

DOCKETED

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*Comment Received From: Sophia Markowska
Submitted On: 11/10/2022
Docket Number: 21-AFC-02*

**Defenders of Wildlife Comments on Willow Rock Energy Storage
Center Docket 21-AFC-02**

Additional submitted attachment is included below.



California Program Office

P.O. Box 401 Folsom, California 95763 | 916-313-5800

www.defenders.org

November 10, 2022

Leonidas Payne
California Energy Commission
715 P Street
Sacramento, CA 95814

RE: Willow Rock Energy Storage Center; Docket Number 21-AFC-02

Dear Leonidas Payne,

Thank you for the opportunity to provide comments on the proposed Willow Rock Energy Storage Center (Project). These comments are submitted on behalf of Defenders of Wildlife (Defenders) and our nearly 2.2 million members and supporters in the United States, 323,000 of which reside in California.

Defenders is dedicated to protecting all wild animals and plants in their natural communities. To that end, Defenders employs science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions to prevent the extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

Defenders strongly supports responsible energy storage development that is instrumental in meeting California's renewable energy development goals. A low carbon energy future is critical for California – for our economy, our communities, and the environment. Achieving this future—and *how* we achieve it—is critical for protecting California's internationally treasured wildlife, landscapes, productive farmlands, and diverse habitats.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near-term impact of energy development with the long-term impacts of climate change on our biological diversity, fish and wildlife habitat, and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for projects that avoid and minimize adverse impacts on wildlife and lands with known high-resource values.

Project Description

The Project is located one mile northeast of the community of Willow Springs and 7 miles west of Rosamond on privately-owned land in unincorporated Kern County. The Project is a 71-acre, 500 MW, 4,000 MWh advanced compressed air energy storage (A-CAES) center with an

anticipated 50-year lifespan. The Project would use electricity from the grid and compress air into an underground cavern under pressure created by an onsite water reservoir. The heat from the air compression process would be captured and stored in an aboveground thermal storage system. When electricity is needed by the grid, the compressed air would be released, reheated, and directed through aboveground turbine generators to produce electricity. Construction would include a 2,000-foot deep underground compressed air storage cavern, a 31-acre, 50-foot deep aboveground reservoir, and a 10.9-mile 230 kV transmission line.

The site is comprised of two adjacent parcels of undeveloped desert land. The area to the north of the Project is irrigated agriculture and the area to the southwest is Bureau of Land Management (BLM)-managed public land. The Project site may provide habitat or served as historical range to numerous special status wildlife and plant species including but not limited to the following:

Common Name	Scientific Name
American badger	<i>Taxidea taxus</i>
Burrowing owl	<i>Athene cunicularia</i>
Crotch’s bumble bee	<i>Bombus crotchii</i>
California condor	<i>Gymnogyps californianus</i>
Desert tortoise	<i>Gopherus agassizii</i>
Golden eagle	<i>Aquila chrysaetos</i>
Mohave ground squirrel	<i>Xerospermophilus mohavensis</i>
Swainson’s hawk	<i>Buteo swainsoni</i>
Townsend’s big-eared bat	<i>Corynorhinus townsendii</i>
Western Joshua tree	<i>Yucca brevifolia</i>

Comments

We have been monitoring the proceeding and have seen the applicant’s pattern of requests to be excused from providing standard biological information for a development project.

1. **Biologist Resumes:** Data Requests (DR) Set 1 from the California Energy Commission (CEC) includes requests to provide resumes of biologists for review and approval prior to

conducting surveys for the desert kit fox (DR 37), American badger (DR 41), and Mohave ground squirrel (DR 46). DR 61 also requests the resumes of biologists but does not require approval from the CEC. The developer filed DR Response Set 1 and objected to the review and approval by CEC Staff of biologist resumes for the American badger and the Mohave ground squirrel. The response claims no approval requirement exists in applicable law or regulation and is overly burdensome.

The submittal and review of resumes for key personnel conducting surveys for biological resources on and near a project site is standard practice for agencies charged with protecting public trust resources and has historical precedent in previous CEC dockets. For example, the California Department of Fish and Wildlife (CDFW) requires biologists to provide their credentials related to projects that receive 2081 California Endangered Species Act take permits and Streambed Alteration Agreements. (See attached form). The Mojave Solar Project (Abengoa) (CEC Docket No. 09-AFC-5) complied with CEC request (DR 1B) for the applicant to submit the resume for staff review and approval for the geoarchaeologist and the historical archaeologists, and the developer provided those resumes in the Second Supplemental Written Response to Data Request Set 1B¹. Although the resumes within that specific docket were related to cultural resources, the historical practice of requiring resumes can be applied to biological resources. Furthermore, the US Fish and Wildlife Service (USFWS) also requested the developer provide the credentials of biologists to the Department of Energy, BLM, CEC, and CDFW within the Final Biological Opinion for the Mojave Solar Project (Abengoa)².

The request to provide biologist resumes and credentials is not simply a box-checking exercise. The public trust agencies need to know that the biologists conducting species and hydrological surveys know what they are doing. In other words, the biologists must be well versed in the survey requirements for specific species and stream and wetland delineations. Further, the biologist must know how to identify specific species as some species are difficult to identify through habitat or specific occurrences. The resume and credential request within docket 09-AFC-5 depicts a precedent for the CEC reviewing and approving resumes or credentials for key personnel, including biologists. It is important to provide the CEC, public trust agencies, and the public with the knowledge that those providing natural resource information have the necessary expertise to ensure that the data is reliable. The developer's avoidance of providing typically requested resumes is a deviation from a normal and reasonable standard practice and undermines the reliability of the data they provide as part of the record for the CEC's decision. Defenders requests the CEC require that the project developer provide the necessary credentials for those conducting surveys and that the CEC review and determine if these biologists are qualified.

¹ Ellison, Schneider & Harris L.L.P. Abengoa Mojave Solar Project, Docket No. 09-AFC-5; Second Supplemental Written Response to Data Request Set 1B (Nos. 1-86) for Cultural Resources. December 20, 2009.

² See <https://www.energy.gov/sites/default/files/2014/04/f14/Abengoa-Mojave-Final-Biological-Opinion.pdf>

2. **Submittal of California Natural Diversity Database (CNDDDB) Forms:** Within the CEC's DR for this Project, Staff requested the applicant submit CNDDDB field forms to CDFW for any positive occurrences of Joshua tree, desert tortoise, desert kit fox, American badger, Mohave ground squirrel, Swainson's hawk or burrowing owl. The applicant objected to seven DRs related to the submittal of CNDDDB forms stating the request is beyond the scope and overly burdensome and citing Section 1716. However, the CEC has the authority to request any information, document, or data that is reasonably necessary to make any decision on the application.³ Staff is requesting the submittal of forms that serves the purpose of providing information that is necessary for the CEC to make a decision on the application. Defenders is hopeful that the applicant has rescinded this objection as it appears that might be the case in listening to the comments in the public workshop. However, in the event that the applicant continues to object to providing this information, we would argue that the request to submit CNDDDB forms is reasonable and relevant to the decision-making process on the application and is appropriate.

Not only is the request appropriate under CA PRC 25519(b), but there is also precedent with similar requests in previous CEC dockets. DRs for the Genesis Solar Energy Project (Docket No. 09-AFC-08) included the requirement of CNDDDB forms, and copies of the forms, to be filed within the docket. The submittal of these forms is standard practice and a reasonable expectation of all developers. Defenders requests the CEC require the submittal of Project related CNDDDB forms to CDFW and require copies to be filed within the docketed proceeding.

3. **Confidentiality of Biological Data:** The applicant has requested confidential treatment for biological resources data and figures, including but not limited to data points collected at desert kit fox dens, a map showing the 10-meter-wide transects used during the desert tortoise surveys, Swainson's hawk observations, burrowing owl burrow maps, CNDDDB listed species and survey data from special status plants, special status wildlife, nest sites, dens, natal dens, burrows, scat, and complexes. The CEC found the applicant made a reasonable claim and agreed to keep the Biological Figures confidential indefinitely. Moreover, it appears that the CEC is basing its decision to keep this information confidential and require the disclosure at a scale of 1:350,000 on language from the CNDDDB database. However, a review of CDFW's endangered species permit decisions and comments on numerous projects during California Environmental Quality Act review has revealed no comments by CDFW that this kind of data for these species is normally confidential. Nor, is there evidence that the CDFW normally requests as part of the administrative records of projects that maps of species locations be held at a scale of 1:350,000. While CDFW has requested protection of site-specific data for species that have issues with public collection, such requests for suppressing that information for the species at issue in this proceeding is highly unusual. Further, there is no evidence in the record that CDFW specifically requested such information be

³California Public Resources Code 25519(b)

withheld for this Project. Indeed, CDFW's comments⁴ contain no request that this information should be confidential or that survey maps must be at a scale of 1:350,000.

Therefore, the CEC approval of this request is an abrupt departure from the previous standard of conduct from similar proceedings and from the normal standard of practice by CDFW. Within the Genesis Solar Energy Project proceeding, the only data deemed confidential was cultural data in compliance with 16 U.S.C. sec. 470hh, which states archaeological, paleontological, and cultural resource sites must be kept confidential in order to protect them. Aside from the precedent of general biological information not being granted confidential treatment, the specific request for confidentiality of locational biological information is also irregular. The applicant for the Blythe Solar Power Project (09-AFC-6) provided locational results from the biological surveys for the desert tortoise, rare plants, jurisdictional waters, and incidental wildlife occurrences.⁵ Locational information for rare plants and desert tortoises was public information within the Ivanpah project.⁶ The projects mentioned above did not request nor was confidential treatment granted for locational biological information, and this begs to question of why biological data is being kept confidential in this case when this was not the norm in previous dockets.

In addition, both the Blythe Solar Power Project docket and the Abengoa Mojave Solar Project docket include maps with scales of less than 1:100,000. For example, in the Abengoa project, the CEC required maps at a scale of 1:6,000 for biological resources and 1:2,400 for wetland delineations.⁷ In fact, a review of the CEC's past siting decisions does not reveal a single instance in which the CEC granted such a confidentiality requirement or required that survey maps be at such a gross scale. Beside the fact that the CEC's decision to withhold important biological data from the public as part of the siting record is an unprecedented departure from its normal course of business, this decision makes it difficult for the public to provide meaningful review and comments on the potential impacts of this Project because it is nearly impossible to have any understanding of where specific species occurrences are on the project site. A scale of 1:350,000 shows us that a species is present, but where that presence is relative to the various parts of the Project is a mystery. For these reasons, we strongly urge the CEC to provide species occurrence data in the normal form that is provided for all other siting projects.

⁴ California Department of Fish and Wildlife. Willow Rock Energy Storage Center; Docket No. 21-AFC-02. Comments from California Department of Fish and Wildlife Biological Resources. August 31, 2022.

⁵ AECCOM. Blythe Solar Power Project, Docket No. 09-AFC-6; Responses to CEC Workshop Questions – Biological Resources. May 14, 2010.

⁶ CH2M Hill. Ivanpah Solar Electric Generating System, Docket No. 07-AFC-5; Biological Mitigation Proposal ("Mitigated Ivanpah 3"). February 11, 2010.

⁷ California Energy Commission. Abengoa Mojave Solar Project, Docket No. 09-AFC-5; Abengoa Mojave Solar, Revised Data Adequacy Recommendation. October 12, 2009.

4. **1,000-Foot Buffer Surveys:** The CEC requests a 1,000-foot buffer around the Project site for surveys relating to the Western Joshua tree, all cacti species, desert tortoise, desert kit fox, and wetland delineation. Again, this is a routine request and a standard protocol. Allowing the developer to forego typical buffers would be a departure from the previous standard of conduct. The Genesis Solar Energy Project docket included a list of observed species and species that had the potential to occur within one mile from the project site and 1,000 feet from the outer edge of linear facility corridors.⁸ And, the Abengoa Project⁹, Blythe Solar Power Project¹⁰ and the Palen Solar Project¹¹ all followed the 1,000-foot buffer for wildlife surveys. The change in buffer distance from previous dockets once again depicts a precedent for the request from the CEC, and Defenders requests the applicant be held to these long-standing species survey buffer requirements.
5. **Species Specific Surveys:** The applicant has objected to conducting biological surveys that follow standard guidelines. Defenders recommends the applicant be required to adhere to the established survey protocols for the species listed below. If additional surveys are not conducted, then species presence must be assumed, and the applicant will be required to consult with USFWS and/or CDFW for the appropriate take permit and to comply with standard avoidance, minimization, and mitigation requirements including compensatory mitigation for special status species.
- i. **American badger:** DR 40 requests conducting focused American badger burrow surveys. The developer's response states that while there were no focused surveys for American badger, observation of American badger signs were collected incidentally during wildlife, desert tortoise, and burrowing owl surveys and objects to the DR.

It is insufficient to rely on the incidental collection of sign for the presence of a state species of concern. This is particularly concerning considering that the project site serves as suitable habitat and several burrows were observed that potentially may be used by American badgers. Defenders requests the CEC require the applicant comply with CDFW's recommendation of conducting a focused survey for American badger and onsite burrows to evaluate the potential impacts of the Project on this species. If signs of American badger are found, Defenders recommends consultation with CDFW for no-disturbance buffers surrounding occupied and natal dens.

⁸ California Energy Commission. Genesis Solar Energy Project, Docket No. 09-AFC-08C. Revised Data Adequacy Recommendation for Genesis. October 30, 2009.

⁹ AECOM. Abengoa Mojave Solar Project, Docket No. 09-AFC-5; Draft Biological Assessment. April 27, 2010.

¹⁰ Solar Millennium LLC. Blythe Solar Power Project, Docket No. 09-AFC-6; Palo Verde Solar I, LLC's Biological Resources Spring Survey Protocols. April 22, 2010.

¹¹ California Energy Commission. Palen Solar Project, Docket No. 09-AFC-7C; Data Request Set 1 (Nos. 1-28). March 1, 2013.

Bats: The project site may provide habitat to several bat species, including the Western mastiff bat, pallid bat, spotted bat, and Townsend’s big-eared bat. As CDFW states within their comments on the Project, an adverse impact to a species of special concern is considered to be significant without mitigation.¹² Despite the impacts the Project may have on numerous bat species, no surveys were conducted.

The absence of bat surveys is particularly alarming for the Townsend’s big-eared bat given its status as a species of special concern and considering the species was recorded in the vicinity of the Project. Defenders requests protocol-level surveys by a qualified bat specialist be conducted in coordination with CDFW. If the surveys find bat species occurring on or near the Project site, we recommend further consultation with CDFW for recommended mitigation efforts and the implementation of an Avian and Bat Monitoring and Management Plan to monitor death and injury of birds and bats from collisions with Project infrastructure, including minimization efforts for previously unknown impacts. The requirement of an Avian and Bat Monitoring and Management Plan is a standard practice as evidenced by the requirement of such a plan within previous CEC dockets, such as that of the Genesis Solar project.¹³

- ii. **Crotch’s bumble bee:** On October 11, 2022, the CEC hosted a workshop to discuss the applicant’s objections to CEC’s DRs for the Project. During this workshop, the applicant agreed to conduct surveys for Crotch’s bumble bee given the species’ status as a candidate under the California Endangered Species Act (CESA). Defenders recommends coordination with CDFW and that protocol-level surveys are completed for Crotch’s bumble bee as outlined within CDFW’s comments on the Willow Rock project. Additionally, Defenders requests survey protocols and results are publicly available within the docket to provide the opportunity for review and comment by the public.
- iii. **Desert tortoise:** The Project site is located within suitable desert tortoise habitat. Given that desert tortoise populations have been extirpated or almost extirpated from large portions of the western and northern parts of their geographic range in California, it is imperative to conduct surveys in accordance with the most recent survey protocols. According to the Biological Technical Report, desert tortoise surveys were conducted in accordance with a 2009 USFWS document; however, during the workshop held on October 11, 2022, it was stated the dates were incorrect and the report will be resubmitted

¹² California Department of Fish and Wildlife. Willow Rock Energy Storage Center; Docket No. 21-AFC-02. Comments from California Department of Fish and Wildlife Biological Resources. August 31, 2022.

¹³ California Energy Commission. Genesis Solar Energy Project, Docket No. 09-AFC-08C. Bird and Bat Conservation Strategy (BBCS) for Genesis Solar Energy Project. March 3, 2015.

with the correct year for the survey protocol recommendations from USFWS. Defenders recommends the developer submit the corrected document in a timely manner so that it may facilitate more informed and efficient comments by the public on the survey protocols that were followed for the desert tortoise.

Notably, desert tortoise surveys are valid for one year and should be conducted within a year of the start of Project Implementation. The desert tortoise surveys were conducted over four days between April 12 through May 5, 2021. These survey dates are well outside the one-year requirement. Defenders recommends updated protocol-level surveys be conducted to be consistent with the recommended timeline established by USFWS in “[p]reparing for any action that may occur within the range of the desert tortoise.”¹⁴

- iv. **Mohave ground squirrel:** The Mohave ground squirrel (MGS) is listed as threatened under CESA and has one of the most limited ranges of any North American ground squirrel. The project area is within the historical range of the species and borders predicted occupied MGS habitat as depicted in the map located here:

<https://databasin.org/maps/new/#datasets=063de529c9dd4635bb9f019cd0cca2a>

Furthermore, the Biological Technical Report states, "suitable habitat and numerous burrows appropriate for this species [MGS] occurs throughout the Survey Area."¹⁵ Despite the historically suitable habitat and the potential MGS burrows, the species was considered absent, and no protocol surveys were performed. Given the facts listed above, it is appropriate to conduct species-specific protocol-level surveys for the Mohave ground squirrel. Defenders requests MGS surveys be conducted utilizing appropriate protocol-level survey methods developed in consultation with CDFW.

Swainson's hawk: The surveys conducted for Swainson's hawk deviated from those outlined in "Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California" developed by CDFW and CEC.¹⁶

¹⁴ See https://www.fws.gov/sites/default/files/documents/Mojave%20Desert%20Tortoise_Pre-project%20Survey%20Protocol_2019.pdf

¹⁵ Blackhawk Environmental, Inc. 2021. Hydrostor, Inc. GEM Energy Storage Center Application for Certification Project: Biological Technical Report.

¹⁶ California Energy Commission and Department of Fish and Game. 2010. Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Projects in the Antelope Valley for Los Angeles and Kern Counties, California.

The Project is located within known habitat for Swainson's hawk as depicted by this map:

<https://databasin.org/maps/new/#datasets=2cc35447a0d34862af6c4cdd56e255b4>

The species was also observed as present on the Project site in April and May 2021 during the field surveys and an active Swainson's hawk nest was observed a short distance from the Project boundary in a Joshua tree. Given the observed presence of the species, survey protocols must align with those advised by CDFW and CEC. The applicant acknowledged this and proposed new surveys for Swainson's hawk in 2023 that will follow the applicable protocols. Defenders emphasizes the importance of following protocols and consultation with CDFW. If the surveys find Swainson's hawk occurring on or near the Project site, we recommend further consultation with CDFW for recommended impact avoidance, minimization, compensatory mitigation measures and requirements for obtaining an Incidental Take Permit for the species.

Additionally, the Biological Technical Report stated there is a high potential for the species to nest again in and adjacent to the Project site. Given the likelihood of Swainson's hawk to return to nest in subsequent years, Defenders recommends a ½ mile annual no disturbance buffer during nesting season for the lifetime of the Project. The ½ mile no disturbance buffer is in accordance with CDFW and CEC's Swainson's hawk protocols.

- v. **Burrowing owl:** The developer objected to the CEC request to follow recommended survey protocols for the burrowing owl. The surveys for burrowing owls followed the CDFW 2012 Staff Report on Burrowing Owl Mitigation but failed to also follow the California Burrowing Owl Consortium's (CBOC) 1993 Burrowing Owl Survey Protocol and Mitigation Guidelines as recommended by CDFW's comments on the Project.¹⁷ The adherence to CBOC's 1993 protocols has precedent in previous CEC dockets, such as the Blythe Solar Power Project (09-AFC-6). Within the Biological Resources Survey Protocols, the applicant states the surveys for the Blythe project will follow CBOC's 1993 protocol guidelines. The Willow Rock Project should be held to the same accountability as previous projects regarding required survey protocol guidelines.

Conclusion: It is deeply concerning that the applicant is requesting to not comply with standard requirements that other project applicants have supplied for development on lands that may have significant biological impacts. Given the number of special-status species that can be

¹⁷ California Department of Fish and Wildlife. Willow Rock Energy Storage Center; Docket No. 21-AFC-02. Comments from California Department of Fish and Wildlife Biological Resources. August 31, 2022.

expected to be impacted by the proposed Project, it is shocking that the applicant is pushing back against collecting routine biological data that is reasonable and occurs under most project circumstances. As evidenced by previous siting proceedings, granting the developer's request to forego typical requested biological data is deviating from normal and reasonable standard practices.

Thank you once again for the opportunity to provide comments on the Project and for considering our comments. If you have any questions, please contact me at 408-603-4694 or via email at smarkowska@defenders.org.

Respectfully submitted,

A handwritten signature in black ink that reads "Sophia Markowska". The signature is written in a cursive, flowing style.

Sophia Markowska
Senior California Representative

Attachment 1: Biologist Resume DFW 820



Project Name: Click or tap here to enter text.

LSA Agreement/ITP Number(s): Click or tap here to enter text.

COVER SHEET

SUBMIT EACH RESUME AS A SEPARATE DOCUMENT

Number of Resumes Included in Transmittal: _____

Name	Requested Role(s) ¹	Species/Resource(s)

This form requests information about the qualifications of the Qualified Biologist, Designated Biologist and Biological Monitor specified in California Endangered Species Act Incidental Take Permits (ITP) and Lake or Streambed Alteration (LSA) Agreements issued by California Department of Fish and Wildlife (CDFW).

¹ Requested roles correspond to the biological staffing requirements indicated in the Lake and Streambed Alteration (LSA) Agreement or California Endangered Species Act Incidental Take Permit (ITP). Roles may include a “Qualified Biologist” or “Designated Biologist” with the necessary experience to survey for special status species, or a “Biological Monitor” with the necessary experience to monitor construction activities for special status species. An individual may request more than one role.



BIOLOGIST RESUME

DFW 820 (NEW 07/21/22)

Project Name: Click or tap here to enter text.

LSA Agreement/ITP Number(s): Click or tap here to enter text.

Completing this form will ensure the receipt of adequate information and expedite CDFW review of qualifications.

SECTION I. NAME AND CONTACT INFORMATION

Name:	Title:
Company Name & Address:	
Phone:	Email:

SECTION II. EDUCATION

College/University & Degree Type Related to Natural Resource Science:
Other Relevant Workshops & Training:

SECTION III. ROLE(S) AND PERMIT REQUIREMENTS

Requested Role(s):
Relevant LSA Agreement Measures or ITP Conditions²:

SECTION IV. SPECIES AND RESOURCE EXPERIENCE – SUMMARY

This section summarizes experience by special status species and other resource. Use one row for each species or other resource where surveys or special protections are required in the CESA ITP or LSA Agreement for which biologist approval is requested.³ If more space is needed, add rows to this table. Provide details in Section V.

Species or Resource	Number of Field Seasons & Hours, Life Stages Observed Provide project details in Section 5	Life History Knowledge Describe formal workshops & training with dates, or informal training details	CDFW SCP, MOU, & USFWS 10a1a Authorization Number & Authorized Activities This form does not fulfill SCP, MOU, & USFWS 10a1a reporting requirements
Insert Species or Resource 1	Field seasons: Hours: Life Stages:		Issued to: Expiration: Agency contact:
Insert Species or Resource 2	Field seasons: Hours: Life Stages:		Issued to: Expiration: Agency contact:
Insert Species or Resource 3	Field seasons: Hours: Life Stages:		Issued to: Expiration: Agency contact:

² List all measures and conditions from the LSA Agreement or ITP requiring biological staff (i.e., Qualified Biologist, Designated Biologist, or Biological Monitor).

³ Often LSA Agreements/ITPs require surveys and other protections for multiple species and other resources. Include only those for which the biologist has experience and is requesting approval.



Project Name: Click or tap here to enter text.
 LSA Agreement/ITP Number(s): Click or tap here to enter text.

SECTION V. SPECIES AND RESOURCE EXPERIENCE – <u>DETAILS</u>	
<i>This section details experience from the <u>three</u> most recent and relevant projects for each species and resource identified in Section IV. If more space is needed, attach additional pages in the same table format (i.e., copy/paste format).</i>	
SPECIES OR RESOURCE 1:	
Project 1 Name & Location:	
Project Start Date:	Project End Date:
LSA Agreement, ITP, or Other Agency Permit Number:	
Role(s)⁴:	
Survey Type(s)⁵:	
Construction Monitoring⁶ Days: Activities:	
Species Life Stages Observed & Handled, Number of Each Life Stage: Number Observed: Number Handled: Reported to CNDDB ⁷ (Y/N):	Company Name, Professional Reference Name, Phone, Email:
If <u>not</u> reported to CNDDB, why:	
CDFW and Other Agency Email:	
Project 2 Name & Location:	
Project Start Date:	Project End Date:
LSA Agreement, ITP, or Other Agency Permit Number:	
Role(s):	
Survey Type(s):	
Construction Monitoring: Days: Activities:	
Species Life Stages Observed & Handled, Number of Each Life Stage: Number Observed:	Company Name, Professional Reference Name, Phone, Email:

⁴ Insert the role as described in the associated LSA Agreement, ITP or other agency permit. If these permits were not issued, describe the role based on the duties, e.g., “lead biologist with handling authorization” or “biological monitor.”
⁵ For example, pre-construction survey or description of the protocol or guideline followed.
⁶ Include the number of days and describe the types of activities monitored (e.g., heavy equipment operation).
⁷ CNDDB is the abbreviation for California Natural Diversity Database.



BIOLOGIST RESUME

DFW 820 (NEW 07/21/22)

Project Name: Click or tap here to enter text.

LSA Agreement/ITP Number(s): Click or tap here to enter text.

Number Handled: Reported to CNDDDB (Y/N):		
If <u>not</u> reported to CNDDDB, why:		
CDFW and Other Agency Email:		
Project 3 Name & Location:		
Project Start Date:		Project End Date:
LSA Agreement, ITP, or Other Agency Permit Number:		
Role(s):		
Survey Type(s):		
Construction Monitoring Days: Activities:		
Species Life Stages Observed & Handled, Number of Each Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):		Company Name, Professional Reference Name, Phone, Email:
If <u>not</u> reported to CNDDDB, why:		
CDFW and Other Agency Email:		
Additional Information:		
SPECIES OR RESOURCE 2:		
Project 1 Name & Location:		
Project Start Date:		Project End Date:
LSA Agreement, ITP, or Other Agency Permit Number:		
Role(s):		
Survey Type(s):		
Construction Monitoring Days: Activities:		
Species Life Stages Observed & Handled, Number of Each Life Stage: Number Observed: Number Handled:		Company Name, Professional Reference Name, Phone, Email:



Project Name: Click or tap here to enter text.

LSA Agreement/ITP Number(s): Click or tap here to enter text.

Reported to CNDDDB (Y/N):		
If <u>not</u> reported to CNDDDB, why:		
CDFW and Other Agency Email:		
Project 2 Name & Location:		
Project Start Date:		Project End Date:
LSA Agreement, ITP, or Other Agency Permit Number:		
Role(s):		
Survey Type(s):		
Construction Monitoring Days: Activities:		
Species Life Stages Observed & Handled, Number of Each Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):		Company Name, Professional Reference Name, Phone, Email:
If <u>not</u> reported to CNDDDB, why:		
CDFW and Other Agency Email:		
Project 3 Name & Location:		
Project Start Date:		Project End Date:
LSA Agreement, ITP, or Other Agency Permit Number:		
Role(s):		
Survey Type(s):		
Construction Monitoring Days: Activities:		
Species Life Stages Observed & Handled, Number of Each Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):		Company Name, Professional Reference Name, Phone, Email:



BIOLOGIST RESUME

DFW 820 (NEW 07/21/22)

Project Name: [Click or tap here to enter text.](#)

LSA Agreement/ITP Number(s): [Click or tap here to enter text.](#)

If <u>not</u> reported to CNDDDB, why:	
CDFW and Other Agency Email:	
SPECIES OR RESOURCE 3:	
Project 1 Name & Location:	
Project Start Date:	Project End Date:
LSA Agreement, ITP, or Other Agency Permit Number:	
Role(s):	
Survey Type(s):	
Construction Monitoring Days: Activities:	
Species Life Stages Observed & Handled, Number of Each Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:
If <u>not</u> reported to CNDDDB, why:	
CDFW and Other Agency Email:	
Project 2 Name & Location:	
Project Start Date:	End Date:
LSA Agreement, ITP, or Other Agency Permit Number:	
Role(s):	
Survey Type(s):	
Construction Monitoring Days: Activities:	
Species Life Stages Observed & Handled, Number of Each Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:
If <u>not</u> reported to CNDDDB, why:	
CDFW and Other Agency Email:	



BIOLOGIST RESUME

DFW 820 (NEW 07/21/22)

Project Name: [Click or tap here to enter text.](#)

LSA Agreement/ITP Number(s): [Click or tap here to enter text.](#)

Project 3 Name & Location:	
Project Start Date:	Project End Date:
LSA Agreement, ITP, or Other Agency Permit Number:	
Role(s):	
Survey Type(s):	
Construction Monitoring:	
Days:	
Activities:	
Species Life Stages Observed & Handled, Number of Each	Company Name, Professional Reference Name, Phone, Email:
Life Stage:	
Number Observed:	
Number Handled:	
Reported to CNDDDB (Y/N):	
If <u>not</u> reported to CNDDDB, why:	
CDFW and Other Agency Email:	