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STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

IN THE MATTER OF:	**Docket No.: 21-AFC-02**
Willow Rock Energy Storage Center	**Staff's Rebuttal Written Testimony and Evidence**

In a notice dated July 17, 2025, the California Energy Commission's (CEC) Committee overseeing the Willow Rock Energy Storage Center Project (Willow Rock, WRESC, or proposed project) directed parties to file Rebuttal Written Testimony and Evidence no later than August 6, 2025.

Staff reviewed the Open Written Testimony submitted by the parties and files the following Rebuttal Written Testimony and Evidence for the following technical areas:

1. Facility Design, Rebuttal Testimony of Ardalan Raisi Sofi, Ph.D., P.E.
2. Worker Safety/Fire Protection, Rebuttal Testimony of Alvin J. Greenberg, Ph.D.
3. Biological Resources, Rebuttal Testimony of Chris Huntley and Jamie Miner
4. Cultural and Tribal Cultural Resources, Rebuttal Testimony of Patrick Riordan, William E. Larson, and Cameron Travis
5. Land Use, Agriculture, and Forestry, Rebuttal Testimony of Andrea Koch
6. Noise, Rebuttal Testimony of Ardalan Raisi Sofi, Ph.D., P.E.
7. Transportation, Rebuttal Testimony of Francisco Martin, P.E.
8. Visual Resources, Rebuttal Testimony of Mark R. Hamblin
9. Water Resources, Rebuttal Testimony of James Ackerman, P.G.
10. Compliance Conditions and Compliance Monitoring Plan, Rebuttal Testimony of Ashley Gutierrez

Dated: August 6, 2025

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT
COMMISSION

By: /s/ Jared Babula

Jared Babula
Attorney for Staff

Facility Design

Rebuttal Testimony of Ardalan Raisi Sofi, Ph.D., P.E.

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

I, Ardalan Raisi Sofi, Ph.D., P.E., prepared the staff testimony on Facility Design for the Willow Rock Energy Storage Center based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge. My declaration and resume are included in the FSA (TN 264843).

WSP, on behalf of the applicant, submitted proposed revisions to Condition of Certification **CIVIL-1** in TN 265170 (Section 4.15 III). WSP stated that Page 4.1-14 of the FSA incorrectly references a construction Storm Water Pollution Prevention Plan (SWPPP), since the project does not discharge stormwater to waters of the United States and would therefore not require coverage under the General Construction NPDES permit. To mitigate potential water quality impacts, the Applicant proposes to prepare a Drainage, Erosion, and Sedimentation Control Plan (DESCP) as described in **WATER-1**.

Staff has reviewed this information and agrees with the applicant's reasoning and proposed revisions. The project does not require a SWPPP, and the DESCP required under **WATER-1** is sufficient to address construction-related and operation-related water quality impacts. Therefore, staff supports the applicant's proposed revisions to Condition of Certification **CIVIL-1** without modification.

CIVIL-1 The project owner shall submit to the DCBO for review and approval the following:

1. Design of the proposed drainage structures and the grading plan;

2. An erosion and sedimentation control plan;

~~**3. A construction storm water pollution prevention plan (SWPPP);**~~

4**3**. Related calculations and specifications, signed and stamped by the responsible civil engineer; and

~~5~~**4**. Soils, geotechnical, or foundation investigations reports required by the 2022 CBC.

Verification: At least 15 days (or a project owner and DCBO mutually agreed upon alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the DCBO for design review and approval. In the next MCR following the DCBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the DCBO.

Worker Safety and Fire Protection

Rebuttal Testimony of Alvin J. Greenberg, Ph.D.

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

I, Alvin J. Greenberg, Ph.D., prepared the staff testimonies on Worker Safety/Fire Protection, and Hazards, Hazardous Materials, Hazardous Waste, and Wildfire, for the Willow Rock Energy Storage Center based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge. My declaration and resume are included in the FSA (TN 264843).

The applicant filed recommended revisions to Conditions of Certification in its Opening Testimony on July 30, 2025 (TN 265170). Based on this information and independent verification of the information provided within the FSA, staff provides the responses below.

In the above-referenced Opening Testimony, the applicant reiterated several comments made earlier on the Preliminary Staff Assessment, starting on applicant's testimony page 74/374, Sections III and IV. Staff has identified and responded to those comments in the following manner:

First Comment

The applicant recommends that COC **WORKER SAFETY-1** allow for consolidation of the construction Emergency Action Plan and operational Emergency Response Plan into a single, comprehensive Emergency Management Plan to reduce confusion around the number of site plans and thus improving the response time during an emergency event.

Response

Staff disagrees and reiterates its requirement for separate plans and offers further explanation. Staff notes that the contents of both the Emergency Action Plan (EAP) and Emergency Response Plan (ERP) are somewhat different and wants to avoid the confusion of melding them into one plan, as proposed by the applicant, newly named an "Emergency Management Plan". Staff also notes that the aforementioned two plans are now required by a LORS, specifically *CPUC RESOLUTION ESRB-13 – General Order (GO) 167-C, Enforcement of Maintenance and Operation Standards for Electric Generating Facilities and Energy Storage Systems*. GO 167-C specifically calls for two distinct and independent plans (plural). There is no implied or stated intent to allow for only one merged plan under a different name. Indeed, the word "plans" is used numerous times in the GO when referring to these two plans.

Also, in the FSA, staff's response to these same comments stated that "*where these plans are placed after review and approval is up to the project owner*." The project owner is free to place both plans in the same folder and/or distribute and discuss at the same time.

Second Comment

The applicant also recommends that the Construction Emergency Action Plan, Construction Emergency Response Plan, the Controlled Detonation, the Hazardous Material Business Plan HMBP, and the Fire Prevention Plan shall be submitted to the Kern County Fire Department (KCFD) and Kern County Sheriff's Office (KCSO) for review and comment concurrently. Furthermore, that written responses from the KCFD and KCSO, if any, shall be submitted to the Compliance Project Manager (CPM) within 30 days of receipt by the project owner.

Response

Staff agreed and has already included in the FSA what the applicant requested.

From FSA **WORKER SAFETY-1**: "The Construction Emergency Action Plan, Construction Emergency Response Plan, the Controlled Detonations Plan, the HMBP, and the Fire Prevention Plan shall be submitted to the KCFD for review and comment prior to submittal to the CPM for approval. The Controlled Detonations Plan shall also be submitted to the Kern County Sheriff's Office for review and comment."
"Verification: At least 90 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a copy of the Project Construction and Safety and Health Program. At the same time, the project owner shall also provide to the CPM a copy of letters requesting comments submitted to KCFD and KCSO. Written responses from the KCFD and KCSO, if any, detailing resolved comments shall be submitted to the CPM within 30 days of receipt by the Project Owner."

Third Comment

The applicant also recommends that COC **WORKER SAFETY-5** allow for the controlled blasting notification radius be reduced from five miles to one mile. Analysis provided indicates that vibrations will be imperceptible to residences at a fraction of this distance. The applicant reiterates its request to change the current condition requirement to "notify, in writing, all residents or owners of dwellings or other structures within a one-mile radius."

Response

Staff has reconsidered the 5-mile requirement for notification and now agrees with the Applicant. **WORKER SAFETY-5** is revised to state the following:

- At least 30 days before initiation of controlled detonations, the project owner shall notify, in writing, all residents or owners of dwellings or other structures within a **1**~~5~~-mile radius or other distance as recommended by either the KCFD Chief or the

Kern County Sheriff's Office (KCSO), of proposed controlled detonations and describing how to request and submit a pre-controlled detonations survey.

Fourth Comment

The applicant recommends that COC **WORKER SAFETY-8**, specifically related to development of a detailed and comprehensive Construction Underground Fire Protection Plan, be revised to coincide with underground construction activities. As such, it is suggested, at least 90 days prior to the start of site mobilization underground construction activities, that the project owner provide to KCFD a copy of the plan for review and comment and to the CPM for review and approval.

Response

Staff agrees with the request to slightly modify the time period for provision of the Construction of the Underground Fire Protection Pan from "90 days prior to site mobilization" to "*90 days prior to mobilization of underground cavern construction activities*", which may allow the project owner more time to develop that plan. However, it is only with the understanding that there would be no workers allowed below ground surface prior to the implementation of the Underground Fire Protection Plan. This would not include initial surface preparation but would include transport below ground surface within a completed elevator shaft.

This change would result in the following language of **WORKER SAFETY-8:**

Verification: At least 90 days prior to the start of ~~site~~ mobilization **of underground cavern construction activities,** the project owner shall provide to the KCFD a copy of the plan for review and comment and to the CPM for review and approval.

Fifth Comment

COC **WORKER SAFETY-11** requires the project owner to install various infrastructure at site including emergency access gates, fire and heat sensors, fire water flow and CCTV cameras. The applicant recommends that this condition be revised to grant the CPM the flexibility to make certain changes based on site and project-specific conditions.

Response

WORKER SAFETY-11 already contains the requested flexibility as the enumerated categories are broad enough to ensure the applicant can design the facility's security, heat sensors, and access points in a manner that accommodates the actual onsite conditions. The categories are not so prescriptive preventing flexibility. If the need arises, the project owner also has the opportunity to consult with the KCFD and the KCSO, as well as contact the CPM.

Biological Resources

Rebuttal Testimony of Chris Huntley and Jamie Miner

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

We, Chris Huntley and Jamie Miner, prepared the staff testimony on Biological Resources for the Willow Rock Energy Storage Center based on our independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and our professional experience and knowledge. Our declarations and resumes are included in the FSA (TN 264843).

Applicant Testimony:

The applicant's testimony requests clarification regarding the presence of Joshua Tree Woodland on the WRESC project site. Specifically, the applicant notes that Page 5.2-6 of the FSA incorrectly states that "Staff notes that numerous western Joshua trees were documented within the WRESC site by the applicant and these areas may also meet the CNPS definition for Joshua tree woodland". The applicant suggests this statement leaves a gap in the FSA regarding the potential and extent the project could impact Joshua tree woodlands.

Staff Response:

As described in the FSA, western Joshua trees are present on the WRESC project site and would be lost during the development of the project. However, staff concurs with the applicant that the density of the trees does not constitute a Joshua Tree Woodland and the text on page 5.2-6 of the FSA has been revised to read "Staff notes that numerous western Joshua trees were documented within the WRESC site by the applicant; however, these areas do not meet the CNPS definition for Joshua tree woodland.

Applicant Testimony:

The applicant's testimony indicates that Page 5.2-300 of the FSA inappropriately states that "The project owner shall purchase 843 acres of Crotch's bumble bee and western burrowing owl mitigation or conservation bank credits……" and further in the paragraph states "The amount of mitigation required shall be calculated based on the project's final direct permanent and temporary loss of suitable Crotch's bumble bee and western burrowing owl habitat." The applicant suggests the statements are not congruent as one requires the proponent to purchase the maximum amount of mitigation or conservation bank credit while the second statement allows for flexibility based on actual impacts.

Staff Response:

Staff notes that impact acreages identified in the FSA appear to be different from Table 2.3 of the applicant's opening testimony (TN 265170) which provides the acreages of permanent and temporary disturbance under the Without Berm and With Berm scenarios. According to Table 2.3, the Without Berm scenario would result in 88.8 acres of permanent impacts and 122.2 acres of temporary impacts while the With Berm scenario would result in 163.5 acres of permanent impacts and 117.3 acres of temporary impacts. However, as described in Section 3.0 of the Incidental Take Permit Application (TN 262196) submitted to the docket by the Applicant on March 14, 2025, P1 and P2 North would be restored following construction under the Without Berm scenario; however, this restoration would not occur in the With Berm scenario.

Table 2.3 of the applicant's opening testimony does not acknowledge that P1 and P2 North would be subject to impacts under both the Without Berm or With Berm scenario. Under the Without Berm scenario, Table 2.3 correctly states that there would be zero acres of disturbance associated with the permanent construction of the berm; however, it underestimates the temporary impacts based on the statement provided in Section 3.0 of the ITP Application that states that P1 and P2 North would be restored following construction under the Without Berm scenario. If this is the case, the temporary impacts identified in Table 2.3 of the applicant's opening testimony, which, as presented, identify a difference between the two scenarios of 4.9 acres (122.2 acres – 117.3 acres) are underestimated. To account for temporary disturbance at P1 and P2 North under the Without Berm scenario, the overall temporary disturbance should include 74.6 additional acres. Therefore, the overall temporary disturbance under the Without Berm scenario would be 196.8 acres rather than the 122.2 acres presented by the applicant.

However, staff acknowledge there are two development footprints that are being proposed. As noted in the FSA, construction of Option 1 (With Berm) construction of the WRESC would result in approximately 212.44 acres of permanent and 68.35 acres of temporary impacts which would require 843-acres of compensatory mitigation. Under Option 2 (Without Berm) the project would result in 90.90 acres of permanent and 189.89 acres of temporary impacts to native and non-native vegetation communities which would require approximately 839-acres of compensatory mitigation.

Staff proposed the 843-acre mitigation requirement based on construction of the With Berm Option which would result in the largest land disturbance. This condition was included because there is uncertainty about which alternative or option would be constructed and to ensure the project complies with mitigation requirements under California Endangered Species Act (CESA), which requires a defined project description and payment of fees prior to ground disturbance. Because the difference in mitigation acreage was low, staff selected the worst-case scenario. Staff has revised the language in COC **BIO-14** (Habitat Management Land Acquisition for Crotch's Bumble Bee and Western Burrowing Owl) to allow for flexibility in the location of mitigation lands and

ensure that if any impacts to Joshua Tree Woodland occur the compensatory mitigation lands will include that habitat at the same 3:1 ratio.

Specific changes include:

BIO-14 Habitat Management Land Acquisition for Crotch's Bumble Bee and Western Burrowing Owl: To mitigate for impacts to Crotch's bumble bee and western burrowing owl the project owner shall fulfill the following requirements:

The project owner shall purchase 843 acres of Crotch's bumble bee and western burrowing owl mitigation or conservation bank credits at a location ~~within the Antelope Valley or Western Mojave Desert~~ approved in advance by the CPM, in coordination with CDFW, or shall provide for both the permanent protection and management of 843 acres of Habitat Management (HM) lands pursuant to Item 3 (Habitat Management Lands Acquisition and Protection) and the calculation and deposit of the management funds pursuant to Item 5 (Endowment Fund). **The proposed mitigation lands shall also include Joshua Tree Woodland at the same 3:1 ratio should that community be impacted along the optional transmission line route.** The amount of mitigation required shall be calculated based on the project's final direct permanent and temporary loss of suitable Crotch's bumble bee and western burrowing owl habitat, **identified prior to ground disturbance** as approved by the CPM, in consultation with CDFW.

The purchase of mitigation or conservation bank credits or permanent protection and funding for perpetual management of HM lands must be complete before starting project activities, or within 18 months of the date of the site mobilization, if Security is provided pursuant to the Security (Item 11) below for all uncompleted obligations.

1. Cost Estimates. For the purposes of determining the Security amount, it is estimated the cost for the CPM or its contractors to complete acquisition, protection, and perpetual management of the HM lands is as follows:

   a. Land acquisition costs for HM lands identified in the Item 3 (Habitat Management Lands Acquisition and Protection) below, estimated at $2,698.00/acre for 843 acres: $2,274,414.00. Land acquisition costs are estimated using local fair market current value per acre for lands with habitat values meeting mitigation requirements.

   b. All other costs are necessary to review and acquire the land in fee title and record a conservation easement as described below in Item 3b. (Conservation Easement) below: $558,750.00.

   c. Start-up costs for HM lands, including initial site protection and enhancement costs as described in the Item 3f (Start-up Activities) below, estimated at $344,549.00.

   d. Interim management period funding as described in the Item 4 (Interim Management) (Initial and Capital) below, estimated at $466,799.00.

e. Long-term management funding as described in the Item 5 (Endowment Fund) below, estimated at $2,918,823.00. Long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management.

f. Related transaction fees including but not limited to account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW as described in the Item 10 (Reimburse CDFW), estimated at $13,600.00.

g. All costs associated with the CPM engaging an outside contractor to complete the mitigation tasks, including but not limited to acquisition, protection, and perpetual funding and management of the HM lands and restoration of temporarily disturbed habitat. These costs include but are not limited to the cost of issuing a request for proposals, transaction costs, contract administration costs, and costs associated with monitoring the contractor's work $45,479.00.

2. Mitigation Bank Credits. If the project owner elects to purchase credits to complete Crotch's bumble bee and western burrowing owl compensatory mitigation obligations, then project owner shall purchase 843 of Covered Species credits from a mitigation or conservation bank approved in advance by the CPM prior to initiating project activities, or no later than 18 months from the start of site mobilization, if Security is provided pursuant to Item 11 (Security) below. Prior to the purchase of credits, the project owner shall obtain CPM approval to ensure the mitigation or conservation bank is appropriate to compensate for the impacts of the project. The project owner shall submit to the CPM a copy of the Bill of Sale(s) and Payment Receipt prior to initiating site mobilization or within 18 months from start of site mobilization, if Security is provided.

3. Habitat Management Lands Acquisition and Protection. If the project owner elects to provide for the acquisition, permanent protection, and perpetual management of HM lands to complete compensatory mitigation obligations, then the project owner shall:

a. Fee Title. Transfer fee title of the HM lands to CDFW pursuant to terms approved in writing by CDFW. Alternatively, the CPM, in consultation with CDFW, may authorize a governmental entity, special district, non-profit organization, for-profit entity, person, or another entity to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65965-65968, as amended.

b. Conservation Easement. If CDFW does not hold fee title to the HM lands, CDFW shall act as grantee for a conservation easement over the HM lands or shall, in its sole discretion, approve a non-profit entity, public agency, or Native American tribe to act as grantee for a conservation easement over the HM lands provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3. If CDFW elects not to be named as the grantee for the conservation easement, CDFW shall be expressly named in the conservation easement as a

third-party beneficiary. The project owner shall obtain written approval from the CPM, in coordination with CDFW, of any conservation easement before its execution or recordation. No conservation easement shall be approved by the CPM unless it complies with Civil Code sections 815-816, as amended, and Government Code sections 65965-65968, as amended and includes provisions expressly addressing Government Code sections 65966(j) and 65967(e). Because the "doctrine of merger" could invalidate the conservation interest, under no circumstances can the fee title owner of the HM lands serve as grantee for the conservation easement.

c. HM Lands Approval. The project owner shall obtain CPM written approval of the HM lands, in coordination with CDFW, before acquisition and/or transfer of the land by submitting, at least 90 days before acquisition and/or transfer of the HM lands, documentation identifying the land to be purchased or property interest conveyed to an approved entity as mitigation for the project's impacts on Crotch's bumble bee and western burrowing owl.

d. HM Lands Documentation. The project owner shall provide a recent preliminary title report, Phase I Environmental Site Assessment, and other necessary documents (please contact CPM for document list). All documents conveying HM lands and all conditions of title are subject to approval from the CPM; and if applicable, the Wildlife Conservation Board, and the Department of General Services.

e. Land Manager. Designate both an interim and long-term land manager, approved by the CPM, in consultation with CDFW. The interim and long-term land managers may, but need not, be the same. The interim and/or long-term land managers may be the landowner or another party. The land manager shall prepare a draft management plan for CPM review and approval, in consultation with CDFW, and written approval as part of the HM lands acquisition process. The project owner shall notify the CPM of any subsequent changes in the land manager within 30 days of the change. If CDFW will hold fee title to the mitigation land, CDFW will also act as both the interim and long-term land manager unless otherwise specified. The grantee for the conservation easement cannot serve as the interim or long-term manager without the express written authorization of the CPM, in consultation with CDFW.

f. Start-up Activities. Provide for the implementation of start-up activities, including the initial site protection and enhancement of HM lands, once the HM lands have been approved by the CPM. Start-up activities include, at a minimum: (1) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (2) developing and transferring Geographic Information Systems (GIS) data if applicable; (3) establishing initial fencing; (4) conducting litter removal; (5) conducting initial habitat restoration or enhancement, if applicable; and (6) installing signage.

4. Interim Management (Initial and Capital). Provide for the interim management of the HM lands. The project owner shall ensure that the interim land manager implements the interim management of the HM lands as described in the final management plan and conservation easement approved by the CPM, in consultation with CDFW. The interim management period shall be a minimum of three years from the date of HM land acquisition and protection and full funding of the Endowment and includes expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, and vegetation and invasive species management.

The project owner shall either (1) provide Security to the CPM for the minimum of three years of interim management that the land owner, the project owner, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by the CPM to pay the land manager annually in advance, or (3) establish a short-term enhancement account with a CPM-approved entity for payment to the land manager.

5. Endowment Fund. If the project owner elects to provide for the acquisition, permanent protection, and perpetual management of HM lands to complete compensatory mitigation obligations, then the project owner shall ensure that the HM lands are perpetually managed, maintained, and monitored by the long-term land manager as described in this condition of certification, the conservation easement, and the final management plan approved by the CPM. After obtaining CPM approval, in consultation with CDFW, of the HM lands, the project owner shall provide long-term management funding for the perpetual management of the HM lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CPM-approved (in consultation with CDFW) fund that is permanently restricted to paying the costs of long-term management and stewardship of the mitigation property for which the funds were set aside, which costs include the perpetual management, maintenance, monitoring, and other activities on the HM lands consistent with the condition of certification, the conservation easement, and the management plan required by Item 3e (Land Manager). Endowment as used in the Certification shall refer to the endowment deposit and all interest, dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by this license, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended. After the interim management period, the project owner shall ensure that the designated long-term land manager implements the management and monitoring of the HM lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the HM lands in perpetuity to preserve their conservation values in accordance with this license, the

conservation easement, and the final management plan. Such activities shall be funded through the Endowment.

6. Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be either the CEC and/or CDFW or another entity qualified pursuant to Government Code sections 65965-65968, as amended.

a. The project owner shall submit to the CPM for review and approval, a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e).

7. Calculate the Endowment Funds Deposit. After obtaining CPM written approval, in consultation with CDFW, of the HM lands, long-term management plan, and Endowment Manager, the project owner shall prepare an endowment assessment (equivalent to a Property Analysis Record (PAR)) to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). Note that the endowment for the easement holder should not be included in this calculation. The project owner shall submit to the CPM, in consultation with CDFW, for review and approval the results of the endowment assessment before transferring funds to the Endowment Manager.

a. Capitalization Rate and Fees. The project owner shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the endowment assessment and adjust for any additional administrative, periodic, or annual fees.

b. Endowment Buffers/Assumptions. The project owner shall include in the endowment assessment assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment:

c. 10 Percent Contingency. A 10 percent contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events.

d. Three Years Delayed Spending. The endowment shall be established assuming spending will not occur for the first three years after full funding.

e. Non-annualized Expenses. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be

withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and the CPM, in consultation with CDFW.

8. Transfer Long-term Endowment Funds. The project owner shall transfer the long-term endowment funds to the Endowment Manager upon the CPM's approval of the Endowment Deposit Amount identified above.

9. Management of the Endowment. The approved Endowment Manager may pool the Endowment with other endowments for the operation, management, and protection of HM lands for local populations of Crotch's bumble bee and western burrowing owl but shall maintain separate accounting for each Endowment. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with this Certification, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

Notwithstanding Probate Code sections 18501-18510, the Endowment Manager shall not make any disbursement from the Endowment that will result in expenditure of any portion of the principal of the endowment without the prior written approval of the CPM in its sole discretion. The project owner shall ensure that this requirement is included in any agreement of any kind governing the holding, investment, management, and/or disbursement of the Endowment funds.

Notwithstanding Probate Code sections 18501-18510, if the CPM, in consultation with CDFW, determines in its sole discretion that an expenditure needs to be made from the Endowment to preserve the conservation values of the HM lands, the Endowment Manager shall process that expenditure in accordance with directions from the CPM. The Endowment Manager shall not be liable for any shortfall in the Endowment resulting from the CPM's decision to make such an expenditure.

10. Reimburse CDFW. The project owner shall reimburse CDFW for all reasonable costs incurred by CDFW related to transfer of the HM lands to CDFW, if applicable, including, but not limited to transaction fees, account set-up fees, administrative fees, title and documentation review and related title transactions, costs incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW.

11. Security: The project owner may proceed with project activities only after the project owner has ensured the funding (Security) to complete any activity required by the Item 3 (Habitat Management Land Acquisition and Protection) that has not been completed before project activities begin. Permittee shall provide Security as follows:

a. Security Amount. The Security shall be in the amount of $6,622,414.00 or in the amount identified in the Item 1 (Cost Estimates) specific to the obligation that has not been completed. This amount is determined by the CPM and is based on cost estimates which are sufficient for the CEC or its contractors to

complete land acquisition, property enhancement, startup costs, initial management, long-term management, and monitoring.

b. Security Form. The Security shall be in the form of an irrevocable letter of credit or another form of Security approved in advance in writing by the CPM, in consultation with CDFW.

c. Security Timeline. The Security shall be provided to the CPM before starting site mobilization.

d. Security Holder. The Security shall be held by the CPM or in a manner approved in advance in writing by the CPM.

e. Security Transmittal. The project owner shall transmit security to the CPM by way of an approved instrument such as an escrow agreement, irrevocable letter of credit, or other.

f. Security Drawing. The Security shall allow the CPM to draw on the principal sum if the CPM, in its sole discretion, determines that the project owner has failed to comply with this Condition of Certification.

g. Security Release. The Security (or any portion of the Security then remaining) shall be released to the project owner after the CPM has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by either:

i. Copy of Bill of Sale(s) and Payment Receipt(s) or Credit Transfer Agreement for the purchase of Crotch's bumble bee and/or western burrowing owl credits. OR

ii. Written documentation of the acquisition of the HM lands.

iii. Copies of all executed and recorded conservation easements.

iv. Written confirmation from the approved Endowment Manager of its receipt of the full Endowment.

12. Additional Funding. The CPM, in consultation with CDFW, may require the project owner to provide additional HM lands and additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if the project owner does not complete these requirements within the specified timeframe.

Verification: The project owner shall provide verification that the required acquisition, protection and transfer of all HM lands and record any required conservation easements no later than 18 months from the date of start of site mobilization, even if a security is provided. The project owner shall provide the Draft Management Plan to the CPM for review and approval and to CDFW for review and comment no later than 60 days prior

to construction. The project owner shall submit the Final Management Plan to the CPM and CDFW no later than 7 days prior to construction.

Staff also revised COC **BIO-6**, Item 9 to read "Provide a final accounting of the before/after whole acreages and a determination of whether more ~~or less~~ habitat compensation is necessary;" to reduce confusion and ensure that project related impacts are accounted for based on the project description and development footprint at the time of site mobilization.

Applicant Testimony:

The applicant disputes staff's recommended 3:1 mitigation ratio for burrowing owls and Crotch's bumble bee, instead arguing for a 2:1 for permanent disturbances and 1:1 for temporary disturbances. The applicant states the FSA, including the response to comment text does not explain how direct and indirect habitat impacts were quantified and therefore how a 3:1 ratio is equivalent to that loss. The response also indicates that ratio is scientifically defensible; however, it does not provide citations. The applicant also suggests that a lower mitigation ratio is warranted and provides a list of other projects in Kern County that have lower mitigation ratios identified in those CEQA documents.

Staff Response:

Staff described how direct and indirect impacts were evaluated in the FSA. These include but are not limited to permanent habitat loss, long term temporary habitat loss at laydown and other areas, noise, human disturbance, long duration night work, the introduction of weeds and ground borne vibration. Staff consider the totality of the impacts across the project site and gen-tie line and while the mitigation acreages account for a 3:1 ratio overall it is important to note that staff considered how project impacts would adversely affect species use in adjacent habitat not directly subject to habitat removal. However, the following metrics were considered during the development of the 3:1 mitigation ratio: the type and duration of the disturbance on areas subject to direct and indirect impacts, habitat quality, species presence or potential to occur, the species legal status and compliance with legal requirements, and a review of mitigation guidance from the USFWS.

Type and Duration of the Impact: The project would result in permanent removal and the long-term disturbance (5-year construction period) of habitat that is considered occupied by the species. In addition, noise, dust, vehicle and human presence from construction equipment and controlled detonations are expected to deter use of habitat in adjacent areas. Further, the project would involve extensive night work which would be expected to preclude or disturb species should they be present in adjacent areas.

Habitat Quality: The applicant suggests the site provides low quality habitat for burrowing owls. However, staff disagrees with this conclusion and notes that burrowing owls are known to use the same habitat types that occur on the WRESC site, laydown

areas, and the proposed gen-tie line. The limiting factors that often preclude owl use is densely vegetated areas that also lack access to small mammal, desert tortoise, or other burrows or cavities that provide nesting and refugia areas. Burrowing owls are known to occur across the Antelope Valley and Mojave Desert in a variety of vegetation communities including but not limited to those found on and adjacent to the WRESC site, laydown areas, and the proposed gen-tie line. These include creosote bush scrub, various saltbush communities, and disturbed areas. In addition, staff notes that burrowing owls are routinely detected in these habitat types and have been observed foraging in adjacent areas during pre-construction surveys completed by the applicant. While staff agrees that higher concentrations of burrowing owls can often be found near agricultural and annual grasslands the suggestion that the habitat types present on the project site is not suitable is incorrect and not based on the distribution of this species in the Mojave Desert.

Species Presence: Staff acknowledges that burrowing owls were not identified nesting on the WRESC project site. However, this species is known from the area and burrowing owls have been detected surrounding the project site. Staff notes that the applicant elected to assume presence to prevent construction delays over the 5-year construction period. Therefore, staff consider the site and surrounding buffers to be occupied for the purposes of mitigation and compliance with CESA standards. Failure to do so would not provide adequate mitigation should owls be detected on the project site or buffer areas prior to ground disturbance.

The same assumptions have been made for Crotch's bumble bee, however this species has been detected foraging on the project site and could nest in proposed disturbance areas. While the applicant did not detect any nest sites during their surveys, locating a bumble bee nest is extremely difficult and many are likely overlooked. Based on this assumption of presence and the existence of onsite habitat, staff and CDFW consider the project site occupied.

Legal Status: Burrowing owl and Crotch's bumble bee are state candidates for listing under CESA. Mitigation for species of this status must meet the fully mitigate standard.

Compliance with Legal Requirements and Mitigation Guidance: In arriving at a 3:1 ratio, staff considered the fully mitigate standard required by CDFW and the guidance provided by the U.S. Fish & Wildlife Service Mitigation Policy Appendix 1, 501 FW 2, May 2023 which includes compensatory land acquisition as a tool for mitigation.

The 3:1 ratio is comprised as follows for this project, plus 1 for the permanent loss of suitable habitat and disturbance to habitat in adjacent areas, plus 1 to account for the habitat value and assumed occupancy of the site and adjacent areas for the purposes of permitting, and plus 1 to account for the long duration disruption of the habitat on the project site and adjacent areas due to the 5-year construction period, extensive multiyear night work which is expected to reduce use of adjacent habitat for extended

periods of time, and to account for the loss of reproductive success for owls and bumble bees on the project site and in adjacent habitat that is likely to occur.

Staff also reviewed the lower mitigation ratios identified by the applicant for various projects in Kern County. Staff notes that the lead agency (Kern County) for these projects has great difference in determining significant criteria and proposed mitigation ratios. Staff also notes that the table presented by the Applicant represents CEQA conclusions while staff proposed 3:1 ratio is required to fully mitigate impacts to State candidates for listing which requires a higher bar compared to CEQA significance conclusions. For example, while a CEQA document may propose a 2:1 ratio for a given species a higher ratio may be included to meet permit requirements under CESA. More importantly the mitigation ratios proposed by staff are in line with previous CEC documents, and other projects that are required to comply with CESA or ESA conditions. The table and testimony also do not provide a rationale of habitat conditions at those sites or whether additional mitigation was required through other permits such as an ITP or Lake and Streambed Agreement, if acquired. Therefore, because the project would result in permanent loss of assumed occupied habitat, the duration of the project would likely displace species in adjacent areas, and the species are State Candidate species for listing staff considers the 3:1 mitigation ratios appropriate and proportional to the impacts.

Applicants Testimony:

The applicant requests revisions to the COC **BIO-14** (Habitat Management Land Acquisition for Crotch's Bumble Bee and Western Burrowing Owl) on Page 5.2-300 of the FSA that requires the owner to purchase mitigation or conservation bank credits at a location in the Antelope Valley or Western Mojave Desert. The Applicant indicates there may be no banks that offer Burrowing owl or Crotch's bumble bee credits in those areas and therefore the measure is not achievable. The applicant recommends the location of mitigation or conservation bank should be selected with advance approval by CPM in coordination with CDFW and preferentially selecting locations closer to the project area where feasible.

Staff Response:

Staff considered this request and concurs that flexibility should be allowed if the site is approved by the CPM in consultation with CDFW and the recommended revisions have been adopted. However, as the proposed COC is also used to offset impacts to foraging habitat for Swainson's hawk and other desert species any proposed mitigation lands would also be required to provide habitat for those species.

The text of COC **BIO-14** (Habitat Management Land Acquisition for Crotch's Bumble Bee and Western Burrowing Owl) has been revised accordingly: Specific changes include:

BIO-14 Habitat Management Land Acquisition for Crotch's Bumble Bee and Western Burrowing Owl

To mitigate for impacts to Crotch's bumble bee and western burrowing owl the project owner shall fulfill the following requirements:

The project owner shall purchase 843 acres of Crotch's bumble bee and western burrowing owl mitigation or conservation bank credits, at a ~~location within the Antelope Valley or Western Mojave Desert~~ approved in advance by the CPM, in coordination with CDFW, or shall provide for both the permanent protection and management of 843 acres of Habitat Management (HM) lands pursuant to Item 3 (Habitat Management Lands Acquisition and Protection) and the calculation and deposit of the management funds pursuant to Item 5 (Endowment Fund). **The proposed mitigation lands shall also include Joshua Tree Woodland at the same 3:1 ratio should that community be impacted along the optional transmission line route.** The amount of mitigation required shall be calculated based on the project's final direct permanent and temporary loss of suitable Crotch's bumble bee and western burrowing owl habitat, **identified prior to ground disturbance** as approved by the CPM, in consultation with CDFW.

The purchase of mitigation or conservation bank credits or permanent protection and funding for perpetual management of HM lands must be complete before starting project activities, or within 18 months of the date of the site mobilization, if Security is provided pursuant to the Security (Item 11) below for all uncompleted obligations.

2. Cost Estimates. For the purposes of determining the Security amount, it is estimated the cost for the CPM or its contractors to complete acquisition, protection, and perpetual management of the HM lands is as follows:

    h. Land acquisition costs for HM lands identified in the Item 3 (Habitat Management Lands Acquisition and Protection) below, estimated at $2,698.00/acre for 843 acres: $2,274,414.00. Land acquisition costs are estimated using local fair market current value per acre for lands with habitat values meeting mitigation requirements.

    i. All other costs are necessary to review and acquire the land in fee title and record a conservation easement as described below in Item 3b. (Conservation Easement) below: $558,750.00.

    j. Start-up costs for HM lands, including initial site protection and enhancement costs as described in the Item 3f (Start-up Activities) below, estimated at $344,549.00.

    k. Interim management period funding as described in the Item 4 (Interim Management) (Initial and Capital)) below, estimated at $466,799.00.

    l. Long-term management funding as described in the Item 5 (Endowment Fund) below, estimated at $2,918,823.00. Long-term management funding is estimated

initially for the purpose of providing Security to ensure implementation of HM lands management.

m. Related transaction fees including but not limited to account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW as described in the Item 10 (Reimburse CDFW), estimated at $13,600.00.

n. All costs associated with the CPM engaging an outside contractor to complete the mitigation tasks, including but not limited to acquisition, protection, and perpetual funding and management of the HM lands and restoration of temporarily disturbed habitat. These costs include but are not limited to the cost of issuing a request for proposals, transaction costs, contract administration costs, and costs associated with monitoring the contractor's work $45,479.00.

13. Mitigation Bank Credits. If the project owner elects to purchase credits to complete Crotch's bumble bee and western burrowing owl compensatory mitigation obligations, then project owner shall purchase 843 acres of Covered Species credits from a mitigation or conservation bank approved in advance by the CPM prior to initiating project activities, or no later than 18 months from the start of site mobilization, if Security is provided pursuant to Item 11 (Security) below. Prior to the purchase of credits, the project owner shall obtain CPM approval to ensure the mitigation or conservation bank is appropriate to compensate for the impacts of the project. The project owner shall submit to the CPM a copy of the Bill of Sale(s) and Payment Receipt prior to initiating site mobilization or within 18 months from start of site mobilization, if Security is provided.

14. Habitat Management Lands Acquisition and Protection. If the project owner elects to provide for the acquisition, permanent protection, and perpetual management of HM lands to complete compensatory mitigation obligations, then the project owner shall:

g. Fee Title. Transfer fee title of the HM lands to CDFW pursuant to terms approved in writing by CDFW. Alternatively, the CPM, in consultation with CDFW, may authorize a governmental entity, special district, non-profit organization, for-profit entity, person, or another entity to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65965-65968, as amended.

h. Conservation Easement. If CDFW does not hold fee title to the HM lands, CDFW shall act as grantee for a conservation easement over the HM lands or shall, in its sole discretion, approve a non-profit entity, public agency, or Native American tribe to act as grantee for a conservation easement over the HM lands provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3. If CDFW elects not to be named as the grantee for the conservation easement, CDFW shall be expressly named in the conservation easement as a third-party beneficiary. The project owner shall obtain written approval from the CPM, in coordination with CDFW, of any conservation easement before its

execution or recordation. No conservation easement shall be approved by the CPM unless it complies with Civil Code sections 815-816, as amended, and Government Code sections 65965-65968, as amended and includes provisions expressly addressing Government Code sections 65966(j) and 65967(e). Because the "doctrine of merger" could invalidate the conservation interest, under no circumstances can the fee title owner of the HM lands serve as grantee for the conservation easement.

i. HM Lands Approval. The project owner shall obtain CPM written approval of the HM lands, in coordination with CDFW, before acquisition and/or transfer of the land by submitting, at least 90 days before acquisition and/or transfer of the HM lands, documentation identifying the land to be purchased or property interest conveyed to an approved entity as mitigation for the project's impacts on Crotch's bumble bee and western burrowing owl.

j. HM Lands Documentation. The project owner shall provide a recent preliminary title report, Phase I Environmental Site Assessment, and other necessary documents (please contact CPM for document list). All documents conveying HM lands and all conditions of title are subject to approval from the CPM; and if applicable, the Wildlife Conservation Board, and the Department of General Services.

k. Land Manager. Designate both an interim and long-term land manager, approved by the CPM, in consultation with CDFW. The interim and long-term land managers may, but need not, be the same. The interim and/or long-term land managers may be the landowner or another party. The land manager shall prepare a draft management plan for CPM review and approval, in consultation with CDFW, and written approval as part of the HM lands acquisition process. The project owner shall notify the CPM of any subsequent changes in the land manager within 30 days of the change. If CDFW will hold fee title to the mitigation land, CDFW will also act as both the interim and long-term land manager unless otherwise specified. The grantee for the conservation easement cannot serve as the interim or long-term manager without the express written authorization of the CPM, in consultation with CDFW.

l. Start-up Activities. Provide for the implementation of start-up activities, including the initial site protection and enhancement of HM lands, once the HM lands have been approved by the CPM. Start-up activities include, at a minimum: (1) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (2) developing and transferring Geographic Information Systems (GIS) data if applicable; (3) establishing initial fencing; (4) conducting litter removal; (5) conducting initial habitat restoration or enhancement, if applicable; and (6) installing signage.

15. Interim Management (Initial and Capital). Provide for the interim management of the HM lands. The project owner shall ensure that the interim land manager implements the interim management of the HM lands as described in the final

management plan and conservation easement approved by the CPM, in consultation with CDFW. The interim management period shall be a minimum of three years from the date of HM land acquisition and protection and full funding of the Endowment and includes expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, and vegetation and invasive species management.

The project owner shall either (1) provide Security to the CPM for the minimum of three years of interim management that the land owner, the project owner, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by the CPM to pay the land manager annually in advance, or (3) establish a short-term enhancement account with a CPM-approved entity for payment to the land manager.

16. Endowment Fund. If the project owner elects to provide for the acquisition, permanent protection, and perpetual management of HM lands to complete compensatory mitigation obligations, then the project owner shall ensure that the HM lands are perpetually managed, maintained, and monitored by the long-term land manager as described in this condition of certification, the conservation easement, and the final management plan approved by the CPM. After obtaining CPM approval, in consultation with CDFW, of the HM lands, the project owner shall provide long-term management funding for the perpetual management of the HM lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CPM-approved (in consultation with CDFW) fund that is permanently restricted to paying the costs of long-term management and stewardship of the mitigation property for which the funds were set aside, which costs include the perpetual management, maintenance, monitoring, and other activities on the HM lands consistent with the condition of certification, the conservation easement, and the management plan required by Item 3e (Land Manager). Endowment as used in the Certification shall refer to the endowment deposit and all interest, dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by this license, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended. After the interim management period, the project owner shall ensure that the designated long-term land manager implements the management and monitoring of the HM lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the HM lands in perpetuity to preserve their conservation values in accordance with this license, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.

17. Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be either the CEC and/or CDFW or another entity qualified pursuant to Government Code sections 65965-65968, as amended.

    b. The project owner shall submit to the CPM for review and approval, a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e).

18. Calculate the Endowment Funds Deposit. After obtaining CPM written approval, in consultation with CDFW, of the HM lands, long-term management plan, and Endowment Manager, the project owner shall prepare an endowment assessment (equivalent to a Property Analysis Record (PAR)) to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). Note that the endowment for the easement holder should not be included in this calculation. The project owner shall submit to the CPM, in consultation with CDFW, for review and approval the results of the endowment assessment before transferring funds to the Endowment Manager.

    f. Capitalization Rate and Fees. The project owner shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the endowment assessment and adjust for any additional administrative, periodic, or annual fees.

    g. Endowment Buffers/Assumptions. The project owner shall include in the endowment assessment assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment:

    h. 10 Percent Contingency. A 10 percent contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events.

    i. Three Years Delayed Spending. The endowment shall be established assuming spending will not occur for the first three years after full funding.

    j. Non-annualized Expenses. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and the CPM, in consultation with CDFW.

19. Transfer Long-term Endowment Funds. The project owner shall transfer the long-term endowment funds to the Endowment Manager upon the CPM's approval of the Endowment Deposit Amount identified above.
20. Management of the Endowment. The approved Endowment Manager may pool the Endowment with other endowments for the operation, management, and protection of HM lands for local populations of Crotch's bumble bee and western burrowing owl but shall maintain separate accounting for each Endowment. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with this Certification, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

Notwithstanding Probate Code sections 18501-18510, the Endowment Manager shall not make any disbursement from the Endowment that will result in expenditure of any portion of the principal of the endowment without the prior written approval of the CPM in its sole discretion. The project owner shall ensure that this requirement is included in any agreement of any kind governing the holding, investment, management, and/or disbursement of the Endowment funds.

Notwithstanding Probate Code sections 18501-18510, if the CPM, in consultation with CDFW, determines in its sole discretion that an expenditure needs to be made from the Endowment to preserve the conservation values of the HM lands, the Endowment Manager shall process that expenditure in accordance with directions from the CPM. The Endowment Manager shall not be liable for any shortfall in the Endowment resulting from the CPM's decision to make such an expenditure.

21. Reimburse CDFW. The project owner shall reimburse CDFW for all reasonable costs incurred by CDFW related to transfer of the HM lands to CDFW, if applicable, including, but not limited to transaction fees, account set-up fees, administrative fees, title and documentation review and related title transactions, costs incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW.
22. Security: The project owner may proceed with project activities only after the project owner has ensured the funding (Security) to complete any activity required by the Item 3 (Habitat Management Land Acquisition and Protection) that has not been completed before project activities begin. Permittee shall provide Security as follows:

    h. Security Amount. The Security shall be in the amount of $6,622,414.00 or in the amount identified in the Item 1 (Cost Estimates) specific to the obligation that has not been completed. This amount is determined by the CPM and is based on cost estimates which are sufficient for the CEC or its contractors to complete land acquisition, property enhancement, startup costs, initial management, long-term management, and monitoring.

i. Security Form. The Security shall be in the form of an irrevocable letter of credit or another form of Security approved in advance in writing by the CPM, in consultation with CDFW.

j. Security Timeline. The Security shall be provided to the CPM before starting site mobilization.

k. Security Holder. The Security shall be held by the CPM or in a manner approved in advance in writing by the CPM.

l. Security Transmittal. The project owner shall transmit security to the CPM by way of an approved instrument such as an escrow agreement, irrevocable letter of credit, or other.

m. Security Drawing. The Security shall allow the CPM to draw on the principal sum if the CPM, in its sole discretion, determines that the project owner has failed to comply with this Condition of Certification.

n. Security Release. The Security (or any portion of the Security then remaining) shall be released to the project owner after the CPM has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by either:

   i. Copy of Bill of Sale(s) and Payment Receipt(s) or Credit Transfer Agreement for the purchase of Crotch's bumble bee and/or western burrowing owl credits. OR

   ii. Written documentation of the acquisition of the HM lands.

   iii. Copies of all executed and recorded conservation easements.

   iv. Written confirmation from the approved Endowment Manager of its receipt of the full Endowment.

23. Additional Funding. The CPM, in consultation with CDFW, may require the project owner to provide additional HM lands and additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if the project owner does not complete these requirements within the specified timeframe.

Verification: The project owner shall provide verification that the required acquisition, protection and transfer of all HM lands and record any required conservation easements no later than 18 months from the date of start of site mobilization, even if a security is provided. The project owner shall provide the Draft Management Plan to the CPM for review and approval and to CDFW for review and comment no later than 60 days prior to construction. The project owner shall submit the Final Management Plan to the CPM and CDFW no later than 7 days prior to construction.

Applicant Testimony:

The applicant suggests that Page 5.2-285 of the FSA incorrectly states that the project owner shall provide compensation lands at the following minimum ratios:

- 3:1 for any state or federally listed plants and CRPR 1 or 2 ranked species
- 2:1 ratio for CRPR 1 or 2 ranked species

Staff Response:

Staff has reviewed the applicant's testimony and made the following revisions to COC **BIO-11** (Special-Status Plant Avoidance Measures).

The project owner shall provide compensation lands at the following minimum ratios:

- 3:1 for any state or federally listed plants ~~and CRPR 1 or 2 ranked species~~
- 2:1 ratio for CRPR 1 or 2 ranked species

Applicant Testimony:

The applicant contends that Page 3.2-307 of the FSA inappropriately states under COC BIO-15, Item 1 that surveys for special-status reptiles would be timed to coincide with the time of day and year when these species can be detected while requiring that these surveys be conducted within 2 weeks of construction, with one survey conducted within 24 hours of construction. The statement is unclear as to whether surveys for special-status reptiles would only be required during times of year when these species are typically detectible (generally March through October) or if construction cannot be undertaken during the period of year when these reptile species are brumating and not detectable.

Staff Response:

Staff reviewed the applicant's comment and revised the text of COC **BIO-15**. "~~The surveys shall be timed to coincide with the time of day and year when these species can be detected.~~ Prior to conducting the surveys, the biologist shall locate the microhabitats for these species and determine a location to place cover boards or rake soils. A map of proposed survey areas shall be provided to the CPM for review and approval prior to initiating the surveys." This revision will require surveys even during the brumation period when animals could be successfully salvaged during the removal of vegetation or other habitat.

The applicant also provided suggested revisions to COC **BIO-1** and COC **BIO-3** related to the timing of approvals. The applicant did not provide a clear justification for the reduction in timing and staff recommend that no changes to the COCs be made at this time. The proposed timeframes allow the CPM adequate time to review and coordinate with staff on the submittal of applicant's information.

Center for Biological Diversity Testimony:

The Intervenor Center for Biological Diversity (CBD) filed recommended revisions to Conditions of Certification on July 24, 2025 (TN 264994). Staff reviewed this information and other relevant documents and consulted with California Department of

Fish and Wildlife (CDFW) staff. Based on this information and our independent analysis, staff provides the responses below.

CBD Testimony:

The CBD suggests the FSA is deficient and states the FSA fails to adequately identify, evaluate, avoid, minimize and mitigate impacts to western Joshua Tree woodlands; the FSA fails to require a complete, pre-construction census of western Joshua trees across the entire project area, including gen-tie alignments; and the FSA improperly defers the development and disclosure of the Reservoir Management Plan.

Staff Response:

CBD suggests that the FSA does not adequately evaluate potential impacts to assessment of western Joshua tree woodland. However, as noted in the FSA staff did identify and evaluate impacts to this community that are present along a proposed alternative alignment. However, staff agrees with the CBD that additional language should be included to ensure that impacts to Joshua tree woodland are mitigated should they occur. In addition, COC **BIO-12** (Western Joshua Tree Avoidance, Minimization, and Mitigation Measures) currently requires the applicant to conduct an assessment immediately before ground disturbance to account for un-surveyed areas, missed trees, dead trees, or emerging trees that have recruited since the original surveys. These requirements are identified in the following section:

Condition 1. Western Joshua Tree Relocation Plan and Conservation Fund Fees. The project owner shall submit a final Western Joshua Tree Relocation Plan to the CPM for review and approval, and to CDFW for review and comment, prior to any site mobilization or ground-disturbing activities within 200 feet of any WJT. Condition 2. Notification of New Stem or Trunk. Which requires additional assessments after initial disturbance and Condition 5. Recurring Assessment.

Staff concurs with CBD that greater clarification of when and where surveys are required should be included to account for the various phases of construction, including expected delays for the construction for the gen-tie line which could result in additional recruitment and tree loss, and access to areas which had been excluded for survey coverage. Therefore, staff made the following revisions to COC **BIO-12** (Western Joshua Tree Avoidance, Minimization, and Mitigation Measures) accordingly.

BIO-12 Western Joshua Tree Avoidance, Minimization, and Mitigation Measures. To avoid, minimize, and mitigate impacts to western Joshua tree (WJT), the project owner shall ensure the following are implemented:

1. **Western Joshua Tree Relocation Plan and Conservation Fund Fees.** The project owner shall submit a final Western Joshua Tree Relocation Plan to the CPM for review and approval, and to CDFW for review and comment, prior to any site mobilization or ground-disturbing activities within 200 feet of any WJT. The plan shall include, at a minimum, the following:

a. Name and contact information for the project owner;

b. APNs for locations where trees are proposed for removal (with maps at an approved scale);

c. Name and qualifications of the desert native plant specialist overseeing relocation efforts;

d. Details of the locations where trees will be transplanted, including landowner name(s), address(es), APN(s), maps, approximate distance from original tree location, approximate difference in elevation from original tree location; site description including habitat and previous impacts;

e. A calculation of the number of trees to be relocated based on the CDFW Relocation Guidelines and Protocols (https://wildlife.ca.gov/Conservation/Environmental-Review/WJT/Permitting/WJTCA-ITP#apply) or most recent guidelines. The total number of relocated trees shall be a percentage of the number of trees lethally taken for the project and must at least meet or exceed the CDFW calculation for each size class depending on the method used (i.e., tree spade removal, bare root, or a combination of both).

f. A Tree Relocation Spreadsheet that includes a unique identifier (tree ID), size class, original location and recipient site locations (lat/long), relocation area name, anticipated removal and transplanting dates, the relocation method used, storage information (if applicable), overall tree health assessment, photos, and any other pertinent information for each tree proposed for relocation;

g. A signed statement from the landowner from each relocation site granting the project owner permission to relocate trees to their land, provide access to implement the maintenance and monitoring measures, and allow staff to access the property to conduct compliance inspections (if trees will be relocated outside of the project area).

h. In addition, the project owner shall conduct an updated Joshua Tree census prior to site mobilization for any areas that have not been disturbed such as the generation tie line, new access roads, laydown, staging, or other project components.

Upon review and approval by the CPM of the Final Western Joshua Tree Relocation Plan, the CPM will provide an invoice for the required mitigation fee. Based on preliminary data submitted by the applicant, this is estimated to be $319,580.00 for Option 1 – Without Berm and $457,394.75 for the Option 2 - With Berm (see **Table 5.2-6**); however, the total fee shall be dependent on the final number of trees and class sizes that are authorized for take. The project owner shall submit the mitigation fee payment to the CDFW Region 4 office by check or money order with a copy of the invoice attached.

No impacts to WJT shall be authorized until confirmation by CDFW that the mitigation fee has been received from the project owner. The check shall be submitted to the following address, or most current Region 4 office location:

California Department of Fish and Wildlife Region 4

1234 E. Shaw Avenue
Fresno, CA 93710
reg4assistant@wildlife.ca.gov
(559) 243 – 4005 ext. 151

2. **Western Joshua Tree Relocation Post-Relocation Reporting and Annual Reporting.** The project owner shall have a Designated Biologist approved by the CPM oversee all Western Joshua Tree Relocation activities. At the completion of relocation, the project owner shall submit a post-relocation report, consistent with current CDFW Western Joshua Tree Relocation Guidelines and Protocols (April 2025), no more than 30 days after relocation is completed and shall conduct annual monitoring of each relocated tree for a period of 3 years, or as required by current CDFW guidelines. An annual status report shall be submitted to the CPM for review and approval, and CDFW for review and comment. Each report shall include a health assessment of each relocated tree (with unique identifiers), a description of current habitat conditions (including any new disturbances), and representative photos and maps. The content of the reports shall be detailed in the Western Joshua Tree Relocation Plan.
3. **Notification of New Stem or Trunk:** During construction, once the project site has been fully cleared of the WJT identified in the census, if a new western Joshua tree stem or trunk arises from the ground, regardless of whether it germinates from seed, a trunk re-sprout occurs, or otherwise, project owner shall prepare a Notification of New Stem or Trunk and submit it to the CPM before conducting or resuming project activities that will impact any WJT individual that was not included in the census and included in the invoice, including any new WJT stem or trunk that arises from the ground (e.g., new sprouts or resprouts) [that are size class A or B]. The Notification of New Stem or Trunk shall include the following about any new WJT:
    - A unique identifier for each WJT (i.e., WJT ID);
    - GPS location for each WJT (latitude and longitude);
    - At least one color photo of each WJT identified;
    - Size class for each WJT (size class A is any WJT less than one meter in height, size class B is any WJT one meter or greater but less than five meters in height, size class C is any WJT greater than five meters in height);
    - Anticipated impact for each WJT (i.e., removal, relocation, trimming, or encroachment, or no impact);

- If the WJT will be encroached upon (individual will not be removed and project activities will take place within 15 meters of the base of the WJT) indicate the distance from the base where project activities will take place;
- A map showing the location of new WJT in relation to WJT for which take is authorized by the license.
- The project owner shall submit the Notification of New Stem or Trunk prior to conducting activities that may result in take of or impacts to the new stem or trunk (i.e., removal, trimming, relocation, or encroachment). After the CPM has confirmed the number and size class of individual WJT to be impacted, an invoice for the mitigation fees pursuant to Fish and Game Code section 1927.3, subdivisions (d)-(e) shall be issued to the project owner by the CPM as required under Item 1.
- The Notification of New Stem or Trunk and invoice shall be submitted to the CPM and serve as the basis for CPM authorization of additional take coverage for the new WJT individual(s) provided that the Notification of New Stem or Trunk the project owner submits is complete and mitigation fees are received prior to any impacts to any new WJT individuals identified in the Notification of New Stem or Trunk.

4. **WJT Stockpiles:** If dead and or removed WJT are stockpiled on site, they shall not be placed within 50-feet (approximately 15 meters) of a WJT that are being preserved on site, relocated on site, or encroached upon.
5. **Recurring Assessment:** The project owner shall conduct a Recurring Assessment of the project site to determine whether any new WJT individuals have emerged. The Recurring Assessments shall begin six months after the completion of ground-disturbing activities and be repeated annually for the duration of construction activities following the initial assessment, then every five years for the life of the project, unless approved by the CPM. If a new WJT is found, the project owner shall prepare and submit a Notification of New Stem or Trunk and submit it to the CPM before conducting project activities that will impact it. The project owner shall submit the results of the Recurring Assessment as part of Annual Status Report and during operation the results shall be submitted as part of the Annual Compliance Report.
6. **No-Work Buffers:** The project owner shall ensure no work is conducted within the no-work buffers for WJT that will be preserved on site. Prior to beginning relocation, the project owner shall minimize work within the buffer of WJT that will be relocated to the maximum extent possible. After relocation, the project owner shall ensure no work is conducted within the no-work buffer for relocated WJT. The no-work buffers are as follows:
    - 50 feet (approximately 15 meters) surrounding any WJT individual that is five meters or greater in height

- 25 feet (approximately 7.5 meters) surrounding any WJT individual is one meter or greater but less than 5 meters in height
- 10 feet (approximately 3 meters) surrounding any WJT individual less than one meter in height

The project owner shall mark no-work buffers using fencing, stakes and ropes, or stakes and flagging of a different color than the color used to identify WJT individuals authorized to be taken. If WJT individuals occur in groups, the project owner may mark a single 50-foot (approximately 15-meter) buffer around the entire group, measured from the base of the trunk of the outer-most WJTs. Any adjustments to the buffer size shall be approved by the CPM, in coordination with CDFW. The project owner shall maintain the no-work buffer markings for the duration of project construction. After all construction activities are completed, the project owner must remove all materials used to mark no-work buffers.

7. **Trenching:** During storm events, the project owner shall not perform trenching activities within 50 feet (approximately 15 meters) of WJT preserved on site or relocated on site, as soils around the root zone of WJT may be more susceptible to erosion during such events. The project owner shall only perform trenching activities during periods of dry weather (with less than a 40 percent chance of rain), unless approved by the PM. Within at least 12 hours prior to the onset of predicted rain (40 percent chance of rain or more based on the National Weather Service) or immediately upon the onset of unpredicted rain, the project owner shall ensure that all trenching activities are ceased, all associated erosion control measures shall be in place, and all motorized equipment and fueling materials shall be removed from areas where runoff from these items can be reasonably foreseen to come into contact with WJT preserved on site, or relocated on site, or encroached upon. Trenching halted due to rain may resume when rain ceases. The project owner shall monitor the National Weather Service 72-hour forecast for the project site. Weather forecasts shall be documented and shall be provided upon request by the CPM.

Verification: The project owner shall submit the draft Western Joshua Tree Relocation Plan to the CPM review and approval, in consultation with CDFW, no less than 45 days prior to commencing any project activities that will impact western Joshua trees, including site mobilization and/or construction. The project owner shall submit the final Western Joshua Tree Relocation Plan and pay the WJTCA mitigation fees prior to any project activities that will impact western Joshua trees.

The annual status report for the relocated western Joshua tree shall be submitted to the CPM for review and approval, in consultation with CDFW, by January 31 of the following year.

If a new WJT stem or trunk is detected, the project owner shall submit a Notification of New Stem or Trunk to the CPM and to CDFW for review and comment prior to any project activities that may impact the new WJT. No impacts may occur until the CPM approves the notification and CDFW has received applicable mitigation fees.

Staff has also revised the language of COC **BIO-14** (Habitat Management Land Acquisition for Crotch's Bumble Bee and Western Burrowing Owl) to require that any impacts to Joshua Tree Woodland would require the acquisition of replacement Joshua Tree Woodland at a ratio of 3:1. A summary of these changes is presented below. The full text of COC BIO-14 is included above in response to the applicant's testimony.

"The project owner shall purchase 843 acres of Crotch's bumble bee and western burrowing owl mitigation or conservation bank credits at a location ~~within the Antelope Valley or Western Mojave Desert~~ approved in advance by the CPM, in coordination with CDFW, or shall provide for both the permanent protection and management of 843 acres of Habitat Management (HM) lands pursuant to Item 3 (Habitat Management Lands Acquisition and Protection) and the calculation and deposit of the management funds pursuant to Item 5 (Endowment Fund). **The proposed mitigation lands shall also include Joshua Tree Woodland at the same 3:1 ratio should that community be impacted along the optional transmission line route.** The amount of mitigation required shall be calculated based on the project's final direct permanent and temporary loss of suitable Crotch's bumble bee and western burrowing owl habitat, **identified prior to ground disturbance** as approved by the CPM, in consultation with CDFW."

Staff also considered the CBDs comment suggesting that the proposed Reservoir Management Plan identified in COC **BIO-7** (General Impact Avoidance and Minimization Measures) Section 7 Reservoir Management Plan provide additional language to ensure the measure reduces impacts and has specific thresholds and requirements to ensure the Plan is deferred and meets CEQA. As noted in Staffs response to comment the use of plans as a component of a mitigation measure is not deferred provided the plan is specific and detailed enough to show how impacts will be reduced to less-than-significant levels, is legally enforceable (e.g., through permit conditions, covenants, or regulatory approvals), and assigns clear responsibilities, timelines, and performance standards. However, staff added additional language to COC BIO-7 to augment the existing language.

BIO-7 General Impact Avoidance and Minimization Measures. The project owner shall ensure implementation of the following measures during site mobilization, construction, operation, and closure to manage their project site and related facilities in a manner to avoid or minimize impacts to biological resources:

1. Avoid Controlled Detonations at Night. Controlled detonations shall be limited to daylight hours and shall terminate 30 minutes before sunset and shall not

resume until 30 minutes after sunrise, unless authorized by the CPM. Sunrise and sunset times are established by the U.S. Naval Observatory Astronomical Applications Department for the geographic area where the project is located. The schedule of controlled detonations shall be provided to the Designated Biologist and/or Biological Monitors. The Designated Biologist and/or Biological monitors shall monitor, observe, and record wildlife reactions during the controlled detonations to assess animal behavior and to determine how species in adjacent habitat are affected, unless approved by the CPM to discontinue monitoring.

2. Limit Disturbance Areas. The boundaries of all areas to be temporarily or permanently disturbed (including staging areas, access roads generation tie-line pole locations, etc.) shall be delineated with stakes and flagging prior to any site mobilization, vegetation clearing, ground disturbance, or construction activities in consultation with the Designated Biologist. All construction sites, laydown areas, and parking locations shall be fenced to prevent potential access to the site by small animals including but not limited to desert tortoise. Fencing shall not be required around generation tie-line line pole locations. Any deviations of the fencing requirements shall be approved by the CPM. Spoils shall be stockpiled away from the edges of drainages and stabilized to ensure sediment laded water does not enter the drainage. All disturbances, vehicles, and equipment shall be confined to the flagged areas.
3. 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.
4. Minimize Traffic Impacts. Vehicular traffic during project site mobilization, construction and operation shall be confined to existing routes of travel to and from the project site, and cross-country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 25 miles per hour on paved or stabilized unpaved roads within the project area, on maintenance roads for linear facilities, or on access roads to the project site. No vehicle shall exceed 10 miles per hour on unpaved areas within the project site, except on stabilized unpaved roads. Project vehicles shall abide by posted speed limits on paved public roads outside the project site.
5. Inspect Pipes and Trenches. At the end of each workday, the Designated Biologist, Biological Monitor, and/or site personnel (approved and trained by the Designated Biologist, as described under **BIO-2**) shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled. If site personnel are inspecting trenches, bores, and other

excavations and wildlife is trapped, they shall immediately notify the Designated Biologist and/or Biological Monitor. If backfilling is not feasible, all trenches, bores, and other excavations shall be covered to prevent wildlife entrapment or sloped at a 3:1 ratio at the ends to provide wildlife escape ramps. Should wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the animal to a safe location. Any wildlife encountered during construction shall be allowed to leave the construction area unharmed.

6. Prevent Wildlife Entrapment. All pipes, tubes, ducting, or other cavities shall be capped to prevent wildlife entrapment. Portable toilets shall require vent pipes to be screened to prevent cavity using birds from becoming trapped in the pipe.

7. Reservoir Management Plan. The project owner shall submit a Reservoir Management Plan to the CPM for review and approval, in consultation with CDFW, prior to construction of the reservoir. The Plan shall include information on how wildlife entrapment shall be minimized at the reservoir. This shall include fencing height, type of fencing material (e.g., privacy slats, mesh size) number and location of wildlife escape ramps, inspection and reporting procedures, annual reporting of the number and type of species entrapped, injured, or killed. Fencing shall be designed to serve as a visual barrier and effectively deter wildlife from entering the enclosed reservoir area.

   The Plan shall include details of the design of the floating interlocking reservoir cover, including features that minimize wildlife impacts, and identify additional wildlife deterrent measures as needed to prevent access and contact with reservoir water. Measures shall address both the installation and operation phases of the reservoir to avoid and minimize impacts to wildlife.

   In addition, the Plan shall include a process for evaluating the efficacy of the cover, ramps, and other wildlife protection features with monthly reporting during the first year of reservoir operation and annual reporting thereafter for the life of the project, unless an alternative reporting schedule is approved by the CPM. **Monthly reports during Year 1 shall include inspection dates, status of all exclusion features, and a log of observed or reported wildlife interactions. Annual reports shall summarize all wildlife incidents, deterrent maintenance actions, and recommendations for improvements.**

   If any state or federally listed species are found to be injured or killed as a result of reservoir operations, the project owner shall notify the CPM and CDFW and shall implement appropriate remedial actions as directed by the CPM, in consultation with CDFW. The Plan shall outline potential remedial measures, including modifications to exclusion features, installation of wildlife

deterrents, operational changes, or habitat protection actions, subject to CPM review and approval. **If more than five non-listed wildlife mortalities or one mortality of a state or federally listed species occurs within any 12-month period, the project owner shall be required to submit a Corrective Action Plan to the CPM within 7 calendar days of reaching the threshold and implement all approved corrective measures. The CPM, in consultation with CDFW, may require amendments to the Reservoir Management Plan based on mortality trends, species affected, or recurring deficiencies in deterrent infrastructure. The goal of the Plan shall be to ensure that wildlife mortality is minimized to a level of fewer than two incidents per quarter (non-listed species), and zero listed species mortality annually.**

8. Unexpected Wildlife. The Designated Biologist or Biological Monitor shall ensure that any unexpected special-status wildlife species such as California condor, desert tortoise, Mohave ground squirrel, or other species are fully avoided during construction. Should an unexpected wildlife species be detected a non-disturbance buffer shall be implemented based on the species ecology or species-specific condition of certification, and work shall be suspended in that area until the animal leaves on its own volition. Any observations of unexpected wildlife should comply with notification requirements provided in **BIO-2**, Item 6.
9. Bat Roost Protection and Mitigation
    a) Active Bat Maternity or Hibernacula. If active maternity roosts or hibernacula are found during surveys by an approved bat biologist, submitted for approval under **BIO-3**, the structure, tree or feature occupied by the roost shall be avoided (i.e., not removed) until the young have matured or the hibernacula period is over. When an active maternity roost or hibernacula is present within 500 feet of a construction site an approved bat biologist shall conduct an initial assessment of the roost's response to construction activities including controlled detonations and recommend buffer expansion if there are signs of disturbance from the roost. The buffer may be adjusted based on site conditions, topography, type of work activity, or other ecological evidence, with the approval of the CPM.
    b) Avoid Removing or Disturbing Bat Roosts. Active bat roosts shall not be disturbed and shall be provided a minimum buffer of 300 feet where pre-existing disturbance is moderate or 500 feet where preexisting disturbance is minimal. Moderate disturbance may include areas subject to regular human activity or traffic noise up to 60 dBA and limited artificial lighting. Minimal disturbance refers to areas with little or no recent human activity, low ambient noise levels (typically below 45 dBA), no artificial lighting, and a generally undisturbed natural setting. All buffer distances

and need for monitoring active maternity roosts or hibernacula shall be approved by the CPM.

If suitable roost sites are to be removed, or otherwise impacted by the project, the approved bat biologist shall conduct targeted roost surveys of all identified sites. A minimum of two separate survey visits shall be conducted at each potential roost site, unless fewer surveys are approved by the CPM. Surveys shall be timed to capture variation in bat use and environmental conditions. If initial results are inconclusive or as recommended by the bat biologist, additional survey visits may be required by the CPM.

c) Roost Site Removal. A qualified bat biologist shall survey potential roost sites prior to their disturbance or removal, per Item 8b. Any structures (natural or artificial) that show evidence of significant bat use within the past year should be retained whenever feasible. If such a structure must be removed or disturbed, the project owner shall create alternative roost sites in coordination with the CPM and CDFW. If removal or disturbance of trees or other identified roost sites cannot be avoided, removal of active roost sites shall be conducted outside the maternity season to avoid mortality of maternity colonies.

10. Prepare a Wildlife Protection and Relocation Plan. The project owner, in coordination with the Designated Biologist, shall prepare a Wildlife Protection and Relocation Plan (WPRP) to provide guidance and protocols when avoiding or handling common and sensitive species that are located within the project area. The WPRP shall include measures for handling rattlesnakes or other snakes found in or near work areas and access roads and provide these guidelines to all Biological Monitors, safety staff, and other personnel. Killing or harming rattlesnakes or other wildlife is not authorized, unless there is an immediate and unavoidable threat to human safety and relocation is not feasible. The WPRP shall include methods to salvage or relocate common and sensitive wildlife during ground disturbance activities including clearing, grubbing, and grading operations when feasible to off-site habitat or out of harm's way. The species shall be salvaged or relocated when conditions will not jeopardize the health and safety of the Designated Biologist or Biological Monitor;

11. Minimize Lighting Impacts. To minimize adverse effects of artificial light on wildlife, exterior lighting fixtures associated with project construction shall be downward facing, fully shielded, and designed and installed to minimize backscatter, reflection, minimize skyward illumination, minimize spillover onto adjacent wildlife habitat. Lights used shall be lower on the light spectrum (lower Kelvins with fewer short-wavelength blue light emissions);

12. Use Non-toxic Soil Binders. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants and shall be approved by the CPM prior to use;
13. Minimize Impacts from Pest Control. Anticoagulants shall not be used for rodent control. Pre-emergent and other herbicides with documented residual toxicity shall not be used. Herbicides shall be applied in conformance with federal, State, and local laws and according to the guidelines for wildlife-safe use of herbicides in **BIO-9** (Integrated Weed Management Plan);
14. Minimize Standing Water. Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract predators of special-status species to construction sites. During construction, site personnel shall patrol these areas to ensure water does not puddle and attract crows and other wildlife to the site, and shall take appropriate action to reduce water application rates where necessary;
15. Handling of Road-killed Animals. Report all inadvertent deaths of special-status species to the appropriate project representative, including roadkill. Species name, identifiable physical characteristics of the animal (sex, age class, length, weight), and other pertinent information shall be noted and reported in the Monthly Compliance Reports. During construction, injured or dead animals detected by personnel in the project area shall be reported immediately to the Designated Biologist and/or Biological Monitor, who shall remove the carcass or injured animal promptly. During operations, the Environmental Compliance Monitor for the project owner shall be notified and they shall contact the Designated Biologist and/or Biological Monitor for further instructions. The Designated Biologist shall notify the project owner, the CPM, and CDFW directly of any special-status species injury or mortality. Notifications shall occur immediately and no later than the following morning, or Monday morning in the case of a weekend, or the next business day in the case of a state or federal holiday per **BIO-2**. Additionally, the Designated Biologist shall contact the CPM, CDFW and/or USFWS within 1 working day of receipt of the carcass for guidance on disposal or storage of the carcass. The project owner shall follow instructions that are provided by the appropriate agency contact. The veterinary fees for the treatment of injured wildlife shall be covered by the project owner for project-related injuries or wildlife found injured on the project site.
16. Minimize Spills of Hazardous Materials. All vehicles and equipment shall be maintained in proper working conditions to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials or wastes. The Designated Biologist and/or Biological Monitor shall be informed immediately of any hazardous spills. Any on-site servicing of vehicles or construction equipment shall take place only at a designated area

approved by the Designated Biologist. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills;

17. Remove Trash Weekly. During construction all trash and food-related waste including micro-trash shall be placed in secure, self-closing containers to prevent access by wildlife and removed weekly or more frequently from the site. Workers shall not feed wildlife or bring pets to the project site;
18. No Firearms. Except for law enforcement or security personnel, no workers or visitors to the site shall bring firearms or weapons to the project site;
19. Avoid Use of Toxic Substances. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants;
20. Minimize Disturbance Areas. Limit the size of any vegetation and/or ground disturbance to the minimum area needed for safe completion of project activities, and limit ingress and egress to defined routes;
21. Weed and Monofilament Free Wattles. Use only weed-free straw, hay bales, and seed for erosion control and sediment barrier installations. Monofilament plastic shall not be used for erosion control. In addition, non-native species shall not be used in landscaping plans and erosion control;
22. Conform to APLIC Guidelines. The generation tie-line and all associated components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) *Suggested Practices for Avian Protection on Power Lines* (APLIC 2006) and *Reducing Avian Collisions with Power Lines* (APLIC 2012), or most recent APLIC guidance, to reduce the likelihood of large bird electrocutions and collisions;
23. Aviation Lighting. If required, to the extent feasible, any aviation warning lighting shall employ only strobed, strobe-like or blinking incandescent or LED lights, preferably with all lights illuminating simultaneously. Minimum intensity, maximum "off-phased" dual strobes are preferred, and no steady burning lights (e.g., L-810s) shall be used;
24. Herbicide Use. During construction and operation, the project owner shall conduct pesticide management in accordance with standard BMPs. The BMPs shall include non-point source pollution control measures. The project owner shall use a licensed herbicide applicator and obtain recommendations for herbicide use from a licensed Pest Control Advisor. Herbicide applications must follow EPA label instructions. Minimize use of rodenticides and herbicides in the project area and prohibit the use of chemicals and pesticides known to cause harm to non-target plants and wildlife. The project owner shall only use pesticides for which a "no effect" determination has been issued by the EPA's Endangered Species Protection Program for any species likely to occur within the project area, per **BIO-13** If rodent control must be conducted, zinc phosphide or an equivalent product shall be used; and

25. Minimize Stormwater Impacts. Standard best management practices (BMPs) from the project Storm Water Pollution Prevention Plan shall be implemented during all phases of the project (construction, operation, and decommissioning) where storm water run-off from the site could enter adjacent drainages. Sediment and other flow-restricting materials shall be moved to a location where they shall not be washed back into the jurisdictional waters. All disturbed soils within the project site shall be stabilized to reduce erosion potential, both during and following construction.

Verification: All general impact avoidance and minimization measures shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported by Designated Biologist in the Monthly Compliance Reports during construction and reported in Annual Compliance Reports during operation, including but not limited to the requirements cited above and in **BIO-2**.

The project owner shall submit the draft Reservoir Management Plan to the CPM for review and comment, in coordination with CDFW, at least 45 days prior to the start of any construction-related activities associated with the reservoir. The project owner shall provide the final Reservoir Management Plan to the CPM at least 10 days prior to any construction-related activities associated with the reservoir.

The project owner shall submit the draft WPRP to the CPM for review and comment at least 45 days prior to the start of project site mobilization. The project owner shall provide the final WPRP to the CPM at least 10 days prior to project site mobilization.

Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction termination report identifying how measures have been completed.

Cultural and Tribal Cultural Resources

Rebuttal Testimony of Patrick Riordan, William E. Larson, and Cameron Travis

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

We, Patrick Riordan, William Larson, and Cameron Travis, prepared the staff testimony on cultural and tribal cultural resources for the Willow Rock Energy Storage Center based on our independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and our professional experience and knowledge. Our declarations and resumes are included in the FSA (TN 264843).

The applicant filed recommended revisions to Conditions of Certification (COCs) **CUL/TRI-3**, **CUL/TRI-4**, **CUL/TRI-5**, and **CUL/TRI-9** on July 30, 2025 (TN 265170). Staff reviewed and discussed the issues raised by the applicant for their justification for the proposed changes. Based on the information provided and our professional opinions and experience, staff provides the responses below.

The applicant's response to the staff proposed changes to COC **CUL/TRI-3** Cultural and Tribal Resources Mitigation and Monitoring Plan (CTRMMP) presented in the FSA expressed appreciation for the incorporation of changes proposed by the consulting tribes during consultation between the CEC and the consulting tribes, and proposes changes to "recognize that there is more than one consulting tribe, and that the tribes should be given the discretion of whether to participate or not in the preparation and review of the Cultural and Tribal Cultural Resources Mitigation and Monitoring Plan (CTRMMP)." (TN 265170, p. 63). The applicant then proposes changes to COC **CUL/TRI-3**:

"Prior to the start of ground disturbance, the project owner shall submit the CTRMMP, as prepared by or under the direction of the CRS in coordination with the consulting tribes (Yuhaaviatam of San Manuel Nation, Tejon Indian Tribe, and Kern Valley Indian Community), to the CPM ~~**along with letters or statements of support of the CTRMMP from the consulting tribes**~~ for review and approval. **The project owner shall also provide documentation demonstrating consultation efforts and results of consultation with consulting tribes in the development of the CTRMMP." (TN 265170, p. 64)**

Staff appreciates the applicant's recognition that there are multiple consulting tribes traditionally affiliated with the project area. The applicant's own tribal coordination efforts, as well as the CEC's consultations, demonstrate various levels of interest and engagement from tribes across project planning efforts. COC **CUL/TRI-3**, as proposed by staff in the FSA, recognizes all the tribes who have demonstrated interest to the CEC in consulting on the proposed project. Further, staff agrees with the applicant that the

project conditions should respect tribal sovereignty and afford tribal discretion to participate or not in the preparation and review of the CTRMMP.

However, staff disagrees with the applicant's proposed changes as they reduce tribes' assurance that they will be meaningfully engaged in the development and adoption of the CTRMMP. The changes proposed by the applicant do not require that the CTRMMP sent to the CPM for review and approval has the support of the tribes that were engaged in its development. Under the applicant's proposed revisions, it would be possible that the applicant could submit a CTRMMP to the CPM with provisions rejected or not supported by the engaged tribes. The following staff-proposed revisions ensure that the CTRMMP submitted to the CPM for review and approval was developed in collaboration with and is supported by the tribes engaged in the development of the CTRMMP.

Therefore, staff proposes the following revisions for COC **CUL/TRI-3**:

Prior to the start of ground disturbance, the project owner shall submit the CTRMMP, as prepared by or under the direction of the CRS in coordination with the **appropriate cultural resources representative(s) for** the consulting tribes (Yuhaaviatam of San Manuel Nation, Tejon Indian Tribe, and Kern Valley Indian Community) **choosing to participate in the development of the CTRMMP**, to the CPM**. Along with the draft CTRMMP, ~~letters or statements of support of the CTRMMP from the consulting tribes~~ the applicant shall submit documentation demonstrating the project owner's efforts to develop the CTRMMP in coordination with the consulting tribes, describing efforts to engage the consulting tribes, and identifying the consulting tribes who collaborated with the project owner in the development of the CTRMMP. The project owner shall afford the consulting tribes the opportunity to provide letters or statements of support for the CTRMMP to accompany the project owner's submittal of the CTRMMP to the CPM** for review and approval. Ground disturbance may be initiated only after approval of the CTRMMP by the CPM.

The applicant has proposed changing COC **CUL/TRI-4** Cultural Resources Worker Environmental Awareness Program (WEAP) as follows:

"At least ~~30~~ **15** days prior to the beginning of ground disturbance, the CRS shall provide the draft text and/or training video for the cultural and tribal cultural resources WEAP, including Native American participation, and graphics and the informational brochure to the CPM for review and approval".

This would reduce the requirement to provide the draft WEAP to the CPM from at least 30 days to 15 days prior to construction. CEC staff disagrees with this change because its collective experience with numerous power plant compliance cases indicates that 30 days is the minimum amount of time needed for CEC staff and the project owner to arrive at a WEAP that meets the requirements of the governing COC. Thirty days provides adequate time for CEC staff to determine whether the draft WEAP meets the

governing COC (in this case, COC **CUL/TRI-4**) and, in the event that the draft WEAP does not, the project owner has adequate time to make revisions and secure the CEC staff's approval without compromising the project owner's construction schedule. In staff's experience, most draft WEAPs require some revision and construction schedules would be impacted by a shorter-than-30-day submittal window.

The applicant has proposed changing a portion of COC **CUL/TRI-5** Undiscovered Cultural Resources to read as follows:

"The project owner shall ensure that a CRS, alternate CRS, or CRM and Native American Monitor shall be on site for any ground disturbance **in native soils** associated with construction of the project. Prior to the start of ground disturbance, the project owner shall notify the CPM and all interested California Native American tribes of the date on which ground disturbance will begin. Where excavation equipment is actively removing dirt **from native soils** and hauling the excavated material farther than 50 feet from the location of active excavation, full-time archaeological monitoring shall require at least two monitors per excavation area. In this circumstance, one monitor shall observe the location of active excavation, and a second monitor shall inspect the dumped material."

The CEC staff disagrees with this change for the following reasons:

Thirty-five archaeological sites and 48 isolated artifacts have been identified within the Project Area of Analysis (PAA), indicating that the project area has abundant archaeological resources on or near the ground surface. Additionally, the fact that ground visibility during the applicant's archaeological surveys was partially obscured by vegetation (TN 264843, pp. 5.4-33 through 5.4-40, 5.4-131, and 5.4-132) leads the CEC staff to expect that the operation of heavy equipment in the PAA would disturb native soils and has the potential to affect undiscovered cultural resources.

In addition, it was communicated to the CEC during tribal consultation that tribes understand the project area to hold heightened cultural sensitivity, and as such, consulting tribes requested archaeological and tribal monitoring for all ground disturbing activities within the project area.

Further, based on experience, imported fill dirt or disturbed soils have derived from cultural sites and contain artifacts and human remains. In these instances, the cultural materials may not be in their original context, but in some cases can still provide archaeological data, contain human remains, or retain other significant cultural ties or meaning to local tribes.

The applicant has proposed changing COC **CUL/TRI-9** Create a Tropico Gold Mine Historic District History and Management Guidelines Document to read as follows:

Verification: At least 15 days prior to the start of ground disturbance for the Gen Tie Line route **along Mojave Tropico Road and its connecting route options to Rosamond Boulevard,** the project shall provide a brief written statement to

> the CPM with a schedule concerning the creation of the Tropico Gold Mine Historic District history and management guidelines document. This schedule must include coordination opportunities with the county of Kern and CEC staff. Upon completion of the Tropico Gold Mine Historic District history and management guidelines document the project owner shall make it available to the public as well as provide a copy to both CEC staff and the county of Kern.

The CEC staff concurs with this change for the following reason:

This would change the verification timeline to reflect ground disturbing activities associated with the Gen Tie Line route in the vicinity of the historic district instead of all ground disturbing activities associated with the Gen Tie Line route. As such, this change is consistent with the intent of the original condition proposed by staff.

Land Use, Agriculture, and Forestry

Rebuttal Testimony of Andrea Koch

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

I, Andrea Koch, prepared the staff testimony on Land Use, Agriculture, and Forestry for the Willow Rock Energy Storage Center based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge. My declaration and resume are included in the FSA (TN 264843).

The applicant filed the following recommended revision to Land Use, Agriculture, and Forestry COC **LAND-1** on July 30, 2025 (TN 265170). Staff reviewed the proposed changes and provides the response below.

Applicant comment starting on page 76 of TN 265170:

Page 5.8-27 to 28, COC LAND-1, remains unchanged relative to the Applicant's comments on the PSA, and would require the Applicant to obtain permits from Kern County for use of any temporary laydown and parking areas for the WRESC. As described in the Applicant's comments, the CEC's certification is in lieu of any permit, certification, or similar document required by any state, local, or regional agency for the construction and operation of the WRESC and related facilities. The CEC "stands in the shoes" of Kern County to issue all necessary permits, so there are no required Kern County "permits", given the CEC's preemption; however, it is routine for project owners to pay local fees for permits, ostensibly to cover the costs of the local government's review and comment confirming compliance with local requirements. For this reason, the Applicant proposes that COC LAND-1 as set forth in the FSA be modified as shown in Section IV, below.

Proposed Revisions to Condition LAND-1: Prior to the commencement of construction, the project owner shall ~~obtain any necessary permits from~~ pay Kern County fees for review and comment and demonstrate compliance with requirements of the Kern County Planning and Natural Resources Department, or other relevant departments, for development of temporary laydown and parking areas.

Verification: At least 30 days prior to development of any temporary laydown and parking areas, the project owner shall provide to the CPM ~~the required approved permits from~~ documentation showing payment of Kern County fees for review and comment and demonstrating compliance with requirements of the Kern County Planning and Natural Resources Department, or any other relevant departments.

Staff response:

Staff disagrees. Kern County has jurisdiction over the offsite temporary laydown and parking areas, so the applicant would need to obtain any required permits from Kern County for use of these sites, as noted in the condition. Therefore, COC **LAND-1** will need to remain as proposed in FSA.

The CEC certificate is in lieu of state, local or regional permits for use of the site and related facilities (Pub. Resources Code, § 25500) . "Site" means any location on which a facility is constructed or is proposed to be constructed (Pub. Resources Code, § 25119). "Facility" means any electric transmission line or thermal powerplant, or both electric transmission line and thermal powerplant, regulated according to the provisions of this division (Pub. Resources Code § 25110). "Related facility" means a thermal powerplant, electric transmission line, or any equipment, structure, or accessory dedicated to and essential to the operation of the thermal powerplant or electric transmission line. These facilities include, but are not limited to, transmission and fuel lines up to the first point of interconnection, water intake and discharge structures and equipment, access roads, storage sites, switchyards, and waste disposal sites (Cal. Code. Regs., tit. 20, § 1201 (q)).

It follows that the CEC's certificate covers the power plant and the gen-tie line from the power plant to the first point of interconnection at the Whirlwind Substation. The offsite project components that are not related facilities (such as temporary laydown and parking yards and the potential architectural berm) would be under the permitting jurisdiction of Kern County.

Noise and Vibration

Rebuttal Testimony of Ardalan Raisi Sofi, Ph.D., P.E.

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

I, Ardalan Raisi Sofi, Ph.D., P.E., prepared the staff testimony on Noise and Vibration for the Willow Rock Energy Storage Center based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge. My declaration and resume are included in the FSA (TN 264843).

WSP, on behalf of the applicant, submitted proposed revisions to Condition of Certification **NOISE-4**, requesting that the operational noise limits at NSA-7 be adjusted to 49 dBA during daytime and 44 dBA during nighttime. These proposed thresholds are based on a +5 dBA increase above the estimated long-term ambient noise levels reported in the FSA (44 dBA daytime and 39 dBA nighttime).

To confirm the appropriateness of these revised thresholds, staff coordinated with consultant RCH Group to conduct a new 24-hour long-term noise measurement near NSA-7 starting at 10 a.m. on August 1, 2025 (TN #265264). The results showed a measured average daytime ambient noise level of 53 dBA L_{eq} and nighttime ambient noise level of 43 dBA L_{eq}. This comprehensive 24-hour measurement result documented that the noise environment at NSA-7 is higher than the previous projections based on two 15-minute measurements and projected levels from the comprehensive data reported for NSA-1 in the AFC.

Based on the recent 24-hour noise measurement data, the proposed thresholds in **NOISE-4** are adjusted— daytime threshold is adjusted to 58 dBA L_{eq} (53 dBA measured +5 dBA increase) and the nighttime threshold is adjusted to 48 dBA L_{eq} (43 dBA measured + 5 dBA increase). These thresholds are consistent with the applicant's request of noise thresholds increasing up to 5 dBA above ambient conditions. The proposed thresholds remain protective of sensitive receptors.

NOISE-4 The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that noise due to the operation of the project **plus ambient** will not exceed 55 dBA L_{eq} during daytime hours of 7 A.M. to 10 P.M. and 54 dBA L_{eq} during nighttime hours of 10 p.m. to 7 A.M. at NSA-1.

The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that noise due to the operation of the project plus ambient will not exceed ~~46~~**58** dBA L_{eq} during daytime hours of 7 A.M. to 10 P.M. and ~~43~~**48** dBA L_{eq} during nighttime hours of 10 P.M. to 7 A.M. at NSA-7.

No new pure-tone components may be introduced. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints.

When the project first achieves a sustained output of 85 percent or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey at NSA-1 and NSA-7 by someone who represents the project owner and is qualified to conduct noise surveys. This survey during project's operation shall also include measurement of one-third octave band sound pressure levels at the above location to ensure that no new pure-tone noise components have been introduced.

If the results from the noise survey indicate that the power plant noise levels at the affected receptors, NSA-1 and NSA-7, exceed the above value for any given hour during the survey, mitigation measures shall be implemented to reduce noise to a level of compliance with this limit

If the results from these noise survey indicate that pure tones are present, mitigation measures shall be implemented to eliminate the pure tones.

Verification: The survey shall take place within 45 days of the project first achieving a sustained output of 85 percent or greater. Within 30 days after completing the survey, the project owner shall submit a summary report of the survey to the CPM. Included in the survey report will be a description of any additional mitigation measures necessary to achieve compliance with the above-listed noise limits, and a schedule, subject to CPM approval, for implementing these measures. When these measures are in place, the project owner shall repeat the noise survey.

Within 15 days of completion of the new survey, the project owner shall submit to the CPM a summary report of the new noise survey, performed as described above and showing compliance with this condition.

Transportation

Rebuttal Testimony of Francisco Martin, P.E.

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

I, Francisco Martin, P.E., prepared the staff testimony on Transportation for the Willow Rock Energy Storage Center based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge. My declaration and resume are included in the FSA (TN 264843).

WSP USA Inc., on behalf of the project applicant, submitted recommended revisions to condition **TRANS-2** of the Transportation Conditions of Certification. These revisions were filed on July 30, 2025 (TN 265170). The applicant is requesting that the timing for implementing the asphalt concrete paved road approach at the proposed Dawn Road entrance at Sierra Highway, which would extend 200 feet into the project site, be changed from prior to the start of construction to occur concurrently with site mobilization and grading activities. Additionally, the applicant requests that the required encroachment permit from the Kern County Public Works Department be obtained during the site mobilization and grading phase rather than beforehand.

Staff reviewed the submitted information and agree that it is reasonable to obtain the necessary encroachment permit and construct the asphalt concrete paved road during the site mobilization and grading phase. Site mobilization involves preparing the area for construction activities, while grading reshapes the land to meet design elevations. This phase establishes the foundation for all subsequent construction work. Therefore, implementing the asphalt concrete paved road approach at the proposed Dawn Road entrance at Sierra Highway during this phase is appropriate and consistent with typical construction practices.

Staff recommends the following edits to condition **TRANS-2**:

TRANS-2 The project owner shall provide an irrevocable offer of dedication to Kern County for the following roadways:

- Dawn Road: 55 feet from the centerline along the entire subject property and the off-site portion from the westerly project boundary to the westerly boundary of Lot 3 of County Parcel Map No. 260.
- Sierra Highway: 45 feet from the centerline on both sides, totaling 90 feet in width.

Concurrent with the site mobilization and grading activities ~~Prior to construction~~, the project owner shall also **commence construction of**

~~construct~~ an asphalt concrete paved road approach at the proposed Dawn Road entrance at Sierra Highway, extending 200 feet into the project site.

Prior to the commencement of operations, the project owner shall pave Dawn Road from the project entrance westerly to the Caltrans boundary at SR 14. The paving shall meet Type B Standards, including:

- 60-foot-wide roadway with paved shoulders
- Structural sections suitable for heavy truck traffic
- Asphalt concrete surfacing and necessary tie-ins

The project owner shall ensure that site access intersections and corresponding roadway and parking improvements are designed according to standards adopted by Kern County and, where applicable, Caltrans, to ensure safe ingress and egress at the project access intersections during the construction and operation phases.

Verification: The project owner shall ensure that all proposed on-site access and parking improvement plans for both the construction and operation phases are submitted to Kern County and Caltrans for review and comment, and to the CPM for review and approval before construction begins.

The project owner shall offer right-of-way dedication for the segments of Dawn Road and Sierra Highway adjacent to the project site prior to the start of construction.

Concurrent with the site mobilization and grading activities ~~Prior to construction~~, the project owner shall obtain an encroachment permit from the Kern County Public Works Department to construct an asphalt concrete paved road approach at the proposed Dawn Road entrance at Sierra Highway, extending 200 feet into the project site.

Prior to the commencement of operations, the project owner shall obtain an encroachment permit from the Kern County Public Works Department and pave Dawn Road from the project entrance west to the Caltrans right-of-way at SR 14.

The project owner shall also obtain an encroachment permit from Caltrans prior to construction for any site access improvements within Caltrans right-of-way.

Visual Resources

Rebuttal Testimony of Mark R. Hamblin

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

I, Mark R. Hamblin, prepared the staff testimony on visual resources for the Willow Rock Energy Storage Center based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge. My declaration and resume are included in the FSA (TN 264843).

The applicable portion of the CEQA Guidelines Appendix G Environmental Checklist Form, I. Aesthetics, c. relevant to the proposed Willow Rock Energy Storage Center project asks: *Would the proposed project in a non-urbanized area,* [1] *substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point*). (Cal. Code Regs., tit. 14, div. 6, ch. 3, art. 20 Appendix G, I. Aesthetics, c., as amended December 28, 2018).

CEC Staff Methodology

In brief, staff's technical approach involves assessing the contrast introduced by the components[2] of the proposed project (e.g., buildings, structures, equipment) within the existing physical environment—both on the site and from publicly accessible vantage points in the northern Antelope Valley. In responding to the above question, staff employs an integrated approach that combines objective measures with contextual factors to support the final determination of whether the proposed project would result in a "*significant effect on the environment*" under CEQA and the CEQA Guidelines (see Evaluation Flowchart below, and the Key Observation Point Evaluation Worksheets, Final Staff Assessment, pp. 5.15-78–125).

Staff's technical approach relies on objective characteristics that can be consistently applied across projects and treats the visual presentation of project components as inherent and unchanging regardless of the viewer. Because the CEC prioritizes

1 For the purposes of CEQA, an "urbanized area" means either "(a) An incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons. (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." (Pub. Res. Code § 21071[a]) An urbanized area also includes unincorporated area that satisfies criteria in Pub. Res. Code § 21071(b).

2 A "component" is an individual object that makes up a landscape. It is physical and visible, natural or man-made, and can be described, quantified, and measured (i.e., a discrete element within the broader visual composition). Project components (e.g., buildings, structures, equipment)

consistency in its technical analysis, staff employs an objective approach as the standard protocol for assessing visual impacts. This ensures greater uniformity in screening across different projects.

Staff acknowledges that the size and massing[3] of project components (e.g., buildings, structures, equipment) for the proposed Willow Rock Energy Storage Center are primarily dictated by the operational requirements of its specialized technology and the constraints of the selected project site. However, within the context of the existing physical environment, the introduction of approximately 70-80 above-ground components —particularly their shapes, sizes, and massing—would create substantial visual contrast with the surrounding landscape. For the purposes of CEQA and the CEQA Guidelines, this contrast would degrade the existing visual character and quality of public views of the site and its surroundings, as experienced from publicly accessible vantage points along Dawn Road, Sierra Highway, and other locations in the northern Antelope Valley. Consequently, the project would result in a "significant effect on the environment" that cannot be mitigated to a "less than significant level."

Applicant Methodology

In contrast, the applicant's technical approach incorporates more subjective elements, including viewer sensitivity of the perceived visual impact of project components. It emphasizes estimating viewer sensitivity (e.g., motorists, recreationists) to the visual effect of the proposed project. This involves evaluating not only the anticipated visual change resulting from the project's physical characteristics, but also how the project's visual contrast may influence a viewer's experience. The assessment is conducted from selected key observation points (KOPs) and includes an evaluation of photo-realistic simulations that depict the proposed project from the same KOP.

CEQA and CEQA Guidelines

The technical approaches used by both staff and the applicant must comply with CEQA, the CEQA Guidelines, and applicable California court decisions interpreting aesthetics.[4]

CEQA states "'Environment' means the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance." (Pub. Res. Code § 21060.5) The CEQA Guidelines state "Effects analyzed under CEQA must be related to a physical change." (Cal. Code Regs., tit. 14 § 15358[b])

3 Massing refers to the overall three-dimension form and shape of a building, structure encompassing its size, volume, and how these components are arranged.

4 Aesthetic claims raised under the guise of preserving "community character" or "subjective psychological feelings or social impacts" are insufficient. (*Preserve Poway v. City of Poway* (2016) 245 Cal.App.4th 560; *City of Pasadena v. State of California* (1993) 14 Cal.App.4th 810-829.) Aesthetics challenges premised on economic concerns similarly do not suffice. (e.g., *Porterville Citizens*, *supra*,157 Cal.App.4th at pp. 903-904; Guidelines, § 15131, subd. (a))

The CEQA Guidelines also state a "'Significant effect on the environment' means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."(Cal. Code Regs., tit. 14 § 15382)

The CEC must assess "... the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (Cal. Code Regs., tit. 14, § 15125[a])

The CEQA Guidelines Appendix G Environmental Checklist Form, I. Aesthetics, as (amended December 28, 2018), provides criteria for determining whether a proposed project may have a "significant effect on the environment." It states the following:

"I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?"[5]

In responding to the above criteria, staff typically examines aerial and street view imagery; reviews Geographic Information System (GIS) data; analyzes site and vicinity photographs — including photographs from a key observation point and prepared photo-realistic simulations[6] of the project in the existing landscape; reviews elevations, architectural and site development plans, drawings, and renderings; consults applicable federal, state, and local government codes, regulations, maps, and plans, tour book

5 Cal. Code Regs., tit. 14, div. 6, ch. 3, art. 20 Appendix G, I. Aesthetics as amended December 28, 2018.

6 The primary purpose of a photo-realistic simulation is to accurately portray in a realistic manner and context a proposed activity, modification, or change in the existing physical landscape (e.g., project). It is a photographic image that has been computer-modified to show a not-yet existing feature. A photo-realistic simulation is not a "real life view." It illustrates a two-dimensional view of a proposed activity from a particular viewpoint as depicted in a photograph and not as it would appear as a three-dimensional image as seen in the field with the human eye. That being said, a photo-realistic simulation is a useful tool to assist in the assessment and decision-making process, whereby better informed and more transparent judgements on visual related effects can be made.

guides and road atlases; and a visit to the project site, key observation point(s), and surrounding area.

CEQA Guidelines Appendix G Environmental Checklist Form, I. Aesthetics, c

For the proposed WRESC, the applicable portion of CEQA Guidelines Appendix G Environmental Checklist Form, I. Aesthetics, c, asks would the proposed project:

"*In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point*)."

A *publicly accessible vantage point* refers to a location that:

- is situated on public land or private property where public access is permitted (e.g., sidewalks, parks, public roads and highways, or commercial areas),
- offers a clear view of a subject, object, or area, and
- does not require special permission or involve trespassing to access—any member of the public could reasonably stand there and observe the view.

Evaluation Flowchart

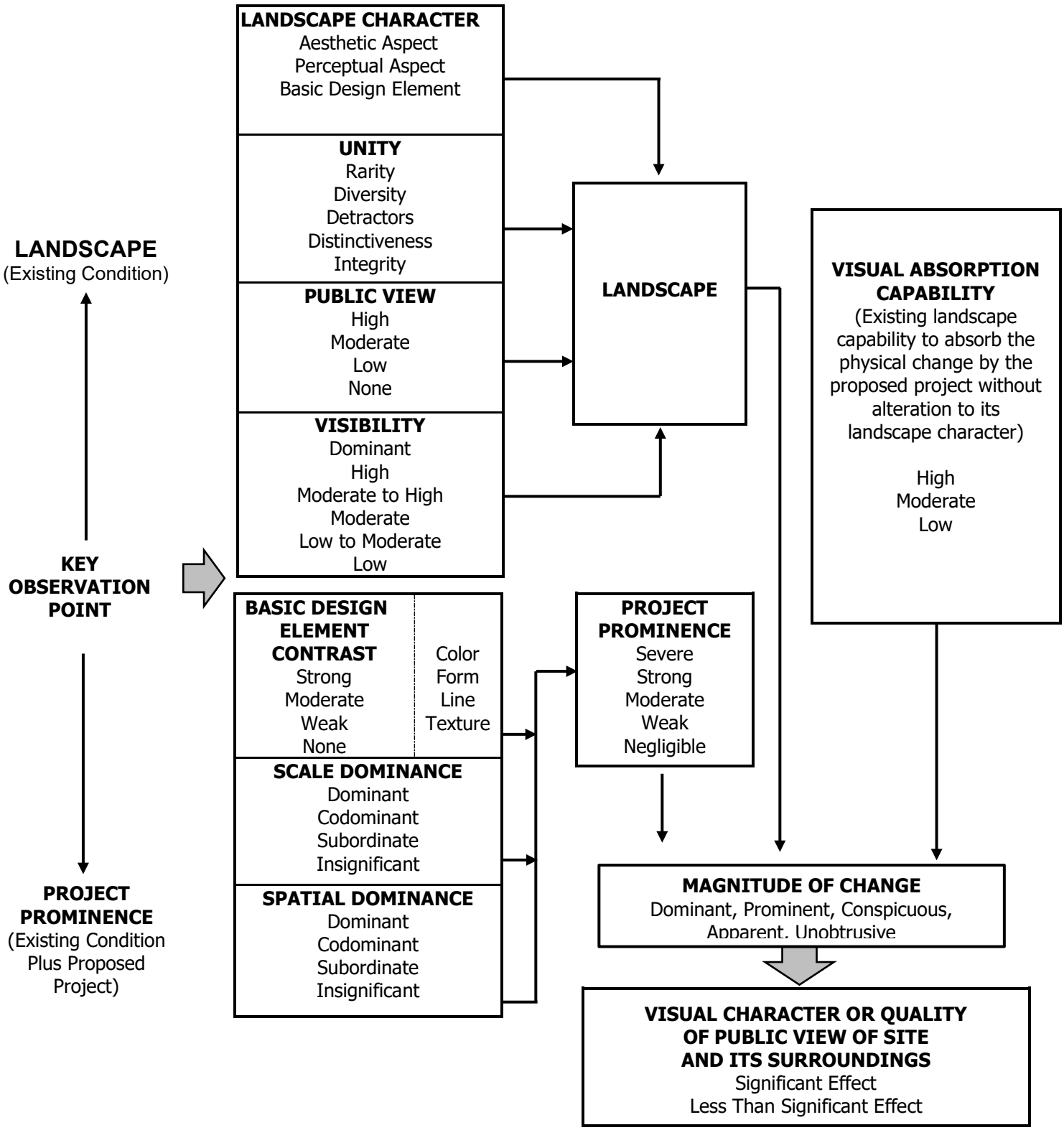
Staff evaluates a proposed project in the landscape using an adapted descriptive inventory methodology, formal aesthetic model.[7] The staff evaluation process is illustrated in the flowchart below.

"In Descriptive inventory methodologies, landscape components are analysed, described and combined in order to obtain a total value, implying that overall scenic quality is the sum of its parts. These methods can provide quantitative assessments of landscape quality and a landscape inventory based on subjectively-selected but objectively-applied criteria are considered subjective and not precise."[8]

7 A visual landscape assessment involves the inventory and evaluation of diverse visible attributes of the landscape for the purposes of planning, design, and management. Numerous techniques for a visual landscape evaluation have been developed for this purpose which can be broadly categorized into descriptive inventories, public preference models, and quantitative holistic methods. These categories encompass both non-quantitative and quantitative approaches including ecological, formal aesthetic, phenomenological, psychological, psychophysical models. Additionally, methods may be classified as direct/indirect, quantitative/non-quantitative, and subjective/objective. It is important to note that not all visual landscape evaluation techniques are consistent with the requirements of CEQA and the CEQA Guidelines.

8 T. Panagopoulos, B. Ramos, "Methods to assess aesthetic value for forest planning and design," University of Algarve, Portugal, 2006, <https://homedocbox.com/Landscaping/109446326-Methods-to-assess-aesthetic-value-for-forest-planning-and-design.html> accessed on January 9, 2024.

Evaluation Flowchart



"The basic theory of the formal aesthetic model is that aesthetic values are inherent in the formal properties of the landscape. These properties are defined as basic forms, lines, colours and textures and their interrelationships. The relationships between these elements are then inspected to classify each area in terms of variety, unity, integrity or other complex formal characteristics."[9]

Staff evaluates the physical change to the condition of the existing physical environment caused by the proposed project (project effect).

Staff does not evaluate viewer sensitivity—that is, the sensitivity of the viewer to the perceived change to the condition of the existing physical environment caused by the proposed project (subjective psychological feelings).[10]

Existing Physical Environment (Existing Condition)

The proposed WRESC project would occupy approximately 89 acres of a 112-acre parcel characterized as relatively flat, undeveloped open space. The site consists primarily of desert scrub, bushes, grasses, weeds, and Western Joshua trees (organic shapes[11]). The site is located on the north side of Dawn Road (an unimproved county public road) and the west side of Sierra Highway (a public two-lane highway).

A total of 3,970 Western Joshua trees were recorded within the survey area during the applicant's 2024 verification census (WSP 2024q). These trees are the tallest components on the property, ranging in height from 15 to 40 feet, with trunk diameters between one to three feet.

Surrounding land uses predominantly include open desert areas, sparse residential development, existing renewable energy facilities, and agricultural fields.

The existing physical condition of the project site and surrounding area is shown in the following figures included in the Final Staff Assessment and/or the Application For Certification (AFC):

- **Visual Resources Figure A** – Google Maps aerial view of the project site
- **Visual Resources Figure B** – Google Maps street view at the corner of Dawn Road and Sierra Highway
- **Visual Resources Figure F** – Street view from the top of the Dawn Road overpass over State Highway 14, looking east

9 T. Daniel, J. Vining (1983).
10 Aesthetic claims raised under the guise of preserving "community character" or "subjective psychological feelings or social impacts" are insufficient. (*Preserve Poway v. City of Poway* (2016) 245 Cal.App.4th 560).
11 Organic shapes are free-form and irregular, often found in nature (e.g., clouds, leaves, flowers, rocks). They can be based on the geometric shapes but have a more fluid and natural appearance.

- **Visual Resources Figure G** – Street view from the terminus of the state highway public right-of-way at Dawn Road, looking toward the proposed WRESC site
- **Visual Resources Figure H** – Aerial view showing Dawn Road, Sierra Highway, 10th Street West, and the project site
- **Visual Resources Figure 5.15-4** – Existing condition of the project site from the State Route 14 off-ramp at Dawn Road East
- The applicant's **Zevsar Phase 1 Environmental Site Assessment**, **Appendix E Photo Log** (Willow Rock Storage Center SAFC Volume II – Appendix 513A–514A, docketed March 4, 2024 [TN: #254810]).

Proposed Project Alteration To The Existing Physical Environment (Existing Condition Plus Proposed Project)

The proposed WRESC project would introduce approximately 70 to 80 buildings, structures, and equipment (geometric shapes[12]) across the 89-acre site (WRESC Plot Plan – Operation Phase Figure 2-4). Some of the project buildings, structures, and equipment are listed in the applicant's AFC Table 5.13-3 and Table 5.13-4 below.

TABLE 5.13-3 WRESC SITE COMPONENTS APPROXIMATE DIMENSION, MATERIALS, AND FINISHES

Project Component	Dimensions	Materials	Finishes
Admin/Control Room and Maintenance Building	Approximately 6,600 square feet	metal siding	light beige/tan
Series of Heat Exchangers and Thermal Storage Equipment	20 feet high	prefabricated metal material	light beige/tan
Four Low Pressure Enclosures	20 feet high by 30 feet wide by 85 feet long on an elevated (20-foot high) concrete pedestal	insulated metal panels	light beige/tan
Four High Pressure Compressor Enclosures	20 feet high by 30 feet wide by 55 feet long on an elevated (20-foothigh) concrete pedestal	insulated metal panels	light beige/tan
Four Air Turbine Enclosures	20 feet high by 30 feet wide by 60 feet long on an elevated (20-foot high) concrete pedestal	insulated metal panels	light beige/tan

12 A geometric shape is a precise, mathematical form defined by its lines, curves, angles, and surfaces. These shapes are characterized by their regularity and symmetry, often found in human-made objects, and contrast with organic shapes found in nature.

TABLE 5.13-3 WRESC SITE COMPONENTS APPROXIMATE DIMENSION, MATERIALS, AND FINISHES

Project Component	Dimensions	Materials	Finishes
Four Compressor Turbine/Electrical Enclosures	20 feet high by 30 feet wide by 60 feet long	metal siding	light beige/tan
Four Low Pressure Exhaust Stacks	100 feet high	prefabricated metal materials	primarily light to dark gray
Two Cold Water Tanks	150 feet diameter and 50 feet high	insulated metal plates	light beige/tan
Six Hot Water Tanks (spherical)	87.5 feet diameter and 100 feet high	insulated metal plates	light beige/tan
Two Closed Cooling Water Tanks	60 feet diameter and 75 feet high	insulated metal plates	light beige/tan
One Fire Water Tank	37 feet diameter and 36 feet high	insulated metal plates	light beige/tan
Two Air Cooled Heat Exchangers	60 feet high by 100 feet wide by 395 feet long	prefabricated metal material	primarily light to dark gray
One Closed Cooling Water Air Cooled Heat Exchanger	60 feet high by 100 feet wide by 430 feet long	prefabricated metal material	primarily light to dark gray
One Stormwater Pond	270 feet long by 195 feet wide	excavated soil and mined rock	similar to existing exposed soil and rock
Surface Water Reservoir	covering 26 acres with 8-foot-high earth berms	excavated soil and mined rock berms; non-reflective cover	similar to existing exposed soil and rock
230 kV Onsite Electrical Switchyard	20 to 40 feet high	prefabricated metal material	primarily light to dark gray
4.16 kV Electrical Enclosure	30 feet wide by 75 feet long by 20 feet high	metal siding	light beige/tan
Insulated Piping	Varies	metal lagging/jacketing	Low-reflective embossed aluminum
Waste Rock Berm (Option)	10 feet high by 500 feet wide	mined rock	Similar to existing exposed soil and rock

kV=kilovolt

TABLE 5.13-4 GEN-TIE LINE COMPONENTS APPROXIMATE DIMENSION, MATERIALS, AND FINISHES

Project Component	Dimensions	Materials	Finishes
Tapered metal monopole towers	100 feet high by 6 feet diameter (at base) and approximately 850-foot span between poles[1]	steel	light to dark gray

[1]Note: The proposed design of the gen-tie line includes installation of approximately 90-foot steel transmission poles. The poles are expected to be spaced approximately 600 to 900 feet from each other."

(Source: Willow Rock Energy Storage Center SAFC, Volume 1, Part B, docketed dated March 1, 2024 [TN: #254805] pp. 5.13-12-13)

The proposed project alterations to the existing physical environment are illustrated in the following figures:

- **Visual Resources Figure C** – Rendering of the facility without the architectural berm
- **Visual Resources Figure D** – Rendering of the facility with the architectural berm
- **Visual Resources Figure E** – Rendering of the administration/control room, maintenance building, generator pads, storage tanks, and heat exchanger arrays
- **Visual Resources Figure 5.15-5** – Existing condition plus proposed project
- **Visual Resources Figure 5.15-7** – Existing condition plus proposed project
- **Visual Resources Figure 5.15-21** – Dawn Road East at SR 14 Off-ramp (Simulated condition with exterior color treatment mitigation – no berm option)
- **Visual Resources Figure 5.15-22** – Dawn Road East at SR 14 Off-ramp (Simulated condition with exterior color treatment mitigation – berm option)

Key Observation Point (KOP)/Photo-Realistic Simulations

Pursuant to CEQA Guidelines Appendix G Environmental Checklist Form, I. Aesthetics, c., when a project is located in a non-urbanized area, the applicant is to provide photo-realistic simulations of the project in the existing physical environment as specified in Cal. Code Regs., tit. 20, div. 2, chap. 5, Appendix B Information Requirements (6)(C). Accordingly, the applicant submitted photographs from several publicly accessible vantage points (KOPs[13]) depicting the condition of the project site prior to any landscape alteration, along with photo-realistic simulations of the proposed project using the exact same KOP. Staff was not consulted during the selection of the KOPs for the project.

Contrast

"Contrast is a visible difference .... The degree of contrast is the amount of noticeable difference between two or more objects, colors, surfaces or units being compared. Items exhibiting high contrast show a marked difference between each other even when viewed at great distances. Items of low contrast are difficult to distinguish even at close range." [14]

The "basic design elements" create contrast within the landscape that viewers perceive and respond to when observing a space. The basic design elements in a landscape — line, form, color, texture, scale, and spatial dominance together with the "visual absorption capability" of the landscape are among the most influential factors in

13 A KOP is a fixed position in a publicly accessible location where a public view of the project is analyzed and evaluated.
14 "U.S. Department of Transportation Federal Highway Administration, "A Guide to Visual Quality in Noise Barrier Design," Chapter 3. Visual Design Principles, n.d.

determining the compatibility of a proposed alteration to the landscape. A brief explanation of the basic design elements is provided below:

- **Line:** Lines guide the eye and define the shape and direction of the landscape. They can be used to create paths, borders, or focal points.
- **Form:** Form refers to the three-dimensional shape of building, structures, vegetation, and other components in the landscape.
- **Color:** Color creates visual interest. It can highlight focal points, establish harmony, or introduce contrast.
- **Texture:** Texture refers to the surface quality of materials —whether rough, smooth, fine, or coarse — and adds visual and tactile interest to the landscape.
- **Scale:** Scale refers to the size of objects in relation to each other and to the overall landscape. Appropriate scale ensures that structures and other components are proportionate to the space.
- **Spatial Dominance:** Spatial dominance describes the extent to which the project visually dominates the landscape. It reflects how prominently a project stands out in views, particularly in relation to the size and character of the surrounding landscape. While related to scale contrast, spatial dominance considers broader visual relationships across the landscape.

Staff compared the basic design elements in the existing physical landscape with those of the proposed project's buildings, structures, and equipment. Staff then assigned a rating for the contrast in the landscape for each design element.

Staff determines the magnitude of change for the project based on the ratings for three key factors: Landscape, Project Prominence, and Visual Absorption Capability (see evaluation flowchart)

- **Landscape** refers to the outdoor environment, natural or built, that can be directly perceived by a person visiting and using the area.
- **Project Prominence** describes the prominence of the project within the existing landscape, based on contrasts in basic design element contrast, scale dominance, spatial dominance.
- **Visual Absorption Capability** refers to the capability of the existing landscape to absorb the physical change by the proposed project without alteration to its overall landscape character.

The combined ratings provide a quantitative basis for determining whether the proposed project would result in a "significant effect on the environment."

Water Resources

Rebuttal Testimony of James Ackerman, P.G.

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

I, James Ackerman, P.G., prepared the staff testimony on water resources for the Willow Rock Energy Storage Center based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge. My declaration and resume are included in the FSA (TN 264843).

WSP USA Inc. (WSP), on behalf of the applicant, makes the following suggestions concerning changes to the water resources-related conditions of certification (COCs) included in the FSA:

COC **WATER-1, Section I. Best Management Practices Plan**

I. **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 construction, and final grading/stabilization). BMPs shall include measures designed to control dust, stabilize construction access roads and entrances, and control storm water runoff and sediment transport. **The construction BMPs will follow Attachment A as guidance**.

CEC Staff Response:

Staff concurs with the applicant's suggested change to COC **WATER-1**.

COC **WATER-1,** Verification -

The applicant suggests moving "Verification" to reflect the measures as implementing provisions of the Condition, but does not specify where.

CEC Staff Response:

Staff does not concur with the suggested change. The verification section for COC **WATER-1** contains a schedule of plan submittals, monthly reporting, and annual compliance reporting with respect to stormwater management. These items are best placed following the actual condition.

COC **WATER-2**

The applicant in its opening testimony proposes the following changes to **WATER-2**.

WASTE DISCHARGE REQUIREMENTS ~~FOR DRILL CUTTING PONDS~~

WATER-2 The project owner shall comply with the Waste Discharge Requirements (WDRs) established in Attachment A. These requirements relate to discharges, or potential discharges, of waste that could affect the quality of waters of the state, and were developed in consultation with the State Water Resources Control Board and/or the applicable California Regional Water Quality Control Board (hereafter "Water Boards"). The WDRs established in Attachment A serve as if they were prescribed under Water Code section 13263 by the Water Boards. These requirements are enforceable by both the Commission and the Water Boards. The Water Boards are authorized to verify compliance of these WDRs, including conducting investigations and inspections and requiring technical and monitoring reports. The Water Boards are also authorized, in coordination with the Commission, to enforce the WDRs pursuant but not limited to Water Code sections 13300, 13301, 13304, and 13350. The Commission and the Water Boards shall confer with each other and coordinate, as needed, in the enforcement of the requirements, consistent with Public Resources Code section 25532. The project owner shall pay the annual waste discharge permit fee associated with this facility to the Water Boards. The project owner shall make payments to the State Water Resources Control Board, based upon a fee schedule in California Code of Regulations, Title 23, section 2200 for a Discharge to Land with a Threat to Water Quality Rating of 2 and Complexity Rating of C.

Verification: At least sixty (60) days prior to construction, the project owner shall submit to LRWQCB all necessary information and applicable fees, submitting copies of all application submittals to the CPM. At least thirty (30) days prior to construction of the Gen-tie line, the project owner shall submit to the CPM and LRWQCB for review and approval all plans to control the potential **impacts to ephemeral streams from fill and excavation activities** ~~for fill and excavation discharges of wastewater~~ associated with construction of the Gen-tie line. Within ten (10) days of its mailing or receipt, the project owner shall submit to the CPM any correspondence with the SWRCB or the LRWQCB regarding ~~discharge of wastewater associated with~~ this activity. The project owner shall notify the CPM in writing of any violations and include these in the annual compliance report. Any monitoring documentation associated with the SWRCB Order shall be included in the annual compliance report.

CEC Staff Response:

Staff concurs with the title change of COC **WATER-2** from "Waste Discharge Requirements for Drill Cutting Ponds" to "Waste Discharge Requirements", since the waste discharge requirements cover more than just the drill cutting ponds. Staff also agrees with the changes to the verification section.

COCs **WATER-5 and WATER-6 – JURISDICTIONAL DAM CONSTRUCTION REQUIREMENTS**

The applicant in its opening testimony proposes a number of changes to **WATER-5** and **WATER-6.** The following analysis details which changes staff has accepted and provides rationale for suggested changes not being accepted. An updated underline and strike version of the **WATER-5** and **WATER-6** follows the analysis.

CEC Staff Response:

In general, staff agrees with the applicant's framing of CEC's authority and jurisdiction over the project and the dam construction.

Regarding the use of "DWR" in conjunction with the "DSOD" throughout COC **WATER-5,** Staff concurs with this change for the sake of consistency.

In the first paragraph of COC **WATER-5**, Staff concurs with the addition of "Commission has determined that the" in both instances within this paragraph. Omitting "the review and approval of" would render the passage less accurate and Staff disagrees with this change to the condition. However, Staff does agree with the addition of "that would be administered". Insertion of the term "but for the Commission's exclusive jurisdiction over thermal powerplants and related facilities" is unnecessary and obscures clarity, therefore Staff disagrees with this addition to the condition.

Regarding changes to the second paragraph of COC **WATER-5,** the addition of "applicable" and "set forth therein", as well as the deletion of "directed by DWR-DSOD which will administer the Dam Safety Program Requirements on behalf of the CEC", would obscure the working relationship between the CEC and the DWR-DSOD, and Staff disagrees with these changes to the condition. Staff concurs with the insertion of "applicable" in association with statute or regulations of the Dam Safety Program Requirements.

Staff offers amended language consistent with the CEC's authority in issuing the certification to construct and operate the dam, which must be designed and maintained consistent with applicable laws.

Regarding changes to the fourth bullet item of the third paragraph, the applicant suggests omitting the concept of "application fees". However, both application and annual fees are required per Section6300 of the California Water Code (CWC). Therefore, Staff disagrees with the suggested changes to this bullet item of COC **WATER-5.** Because DSOD will be acting as a DCBO for the reservoir dam, some level of funding to facilitate the CEC's oversite of the design and construction of the structure is necessary. The design parameters of a dam are not prescribed by a code but developed through an iterative process by DSOD. Thus, to ensure the CEC can provide effective oversite of the reservoir component of the project, CEC depends on DSOD's expertise. Staff is open to the applicant working with DSOD on an appropriate

"application fee" commensurate with DSOD's work. This could include actual invoices for work, some agreed upon payment, or elevated compliance payments during project design review and construction.

While the CEC is issuing the certification, DWR-DSOD has expertise through the California Water Code section 6102.5 in developing a schedule of dam safety inspections and maintenance. Staff alternatively proposes edits as indicated below.

While the CEC through its certification of the project has compliance and enforcement authority over the project under Public Resources Code sections 25532 and 25534 DWR-DSOD is identified in both statute (CWC sections 6429 and 6433) and regulation (Cal. Code Regs., Tit.23, section 337) as also responsible for enforcement of dam safety requirements. Therefore, the dam component of the project is subject to joint enforcement. Staff's suggested changes to the condition are noted below.

The applicant suggests removing the first milestone in the list of milestones identified in **WATER-5**. To provide clarity as to what is expected to be submitted as part of this milestone the language has been combined with the second milestone. The milestones reflect the DWR-DSOD process for reviewing plans and specifications for new dam construction and were prepared in consultation with DWR-DSOD. Milestone 1 and 2 were consolidated into Milestone 1, which encompasses submitting project information, providing geology/geotechnical reports and other data determined by CEC and DWR-DSOD if necessary.

Staff made slight changes to paragraph five to incorporate CEC and DWR-DSOD review of plans and specifications for new dam construction.

The single sentence of paragraph six is a statutory requirement and should not be deleted.

Staff made slight changes to paragraph seven to incorporate CEC and DWR-DSOD review plans and specifications for new dam construction.

With respect to the changes proposed in paragraph nine, Staff included edits to address issues raised by the applicant related to CEC and DWR-DSOD joint authority.

Staff disagrees with changes proposed in the first paragraph of COC **WATER-5** verifications which would negate the intent to submit all documents and information to both DWR-DSOD and the CEC CPM. Documentation and information needs to be submitted to both the CEC and DWR-DSOD.

Staff disagrees. Regarding suggested changes to the second paragraph of the condition verifications, DWR-DSOD has the statutory authority to enforce Dam Safety Program Requirements.

Staff disagrees with deleting the third paragraph of the condition verifications. As stated earlier in the response to a similar section on the condition description, application and annual fees are due to the DWR-DSOD by statute.

Staff's Updated Condition of Certification WATER-5:

WATER-5 The **Commission has determined that the** outer embankment of the hydrostatic compensation reservoir (HC-reservoir) meets the definition of a jurisdictional dam per California Water Code (CWC) Sections 6002 and 6003. Therefore, the HC-reservoir embankment is subject to the review and approval of all design and specifications **that would be administered** by the Department of Water Resources, Division of Safety of Dams (DWR-DSOD)**.** The **Commission has determined that the** project owner is an "owner" under Water Code section 6005.

As it relates to this project (HC-reservoir embankment), the project owner shall comply with the requirements set forth in Division 3, Part 1 of the Water Code and California Code of Regulations, Title 23, Division 2, Chapter 1 (collectively referred to as "Dam Safety Program Requirements") and any design specifications directed by DWR-DSOD which will administer the Dam Safety Program Requirements on behalf of the CEC. The Project Owner shall comply with any future changes to **applicable** statute or regulations of the Dam Safety Program Requirements.

To facilitate the project and project owner's compliance with the Dam Safety Program Requirements, the following requirements are identified. These Dam Safety Program Requirements are identified to provide information and do not limit or otherwise impact the project and project owner's obligation to comply with all Dam Safety Program Requirements.

- Construction, enlargement, alteration, repair, modification, and removal of dams and reservoirs are subject to the requirements in Division 3, Part 1, Chapter 5 of the California Water Code and California Code of Regulations, Title 23, Division 2, Chapter 1.
- Construction inspection requirements, final approval, and post-construction documentation requirements are set forth in Division 3, Part 1, Chapter 7 of the California Water Code.
- The project owner shall not, through action or inaction, impound water in the Project's dam or reservoir until **the CPM and** DWR-DSOD ~~has~~ **have determined that the dam or reservoir is safe to impound water consistent with** ~~issued~~ a certificate of approval, as provided in Water Code section 6355.
- The project owner shall pay application and annual fees, in accordance with the Dam Safety Program Requirements **to facilitate the DWR-DSOD's ability to perform design review, construction monitoring, safety**

inspections and other work associated with the construction and operations of the dam. In lieu of the application fee, the applicant can negotiate a different fee structure or other reimbursement mechanism with DWR-DSOD

- This project and project owner shall be subject to the requirements in Water Code section 6102.5, which addresses periodic inspections, and dam owner obligations to perform maintenance, provide information, and fully operate any critical outlet and spillway control features as determined by DWR-DSOD **and approved by the CPM**.
- The project and project owner shall comply with the inundation map and emergency action plan requirements as provided in Division 3, Part 1, Chapter 4, Article 6 of the California Water Code and California Code of Regulations, Title 23, Division 2, Chapter 1.
- The project and project owner shall be subject to the enforcement **by the Commission and DWR-DSOD for compliance with the** provisions set forth in Division 3, Part 1, Chapter 8 of the California Water Code and California Code of Regulations, Title 23, Division 2, Chapter 1. ~~The CEC also retains its enforcement authority over this component of the project.~~

The project owner shall obtain **Commission approval in consultation with DWR-**DSOD approval of dam plans and specifications prior to commencing construction of the HC-reservoir in accordance with CWC Section 6200. The project owner shall provide the **Commission in consultation with DWR-** DSOD with information to achieve the following milestones of the design approval process:

~~1. Application for construction of a dam and filing fee (per CWC section 6300), and geology/geotechnical reports and data.~~

~~2~~**1** ~~Additional~~ **Project information,** geology/geotechnical reports and **other project related** data ~~if data gaps or concerns are~~ identified by **the CPM in consultation with DWR-**DSOD staff.

~~3~~**2** Design report, criteria and guidelines for dam, spillway, and emergency outlet.

4**3** 30% Design plans/concept.

~~5~~**4** 60% Design plans/specifications.

~~6~~**5** 90% Design plans/specifications.

~~7~~**6** 100% Design plans/specifications and draft inundation map.

Following the conclusion of milestone ~~7~~ **6**, **the CPM in consultation with DWR-**DSOD would approve the design application and conditions of the HC-reservoir, ~~with CPM concurrence~~, after all CWC provisions and applicable engineering standards have been demonstrated.

Construction of the HC-reservoir embankment will commence within one year of **CPM Approval in consultation with DWR-**DSOD approval ~~(CWC Section 6265).~~

The inundation map approved by the **Commission in consultation with DWR-**DSOD ~~and the CPM~~, would be included with a draft emergency action plan (EAP) submitted to the California Office of Emergency Services (CalOES) prior to the reservoir being certified.

Any change to the design, construction, or operation of the HC-reservoir embankment shall be requested by the project owner in writing to the CPM for approval, in consultation with the **DWR-**DSOD, prior to the initiation of any construction and/or operation changes. Such changes may be approved by the CPM after consultation with the **DWR-**DSOD if the changes do not result in a new significant impact.

Consistent with ~~DSOD's~~ existing statutory and regulatory enforcement authority regarding the design, construction, and operations of the HC-reservoir embankment, the ~~DSOD and~~ CEC **and DWR-DSOD** will confer with each other and coordinate, as needed, in the enforcement of the requirements.

Verification: Any documents submitted ~~to the DSOD~~ including but not limited to application materials, geotechnical reports, design drawings, pictures, soil studies, or hazards analysis, shall be provided contemporaneously to the CPM **and DWR-DSOD** for review.

~~Documents, including notices of violation or other documents issued by the DSOD to comply with the Dam Safety Program Requirements, shall be provided to CPM~~

The project owner shall provide evidence to the CPM of payment to DWR-DSOD of all fees required under the Dam Safety Program Requirements within 10 days of payment **or the funding agreement executed between the project owner and DWR-DSOD.**

The applicant proposes edits to **WATER-6** which details DWR-DSOD's role in the CEC's post certification process for the reservoir dam.

CEC Staff Response:

Regarding the use of "DWR" in conjunction with the "DSOD", Staff concurs with this change for the sake of consistency.

Staff proposes modifications to WATER-6 to address the applicant's suggested language changes and ensure clarity of responsibility.

WATER-6 The CEC delegates **compliance and design verification for** the dam safety related construction inspection of the HC-reservoir embankment and related dam safety components approved by the **Commission** ~~DSOD~~, to the **DWR-**DSOD, with onsite consultation with the DCBO and ongoing guidance from the CPM.

The DCBO shall have regulatory oversight responsibility of the entire project**.** ~~but shall defer regulatory oversight of~~ **Compliance and design verification for** the hydrostatic compensation reservoir system **is delegated** to the **DWR-**DSOD inspection team **with guidance from the CPM, who will be communicating approvals to the project owner**.

Before submitting the initial engineering designs for HC-reservoir for DCBO review, the project owner shall furnish the CPM, DCBO and the DSOD with a schedule of design submittals, master drawings and master specifications list. The master drawings and master specifications list shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures, systems, and equipment. The schedule shall contain the date of each submittal to the DSOD and the DCBO.

To facilitate audits by CEC staff, the project owner shall provide specific packages as described in the paragraph above to the CPM upon request.

During project operations, the project owner shall allow and facilitate DSOD regular inspections of the HC-reservoir embankment.

COC **WATER-7 - WATER USE AND REPORTING**

WATER-7 Supply of fresh water for the project construction shall be provided by the Antelope Valley-East Kern Water Agency (AVEK). The project owner shall enter into a water agreement with AVEK. ~~Annual water use during project construction shall be limited to 350 AFY and t~~**T**otal water use during the 5-year construction period shall not exceed 1,400 acre-feet (AF). Project operation water use shall not exceed 4 acre-feet per year (AFY). The project owner shall record daily water use for the project's construction and operation. The project owner shall comply with the water use limits and reporting requirements described below.

CEC Staff Response:

Since it is reasonable to assume that a greater amount of water will be used earlier in the construction period, Staff concurs with this change to the condition.

Compliance Conditions and Compliance Monitoring Plan

Rebuttal Testimony of Ashley Gutierrez

Staff provides this rebuttal testimony to supplement and clarify staff's Final Staff Assessment (FSA) (TN 264843).

I, Ashley Gutierrez, prepared the staff testimony on Compliance Conditions and Compliance Monitoring Plan for the Willow Rock Energy Storage Center based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge. My declaration and resume are included in the FSA (TN 264843).

The applicant filed recommended revisions to Conditions of Certification (COCs) **COM-1**, **COM-2**, **COM-4**, **COM-11** and **COM-13** on July 30, 2025 (TN 265170). Staff reviewed and discussed the issues raised by the applicant for their justification for the proposed changes. Based on responses and the information provided, and my professional opinion and experience, staff provides the responses below.

COM-1: As revised in the FSA, staff agreed to remove the phrase "take all steps necessary" from **COM-1** since this language does not impact the CEC's authority to access all portions of the site; i.e., there are no unrestricted areas after a plant has been licensed by the CEC. Refer to page 9-9, Section 9.8 Compliance Conditions of Certification, **COM-1** Unrestricted Access (TN 264843).

COM-2: Staff disagrees with the request to edit by adding the phrase, "post-certification" to the list of bullets in this condition. Project pre and post certification documentation is required to be maintained on site, or in the agreed upon format by the CPM, noted in **COM-2,** by the project owner. Adding this phrase would hinder the detailed information needed for audits, reviews, and for discussion purposes during the pre-construction phase. Refer to page 9-23, Section 9.9 Comments and Responses on the Preliminary Staff Assessment (TN 264843).

COM-4: Staff disagrees with the applicant's request to remove language from **COM-4**. The suggested edit is directive language, and it clearly sets the CEC staff's expectation and provides important context to the project owner of potential outcomes if information is not submitted to the CPM in a timely manner (TN 264843).

COM-11: Staff disagrees with the suggested edit to include the following additional language, "consistent with the requirements of 1769". **COM-11** already identifies the implementation of section 1769 which sets forth the process by which project owners can request to make changes to the facility post-CEC approval. This process details the criteria used for both staff approved changes as well as modifications approved by the

CEC. Again, language in section 1769 is directive language and since it is already included in this condition, including it again would be redundant (TN 264843).

COM-13: The applicant suggested the revision of **COM-13** Emergency Response Site Contingency Plan to include the phrase, "consistent with any changes in applicable law". Staff disagrees with this requested change. There is information in this section for illustrative purposes, contact information is one such detail included in the Emergency Response Site Contingency Plan. If this phrase was included, the plan would only be updated if there are changes to State law. The Emergency Response Site Contingency Plan needs to be updated to reflect current and accurate information including updating CEC contact information for staff notification of emergency events. Staff strongly disagrees with the proposed change to ensure information is routinely updated and is accurate during emergency events (TN 264843).