November 19, 2025 12:13 PM

To: Alaniz, David <David.Alaniz@dph.sbcounty.gov>
Subject: RE: BLM MOU

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Thank you David

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: Alaniz, David <David.Alaniz@dph.sbcounty.gov>
Sent: Wednesday, November 19, 2025 12:12 PM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: BLM MOU

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I reached out to LUS. They confirmed they're working on this and will follow up with you. I don't have any additional updates beyond that at this time.

Thank you,

David Alaniz, REHS
Program Manager
Division of Environmental Health Services
Phone: 909-387-5159

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From: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Sent: Wednesday, November 19, 2025 11:51 AM
To: Alaniz, David <David.Alaniz@dph.sbcounty.gov>
Subject: RE: BLM MOU

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you can confirm the sender and know the content is safe.

David: Have you had any luck with contacting Land Use Services Department staff regarding a MOU with BLM for implementing the requirement of the desert groundwater management ordinance?

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: Alaniz, David <David.Alaniz@dph.sbcounty.gov>
Sent: Wednesday, November 5, 2025 1:10 PM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: BLM MOU

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I will reach out to LUS to find out.

Thank you,

David Alaniz, REHS
Program Manager
Division of Environmental Health Services
Phone: 909-387-5159

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From: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Sent: Wednesday, November 5, 2025 11:19 AM
To: Alaniz, David <David.Alaniz@dph.sbcounty.gov>
Subject: RE: BLM MOU

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you can confirm the sender and know the content is safe.

Since the MOU is with the BLM and associated with the previous EIR for the Soda Mountain Solar project, would someone in the Land Use Services Department have any information?

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: Alaniz, David <David.Alaniz@dph.sbcounty.gov>
Sent: Wednesday, November 5, 2025 10:08 AM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: BLM MOU

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi James,

I researched our archives and unfortunately was unable to locate the documents that you referenced.

Thank you,

David Alaniz, REHS
Program Manager
Division of Environmental Health Services
Phone: 909-387-5159

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www.SBCounty.gov

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From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 11/5/2025 12:46:32 AM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
Subject: Soda Mountain- CDFW Dudek 0.25-mile BHS buffer
Attachments: DUDEK 0_25-mile Buffer.zip

Hi Hannah,

Attached are the GIS shape files for the CDFW Dudek 0.25-mile BHS buffer.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 11/4/2025 6:48:32 PM
To: Dustin Thaler [dut@vcrenewables.com]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Khoshmashrab, Shahab@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=debfeb665b7a45629f72eaeb824bce58-Khoshmashra]; Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain
Attachments: Questions_Ideas for Big Horn Sheep Buffer_v3.docx

Hi Dustin,

We re-worked that question that mentioned a figure and this question is better as it is more open. I have attached the revised questions.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Dustin Thaler <dut@vcrenewables.com>
Sent: Monday, November 3, 2025 8:26 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: RE: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

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Thank you for the clarification. Question #4 still refers to an attachment.

Dustin Thaler

VC Renewables
110 Edison Place, Suite 312
Newark, NJ 07102
M: 201-275-4862
E: dut@vcrenewables.com

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Monday, November 3, 2025 11:23 AM
To: Dustin Thaler <dut@vcrenewables.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

Hi all,

The link to an attached figure was an oversight. There is no attachment. I have updated the list of questions. Please use this for your responses.

Thanks for catching that Dustin.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Dustin Thaler <dut@vcrenewables.com>
Sent: Monday, November 3, 2025 6:51 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: RE: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

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Hi Lisa –

Hope you had a good weekend. The questions list refers to a couple of attachments. Could you please forward those so we can make sure we are getting you accurate responses?

Thank you,

Dustin Thaler

VC Renewables
110 Edison Place, Suite 312
Newark, NJ 07102
M: 201-275-4862
E: dut@vcrenewables.com

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, October 30, 2025 2:56 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; Dustin Thaler <dut@vcrenewables.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Khoshmashrab, Shahab@Energy <Shahab.Khoshmashrab@energy.ca.gov>
Subject: Questions and Ideas for Big Horn Sheep Buffer for Soda Mountain

Hi Hannah and Dustin,

We appreciate meeting with you today about the application of the Big Horn Sheep buffer and consideration of ways to re-capture MWs lost through the buffer.

We would appreciate your responses to the attached list of questions. Meanwhile, I will work to get a meeting set up with you, CEC staff and CDFW staff to discuss impacts to the big horn sheep and the buffer.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

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Security and reliability of email is not guaranteed, Communications should be verified from a mailed or faxed copy. All emails to anyone @vcrenewables.com are communications to the firm and are not private or confidential to any named individual.

From: Paul Miller [pmiller@therchgroup.com]
Sent: 11/13/2025 4:41:14 PM
To: Markloff, Curtis [CMarkloff@SBCFire.org]
CC: Daniel Jones [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=352cfed2f4d849749d3d8f98a9563279-082cef18-97]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: RE: Soda Mountain Fire Protection Meeting

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Asst. Fire Marshal Markloff,

Thank you, I'll make sure the meeting organizer (Lisa Worrall) includes you in the meeting.

Paul Miller
Managing Principal
pmiller@TheRCHGroup.com
(916) 212-9600 Cell
(916) 782-4427 (All RCH Staff)

RCH GROUP
planning & environmental consulting

From: Markloff, Curtis <CMarkloff@SBCFire.org>
Sent: Thursday, November 13, 2025 8:34 AM
To: Paul Miller <pmiller@therchgroup.com>
Cc: Daniel Jones <Djones@therchgroup.com>
Subject: RE: Soda Mountain Fire Protection Meeting

Since it is dealing with design and layout, yes I will need to be involved. As far as anyone else I am sure Jeff has a list of people.

Curtis Markloff
Assistant Fire Marshal
Planning and Engineering
Office of the Fire Marshal (Division 12)
San Bernardino County Fire Protection District
909-918-2201



From: Paul Miller <pmiller@therchgroup.com>
Sent: Wednesday, November 12, 2025 12:06 PM
To: Markloff, Curtis <CMarkloff@SBCFire.org>

Cc: Daniel Jones <Djones@therchgroup.com>
Subject: Soda Mountain Fire Protection Meeting

Hello Curtis,
CEC is trying to get together a meeting next week related to fire protection and site design for Soda Mountain Solar and BESS.

Jeff Allen is coordinating that meeting with Lisa Worrall at the CEC. Lisa is asking if you need to be added to that meeting.
Does anyone else need to be invited or will Jeff Allen know who needs to be there?

Thanks,

Paul Miller
Managing Principal
pmiller@TheRCHGroup.com
(916) 212-9600 Cell
(916) 782-4427 (All RCH Staff)

RCH GROUP
planning & environmental consulting

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 11/25/2025 7:09:05 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Fw: Soda Mountain- LADWP access road
Attachments: Soda Mountain_Draft_MMRP_Table _2025 1014.xlsx

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Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, October 15, 2025 8:26:08 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- LADWP access road

Hi Lisa,

We will create a figure that shows the existing LADWP access road and get it over to you ASAP.

Also - attached to this email is the project MMRP.

I also just shared a link to the requested KOP files, they were too large to send via email. Please let me know if you have any issues with them.

I am also going to docket the 2 groundwater reports today, they are also too large to send via email.

The cultural resources report will also be transmitted shortly, it has some confidential appendices so Rincon will be sending that directly to your team.

Thank you!

Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 14, 2025 1:39 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mountain- LADWP access road

Thanks Hannah. It would seem that if their current access road will work for LADWP to access the new switchyard and loop in line, they would likely want to use that for operation access.

Have LADWP said anything about how they plan to access and maintain the switchyard and loop in line?

While it might be easier to say that LADWP use the same route as you would use, it seems they may not use that route.

If LADWP would use their current access route, I need to describe that route and ideally show it on a project figure. I can point to the figure to show the route.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Tuesday, October 14, 2025 1:11 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mountain- LADWP access road

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

The LADWP access road already exists to maintain the Mead Adelanto line, it is in a different location than CL 8847 and CL 7682 and runs from the zzyzx exit to a location directly under the existing 500 KV transmission line. If it is easier, we can remove any reference to this access road and request LADWP access the switchyard only through CL 8847 and CL 7682.

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, October 14, 2025 12:10:38 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Soda Mountain- LADWP access road

Hi Hannah,

Regarding your response below:
CL 8847 and CL 7682 will be utilized during the construction, operation and decommissioning of the project. Additionally, LADWP has an existing access roadway that travels from the Zzyzx exit to the new switchyard area. This access roadway is used currently by LADWP for any operations and maintenance needs along the Marketplace-Adelanto 500kV transmission line.

Does the LADWP access road from Zzyzx to the new switchyard travel along CL 8847 and CL 7682 or is it a different route?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 11/17/2025 6:01:36 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Soda Mountain- Questions regarding stormwater and associated infrastructure and batteries

Thanks Hannah. I will get this to bio and water resources staff.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, November 17, 2025 10:00 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Fw: Soda Mountain- Questions regarding stormwater and associated infrastructure and batteries

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Here are our responses in red below on the biology/stormwater questions. I will also docket these. Thanks! - Hannah

1. Please describe how the large floodways or channels that would be constructed between the arrays will be constructed. Please indicate if the angle of the slopes, if they channel will be armored or natural material, and if the channels would be designed to allow passage under culverts for the passage of small wildlife such as desert tortoise.
   Channels will be constructed with trapezoidal geometry, minimum depth of 3 feet, minimum bottom width of 60 feet and side slopes of 5:1 or flatter. Culverted crossings over the channels will consist of multiple concrete boxes to allow for passage or small wildlife. Typical details for the proposed drainage channels and box culverts are provided on Sheet C-502 in the 30% Kleinfelder Plans.
2. Are the berms intended to direct flow to the basins. Describe how will water flow into the basins. Please confirm they will be soft bottomed. Please indicate the percolation rates and

how long the basins are expected to hold water. This information should be based on data rather than an educated assumption.
The 30% Kleinfelder Plans include diversion berms and ditches within downgradient portions of the site to direct runoff into temporary sediment basins, and permanent berms within upgradient portions of the site to direct runoff upstream of the site to the proposed channels. Typical details for the proposed diversion berms and temporary sediment basins are provided on Sheet C-503 in the Kleinfelder Plans. The temporary sediment basins will be soft bottomed to allow for percolation and recovery to occur through the soil strata. The geotechnical exploration completed by Diaz Yourman & Associates included installation of six in-situ hydraulic conductivity tests and twenty predicted hydraulic conductivity tests based on particle size analysis. Results indicate the site soil conditions are favorable for stormwater percolation, with permeability rates ranging between 0.6 feet per day to 19.4 feet per day. The size, locations and extent and recovery times for permanent stormwater basins will be determined upon final design. Permanent stormwater basins will be designed in accordance with the San Bernardino Hydrology Manual.

3. Please describe how the energy dissipaters would be constructed.
Rip-rap aprons are proposed at the channel outlet locations to provide energy dissipation for flows leaving the site. Rip-rap apron locations are provided on Sheets C-304, C-306 and C-309 in the 30% Kleinfelder Plans. Rip-rap apron installation will include placement of a non-woven geotextile fabric over a prepared subgrade, installing rip-rap stone to the required thickness and extent and ensuring the rip-rap stone is uniformly distributed and placed to avoid segregation, providing effective energy dissipation at outlet locations.
4. Please provide design details of the basins.
A typical temporary sediment basin detail is provided on Sheet C-503 in the 30% Kleinfelder Plans. Design details for permanent stormwater basins will be determined upon final design. Permanent stormwater basins will be designed in accordance with the San Bernardino Hydrology Manual.
5. Please provide information on how the berms will be maintained if damaged or overtopped by storm flows.
The 30% Kleinfelder Plans indicate the diversion berms shall be designed at a height of 2 feet or greater. The required diversion berms heights will be determined upon final design, based on the design storm criteria specified in the San Bernardino Hydrology Manual. Diversion berm heights will be determined to prevent overtopping, and diversion berms will be hardened with rip-rap at locations with higher velocities to prevent scour. Typical details for temporary and permanent diversion berms (with rip-rap liner) are provided on Sheet C-503 in the Kleinfelder Plans.

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 11/7/2025 5:03:09 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Fw: Soda Mountain Questions for the Applicant

Hi Hannah,

See Chris' email below with his questions about stormwater flow and

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Chris Huntley <Chuntley@aspeneg.com>
Sent: Thursday, November 6, 2025 8:07 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Jamison Miner <jminer@aspeneg.com>
Subject: Soda Mountain Questions for the Applicant

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Lisa,

Can you please send these to Hannah.

1. Please describe how the large floodways or channels that would be constructed between the arrays will be constructed. Please indicate if the angle of the slopes, if they channel will be armored or natural material, and if the channels would be designed to allow passage under culverts for the passage of small wildlife such as desert tortoise.

2. Are the berms intended to direct flow to the basins. Describe how will water flow into the basins. Please confirm they will be soft bottomed. Please indicate the percolation rates and how long the basins are expected to hold water. This information should be based on data rather than an educated assumption.
3. Please describe how the energy dissipaters would be constructed.
4. Please provide design details of the basins.
5. Please provide information on how the berms will be maintained if damaged or overtopped by storm flows.

Best regards,

Chris

Aspen environmental group

Chris Huntley

Executive Vice President

Biological Resources Director

www.aspeneg.com

5020 Chesebro Road, Suite 200

Agoura Hills, CA 91301

Cell: 818-292-2327

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From: Energy - ConfidentialityApplication [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=19A1DCD64C75492BB26F16BE163474E8-ENERGY - CO]
Sent: 11/4/2025 11:58:36 PM
To: mci@vcrenewables.com
CC: Ponce, Mariah@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc5faa5d564c4cf3a2f49468b736b6c2-b2346f64-e7]; Camberos, Blanca@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9a468cc1041442469599fcd37b1744b6-9d3be3a1-fb]; Camberos, Blanca@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9a468cc1041442469599fcd37b1744b6-9d3be3a1-fb]
Subject: CEC Response to Soda Mountain Solar's Application for Confidentiality - Appendix P
Attachments: CEC Response to Soda Mountain's Application for Confidentiality - Apx. P.pdf

Dear Michael Cocchimiglio,

Attached please find a copy of the CEC Response to CEC Response to Soda Mountain Solar's Application for Confidentiality - Appendix P (TN 266367), filed with the CEC on October 7, 2025.

Kindly,

Marianna Brewer
Legal Analyst ⁝ Chief Counsel's Office
Advocacy & Compliance Division
279-250-8838

November 4, 2025

Via Email

Michael Cocchimiglio
Soda Mountain Solar, LLC
110 Edison Place, Suite 312
Newark, New Jersey 07102
mci@vcrenewables.com

Application for Confidential Designation: Soda Mountain Solar Project
Docket No. 24-OPT-03

Dear Michael Cocchimiglio:

The California Energy Commission (CEC) has received an Application for Confidentiality from Soda Mountain Solar, LLC (applicant), docketed October 7, 2025 (TN 266367) covering a revised version of Appendix P, Socioeconomic Impacts on San Bernardino County of the Proposed Soda Mountain Project.

A properly filed application for confidentiality shall be granted under California Code of Regulations, title 20, section 2505(a)(3)(A), "if the applicant makes a reasonable claim that the Public Records Act or other provision of law authorizes the [California Energy] Commission to keep the record confidential."

Discussion

The applicant requests that all project specific financial information and economic values identified within pages 1-71 of Appendix P be kept confidential indefinitely. The applicant states that the worker compensation estimates; local, county and state tax revenue estimates; and construction and operations cost information should be kept confidential as trade secrets.

The California Public Records Act allows for the non-disclosure of trade secrets including, among others, those records exempt from disclosure under the Uniform Trade Secrets Act. (Gov. Code, §§ 7927.705(k), 7930.005, 7930.205; Civ. Code, § 3426.1; Evid. Code, § 1060.)

Civil Code section 3426.1(d) defines "trade secret" as:

[I]nformation, including a formula, pattern, compilation, program, device, method, technique, or process, that: (1) Derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and (2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

(Civ. Code, § 3426.1(d); See also Gov. Code, §§ 7927.705, 7930.005, 7930.205; Evid. Code, § 1061(a); *Uribe v. Howie* (1971) 19 Cal.App.3d 194, 207.)

California Code of Regulations, title 20, section 2505(a)(1)(D), states that if an applicant for confidential designation believes that the record should not be disclosed because it contains trade secrets, the application shall state: (1) the specific nature of the advantage, (2) how the advantage would be lost, (3) the value of the information to the applicant, and (4) the ease or difficulty with which the information could be legitimately acquired or duplicated by others.

The application addresses the four elements in California Code of Regulations, title 20, section 2505(a)(1)(D) by stating:

1. *The specific nature of the advantage* – The information contains commercially sensitive data and trade secrets used in negotiations and to secure agreements with contractors, financiers, off-takers, and other industry parties.
2. *How the advantage would be lost* – Disclosure of any of the cost information identified above, or derivatives of this cost information, would enable counterparties to reverse-engineer expected returns, capital cost components, or other key details of the project that would lessen the applicant's negotiating power.
3. *The value of the information to the applicant* – Nondisclosure of the information would preserve the applicant's ability to negotiate commercially favorable agreements with a number of counterparties and to operate the project in the most commercially competitive manner. The applicant has carefully assembled its estimates for taxes, capital and operational cost figures, and leveraged myriad internal resources, including commercial partnerships, existing agreements, proprietary in-house knowledge, and prior project experience.
4. *The ease or difficulty with which the information could be legitimately acquired or duplicated by others* – The information referenced above cannot be legitimately acquired or duplicated by others. The information is not publicly available and has not been disclosed to anyone other than employees, attorneys or consultants working with the applicant, and the applicant discloses this information to such parties only after executing a non-disclosure agreement.

The applicant filed a redacted version of the revised Appendix P to the proceeding's docket on October 7, 2025 (TN 266364). Additionally, certain provisions of Appendix P were previously determined by the CEC's executive director to be confidential (TN 260486).

Executive Director's Determination

The applicant has made a reasonable showing that the information referenced above in the revised Appendix P satisfies the requirements of a trade secret, in accordance with California Code of Regulations, title 20, section 2505(a)(1)(D). Therefore, the CEC designates worker compensation estimates, annual economic impact estimates, local, county, and state tax revenue estimates, and construction and operations cost information in the revised Appendix P as confidential indefinitely.

Be advised that persons may petition to inspect or copy records that have been designated as confidential, the executive director may disclose, or release records previously designated as confidential in certain circumstances, and the CEC may hold a hearing to determine the confidentiality of its records on its own motion or on a motion by CEC staff. The procedures and criteria for disclosing or releasing, filing, reviewing, and acting upon such petitions or motions are set forth in the California Code of Regulations, title 20, sections 2506 through 2508.

Any related subsequent submittals can be deemed confidential, without the need for an application, by following the procedures set forth in California Code of Regulations, title 20, section 2505(a)(4).

If you have questions, please email confidentialityapplication@energy.ca.gov.

Sincerely,

Drew Bohan
Executive Director

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 12/6/2025 1:03:32 AM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Ackerman, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc35de240cf4253af9cc7d3d2cbb643-Ackerman, J]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Jamison Miner [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e9a371186e0e402a994145a67d6e7684-546eb26e-f8]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]; Abulaban, Abdel-Karim@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c1ff1d38281a4068b2708271d22c0d94-Abulaban, A]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]; Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Tory Walker [Tory@trwengineering.com]

Subject: Soda Mountain CEC/Applicant Stormwater discussion re berm
Location: Microsoft Teams Meeting

Start: 12/8/2025 5:00:00 PM
End: 12/8/2025 6:00:00 PM
Show Time As: Busy

Recurrence: (none)
Required Attendees: Ackerman, James@Energy; Chang, Kaycee@Energy; Jamison Miner; DeLano, Kevin@Energy; Abulaban, Abdel-Karim@Energy; Knight, Eric@Energy; Crisp, Ann@Energy; Chris Huntley; Hannah Arkin
Optional Attendees: Tory Walker

We will meet to with the applicant to discuss possible solutions to our stormwater concerns regarding the berm.

From Hannah:

We have enlisted Tory Walker Engineering to help with this stormwater issue, and we think there may be a solution that works for everyone if we utilize a fluvial geomorphic analysis and condition some related design mitigation to reduce impacts.

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 264 685 662 227 9

Passcode: NP6v2sk3

Dial in by phone

+1 916-562-1816,,193730978# United States, Sacramento

Find a local number

Phone conference ID: 193 730 978#

For organizers: Meeting options | Reset dial-in PIN

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 12/4/2025 7:34:31 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Abulaban, Abdel-Karim@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c1ff1d38281a4068b2708271d22c0d94-Abulaban, A]; Ackerman, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc35de240cf4253af9cc7d3d2cbb643-Ackerman, J]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]
Subject: Re: Soda Mountain- Rational for berms around the project site

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Hi Lisa,

We are urgently working on this issue and enlisting the assistance of some expert hydrologists to help. Our goal is to have an answer/ solution to you by the 11th.

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, December 3, 2025 3:26:55 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>
Subject: Re: Soda Mountain- Rational for berms around the project site

One additional question, is there possibility of removing specific sections of berm to allow flows through the project site?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy
Sent: Wednesday, December 3, 2025 3:24 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>
Subject: Soda Mountain- Rational for berms around the project site

Hi Hannah,

1. Can you point us to the ordinance or other San Bernardino County regulation that resulted in the need for the berms around the project. It would be helpful to get your understanding of why the berms are necessary.

2. If not for the San Bernardino County regulations, would the applicant have proposed the berms?

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 12/5/2025 10:28:50 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Abulaban, Abdel-Karim@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c1ff1d38281a4068b2708271d22c0d94-Abulaban, A]; Ackerman, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc35de240cf4253af9cc7d3d2cbb643-Ackerman, J]; DeLano, Kevin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=de745a362d214bfbb777e8fd9d9193da-5e9a22f8-24]
Subject: Re: Soda Mountain- Rational for berms around the project site

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

We have enlisted Tory Walker Engineering to help with this stormwater issue, and we think there may be a solution that works for everyone if we utilize a fluvial geomorphic analysis and condition some related design mitigation to reduce impacts.

Is your team available on Monday before 10am or from 1-2pm or 4-5pm to discuss? Tuesday before 2pm would also work.

Thanks!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, December 3, 2025 3:26:55 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>
Subject: Re: Soda Mountain- Rational for berms around the project site

One additional question, is there possibility of removing specific sections of berm to allow flows through the project site?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit

Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy
Sent: Wednesday, December 3, 2025 3:24 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Abulaban, Abdel-Karim@Energy <Abdel-Karim.Abulaban@energy.ca.gov>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>; DeLano, Kevin@Energy <Kevin.DeLano@energy.ca.gov>
Subject: Soda Mountain- Rational for berms around the project site

Hi Hannah,

1. Can you point us to the ordinance or other San Bernardino County regulation that resulted in the need for the berms around the project. It would be helpful to get your understanding of why the berms are necessary.

2. If not for the San Bernardino County regulations, would the applicant have proposed the berms?

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov


CALIFORNIA ENERGY COMMISSION
50 YEARS OF ENERGY LEADERSHIP

From: Ponce, Mariah@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC5FAA5D564C4CF3A2F49468B736B6C2-B2346F64-E7]
Sent: 12/30/2025 6:59:16 PM
To: ndesai@npca.org
CC: Black, Devin@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c6ec9f417a6e448aae52465b9f719b5d-ea9475b4-16]
Subject: Soda Mountain Solar Project - Submit Materials to the Docket

Good morning Mr. Desai,

I have been informed that you provided a folder of materials related to the Soda Mountain Solar Project to staff of the California Energy Commission (CEC) at the CEC Business Meeting held on December 19, 2025. Please note that Soda Mountain Solar Project is an active proceeding. If you would like the CEC to consider the materials you provided, please file them in the proceeding's docket in accordance with California Code of Regulations, title 20, section 1208. The docket for the Soda Mountain Solar Project is available on the CEC's website, here: Soda Mountain Solar Project | California Energy Commission.

If you have questions regarding how to file comments or materials, please contact the Docket Team at docket@energy.ca.gov.

Thank you for your interest in this proceeding. Please feel free to contact me if you have any additional questions.

Sincerely,
Mariah

Mariah Ponce
Attorney I
Chief Counsel's Office
California Energy Commission
(916) 559-4166

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From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 12/5/2025 3:55:47 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
Subject: Soda Mt. Bighorn Sheep Buffer
Attachments: Soda Mountain PV and BESS Layout_251204_Exhibit.pdf; Soda Mountain_Shapefiles_251204.zip

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Hi Lisa,

Attached to this email is an alternative project design that addresses the CEC questions below. This project alternative incorporates the bighorn sheep buffer and moves the BESS 500 feet away from the I-15. The Applicant's preferred project remains the one described in our Opt-In Application, as this alternative design is extremely constrained and there are significant permitting ripple effects related to BLM and LADWP. However, the Applicant team is doing its best to find creative solutions and reach a compromise. The attached design with exactly this buffer zone is considered a feasible alternative by the Applicant team.

If you have any questions, please don't hesitate to reach out. Our responses to the CEC questions below are in bold.

-Hannah

CEC Bighorn Sheep Questions
Questions/Ideas for Big Horn Sheep Buffer

Areas of flexibility:
1. Chris- Having an energy dissipater inside the buffer would be okay. **Comment noted. Please see the attached alternative project design.**

Questions for Applicant:
2. Chris- Where can the applicant place solar panels within the project site- are there gaps or possibility to shift project components? **Yes**. **Please see the attached alternative project design.**

3. Does the refined grading remove the need for some of the stormwater protection/management infrastructure onsite? **No. However, our applicant team is working to provide alternative stormwater solutions/infrastructure to ensure CEQA impacts remain at a level below significant. This information should arrive by December 11.**

4. Can the BESS be moved away from the freeway and placed where the attached figure shows? If not, where else can it be moved to in order to be sufficiently far from the freeway. **The San Bernardino Fire Department has stated they have accepted the current location of the BESS and do not require any relocation of this facility. That said, the Applicant team has decided to move the BESS 500' east of the highway regardless in the attached alternative. This information will be added to the public docket. The proposed project has no change to the provided BESS site plan.**

5. What's the prevailing wind direction at the project site? **The prevailing wind direction is from the west-southwest (Western Regional Climate Center 2002).**

6. For the buffer to be considered, it seems that approximately 4-5 percent of the solar field must be removed. For the project to maintain its maximum MW output of 300 MW, the removed panels must be located elsewhere within the project site boundaries or their conversion efficiency be increased.

a. Assuming all the panels have equal power output, there needs to be gaps on the site to accommodate the 4-5 percent panels removed. Where would the applicant consider for these panels within the project site?

b. As an alternative, to accommodate for the loss of MW of roughly 4-5 percent of the project-wide output of 300 MW, or roughly 12-15 MW, please evaluate the selection of PV panels with higher efficiency rating than the 20 percent rating given in the Application.

We understand the applicant hasn't begun procuring the equipment yet, but we'd like clarification on the PV panels mentioned in the application. What manufacturer, model, or specs—if any—were used to design the project site panel layout? What type of panels were assumed to reach the stated 20% efficiency? Was this number based on site-specific factors or just a typical manufacturer rating? **Please see the attached alternative project design. Given market conditions, it is best to maintain flexibility regarding what PV panels will be used during construction. As a point of clarification, Applicant has already procured some long-lead time equipment (main power transformer and medium-voltage transformers).**

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

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LEGEND

PROPOSED

- PROPERTY BOUNDARY
- PROJECT BOUNDARY
- LIMIT OF DISTURBANCE
- RIGHT OF WAY
- OVERHEAD ELECTRIC
- CHAIN LINK FENCE
- ACCESS ROAD
- PVCASE TRACKERS
- INVERTERS
- BESS COLLECTION CABLES
- GEN-TIE LINE
- SUBSTATION
- LAYDOWN YARD
- STORMWATER POND
- BIG HORN SHEEP BUFFER
- WATER TANK
- WELL

0 1000' 2000'

N

OVERALL ELECTRICAL PV LAYOUT

SODA MOUNTAIN SOLAR PROJECT

CONDUCTIVE POWER, LLC
35.150692, -116.177542 SAN BERNARDINO COUNTY, CA

ISSUED: - -

NO.	REVISION	DATE

DRAWN RMA
DESIGNED CMA
CHECKED CMA
APPROVED DDF
PROJ. NO. 224202943

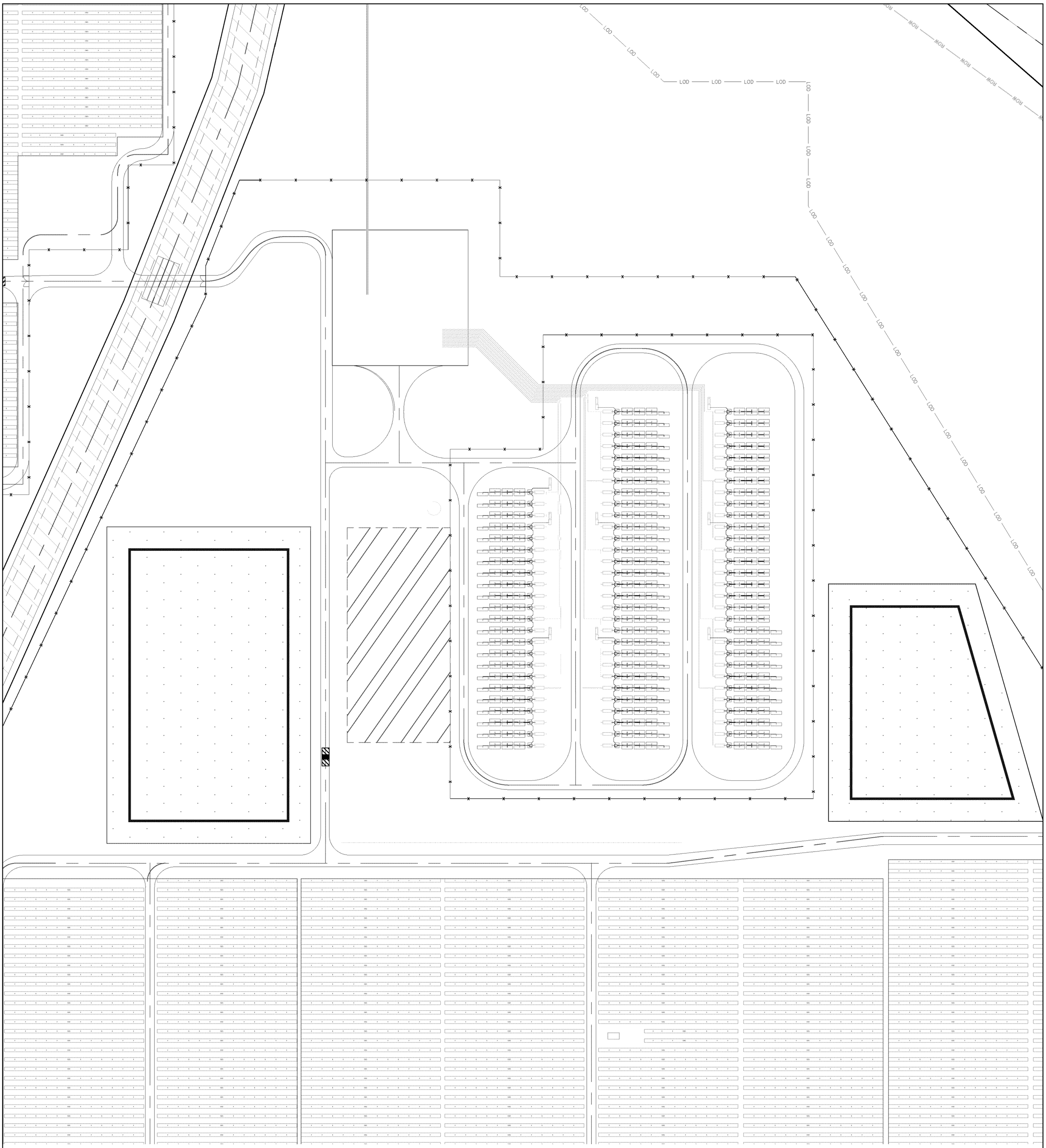
SHEET NUMBER E-100

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10000 MIDLANTIC DR SUITE 300W
MOUNT LAUREL, NJ 08054
WWW.STANTEC.COM

SMSP02463

C:\Users\chandrews\OneDrive - Stantec\Z Drive\Soda Mountain\Soda Mountain E-100.dwg

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LEGEND

PROPOSED

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- SUBSTATION
- LAYDOWN YARD
- STORMWATER POND
- BIG HORN SHEEP BUFFER
- WATER TANK
- WELL

BESS LAYOUT

SODA MOUNTAIN SOLAR PROJECT

CONDUCTIVE POWER, LLC
35.150692, -116.177542 SAN BERNARDINO COUNTY, CA

NO.	REVISION	DATE

ISSUED: -

DRAWN RMA
DESIGNED CMA
CHECKED CMA
APPROVED DDF
PROJ. NO. 224202943

SHEET NUMBER E-100

Stantec
10000 MIDLANTIC DR SUITE 300W
MOUNT LAUREL, NJ 08054
WWW.STANTEC.COM

SMSP02464

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 12/5/2025 7:26:30 PM
To: Stamer, Marc R [mstamer@blm.gov]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
Subject: Soda Mountain- new BLM PM

Hi Marc,

I hope you are doing well. I am aware that Joan Patrovsky is retiring in December. As we finalize our Staff Assessment, which will include the Draft Environmental Document, I will be mailing out a Notice of Availability to BLM staff and would like to send the notice to the new Project Manager. I will be sending it to you too.

We publish the mailing list in our environmental document so will be including the name and address of the project manager in an appendix.

Please let me know the name of the new PM and their email address.

If you have any updates on the status of Soda Mountain at BLM, that would be great. We need to publish our environmental document on December 29, 2025.

Thanks kindly,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 12/23/2025 4:45:44 PM
To: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]
Subject: Re: Soda Mountain PM Call

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Hi Kaycee,

Let's cancel our meeting today.

Thank you, and all the CEC staff, for all your hard work on our project.

Happy Holidays!

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Tuesday, December 23, 2025 8:42 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Re: Soda Mountain PM Call

Hi Hannah,

Lisa is out this week (as you know). We are working on wrapping up the Staff Assessment. Thank you again for answering all my questions timely. Would you still like to meet this morning?

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
Siting, Transmission, and Environmental Protection Division

Book time to meet with me

From: Worrall, Lisa@Energy
Sent: Tuesday, October 28, 2025 11:01 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Hannah Arkin <hannah@resolutionenvironmental.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Soda Mountain PM Call
When: Tuesday, December 23, 2025 11:00 AM-11:45 AM.
Where: Microsoft Teams Meeting

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 234 195 784 658 9

Passcode: uB39nL2h

Dial in by phone

+1 916-562-1816,,52277755# United States, Sacramento

Find a local number

Phone conference ID: 522 777 55#

For organizers: Meeting options | Reset dial-in PIN

From: Chang, Kaycee@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DD3D2FC8670840BDA4ACDC455903E787-CHANG, KAYC]
Sent: 12/26/2025 4:44:04 PM
To: Stamer, Marc R [mstamer@blm.gov]; jdonnell@blm.gov; Patrovsky, Joan E [jpatrovs@blm.gov]
CC: Knight, Eric@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=be42548337f44852a291a9845f226f62-Knight, Eri]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Soda Mountain - Update and New PM

Hello Joan, Julie, and Marc,

I hope December has treated you well! We wanted to inform you we are on track to file the Soda Mountain Solar Project Staff Assessment, under the Opt-In Certification Program, on Monday, December 29, 2025. We will be hosting a public hybrid meeting on the Staff Assessment between 30 and 60 days after publishing the document and will publicly notice the meeting once details are confirmed.

We also wanted to flag some changes from the applicant that we incorporated into the Staff Assessment: HYD-1 that would remove the berms, drainage channels, box culverts, and temporary sediment basins that had previously been proposed. See TN 267972 (MM HYD-1) and TN 268016 Rasor Road Realignment + MM HYD-1).

We heard that Joan is retiring this month - **congratulations, Joan**!
If there is a new PM assigned, can you please connect them with Lisa Worrall?

Please let me know if you have any questions.

Thank you very much,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
CEQA Project Management
Siting and Environmental Branch
Siting, Transmission, and Environmental Protection Division
Work: 1-916-232-6319
Cell: 1-916-208-6545

California Energy Commission
Website: www.energy.ca.gov

Book time to meet with me

From: OKeefe, Kerri@Waterboards [Kerri.OKeefe@waterboards.ca.gov]
Sent: 12/9/2025 9:03:28 PM
To: Ackerman, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc35de240cf4253af9cc7d3d2cbb643-Ackerman, J]
Subject: RE: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

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Sounds good!

CALIFORNIA Water Boards

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email: Kerri.OKeefe@waterboards.ca.gov
Phone: +1 (530) 542-5473

Regional Water Quality Control Boards
2501 Lake Tahoe Blvd, South Lake Tahoe CA 96150
Website: www.waterboards.ca.gov

Follow: X | YouTube | Facebook | LinkedIn

From: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Sent: Tuesday, December 9, 2025 12:59 PM
To: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Subject: RE: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

Let me see if there is an FTP site we can use.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Sent: Tuesday, December 9, 2025 12:57 PM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: FW: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi James,

I tried sending you the MS4 boundary map for the Soda Mountain project but the file is too large to send via email. How would you like me to get it to you?

CALIFORNIA Water Boards

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email: Kerri.OKeefe@waterboards.ca.gov
Phone: +1 (530) 542-5473

Regional Water Quality Control Boards
2501 Lake Tahoe Blvd, South Lake Tahoe CA 96150
Website: www.waterboards.ca.gov

Follow: X | YouTube | Facebook | LinkedIn

From: OKeefe, Kerri@Waterboards
Sent: Tuesday, December 9, 2025 12:52 PM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

Hi James,

Attached is the MS4 boundary map for the Mojave Watershed. If you have any other questions, Tiffany Steinert out of our Victorville office is happy to talk with you. She can be reached at (760) 241-7305 (tiffany.steinert@waterboards.ca.gov).

Have a great day!

CALIFORNIA Water Boards

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email: Kerri.OKeefe@waterboards.ca.gov
Phone: +1 (530) 542-5473

Regional Water Quality Control Boards
2501 Lake Tahoe Blvd, South Lake Tahoe CA 96150
Website: www.waterboards.ca.gov

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From: OKeefe, Kerri@Waterboards
Sent: Thursday, December 4, 2025 5:07 PM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

It's on my calendar 😊

CALIFORNIA
Water Boards

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email: Kerri.OKeefe@waterboards.ca.gov
Phone: +1 (530) 542-5473

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2501 Lake Tahoe Blvd, South Lake Tahoe CA 96150
Website: www.waterboards.ca.gov

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From: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Sent: Thursday, December 4, 2025 5:06 PM
To: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Subject: RE: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

Thanks Kerri.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Sent: Thursday, December 4, 2025 3:56 PM
To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

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I am trying to wrap up a directive letter today and will be out tomorrow and Monday. I can get back to you on Tuesday COB.

CALIFORNIA
Water Boards

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email: Kerri.OKeefe@waterboards.ca.gov
Phone: +1 (530) 542-5473

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Website: www.waterboards.ca.gov

Follow: X | YouTube | Facebook | LinkedIn

From: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Sent: Thursday, December 4, 2025 3:52 PM
To: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Subject: RE: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

When you have time.

Sooner would be better than later, but I know you have a busy schedule.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Sent: Thursday, December 4, 2025 3:51 PM

To: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

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Hi James,

I can find out. When do you need an answer?

CALIFORNIA
Water Boards

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email:
Kerri.OKeefe@waterboards.ca.gov
Phone: +1 (530) 542-5473

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Website: www.waterboards.ca.gov

Follow: X | YouTube | Facebook | LinkedIn

From: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Sent: Thursday, December 4, 2025 3:49 PM
To: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Subject: Boundary of the MS4 Phase 2 Permit Area/Mojave Watershed

Caution: External Email. Use caution when clicking links or opening attachments. When in doubt, contact DIT or use the Phish Alert Button.

Kerri: I am doing some background research for Soda Mountain Solar Project near Baker, California, and discovered there is a MS4 Phase 2 Permit Area for the Mojave Watershed.

I was wondering if you knew the area this MS-4 permit covers.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov


STATE OF CALIFORNIA
ENERGY COMMISSION
SINCE 1974

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 12/11/2025 4:46:03 PM
To: OKeefe, Kerri@Waterboards [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f0146911e7374c6fa2a2720e538054ff-Waterboards]; Ackerman, James@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cc35de240cf4253af9cc7d3d2cbb643-Ackerman, J]
Subject: Re: MS 4 Boundary map for Soda Mountain Project

Thanks so much Kerri.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Sent: Thursday, December 11, 2025 8:40 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: RE: MS 4 Boundary map for Soda Mountain Project

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I don't but the County would. Please reach out to Tiffany Steinert to request the information. Tiffany is the Regional Board caseworker for the MS4. She will either get the information for you or she will be able to send you to the correct person for the files. She can be reached at:

Phone: (760) 241-7305
Email: tiffany.steinert@waterboards.ca.gov

CALIFORNIA
Water Boards

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email: Kerri.OKeefe@waterboards.ca.gov

Phone: +1 (530) 542-5473

Regional Water Quality Control Boards
2501 Lake Tahoe Blvd, South Lake Tahoe CA 96150
Website: www.waterboards.ca.gov

Follow: X | YouTube | Facebook | LinkedIn

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, December 11, 2025 8:30 AM
To: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Subject: Re: MS 4 Boundary map for Soda Mountain Project

Thanks. Do you happen to have GIS shapefiles for the boundary?

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Sent: Thursday, December 11, 2025 8:25 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: MS 4 Boundary map for Soda Mountain Project

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I just sent you the map. Let me know if there are any issues.

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email: Kerri.OKeefe@waterboards.ca.gov

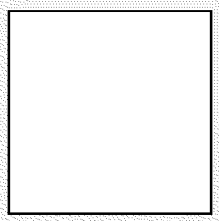
Phone: +1 (530) 542-5473

Regional Water Quality Control Boards
2501 Lake Tahoe Blvd, South Lake Tahoe CA 96150
Website: www.waterboards.ca.gov

Follow: X | YouTube | Facebook | LinkedIn

From: lisa.worrall@energy.ca.gov <lisa.worrall@energy.ca.gov>
Sent: Wednesday, December 10, 2025 8:04 AM
To: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Cc: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: MS 4 Boundary map for Soda Mountain Project

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lisa.worrall@energy.ca.gov sent you a secure message

Access message

This message requires that you sign in to access the message and any file attachments.



From: Ackerman, James@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3CC35DE240CF4253AF9CC7D3D2CBB643-ACKERMAN, J]
Sent: 12/11/2025 5:08:13 PM
To: OKeefe, Kerri@Waterboards [Kerri.OKeefe@waterboards.ca.gov]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: RE: MS 4 Boundary map for Soda Mountain Project

Thanks Kerri I received it.

James Ackerman, PG #6493
Engineering Geologist
California Energy Commission
Siting, Transmission and Environmental Protection Division
Direct: (530) 878-4966
Email: james.ackerman@energy.ca.gov

From: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Sent: Thursday, December 11, 2025 8:25 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Cc: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: RE: MS 4 Boundary map for Soda Mountain Project

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I just sent you the map. Let me know if there are any issues.

Kerri OKeefe, PG (CA #10362)
Engineering Geologist

R6 LAHONTAN
R6 Cleanup, Investigation & Enforcement

Email: Kerri.OKeefe@waterboards.ca.gov
Phone: +1 (530) 542-5473

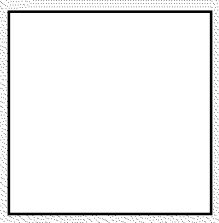
Regional Water Quality Control Boards
2501 Lake Tahoe Blvd, South Lake Tahoe CA 96150
Website: www.waterboards.ca.gov

Follow: X | YouTube | Facebook | LinkedIn

From: lisa.worrall@energy.ca.gov <lisa.worrall@energy.ca.gov>
Sent: Wednesday, December 10, 2025 8:04 AM

To: OKeefe, Kerri@Waterboards <Kerri.OKeefe@waterboards.ca.gov>
Cc: Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: MS 4 Boundary map for Soda Mountain Project

Caution: External Email. Use caution when clicking links or opening attachments. When in doubt, contact DIT or use the Phish Alert Button.



lisa.worrall@energy.ca.gov sent you a secure message

Access message

This message requires that you sign in to access the message and any file attachments.



From: Chang, Kaycee@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DD3D2FC8670840BDA4ACDC455903E787-CHANG, KAYC]
Sent: 12/22/2025 9:00:57 PM
To: frontdesk@hiexbarstow.com
CC: Bubbico, Joseph@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f6169627bc00479d8aec9dd4c344f112-Bubbico, Jo]; Hannah Arkin [hannah@resolutionenvironmental.com]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Availability for Conference Room Reservation in February 2026 - California Energy Commission Public Hybrid Meeting
Attachments: kyoScan-_8_._19_._2025-_12_._53_._56 jb.pdf

Hello Holiday Inn Express team,

I am writing to you from the California Energy Commission. We hosted a public hybrid meeting in your conference room on August 29, 2025, and would like to ask if you have availability for the same type of event and setup on the following dates, with the preferred date being Thursday, February 5, 2026:

- Monday, February 2, 2026
- Thursday, February 5, 2026
- Friday, February 6, 2026
- Friday, February 13, 2026
- Tuesday, February 17, 2026

I attached the contract from the August 29 event, which included setup for 120 people, projector, podium, screen, internet connectivity, rectangular tables, chairs. We would want the room rental from 8AM - 6PM, with the meeting potentially going from 1-4 PM (actual times TBD).

Please let me know if you have any questions.

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
CEQA Project Management
Siting and Environmental Branch
Siting, Transmission, and Environmental Protection Division
Work: 1-916-232-6319
Cell: 1-916-208-6545

California Energy Commission
Website: www.energy.ca.gov

Book time to meet with me

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 12/11/2025 10:47:40 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]; Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]; Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Hannah Arkin [hannah@resolutionenvironmental.com]
CC: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; David Daitch [ddaitch@rinconconsultants.com]; Thea Benson [tbenson@rinconconsultants.com]; Christopher Julian [cjulian@rinconconsultants.com]; Emily Gaston [egaston@rinconconsultants.com]
Subject: Soda Mountain- Waters discussion
Location: Microsoft Teams Meeting

Start: 12/12/2025 6:00:00 PM
End: 12/12/2025 6:30:00 PM
Show Time As: Tentative

Recurrence: (none)
Required Attendees: Chris Huntley; Crisp, Ann@Energy; Hannah Arkin
Optional Attendees: Chang, Kaycee@Energy; David Daitch; Thea Benson; Christopher Julian; Emily Gaston

We will meet to discuss some acreage discrepancies CEC bio staff has seen related to the waters, based on their site visit and discuss the overall project footprint.

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 299 577 008 502 59

Passcode: iu67Az7u

Dial in by phone

+1 916-562-1816,,922831898# United States, Sacramento

Find a local number

Phone conference ID: 922 831 898#

For organizers: Meeting options | Reset dial-in PIN

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 12/11/2025 10:43:53 PM
To: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
CC: Crisp, Ann@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b89c4de7ece742679d19e1e3ee713dc2-Crisp, Ann@]; Chris Huntley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=018948a34a3149c4a3833144594ae8b3-ff2eee5c-df]; Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
Subject: Re: Soda Mountain- meeting to discuss waters after CEC staff field visit

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Hi Lisa,

10am tomorrow works for us.

Thanks!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Thursday, December 11, 2025 1:26:57 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Chris Huntley <chuntley@aspeneg.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Soda Mountain- meeting to discuss waters after CEC staff field visit

Hi Hannah,

We would like to meet with you and your technical staff to discuss some acreage discrepancies staff has seen related to the waters, based on their site visit and discuss the overall project footprint.

We can meet tomorrow between 10 and 12.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov



From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 12/19/2025 2:43:54 AM
To: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]; Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Re: Soda Mt. Bighorn Sheep Buffer
Attachments: Fig X Hydrology Mitigation and Alternative Design Components - BHS.jpg; SodaMtn_O&MBuildingParkingLocations_20251217_Shift.pdf; WS Comment Response with TESLA response.pdf
Flag: Flag for follow up

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Hi Kaycee,

I have inventoried the docket and correspondences. and I have the following 2 items to docket, which I will do in the morning (after making some minor edits). Once that is completed, I will send you a confirmation email.

1. Alternative + MM HYD-1 figure (attached for reference)
2. BESS Alternative Figure (attached for reference but we will remove all stormwater design references. The figures will not show the square footage of the O&M buildings, but the text clarification for building sizes has been added to the docket).

I do have one additional question, in October 2025 we worked through a confidentiality issue with the CEC's Chief Counsel's Office and the following document was removed from the public facing docket: TN 265690, Response to CEC Data Requests WS-1 through WS-4. Could you please confirm the EIR will also have this information shown as confidential and that I do not need to re-docket a public facing version of this document? I know it is unusual to have a document go public and then become non-public, so I thought I should probably check in on this. Attached is the document I am referring to - the confidential version.

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Thursday, December 18, 2025 5:20 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mt. Bighorn Sheep Buffer

Thank you, Hannah.

Can you confirm the docket reflects everything you've been needing to docket?

Lisa mentioned the BESS alternatives figure has stormwater features - should those be removed given HYD-1? Should it also include the building size?

Kaycee Chang (she, her, hers)
Supervisor
Siting, Transmission, and Environmental Protection Division
Book time to meet with me

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Thursday, December 18, 2025 4:28 PM
To: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mt. Bighorn Sheep Buffer

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Yes! Will do now. Thanks!

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Thursday, December 18, 2025 4:27:22 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mt. Bighorn Sheep Buffer

Hi Hannah, can you please docket the MM HYD-1 memo and the compilation of mitigation measures (what you refer to below as MMRP document)?

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
Siting, Transmission, and Environmental Protection Division
Book time to meet with me

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, December 17, 2025 5:03 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Re: Soda Mt. Bighorn Sheep Buffer

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I added all the remaining items to the docket, with the exception of the MM HYD-1 and MMRP document. I will wait to hear back on this from you regarding approach for those.

Thanks!

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, December 17, 2025 4:36 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Re: Soda Mt. Bighorn Sheep Buffer

Let's see about a meeting for now. Can you tell me what the building sizes will be so I can put that number in various sections. I can hold the project description until you docket the figure and building sizes, but want to wrap up other sections tonight with the correct number.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, December 17, 2025 4:11 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Re: Soda Mt. Bighorn Sheep Buffer

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sure thing. I will docket these items but it will be after 5pm today.

Do you want to have a call tomorrow to check in before you leave?

Hannah Arkin
CEO

Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Wednesday, December 17, 2025 4:05:24 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>; Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Re: Soda Mt. Bighorn Sheep Buffer

For now, can you docket the figure that shows the BESS layout for the proposed project. Also, I need a statement about the change in building size. I need to know the square footage of each of the three buildings.

We are discussing your proposed handling of HYD-1, but don't have an answer yet.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Wednesday, December 17, 2025 3:49 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Fw: Soda Mt. Bighorn Sheep Buffer

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lisa,

Attached is the updated BESS site plan for both proposed project and alternative.

If you need anything else, please let me know!

Hannah

Hannah Arkin
CEO

Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Lori Coleman <lori.coleman@swca.com>
Sent: Wednesday, December 17, 2025 3:28 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: RE: Soda Mt. Bighorn Sheep Buffer

Here you go! Let us know if that's what you (they) are looking for.

Lori Coleman, PMP
SWCA
C: 610.613.3925
lori.coleman@swca.com



Study Area

0.25 mile Buffer on Bighorn Sheep Suitable Habitat

Alternative Design Components

Limit of Disturbance

Solar Array

Roads

Fence

Inverter Areas

Laydown yard

Stormwater Pond

BESS Yard

Substation

Switchyard

Gen-Tie

Rock (3 in or Less)

BLM Primitive Roads Managed for Limited Public Motorized Use

CL7682

CL8847

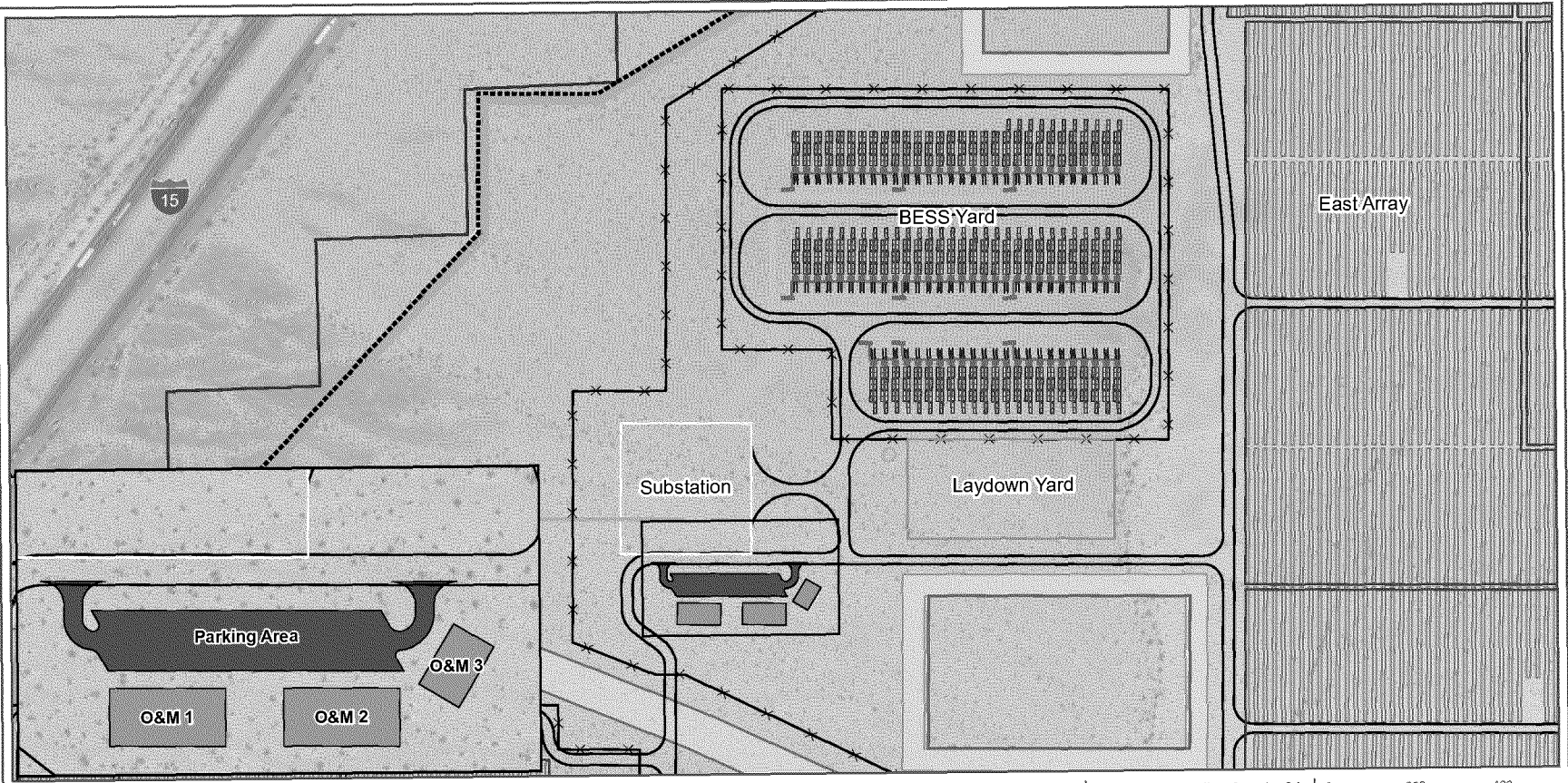
0 0.4 0.8

Miles

N

25-17245 BtO

Fig X Hydrology Mitigation Components - BHS



- Limit of Disturbance
- Access Road
- Gen-Tie Line
- Solar Array
- Substation
- BESS Battery Storage Container
- BESS Inverter
- BESS DC Cable
- BESS Collection Cable
- BESS Cabinet
- Inverter
- Stormwater Pond
- Water Tank
- Chain Link Fence
- Laydown Yard
- Project Boundary
- Drainage Canal
- Proposed Basin Slope Grading
- Berm
- Proposed O & M Building
- Proposed Parking Area

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1657°N 116.1762°W

0 200 400 Feet
0 50 100 Meters

N

1:4,800

Base Map: Esri ArcGIS Online, accessed December 2025
Updated: 12/17/2025
Project No. 68347
Layout: 68347_Prelim_BESS Aprx: General

SWCA ENVIRONMENTAL CONSULTANTS

SMSP02491

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 12/22/2025 9:05:27 PM
To: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
CC: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Re: Soda Mountain Solar Project Staff Assessment Meeting

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Great, thank you! We will hold these dates.

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Monday, December 22, 2025 12:54 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Soda Mountain Solar Project Staff Assessment Meeting

Hi Hannah,

We scoped out dates with the offices of Commissioner Gallardo, Chair Hochschild, and Executive Director Drew Bohan, for the Soda Mountain Solar Project Staff Assessment Meeting, and these dates seem to work best for them:

- Monday, February 2, 2026
- Thursday, February 5, 2026
- Friday, February 6, 2026
- Friday, February 13, 2026
- Tuesday, February 17, 2026

Can you please hold these dates and let me know if any of them don't work for you? I need to scope the dates with the venue and will confirm the date as soon as they get back to me. I hope to get confirmation by the end of this year or first week of January, so we won't need to keep the holds for too long. Thursday, February 5, 2026, may be most preferable, given we heard feedback that the public prefers our public meetings to be Tuesday-Thursday.

Please let me know if you have any questions in the meantime.

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
CEQA Project Management
Siting and Environmental Branch

Siting, Transmission, and Environmental Protection Division
Work: 1-916-232-6319
Cell: 1-916-208-6545

California Energy Commission
Website: www.energy.ca.gov





Book time to meet with me

From: Hannah Arkin [hannah@resolutionenvironmental.com]
Sent: 12/30/2025 7:47:11 PM
To: Chang, Kaycee@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd3d2fc8670840bda4acdc455903e787-Chang, Kayc]
CC: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Subject: Re: Soda Mt.

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Hi Kaycee and Lisa,

Thank you so much for all your help in reaching this milestone! I'll review the documents, and we can chat about any questions I have in January.

Happy New Year!

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Tuesday, December 30, 2025 9:54:17 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Re: Soda Mt.

Hi Hannah,

Thank you for being so responsive throughout this process.

The Soda Mountain Solar Project Staff Assessment was filed to the docket yesterday, 12/29: https://efiling.energy.ca.gov/GetDocument.aspx?tn=268059&DocumentContentId=105072, along with the Notice of Availability in both English and Spanish.

The State Clearinghouse also accepted our submission yesterday: https://ceqanet.lci.ca.gov/2025080161/2.

All the comment deadlines line up, ending on February 27, 2026.

We are waiting to hear back from the venue, but it's looking like the Staff Assessment meeting may be held on February 5, 2026. We will keep you updated all throughout. The public meeting will also be formally and properly noticed once the details are confirmed.

Please let us know if you have any questions and if your team would like to discuss anything.

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
Siting, Transmission, and Environmental Protection Division
Book time to meet with me

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, December 29, 2025 12:01 PM
To: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Re: Soda Mt.

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Hi Kaycee,

Thanks for all this information, it makes total sense to me. Thank you again for all your hard work! The CEC team has been wonderful to work with.

Happy New Year!

Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Sent: Monday, December 29, 2025 11:51:37 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Subject: Re: Soda Mt.

Hi Hannah,

I hope you had a nice holiday as well.

Yes, we are on track to publish the Staff Assessment, which contains the draft EIR, today, 12/29. We submitted to State Clearinghouse last night (12/28) but have not heard anything from them yet as of the writing of this email. I have not seen anything posted on the SCH Recent Postings page either. I emailed them a little over an hour ago to see if they are processing submissions today because I have not seen otherwise. Ideally, we would file the Staff Assessment after SCH accepts the submission to ensure the comment deadlines match. However, despite SCH's status, we plan to file the Staff Assessment to the docket this afternoon, along with the Notice of Availability and administrative record documents. If SCH does not process today, the state agency review period may be pushed a few days, depending when it's posted on SCH.

I hope that all makes sense. Please call me if needed (phone numbers below). Long story short, yes, we will be filing the Staff Assessment to the docket today.

I am also happy to cancel tomorrow's check-in - thank you for checking.

Please let me know if you have any questions.

Thank you,
Kaycee

Kaycee Chang (she, her, hers)
Supervisor
CEQA Project Management
Siting and Environmental Branch
Siting, Transmission, and Environmental Protection Division
Work: 1-916-232-6319
Cell: 1-916-208-6545

California Energy Commission
Website: www.energy.ca.gov

Book time to meet with me

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Monday, December 29, 2025 11:43 AM
To: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>
Subject: Soda Mt.

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Hi Kaycee,

I hope you had a nice holiday! I am checking in to see if you are still on track to publish the draft EIR today? Also - shall we cancel our meeting tomorrow and pick them back up on January 6, when Lisa returns?

Thank you!
Hannah

Hannah Arkin
CEO
Resolution Environmental
262 B Avenue, Coronado, CA 92118
760-504-4109

From: Worrall, Lisa@Energy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E4BBC7048B38485084BDB03FB494B25B-WORRALL, LI]
Sent: 12/4/2025 12:18:22 AM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Soda Mountain- Operations at new LADWP switchyard

Hi Hannah,

We are trying to get an estimate of the number of workers during operations that would be anticipated at the new utility switchyard, and how many, if any, delivery trips would occur for operation and maintenance purposes.

Thanks,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Worrall, Lisa@Energy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e4bbc7048b38485084bdb03fb494b25b-Worrall, Li]
Sent: 12/12/2025 3:58:04 PM
To: Hannah Arkin [hannah@resolutionenvironmental.com]
Subject: Re: Stormwater Info

Thanks Hannah. I have sent this out to affected staff. I will let you know if we have any questions.

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Hannah Arkin <hannah@resolutionenvironmental.com>
Sent: Thursday, December 11, 2025 5:21 PM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Subject: Stormwater Info

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Hi Lisa,

Below are the responses to your December 2 email.

However ---- as we discussed on Monday ---- our preferred approach to addressing the site hydrology issue is to require the project implement mitigation measure MM HYD-1. Implementation of this mitigation measure would require the project implement a fluvial geomorphic stormwater design.

Attached is a memo identifying the required mitigation measure MM HYD-1 and providing supporting documentation that shows this approach will reduce project impacts to a level below significant.

We are happy to further discuss, if needed.

Best,
Hannah

Hannah Arkin

CEO

Resolution Environmental

262 B Avenue, Coronado, CA 92118

760-504-4109

From: Lori Coleman <lori.coleman@swca.com>
Sent: Thursday, December 11, 2025 1:21 PM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Blake Holcomb <Blake.Holcomb@swca.com>; Steve Marks <Steve.Marks@swca.com>; Matthew DeFreese <Matthew.DeFreese@swca.com>; Shirley Innecken <Shirley.Innecken@swca.com>
Subject: RE: Waters data

Hi Hannah, here are our answers to the hydrology-related questions (green):

- Acres of permanent impacts that result in the loss of ecological value to plants and wildlife and remove the stream channel from the system. These features include all permanent structures (BESS, utility switchyard and project substation, berms, and ancillary buildings, well footprints), gen-tie and array foundations, fencing, any areas maintained free from vegetation, and roads. There are 313 acres that meet these criteria.

- Acres for any areas under the arrays that receive altered hydrology from the placement of perimeter berms or other structures that cut off stream hydrology. This would include the East array, portions of South Array 2 in areas downstream of the berms, and the South Array 3. There are XXX (see below) acres that meet these criteria.

    - *The **construction phase** conditions accounts for the proposed temporary BMPs and permanent BMPs, including diversion berms, ditches and sediment basins. Except for a small area in the northern portion of the East Array, the PV panel areas with be hydrologically altered during the construction phase. Estimated hydrologically altered PV area across the East Array, South Array 1, South Array 2 and South Array 3 during the construction phase is approximately **1,426 acres**, with **12 acres hydrologically unaltered**.*

    - *The **post-construction phase** conditions accounts for removal of the proposed temporary BMPs, leaving the permanent diversion berms and sediment basins (we assumed the sediment basins will remain). Estimated hydrologically altered PV area across the East Array, South Array 1, South Array 2 and South Array 3 during the post-construction phase is approximately **894 acres**, with **544 acres hydrologically unaltered**.*

    - *Figures are provided here:* 68347_Soda Mountain Hydrology Exhibits_2025-12-10.pdf

- Acreage for manufactured basins with vegetated banks subject to periodic maintenance. There are 23.6 acres that meet these criteria.

- Acres for any areas under the arrays that maintain unaltered hydrology. This includes South Array 1 which receives flows from the side of the project that does not contain berms. There are XXX acres that meet these criteria. (see above)

- Acres of temporary impacts along the gen-tie alignment that can be re-established following construction. There are 31.4 acres that meet these criteria.

- Acreages of temporary impacts to drainages that cross existing access roads provided they do not alter hydrology or add rock.

    - Existing trail roads (Rasor Road and Arrowhead Trail) and the existing drainages will be permanently impacted by proposed channel systems and a new alignment for Rasor Road.

One additional question, is there possibility of removing specific sections of berm to allow flows through the project site?

***SWCA response**: That seems potentially reasonable. We would need to evaluate the volume of flow and potential risk of scour with the change. The 30% Kleinfelder erosion control plan design specifies many of the berms and ditches as temporary. As long as the flows (pre/post) and scour potential are not an issue, the temporary BMPs could be removed once construction is completed and disturbed areas have been stabilized.*

1. Can you point us to the ordinance or other San Bernardino County regulation that resulted in the need for the berms around the project. It would be helpful to get your understanding of why the berms are necessary.
   ***SWCA response**: This is not a San Bernardino County regulation. The idea behind the berms is to reduce the risk of scour across the site. Because the upstream watershed is largely alluvial fan, there is not a specific flood concentration point. The berms help direct and concentrate flow to the flood control channels.*
2. If not for the San Bernardino County regulations, would the applicant have proposed the berms?
   ***SWCA response**: Yes, see above*

From: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>
Sent: Tuesday, December 2, 2025 11:08:06 AM
To: Hannah Arkin <hannah@resolutionenvironmental.com>
Cc: Chang, Kaycee@Energy <kaycee.chang@energy.ca.gov>; Chris Huntley <chuntley@aspeneg.com>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Knight, Eric@Energy <Eric.Knight@energy.ca.gov>; Jamison Miner <jminer@aspeneg.com>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: Fw: Waters data

Please provide this information as soon as possible, but by Thursday Dec 11th.

Thank you kindly,

Lisa Worrall
Senior Environmental Planner
CEQA Project Management Unit
Siting, Transmission and Environmental Protection Division (STEP)

715 P Street, MS-40, Sacramento, CA 95814
1-916-661-8367

California Energy Commission
Website: www.energy.ca.gov

From: Chris Huntley <Chuntley@aspeneg.com>
Sent: Tuesday, December 2, 2025 10:42 AM
To: Worrall, Lisa@Energy <Lisa.Worrall@energy.ca.gov>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>; Jamison Miner <jminer@aspeneg.com>; Ackerman, James@Energy <james.ackerman@energy.ca.gov>
Subject: Waters data

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Lisa,

Here are the metrics we would like the applicant to provide our team.

Jurisdictional Features

- Acres of permanent impacts that result in the loss of ecological value to plants and wildlife and remove the stream channel from the system. These features include all permanent structures (BESS, utility switchyard and project substation, berms, and ancillary buildings, well footprints), gen-tie and array foundations, fencing, any areas maintained free from vegetation, and roads. There are XXX acres that meet these criteria.

- Acres for any areas under the arrays that receive altered hydrology from the placement of perimeter berms or other structures that cut off stream hydrology. This would include the East array, portions of South Array 2 in areas downstream of the berms, and the South Array 3. There are XXX acres that meet these criteria.

- Acreage for manufactured basins with vegetated banks subject to periodic maintenance. There are XXX acres that meet these criteria.

- Acres for any areas under the arrays that maintain unaltered hydrology. This includes South Array 1 which receives flows from the side of the project that does not contain berms. There are XXX acres that meet these criteria.

- Acres of temporary impacts along the gen-tie alignment that can be re-established following construction. There are XXX acres that meet these criteria.

- Acreages of temporary impacts to drainages that cross existing access roads provided they do not alter hydrology or add rock.

Best regards,

Chris

Aspen environmental group

Chris Huntley
Executive Vice President
Director of Biological Resources
Office: (818) 338-6714| Cell: (818) 292-2327
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Agoura Hills | San Francisco | Sacramento | Inland Empire | Palm Springs

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Mitigation Measure MM HYD-1

Soda Mountain Solar Project

California Energy Commission Opt-In Application 24-OPT-03

1. Introduction

To address hydrology and water quality issues, the proposed project would construct three drainage channels between the array fields. Each channel would be approximately 3 feet below grade and vary in width and length. Approximately ten temporary sediment basins of varying sizes and depths would be constructed adjacent to the drainage channels and throughout the site and removed at the conclusion of construction. Approximately twelve box culverts and eight low-water crossings would be installed at the intersection of access roads and drainage channels, and permanent protection berms would be constructed along the edges of the arrays near these flow corridors to prevent occasional side channel flows from entering the array fields.

Without mitigation, the proposed project's drainage and erosion control design could result in direct, indirect and cumulative impacts related to hydrology and water quality and biological resources. To reduce direct, indirect and cumulative impacts from the proposed project's proposed drainage and erosion control design, the following mitigation shall be required:

MM HYD-1: Fluvial Geomorphic Stormwater Design: Prior to project construction and concurrent with final engineering, the project applicant shall prepare and submit a Final Fluvial Geomorphic Stormwater Design Plan (FGSDP) to the California Energy Commission for review and approval. The FGSDP shall be prepared and stamped by a licensed civil engineer or qualified fluvial geomorphologist with demonstrated experience in natural channel design. The FGSDP shall incorporate fluvial geomorphic design principles to both preserve and create stable, self-sustaining stream channels and floodplains that maintain and/or mimic natural hydrologic and sediment transport processes. At a minimum, the FGSDP shall include:

1. Hydrologic and Hydraulic Modeling: Quantitative modeling demonstrating that the existing and proposed channel dimensions, slope, roughness, and floodplain geometry maintain or restore the natural balance between flow regime, sediment transport, and channel form under design storm conditions. Modeling shall comply with all applicable local, state, and federal hydrology requirements, including peak flow attenuation and water quality treatment standards.

2. Sediment Transport Analysis: A detailed sediment transport evaluation demonstrating that the design will achieve long-term geomorphic stability, minimize erosion and deposition hazards, and avoid the need for routine structural maintenance. The analysis shall document sediment supply assumptions, boundary conditions, and modeled performance.

3. Design Features: Specific engineered elements that implement the fluvial geomorphic principles identified in Attachment 1, including, but not limited to, bankfull channel geometry, floodplain benches, energy dissipation features, riparian roughness treatments, and grade-control structures where necessary to ensure long-term stability.

4. Performance Standards: The design shall result in a channel and floodplain system that:

- Maintains lateral and vertical stability under the 2-, 10-, and 100-year storm events;
- Prevents excessive scour, headcutting, or over-widening;
- Supports natural sediment transport continuity; and
- Does not increase downstream erosion or flooding risk compared to existing conditions.

5. Implementation Requirements: All grading, construction, and restoration activities shall be completed in accordance with the approved FGSDP. Any field modifications required due to site conditions shall be reviewed and approved by the California Energy Commission prior to implementation to ensure consistency with the performance standards above.

Compliance with MM HYD-1 shall be verified by the California Energy Commission prior to start of construction.

Implementation of MM HYD-1 is expected to reduce the onsite grading significantly. Final grading quantities will be determined during final engineering and as part of the Final Fluvial Geomorphic Stormwater Design Plan (FGSDP). As shown in Table 1, it is anticipated that implementation of MM HYD-1 would result in a reduction of 559,000 cubic yards of cut and a reduction of 89,100 cubic yards of fill. All cut and fill would be balanced onsite by applying it to interior access roads or impact areas for project components.

Table 1. Estimated reduction in grading from MM HYD-1

Project Component	Cut (CY)		Fill (CY)		Net (CY)	
	Proposed Project	**MM HYD-1**	**Proposed Project**	**MM HYD-1**	**Proposed Project**	**MM HYD-1**
Solar Arrays	71,000	71,000	91,000	91,000	20,000 (fill)	20,000 (fill)
Drainage Channels	145,500	0	0	0	145,500 (cut)	0 (cut)
Sediment Basins	413,500	0	89,100	0	324,400 (cut)	0 (cut)
Note: Implementation of MM BIO-3 (precision grading) would reduce solar array cut to 3,300 CY and fill to 36,700 CY for a net fill of 33,400 CY.						

2. Reduced Impacts from MM HYD-1

Mitigation measure MM HYD-1 requires the project to implement a Fluvial Geomorphic Stormwater Design that significantly reduces the amount of stormwater infrastructure constructed by the project. With implementation of MM HYD-1, project grading is expected to be reduced significantly due to the removal of drainage channels and sediment basins (Table 1). Utilizing a Fluvial Geomorphic Stormwater Design minimizes a variety of environmental impacts by focusing on minimizing impacts to natural hydrology while preventing erosion or flooding during and after construction. The proposed design required by MM HYD-1 minimizes both temporary and permanent disturbance of existing vegetation, soils and drainage patterns.

The discussion below identifies how implementation of MM BIO-3 will affect the environmental issue areas evaluated within the Opt-In Application (24-OPT-03).

SMSP02504

Aesthetics: Under implementation of MM HYD-1, the visual aspects of the proposed project remain unchanged. All applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Agricultural Resources: There are no significant agriculture or forestry resources on the project site. Therefore, implementation of MM HYD-1 would not result in any change in impacts to agricultural resources.

Air Quality: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced. The reduction in on-site grading and associated ground disturbance would reduce the project's air quality emissions due to a decrease in construction equipment usage and an associated decrease in fuel usage. The reduction in on-site grading would also result in less fugitive dust during construction, due to less ground disturbance. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to greenhouse gas emissions. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Biological Resources: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced. The reduction in on-site grading and associated ground disturbance would reduce direct, indirect and cumulative impacts related to biological resources. Without implementation of MM HYD-1, the reduction in on-site grading and associated ground disturbance would reduce the potential for the project to result in direct, indirect or cumulative impacts to candidate and special status species, riparian habitat and sensitive natural communities, migratory fish and wildlife species.

Implementation of MM HYD-1 would significantly reduce biological resources impacts. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03), provides a conservative analysis of the project impacts related to biological resources. When compared to the impacts contained within the Opt-In Application (24-OPT-03), implementation of MM HYD-1 would reduce the compensatory mitigation requirements related to onsite habitat, desert tortoise, desert bighorn sheep, Mohave fringed toed lizard, burrowing owl and waters of the State.

Cultural Resources: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced. The reduction in on-site grading and associated ground disturbance would reduce the potential for the project to result in direct, indirect or cumulative impacts to any known or undiscovered archaeological or cultural resources on the project site. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to cultural resources. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Energy: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced. The reduction in on-site grading and associated ground disturbance would reduce the project's energy usage due to a decrease in construction equipment use and the associated use of fuels and oils. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to energy. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

SMSP02505

Geology and Soils: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced. The reduction in on-site grading and associated ground disturbance would reduce the potential for the project to result in direct, indirect or cumulative impacts to soil erosion, topsoil loss, and paleontological resources. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to geology and soils. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Greenhouse Gas Emissions: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced. The reduction in on-site grading and associated ground disturbance would reduce the project greenhouse gas emissions due to a decrease in construction equipment use and the associated use of fuels and oils. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to greenhouse gas emissions. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Hazards and Hazardous Materials: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced under the proposed project. The reduction in on-site grading and associated ground disturbance would reduce the fuels and oils required to operate construction equipment, which would reduce the amounts of hazardous materials utilized for the project. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to hazards and hazardous materials. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Hydrology and Water Quality: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced under the proposed project. The reduction in on-site grading and associated ground disturbance would reduce the potential for the project to result in direct, indirect or cumulative impacts related to water quality standards, waste discharge requirements, surface and groundwater quality degradation and the alteration of onsite drainage patterns.

Implementation of MM HYD-1 would ensure that construction and operation of the proposed project would not result in a net impact relating to on-site drainage or patterns and rates of erosion or sedimentation by requiring the applicant to develop and implement a comprehensive drainage, stormwater, and sedimentation control plan. Implementation of MM HYD-1 would also ensure that changes to surface water drainage do not result in a net impact to downstream waterways from erosion or sedimentation during operation and maintenance by requiring the applicant to develop and implement a comprehensive drainage, stormwater, and sedimentation control plan. Existing flow paths and drainage patterns would not be changed in the post-development condition, and it is not anticipated that runoff volumes, peak discharges, or sediment transport, all of which are factors affecting the release of sediments from the site during storm events, would be substantially altered from pre-development conditions.

With the implementation of MM HYD-1, the project would not substantially alter the existing drainage conditions of the site or area in a manner that would result in flooding on- or off-site and create runoff water that would exceed the capacity of stormwater drainage systems. This includes avoiding alterations to the course of a stream or river, preventing the addition of impervious surfaces, or introducing polluted runoff

SMSP02506

into drainage features. The project would not significantly alter the existing drainage pattern of the sites or area in a manner that would impede or redirect flood flows. Impacts would be less than significant.

Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to hydrology and water quality. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Land Use and Planning: Under implementation of MM HYD-1, the land use and planning components of the project remain unchanged. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Mineral Resources: There are no significant mineral resources on the project site. Therefore, implementation of MM HYD-1 would not result in any change of impacts to mineral resources.

Noise and Vibration: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced from the removal of the proposed project berms and siltation basins. Project specific noise and vibration created during the project construction period is expected to be less, due to a reduction in construction equipment noise associated with grading equipment. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to noise and vibration. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Population and Housing: Under implementation of MM HYD-1, the population and housing components of the project remain unchanged. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Public Services: Under implementation of MM HYD-1, the public service components of the project remain unchanged. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Recreation: Under implementation of MM HYD-1, the recreation components of the project remain unchanged. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Transportation: Under implementation of MM HYD-1, the transportation and traffic components of the project remain unchanged. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Tribal Cultural Resources: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced due to the removal of the proposed project berms and siltation basins. The reduction in on-site grading and associated ground disturbance would reduce the potential for the project to result in direct, indirect or cumulative impacts to any undocumented tribal cultural resources. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to tribal cultural resources. Mitigation requirements related to this environmental issue area remain unchanged.

SMSP02507

Utilities and Service Systems: Under implementation of MM HYD-1, the utility and service system components of the project remain unchanged. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Wildfire: Under implementation of MM HYD-1, the wildfire components of the project remain unchanged. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

Public Health: With implementation of MM HYD-1, on-site grading and associated ground disturbance would be significantly reduced. The reduction in on-site grading and associated ground disturbance would reduce the potential for the project to result in direct, indirect or cumulative impacts related to fugitive dust, naturally occurring asbestos and valley fever. Therefore, the environmental analysis provided within the Opt-In Application (24-OPT-03) provides a conservative analysis of project impacts related to public health. Applicant proposed measures and mitigation requirements related to this environmental issue area remain unchanged.

SMSP02508

Attachment 1. Soda Mt. Revised Drainage Plan

TORY R. WALKER ENGINEERING

MEMORANDUM

Date: December 11, 2025
To: Hannah Arkin, Resolution Environmental
From: Tory R. Walker, PE, CFM, QISP
Subject: Soda Mountain Solar Project – Revised Drainage Plan

The **Revised Drainage Plan** for the Soda Mountain Solar Project focuses on minimizing impacts to the natural hydrologic regime while minimizing erosion or flooding during and after construction.

The project site is located in the Soda Mountain area of San Bernardino County, California. The surrounding terrain is characterized by numerous alluvial fans that drain toward the proposed development area in the valley floor. These individual alluvial fans have coalesced, or overlapped, along the base of the mountain fronts surrounding the project site, creating a broad, gently sloping depositional surface, known as a bajada. As the proposed development area is at the intersection of the bajadas from the east and west (i.e., the valley floor), it is gently sloping, with drainage patterns being formed by the alluvial fans over millennia.

Drainage of Offsite Flows Through the Project Site

Terrain plays a major role in how runoff behaves because it influences the speed, volume, and direction of water flow during precipitation events. Steeper slopes accelerate water movement, reducing infiltration and increasing runoff volume and velocity. Gentler slopes allow more time for water to infiltrate into the soil, reducing surface runoff. The terrain on the project site, being characterized by gentle slopes formed by deposition of alluvium, has created natural braided drainage patterns where water spreads out and slows down, promoting infiltration.

Precipitation in the Soda Mountain area is sparce, with monthly mean precipitation being less than 1 inch per month in the wettest months (typically December through February). Storm events that generate runoff tend to be short and intense, rather than prolonged; this typical episodic pattern occasionally produces flash flooding in the steeper terrain east and west of the project site during infrequent heavy storms, but this runoff then mostly dissipates and infiltrates in the flatter alluvium of the valley floor, where the project site is located.

The existing vegetation within the project site is sparce "Shrub-Scrub." This is due to the infrequency of precipitation. For many projects, existing vegetation can be an important factor for consideration in any proposed soil disturbance, as the erosion potential of the soil can be significantly impacted. Furthermore, replacing the vegetation with impervious or compacted surfaces (such as roads) will typically increase runoff because water cannot penetrate the soil as easily. Therefore, where minimalization of disturbance and compaction is possible, there will be less impacts due to increased runoff and erosion.

Given the nature of the terrain, soils, vegetation, and precipitation patterns characterizing this project site, and the nature of the proposed project, it is best to design the drainage for the project focusing on conservation of the many existing natural braided drainage rills and shallow channels. These natural drainage rills and shallow channels have been studied for 2-year, 10-year, and 100-year design storm events; flow depths and velocities have been mapped for these design storms, and the results reflect the topography and historic aerial imagery, which have not changed in recent times.

Runoff From the Project Site

As noted above, impervious or compacted surfaces will typically increase runoff because water cannot penetrate the soil as easily. There are components of the Soda Mountain Solar Project that have the potential to increase runoff and erosion (e.g., compacted roads and pads for some of the infrastructure). Solar panels also have the potential to increase runoff and erosion from concentrated runoff at drip edges; whether this runoff is infiltrated below the panel or not can be determined by the slope of the ground and the cover and/or soils.

For reasons noted above (the gentle slopes and the alluvial nature of the undisturbed in situ soils), almost all the precipitation running off the solar panels will infiltrate the soil layer beneath and surrounding the panels. This design approach of minimizing plant and soil disturbance, combined with the restoration and revegetation plan for temporarily disturbed areas, means no significant increase in runoff or erosion is expected to result from the solar panels.

Increased runoff from the (disturbed and compacted) access roads will be dissipated and infiltrated onsite within the alluvial soils immediately downgradient of the roads, resulting in no significant increase in runoff or erosion. Where these access roads must cross shallow seasonal drainage paths, small diameter (e.g., 3-inch) rock may be used where needed to stabilize the road surface, as localized erosion/scour may otherwise occur in a major storm event. As the rock will be installed at existing grades, no disruption of grades leading to erosion/scour will occur.

Elevation and grading/compaction of pads is anticipated for the BESS yards, substation and switchyard. With that disturbance and grading/compaction, some concentration and increase of runoff and erosion is anticipated, absent mitigating countermeasures. These countermeasures are anticipated to include small rock-lined swales adjacent to the pads to capture and infiltrate increased runoff. Excess runoff, not greater than existing flowrates, will be allowed to overtop the swales in the same manner as they currently flow (i.e., distributed, not concentrated), thus minimizing erosion potential to a level of non-significance.

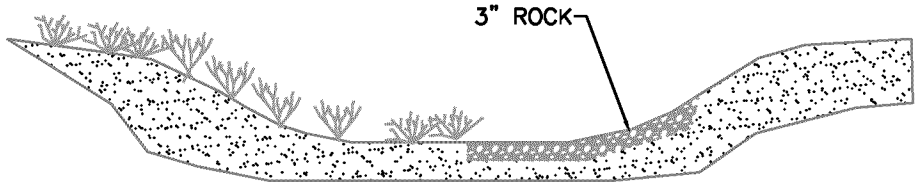
Flooding

As noted above, the existing drainage features within the proposed project site consist of many natural braided drainage rills and shallow channels. Flow depths and velocities calculated by a 2D hydraulic model (and confirmed by historic aerial imagery) indicate slow moving (generally less than 4 feet per second) shallow (generally less than 1.5 foot deep) flows through the majority of the project site in a 100-year storm. Some small areas within the proposed project footprint are subjected to flows that are between 3 and 6 feet per second (still mostly non-erosive) and greater than 1 foot in depth (though rarely more than 2 feet).

To protect the BESS yards, substation and switchyard from shallow flooding, pads will be elevated between one to two feet on graded pads, as noted above. The vast majority of solar panel pilings will not require any protection, but where needed, and as determined during the final design of the project, some pilings will be deeper to counter any potential localized scour that the pilings may be subject to. In no case would the pilings be subject to scour exceeding 2 feet, however, and any scour would be very localized and contained. If needed, small rock may be used as a mitigating countermeasure to prevent the localized scour. The need will be determined through a scour analysis utilizing the results of the 2D hydraulic model.

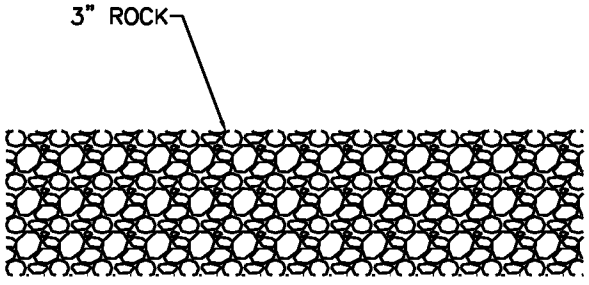
Conclusion

The proposed design thus minimizes both temporary and permanent disturbance of existing vegetation, soils and drainage patterns. No temporary or permanent berms or channels are proposed, and only very localized mitigating countermeasures are proposed where needed to ensure no significant impacts will result. These are illustrated on the attached exhibit.



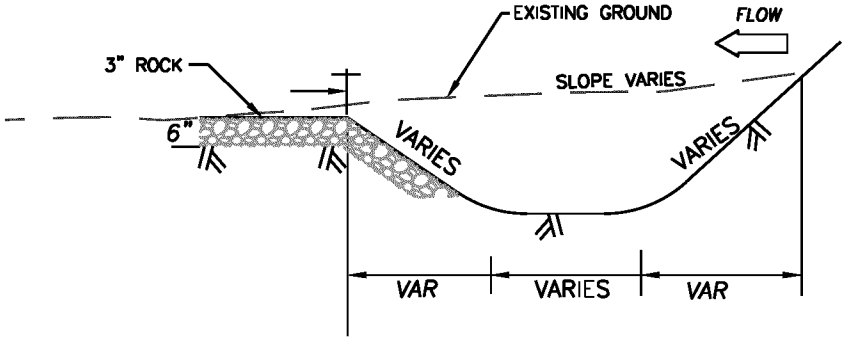
VEGETATED/ROCK LINED SWALE CROSS SECTION

NO SCALE



STABILIZED ACCESS ROAD AT NATURAL CHANNEL CROSSING

NO SCALE



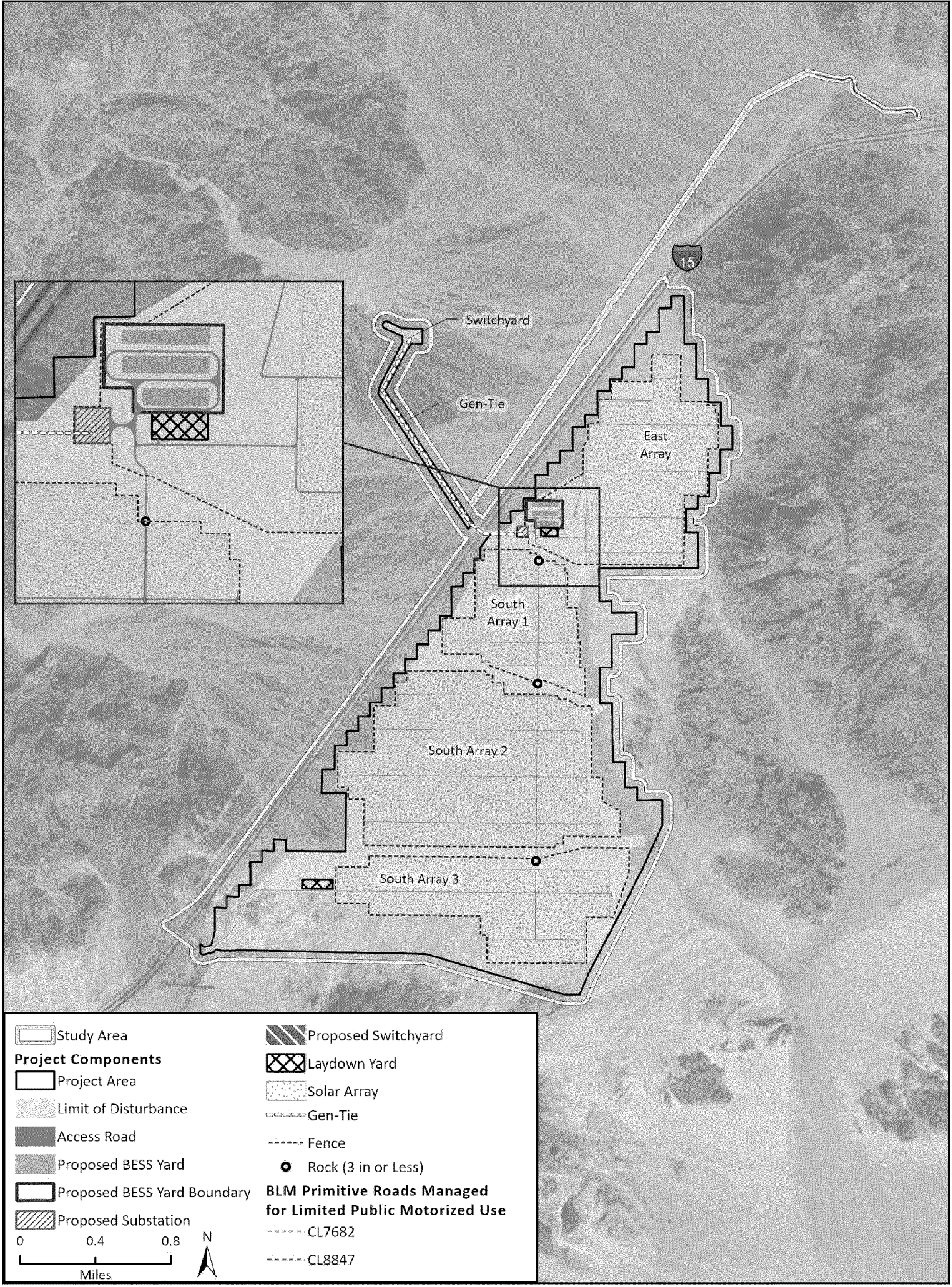
FLOW SPREADER CROSS SECTION

NO SCALE

FINAL DIMENSIONS TO BE DETERMINED WITH FINAL DESIGN

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MITIGATION COUNTERMEASURES
SODA MOUNTAIN SOLAR PROJECT
DECEMBER 2025



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Fig X Hydrology Mitigation Components