

<b>DOCKETED</b>	
<b>Docket Number:</b>	24-OPT-03
<b>Project Title:</b>	Soda Mountain Solar
<b>TN #:</b>	267972
<b>Document Title:</b>	MM HYD-1
<b>Description:</b>	This document describes mitigation measure HYD-1.
<b>Filer:</b>	Hannah Arkin
<b>Organization:</b>	Resolution Environmental
<b>Submitter Role:</b>	Applicant Representative
<b>Submission Date:</b>	12/18/2025 4:44:40 PM
<b>Docketed Date:</b>	12/18/2025

## **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).

**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.

**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

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.

**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.

## **Attachment 1. Soda Mt. Revised Drainage Plan**





## 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 sparse, 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 sparse "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 fills 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 overlap 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.

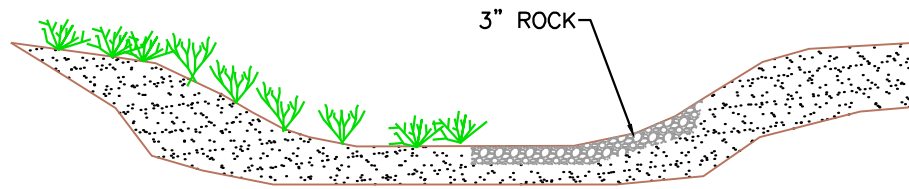
### **Flooding**

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).

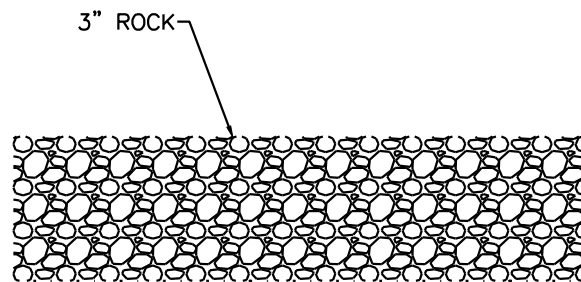
To protect the BESS yards, substation and switchyard from shallow flooding, pads will be elevated between one to two feet on graded pads, as noted above. The vast majority of solar panel pilings will not require any protection, but where needed, and as determined during the final design of the project, 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**

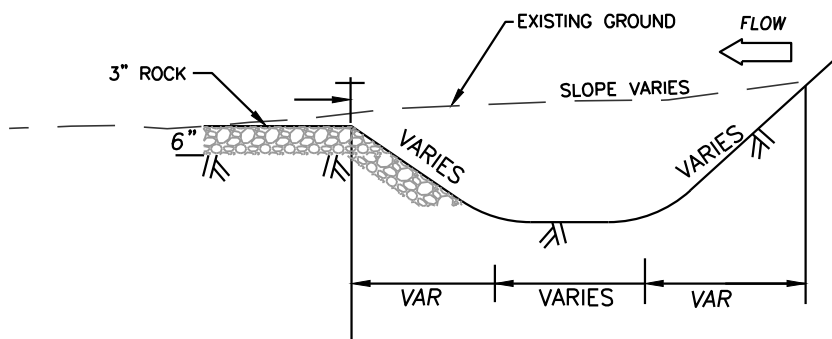
The proposed design thus minimizes both temporary and permanent disturbance of existing vegetation, soils and drainage patterns. No temporary or permanent berms or channels are proposed, and only very localized mitigating countermeasures are proposed where needed to ensure no significant impacts will 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

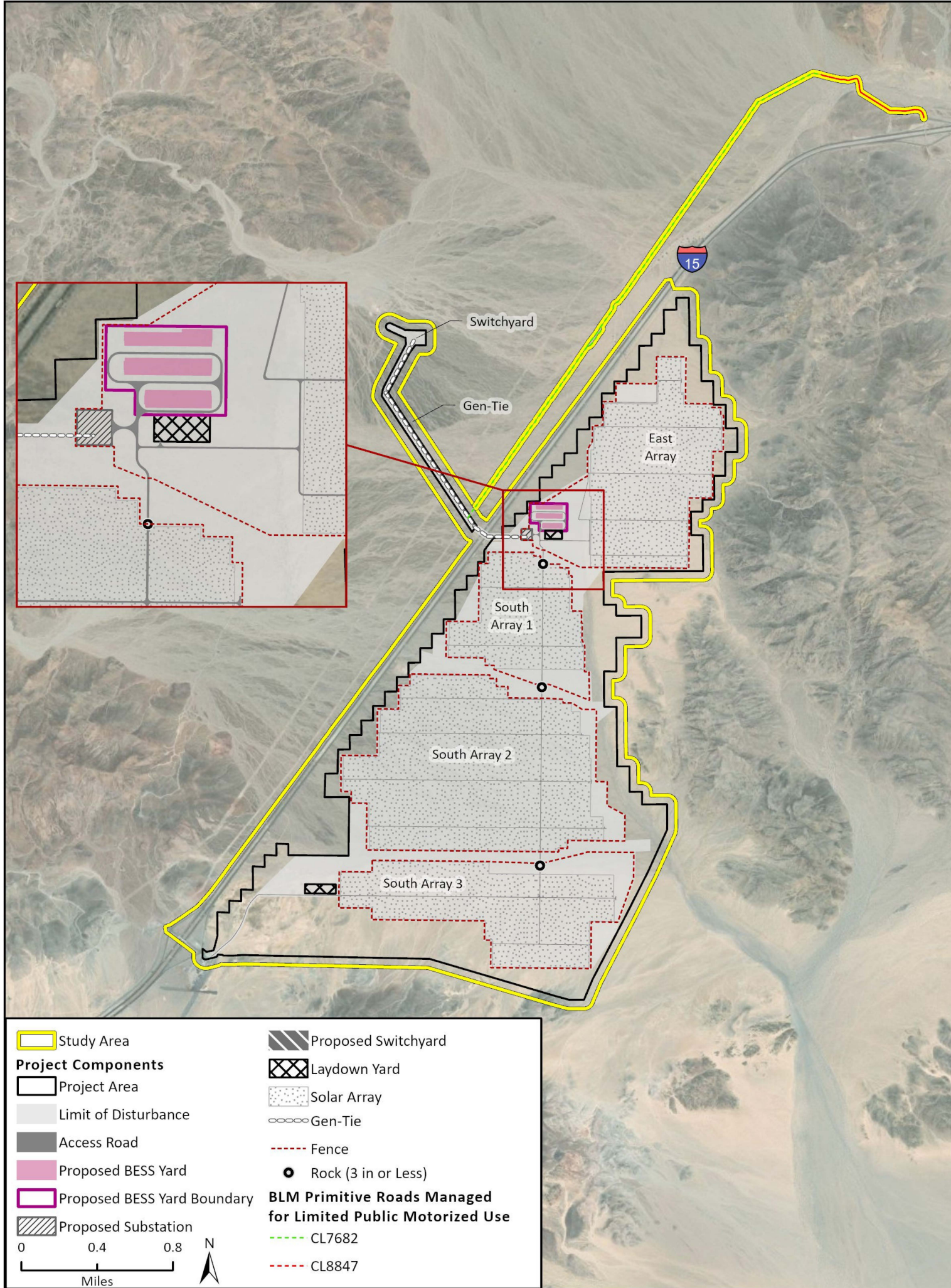
FINAL DIMENSIONS TO BE DETERMINED WITH FINAL DESIGN



TORY R. WALKER  
ENGINEERING  
122 Civic Center Drive, Suite 206 Visto, CA 92084

MITIGATION COUNTERMEASURES  
SODA MOUNTAIN SOLAR PROJECT  
DECEMBER 2025





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## Stormwater Info


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**From** Hannah Arkin <hannah@resolutionenvironmental.com>

**Date** Thu 12/11/2025 5:21 PM

**To** Worrall, Lisa@Energy <lisa.worrall@energy.ca.gov>

**Bcc** Dustin Thaler <dut@vcrenewables.com>

 1 attachment (1 MB)

MM HYD-1.pdf;

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

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**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 will 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 (Razor Road and Arrowhead Trail) and the existing drainages will be permanently impacted by proposed channel systems and a new alignment for Razor 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*

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**From:** Worrall, Lisa@Energy <[Lisa.Worrall@energy.ca.gov](mailto:Lisa.Worrall@energy.ca.gov)>

**Sent:** Tuesday, December 2, 2025 11:08:06 AM

**To:** Hannah Arkin <[hannah@resolutionenvironmental.com](mailto:hannah@resolutionenvironmental.com)>

**Cc:** Chang, Kaycee@Energy <[kaycee.chang@energy.ca.gov](mailto:kaycee.chang@energy.ca.gov)>; Chris Huntley <[chuntley@aspeneg.com](mailto:chuntley@aspeneg.com)>; Crisp, Ann@Energy <[Ann.Crisp@energy.ca.gov](mailto:Ann.Crisp@energy.ca.gov)>; Knight, Eric@Energy <[Eric.Knight@energy.ca.gov](mailto:Eric.Knight@energy.ca.gov)>; Jamison Miner <[jminer@aspeneg.com](mailto:jminer@aspeneg.com)>; Ackerman, James@Energy <[james.ackerman@energy.ca.gov](mailto: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](http://www.energy.ca.gov)





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**From:** Chris Huntley <[Chuntley@aspeneg.com](mailto:Chuntley@aspeneg.com)>

**Sent:** Tuesday, December 2, 2025 10:42 AM

**To:** Worrall, Lisa@Energy <[Lisa.Worrall@energy.ca.gov](mailto:Lisa.Worrall@energy.ca.gov)>; Crisp, Ann@Energy <[Ann.Crisp@energy.ca.gov](mailto:Ann.Crisp@energy.ca.gov)>; Jamison Miner <[jminer@aspeneg.com](mailto:jminer@aspeneg.com)>; Ackerman, James@Energy <[james.ackerman@energy.ca.gov](mailto:james.ackerman@energy.ca.gov)>

**Subject:** Waters data

**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.

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



**Chris Huntley**  
Executive Vice President  
Director of Biological Resources

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