

PASTORIA ENERGY FACILITY (99-AFC-7C)
Petition To Expand Construction Laydown Yard
Biological Resources
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SETTING

The Pastoria Energy Facility (99-AFC-7) was approved on December 20, 2000, by the California Energy Commission. The project owner, Calpine Corporation, is now proposing modifications to the project to improve operational efficiency. To accommodate additional construction laydown, this amendment requests that the approved 25-acre construction laydown area be expanded to 40 acres. The 15-acre expansion is needed to accommodate additional construction staging activities.

The 15-acre expansion of the laydown area will impact some additional non-native grassland habitat that was not to be disturbed by the approved project. The non-native grassland habitat is currently dominated by non-native grasses including wild oat (*Avena* sp.), brome (*Bromus* sp.), and foxtail (*Hordeum* spp.). The project is to be located on private land owned by Tejon Ranch.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

For the Pastoria expansion project, the project owner will need to abide by the following laws, ordinances, regulations, and standards during project construction and operation.

FEDERAL

CLEAN WATER ACT OF 1977

Title 33, United States Code, sections 1251 – 1376, and Code of Federal Regulations, part 30, section 330.5(a)(26).

ENDANGERED SPECIES ACT OF 1973

Title 16, United States Code, section 1531 et seq., and Title 50, Code of Federal Regulations, part 17.1 et seq., designate and provide for protection of threatened and endangered plant and animal species, and their critical habitat.

MIGRATORY BIRD TREATY ACT

Title 16, United States Code, sections 703 - 712, prohibits the take of migratory birds.

STATE

CALIFORNIA ENDANGERED SPECIES ACT OF 1984

Fish and Game Code sections 2050 et seq. protects California's rare, threatened, and endangered species.

NEST OR EGGS – TAKE, POSSESS, OR DESTROY

Fish and Game Code section 3503 protects California's birds by making it unlawful to take, possess, or needlessly destroy the nest or eggs or any bird.

BIRDS OF PREY OR EGGS – TAKE, POSSESS, OR DESTROY

Fish and Game Code section 3503.5 protects California's birds of prey and their eggs by making it unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird.

MIGRATORY BIRDS – TAKE OR POSSESSION

Fish and Game Code section 3513 protects California's migratory birds by making it unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act or any part of such migratory non-game bird.

FULLY PROTECTED SPECIES

Fish and Game Code sections 3511, 4700, 5050, and 5515 prohibits take of animals that are classified as Fully Protected in California.

SIGNIFICANT NATURAL AREAS

Fish and Game Code section 1930 et seq. designates certain areas such as refuges, natural sloughs, riparian areas and vernal pools as significant wildlife habitat.

STREAMBED ALTERATION AGREEMENT

Fish and Game Code section 1600 et seq. requires CDFG to review project impacts to waterways, including impacts to vegetation and wildlife from sediment, diversions and other disturbances.

NATIVE PLANT PROTECTION ACT OF 1977

Fish and Game Code section 1900 et seq. designates state rare, threatened, and endangered plants.

CALIFORNIA CODE OF REGULATIONS

Title 14, sections 670.2 and 670.5 list animals of California designated as threatened or endangered.

REGIONAL WATER QUALITY BOARD

To verify that the federal Clean Water Act permitted actions comply with state regulations, PEF will need to get a Section 401 certification from the San Joaquin

Valley Regional Water Quality Control Board. The Regional Board provides its certification after reviewing the federal Nationwide Permit(s) that is provided by the U. S. Army Corp of Engineers.

LOCAL

KERN COUNTY GENERAL PLAN LAND USE, OPEN SPACE, AND CONSERVATION ELEMENTS OF 1994

SECTION 8, RESOURCES

Policy 14: Habitats of threatened and endangered species should be protected to the greatest extent possible.

KERN COUNTY GENERAL PLAN ENERGY ELEMENT OF 1990

PART 1 - ISSUES, GOALS, POLICIES, AND IMPLEMENTATION

Policy 12 - The County should work closely with local, state, and federal agencies to assure that all projects, both discretionary and ministerial, avoid or minimize direct impacts to fish, wildlife and botanical resources, whenever practical.

Policy 13 - The County should develop and implement measures that result in long-term compensation for wildlife habitat that is unavoidably damaged by energy exploration and development activities.

ANALYSIS

SENSITIVE SPECIES

The Pastoria expansion project must avoid impacts to state and federally listed species. The following table identifies the sensitive biological resources that were an issue for the Pastoria Energy Facility, and will continue to be an issue for the Pastoria expansion project.

Pastoria Energy Facility Sensitive Species

Sensitive Plants	Status*
Bakersfield cactus (<i>Opuntia basilaris</i> var. <i>treleasei</i>)	FE/CE/CNPS List 1B
Piute Mtns. navarretia (<i>Navarretia setiloba</i>)	FPT/CNPS List 1B
Undescribed Mariposa lily (<i>Calochortus</i> sp.)	None
Kern buckwheat (<i>Eriogonum kennedyi</i> var. <i>pinicola</i>)	FSC/CNPS List 1B
Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	FSC/CNPS List 1B
Comanche Point layia (<i>Layia leucophylla</i>)	FSC/CNPS List 1B
Flax-like monardella (<i>Monardella linoides</i> ssp. <i>oblonga</i>)	FSC/CNPS List 1B

Sensitive Wildlife	Status*
San Joaquin antelope squirrel (<i>Ammospermophilus nelsoni</i>)	CT
Giant kangaroo rat (<i>Dipodomys ingens</i>)	FE/CE
San Joaquin pocket mouse (<i>Perognathus inornatus neglectus</i>)	FSC
Tehachapi pocket mouse (<i>Perognathus alticolus inexpectatus</i>)	FSC/CSC
American badger (<i>Taxidea taxus</i>)	CSC
San Joaquin myotis (<i>Myotis yumanensis oxalis</i>)	FSC/CSC
Townsend's big-eared bat (<i>Corynorhinus townsendii townsendii</i>)	None
Western mastiff bat (<i>Eumops perotis</i>)	FSC/CSC
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE/CT
California condor (<i>Gymnogyps californianus</i>)	FE/CE
Cooper's hawk (<i>Accipiter cooperi</i>)	CSC
Sharp-shinned hawk (<i>Accipiter striatus</i>)	CSC
Golden eagle (<i>Aquila chrysaetos</i>)	CSC
Ferruginous hawk (<i>Buteo regalis</i>)	FSC/CSC
Swainson's hawk (<i>Buteo swainsonii</i>)	FSC/CT
Northern harrier (<i>Circus cyaneus</i>)	CSC
Burrowing owl (<i>Athene cunicularia</i>)	CSC
Merlin (<i>Falco columbarius</i>)	CSC
Prairie falcon (<i>Falco mexicanus</i>)	CSC
Peregrine falcon (<i>Falco peregrinus anatum</i>)	CE
Long-eared owl (<i>Asio otis</i>)	CSC
California horned lark (<i>Eremophila alpestris actia</i>)	CSC
Purple martin (<i>Progne subis</i>)	CSC
Loggerhead shrike (<i>Lanius ludovicianus</i>)	FSC/CSC
Tricolored blackbird (<i>Agelaius tricolor</i>)	FSC/CSC
Tehachapi slender salamander (<i>Batrachoseps stebbinsi</i>)	FSC/CT
Yellow-blotched salamander (<i>Ensatina eschscholtzii croceator</i>)	CSC
Western spadefoot toad (<i>Scaphiopus hammondi</i>)	FSC/CSC
California red-legged frog (<i>Rana aurora draytonii</i>)	FT/CSC
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	FE/CE/CFP
Southern rubber boa (<i>Charina bottae umbratica</i>)	FSC/CT
San Joaquin coachwhip (<i>Masticophis flagellum ruddocki</i>)	FSC/CSC
Southwestern pond turtle (<i>Clemmys marmorata pallida</i>)	FSC/CSC
San Diego horned lizard (<i>Phrynosoma coronatum blainvillei</i>)	FSC/CSC
California legless lizard (<i>Anniella pulchra pulchra</i>)	FSC/CSC
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT

* **STATUS LEGEND** – **FE** = Federally listed Endangered; **FT** = Federally listed Threatened; **FSC** = Federal Species of Special Concern; **FPT** = Federal proposed Threatened; **CNPS List 1B** = California Native Plant Society Inventory of Rare and Endangered Plants, Rare and Endangered Plants of California and elsewhere (California Native Plant Society 1994); **CE** = California listed Endangered, **CT** = California listed Threatened; **CSC** = California Species of Special Concern; and **CFP** = California Fully Protected.

Staff does not anticipate that any individual sensitive species will be directly affected by the 15-acre expansion of the laydown area, however, additional sensitive

species habitat will be temporarily impacted when the additional 15 acres of laydown are used during project construction.

AMENDED FEDERAL BIOLOGICAL OPINION

The Pastoria Energy Facility has already received a federal Biological Opinion from the U. S. Fish and Wildlife Service (USFWS) for the Pastoria Energy Facility. However, due to the anticipated need for additional 15-acres of laydown space, staff has received confirmation from Peter Cross, USFWS Branch Chief - San Joaquin Valley Branch, that the project owner will need to acquire an amended Biological Opinion. The amended Biological Opinion is needed to address any potential impacts to federally listed species that may result from the project's additional laydown acreage.

To acquire an amended Biological Opinion, the project owner must contact the federal Environmental Protection Agency (EPA) and formally request EPA to re-initiate consultation with the USFWS regarding the Pastoria project. Staff has been informed by Calpine that they have written to EPA requesting that they re-initiating consultation with the USFWS, Peter Cross recently indicated that his office had not been contacted by EPA regarding re-initiating consultation for the Pastoria expansion project. Once consultation between EPA and the USFWS has been reinitiated, the USFWS will provide the amended Biological Opinion to EPA, and EPA will provide the amended Biological Opinion to the project owner.

HABITAT COMPENSATION

The Energy Commission required the owner of the Pastoria Energy Facility to provide habitat compensation for no less than 245.2 acres to compensate for the project's temporary and permanent habitat impacts. The Energy Commission also required that the project owner provide the habitat compensation funds to the Center for Natural Lands Management (CNLM). CNLM is to purchase the compensation habitat, establish an endowment for perpetual habitat protection, and add the compensation habitat to the existing CNLM Lokern Preserve. On May 30th, 2001, CNLM acknowledged receipt of \$385,000 from Calpine Corporation to be used to acquire compensation habitat and to establish a perpetual endowment for 275 acres and to add the acreage to the Lokern Preserve. CNLM requested, and Calpine agreed, to provide sufficient funds to purchase more acreage than the minimum required (245.2 acres) since the acreage available for purchase, at the time CNLM was contacted, totaled more than the required minimum.

The Pastoria expansion project needs an additional 15 acres for laydown area. To calculate the amount of compensation acreage, 15 acres is multiplied by a compensation ratio of 1.1:1 which results in 16.5 acres of compensation. This 1.1:1 compensation ratio is what is currently required to compensate for temporary impacts to private, but not currently protected, lands that are considered listed species habitat. Under most circumstances, Calpine would need to provide additional habitat compensation funds to CNLM to add to the current endowment, purchase an additional 16.5 acres, and add the acreage to the Lokern Preserve to compensate for the temporary loss of 15 acres of habitat. However, since Calpine has recently provided compensation funds to CNLM to purchase 275 acres (29.8

acres more than the minimum required for the original Pastoria Energy Facility), staff concludes that the additional 16.5 acres of compensation that would usually be required for the additional 15-acre laydown area has already been provided, and no additional habitat compensation is required at this time. Once project construction is complete, Biological Resources Condition of Certification **BIO-11** does require the project owner to reassess their temporary and permanent acreage impacts, and provide additional habitat compensation, if necessary.

STREAMBED ALTERATION AGREEMENT

Staff anticipates that the California Department of Fish and Game (CDFG) may want to reconsider the Streambed Alteration Agreement already provided to the Pastoria Energy Facility since the expansion project will require additional acreage for temporary laydown that is located immediately adjacent to Pastoria Creek. Staff has consulted CDFG regarding this issue, however a decision about whether or not a new agreement is needed has not been made as of this analysis.

CONCLUSIONS AND RECOMMENDATIONS

If the project owner agrees to abide by staff's recommended amended Conditions of Certification, then staff concludes that the Pastoria Energy Facility construction laydown expansion amendment will be in compliance with all state, federal, and local laws, ordinances, regulations, and standards, and staff recommends approval of the amendment.

CONDITIONS OF CERTIFICATION

The Pastoria Energy Facility must abide by the current Conditions of Certification for the Pastoria project. To address the project's need for additional laydown space, the project owner must also abide by the following amended Conditions of Certification. The condition number is consistent with the Pastoria Energy Facility condition numbering contained in the Commission Decision.

AMENDED U. S. FISH AND WILDLIFE SERVICE SECTION 7 BIOLOGICAL OPINION

BIO-5 Prior to the start of any project-related ground disturbance activities, the project owner shall provide the CPM with a final copy of the Pastoria Energy Facility Section 7 Biological Opinion obtained from the U. S. Fish and Wildlife Service in accordance with the federal Endangered Species Act.

Verification: At least 60 days prior to the start of any project-related ground disturbance activities the project owner shall submit to the CPM a copy of the federal Section 7 Biological Opinion. The Pastoria Energy Facility Section 7 Biological Opinion terms and conditions will be incorporated into the final BRMIMP and implemented during project construction and operation. For more information about the BRMIMP, see Biological Resources Condition of Certification **BIO-10**, below.

To address the amendment for 15 acres of additional laydown space, the project owner will provide the CPM with a copy of the amended Biological Opinion no less than 48 hours prior to the expansion of the laydown area. The terms and conditions

of the amended Biological Opinion will be incorporated into the Pastoria Energy Facility BRMIMP.

AMENDED CALIFORNIA DEPARTMENT OF FISH AND GAME STREAMBED ALTERATION AGREEMENT

BIO-8 The project owner will acquire and implement the terms and conditions of a California Department of Fish and Game Streambed Alteration Agreement.

Verification: At least 60 days prior to the start of any project-related ground disturbance activities, the project owner will provide the CPM with a copy of the final Streambed Alteration Agreement. The terms and conditions of the agreement will be incorporated into the project's BRMIMP. For more information regarding the BRMIMP, see Biological Resources Condition of Certification **BIO-10**, below.

To address the amendment for 15 acres of additional laydown space, the project owner will provide the CPM with a copy of the amended Streambed Alteration Agreement no less than 48 hours prior to the expansion of the laydown area. If an amended Streambed Alteration Agreement is needed, then the additional requirements contained in the amended Streambed Alteration Agreement will be incorporated into the Pastoria Energy Facility BRMIMP.

If after consulting the California Department of Fish and Game (CDFG) it is decided that an amended Streambed Alteration Agreement is not needed for the laydown expansion, then the project owner must provide the CPM a copy of a CDFG letter stating that an amended Streambed Alteration Agreement is not necessary. The CDFG letter must be provided to the CPM no less than 48 hours prior to the start of laydown expansion.

AMENDED BIOLOGICAL RESOURCES MITIGATION IMPLEMENTATION AND MONITORING PLAN

BIO-10 The project owner shall submit to the CPM for review and approval a copy of the final BRMIMP and shall implement the measures identified in the plan. Any changes made to the adopted BRMIMP must be made in consultation with Energy Commission staff and the USFWS.

Protocol: The final BRMIMP shall identify:

1. All biological resources mitigation, monitoring, and compliance conditions included in the Energy Commission's Final Decision;
2. All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation and closure;
3. All mitigation measures identified in the USFWS Section 7 Biological Opinion and amended Section 7 Biological Opinion;
4. All required mitigation measures/avoidance strategies for each sensitive biological resource including, but not restricted to, the undescribed Mariposa lily (*Calochortus* sp.), San Joaquin kit fox, blunt-nosed leopard lizard, and the California condor;

5. Required habitat compensation strategy, including provisions for acquisition, enhancement and management, for any temporary and permanent loss of sensitive biological resources;
6. All locations, on a map of suitable scale, of laydown areas and areas requiring temporary protection and avoidance during construction;
7. Aerial photographs of all areas to be disturbed during project construction activities - one set prior to site disturbance and one set after completion of mitigation measures. Include planned timing of aerial photography and a description of why times were chosen;
8. Duration for each type of monitoring and a description of monitoring methodologies and frequency;
9. Performance standards to be used to help decide if/when proposed mitigation is or is not successful;
10. All performance standards and remedial measures to be implemented if performance standards are not met;
11. A discussion of biological resource-related facility closure measures;
12. A process for proposing plan modifications to the Energy Commission CPM and appropriate agencies for review and approval;
13. Terms and conditions contained in the project's federal Section 404 Clean Water Act, State Section 401 certification, and CDFG Section 1603 Streambed Alteration Agreement and amended Streambed Alteration Agreement, if necessary; and
14. A copy of the signed USFWS and CEC-approved project owner/Tejon Ranch lease agreement containing an open space easement deed and a map showing acreage addressed by the easement deed.

Verification: At least 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide the CPM with the final version of the BRMIMP, and the CPM will determine the plan's acceptability within 15 days of receipt of the final plan. All modifications to the approved BRMIMP must be made only after consultation with Energy Commission staff and the USFWS. The project owner shall notify the CPM five (5) working days before implementing any CPM-approved modifications to the BRMIMP.

To address the amendment for 15 acres of additional laydown space, the project owner will provide the CPM with a copy of the amended BRMIMP that incorporates any changes to it that result from the amended Biological Opinion and amended Streambed Alteration Agreement, if necessary. The amended BRMIMP will be provided to the CPM, for review and approval, no less than 48 hours prior to the expansion of the laydown area.

Within 30 days after completion of project construction, the project owner shall provide to the CPM for review and approval, a written report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which mitigation and monitoring plan items are still outstanding and a timeline for compliance.

HABITAT COMPENSATION

BIO-11 To compensate for temporary and permanent impacts to sensitive species habitat, the project owner will provide at least \$294,240 to the Center for Natural Lands Management.

Verification: To account for inflation and other anticipated changes in habitat compensation costs, the project owner will consult the Center for Natural Lands Management (Brenda Pace, 541-330-5533) no less than 90 days prior to the start of any project related ground disturbance, and CNLM will identify the final cost per acre and total compensation amount. Once the final habitat compensation amount has been determined and no less than 60 days prior to the start of any project related ground disturbance activities, the project owner will provide written verification to the CEC CPM that all habitat compensation funds (including the endowment) have been provided to CNLM.

In May 2001, Calpine provided verification that \$375,000 had been provided to CNLM to purchase 275 acres of compensation habitat and establish a perpetual endowment for the acreage as part of the CNLM Lokern Preserve. This acreage compensation is more (275 acres – 245.2 acres = +29.8 acres) than the minimum compensation acreage (245.2 acres) required of the Pastoria project. The additional habitat compensation, 16.5 acres (15 acres x 1.1:1 compensation ratio), required for the additional laydown acreage addressed by the June 2001 project amendment will be deducted from the additional 29.8 acres of compensation already provided, leaving a remainder of +13.3 acres.

Within 90 days after completion of project construction, the project owner shall provide aerial photographs to the CPM that were taken after construction. The project owner shall also provide an analysis of the amount of any additional habitat disturbance than that identified in this staff assessment. The CPM, in consultation with CNLM, will notify the project owner of any additional funds required to compensate for any additional habitat disturbances at the adjusted market value at the time of construction to acquire and manage habitat.